

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT OF ROUGH STONE AND GRAVEL QUARRY

(As per EIA Notification, 2006 dated 14.09.2006 and amendments)

**CATEGORY - B1 - CLUSTER - MINOR MINERAL -
NON-FOREST LAND**

Project Proponent

Thiru. P.VISWANATHAN

No. 275/ A3, Neelakadu, 63, Velampalayam,
Palladam, Tiruppur – 641 663

<i>Proposed Production</i>	<i>Project Site Details</i>
Geological Reserves : 146433m ³ Mineable Reserves : 26340m ³ Production : 26340m ³ Proposed depth : 41m bgl	Extent Area : 0.91.0 Ha S.F. No : 153/2A Velampalayam Village Palladam Taluk, Tiruppur District

Terms of Reference (ToR)

TOR Identification No. TO23B0108TN5985133N/11559 dated 12.01.2025

Laboratory

ABM Enviro Lab

NIPBASS PLAZA, 4/77-L, Narasothipatti, Salem-636004

NABL Certificate No: **TC-15822**/ Valid up to: **01.04.2029**

Baseline Monitoring Period: March, 2025 to May, 2025

EIA Consultant

UIN: ABM/MIN/EIA/2025-26/001/R1/2025

AADHI BOOMI MINING & ENVIRO TECH (P) LTD

(NABET Accredited EIA Organization)

NABET Certificate No: NABET/EIA/24-27/RA 0365/Valid Up to: 23.10.2027
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July-2025

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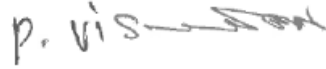
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Thiru. P. VISWANATHAN

No. 275/A3, Neelakadu,
63, Velampalayam,
Palladam Taluk,
Tiruppur District - 641663
Mobile No: 9715058799

Undertaking by Project Proponent

I, **P. VISWANATHAN**, as **Project Proponent**, hereby give this undertaking to the effect that the conditions laid down in Terms of Reference vide ToR Identification No. TO23B0108TN5985133N/File No:11559 dated: 12/01/2025 for our Rough Stone and Gravel Quarry, in S. F. No. 153/2A, over an extent of 0.91.0 Ha of Velampalayam Village, Palladam Taluk and Tiruppur District, Tamil Nadu, have been compiled with, and the data submitted and the information presented in this report are true to the best of my knowledge.



Signature and seal of the Project Proponent

Place : Salem

Date :

AADHI BOOMI MINING AND ENVIRO TECH (P) Ltd.

(NABET/QCI Accredited Organisation – 'A' Category)

ISO: 9001:2015 Certified Company

Call: 0427-2444297, +91 9842729655, +91 9443290855

Email: suriyakumarsemban@gmail.com, admin@abmenvirotec.com,Website: www.abmenvirotec.com**Declaration by the Head of the accredited consultant organization/authorized person**

I, **S. Suriyakumar**, CEO of Aadhi Boomi Mining & Enviro Tech (P) Ltd, hereby confirm that the Draft Environmental Impact Assessment Report has been prepared as per the conditions laid down in Terms of Reference vide ToR Lr. No. TO23B0108TN5985133N/File No:11559 dated: 12/01/2024 for conducting Public Hearing and obtaining Environment Clearance from SEIAA/SEAC, Tamil Nadu for proposed Rough Stone and Gravel Quarry of **Thiru P. VISWANATHAN** located in S. F. No: 153/2A, Velampalayam Village, Palladam Taluk and Tiruppur District, Tamil Nadu.

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

Name : **Dr. S. Suriyakumar**

Signature : For Aadhi Boomi Mining And Enviro Tech (P) Ltd.,

S. Suriyakumar
Director



Designation : **CEO**

Name of the EIA Consultant Organization: **Aadhi Boomi Mining & Enviro Tech Private Limited.**

QCI/NABET Accredited Consultant, Certificate No: **NABET/EIA/24-27/RA 0365 Valid up to: 23.10.2027.**

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LIST OF ABBREVIATIONS AND ACRONYMS

AQI	-	Air Quality Index
AAQ	-	Ambient Air Quality
CPCB	-	Central Pollution Control Board
CAPEXIL	-	Chemical and Allied Export Promotion Council of India
CSR	-	Corporate Social Responsibility
DB	-	Decibel
DGM	-	Department of Geology and Mining
DGPS	-	Differential Global Positioning System
EC	-	Environment Clearance
EMP	-	Environment Management Plan
EIA	-	Environmental Impact Assessment
EMC	-	Environmental Management Cell
LEQ	-	Equivalent Noise Level
GOVT	-	Government of Tamil Nadu
GLC	-	Ground Level Concentration
HSE	-	Health, Safety and Environment
HA	-	Hectare
KLD	-	Kilo Liters Per -Day
KM	-	Kilo Meter
MOEF&CC	-	Ministry of Environment Forest and Climate Change
NH	-	National Highway
PH	-	Public Hearing
R&R	-	Rehabilitation & Resettlement
SEIS	-	Seismograph
SEIAA	-	State Environmental Impact Assessment Authority
SEAC	-	State Expert Appraisal Committee
SH	-	State Highway
SPM	-	Suspended Particulate Matter
TNPCB	-	Tamil Nadu Pollution Control Board
TOR	-	Terms of Reference
WQI	-	Water Quality Index

1. SEAC Conditions - Site Specific (Mining of Minerals)

S. No	Terms of Reference	Compliance
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.	Agreed. The Cluster Management Committee will be formed as per SEIAA guidance. After forming CMC, the all the members will implement environment management plan effectively. Effective plan has been given in Chapter – 4 The CMC will form Environmental Policy to practice sustainable mining in a scientific and systematic manner. The same shall be displayed within the cluster area. The affidavit stating that in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 will be attached in Final EIA report
2	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.,	The details of nearest habitation are given in table 2.2 in chapter 2. Refer page 16.
3	The project proponent shall submit a Certified Compliance Report obtained from the office of the concerned DEE/TNPCB (or) IRO, MoEF & CC, Chennai as per the MoEF&CC O.M dated.08.06.2022 for the previous EC dated. 08.03.2018 and appropriate mitigating measures for the non-compliance items, if any	The Certified Compliance Report (CCR) attached. Refer Annexure - XVI
4	Since the TNEB substation is located within 300m radius from the lease area, 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.	Under Process. The NOC from TNEB will be attached in final EIA Report.
5	The PP shall install the earmarked boundary pillars along the wire fencing	Already made the wire fencing in the lease boundary. Refer Annexure- XX

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6	The PP shall install CCTV cameras in the mines and mine entrance.	Already install the CCTV cameras in the lease area.
7	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.	Already made the wire fencing and development of Greenbelt in the lease boundary. Refer Annexure- XIX and XX.
8	The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report.	The baseline study on Ecology and Biodiversity are given detail in Chapter 3. The impact on ecology and biodiversity including soil flora & vegetation around the project site is mentioned in Chapter 4.
9	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.	The EMP for the proposed project is mentioned in Chapter 10 along with EMP cost. The affidavit stating to abide the EMP for the entire life of mine will be attached in final EIA report.
10	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.	The conceptual plan is annexed in Plate –V of the approved Mining plan.
11	The PP shall furnish the Compliance Certificate Report for the EC obtained earlier from the DEIAA, duly audited by the RO, MoEF & CC, Chennai with the percentage of non-compliances, reasons for non-compliances, status on half-yearly compliance report submitted during the mine operation, actions taken on the non-compliances, etc., during the EIA appraisal without fail.	The Certified Compliance Report (CCR) attached. Refer Annexure – XVI.
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: (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.	It is under process. Once the PP obtained letter from AD/DD Geology and Mining Department, Tiruppur District it will be submitted to SEAC/SEIAA.

	(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.	The letter regarding approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake, pond, tank within 300m radius has been obtained from VAO. Refer Annexure – VIII.
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.	The details of nearest habitation are given in table 2.2 in chapter 2. Refer Page 16.
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.	The hydro geology study has been conducted within the study area of project site. Refer pages 82-92 in chapter 3. The details of water bodies in the study area are given chapter 2. Refer table 2.2 in page 16.
5.	The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.	The baseline study on Ecology and Biodiversity are given detail in Chapter 3. The impact on ecology and biodiversity including soil flora & vegetation around the project site is mentioned in Chapter 4.
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.	Not applicable. The mining area does not involve any forest land. Refer table 2.2 in page 16 and 17.
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	The action plan for realignment of bench signed by Asst. Director of Geology and Mining will be attached in the final EIA report.

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	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.	This is existing quarry.
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.	As it is rough stone quarry, blasting will be carried out to remove blocks from the parent rock by forming crack. Adequate Blast shield or blast mats will be provided wherever necessary for fly rock protection during blasting, thus to prevent the accident on the nearest farms.
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.	The drilling and blasting pattern for the proposed quarry is mentioned in Chapter 2. Refer Page No. 27 and 28.
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.	The drone survey will be conducted for this project. The video and photographs will be attached in Final EIA report.
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,	Under Process.
13.	What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?	The project proponent stop the permit before expire of the lease deed.
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.	- 32 m bgl 25 m bgl

	· 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.	Thiru.P. Viswanathan Refer Annexure- XV -
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)	The Toposheet showing location of the lease area is attached in Chapter 1. Refer 1.2 in Page No.2. The geology and geomorphology of the 10km radius of proposed area is given in chapter 2. Refer fig 2.9 in page 25. The land use/land cover image is given chapter 3. Refer page 69.
16.	The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,	The drone video, fencing and green belt development along the periphery is done. The photographs will be attached in the EIA Report.
17.	The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.	The drone video, fencing and green belt development along the periphery is done. The photographs will be attached in the EIA Report.
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 reserves, production capacity and methodology are given in chapter – 2. Refer page 22. The impacts on surrounding environment due to mining activity are given in chapter 4.
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.	The employment potential of proposed project is given in table 2.15 in chapter 2.
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	The hydro geology study has been conducted within the study area of project site. Refer in Chapter 3. The details of water bodies in the study area are given chapter 2. Refer page 16 and

	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.	17. The depth of water table identified by Geo resistivity survey is 58-62m bgl whereas the proposed depth of mining is 41m bgl. Therefore, the mining activity will not intersect ground water table.
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 for the environmental and ecological parameters were collected. Refer chapter 3.
22	The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.	The anticipated cumulative impact on various environments such as air, water, soil and noise etc., due to proposed mining activity are given in chapter 4 with appropriate mitigation measures. The environmental management plan is given in chapter- 10.
23.	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	The studies on rain water harvesting is given in chapter 7. Refer pages 180.
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/land covers of 10km radius of proposed mining lease area are given in chapter 3. Refer fig 3.16 in page 73.
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.	Not applicable. All waste and rejects shall be dumped within the lease area of 0.91.0 Ha of P.Viswanathan
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	No. There is no boundary of critically polluted area found within 10km radius proposed mining lease area.

	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.	At the end of mining, the quarried-out pit will be used for storing rain water which will enhance agricultural activity around the lease area. The rain harvesting plan is given detail in chapter 7. Refer pages 180.
28.	Impact on local transport infrastructure due to the Project should be indicated	No. The existing roads are available to withstand the traffic generated due to proposed project. Refer fig 2.5 in page 18 of chapter 2.
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.	Only trees such as Neem trees, coconut trees, palm trees, Pungamin tree, Guava tree, Teak tree are found within 500m radius.
30.	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	The mine closure plan for the proposed project is included in the EIA report. Refer fig 2.11 of chapter 2.
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.	Agreed. The EIA coordinator will educate the local students on the importance of preserving local flora and fauna.
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. In consultation with the DFO, State Agriculture University, the green belt will be made around the boundary of lease area to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated
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	Agreed. Taller/one year old Saplings will be planted as per the advice of local forest authority's/botanist/ Horticulturist with regard to site specific choices.

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 prepared and included in the EIA report of chapter 7. Refer page 177.
35.	A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	Risk Assessment and management Plan has been prepared and included in the EIA report. Refer clause 7.2 in page 177 of Chapter 7.
36.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	An occupational Health impact of the Project has been anticipated and the appropriate mitigation measures are given in Chapter 4 of EIA report. Refer page 168.
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.	Yes, it is given in EIA report in chapter -4.
38.	The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	The study on Socio-economic for the proposed project is mentioned in clause 3.13 of chapter 3. Refer pages 108 to 129 of EIA report.
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.	Not applicable.
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 benefits of the proposed project are given detail in chapter 8. Refer pages 183.
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,	The Certified Compliance Report (CCR) attached. Refer Annexure – XVI.

	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.	The EMP for the proposed project is mentioned in Chapter 10 along with EMP cost. The affidavit stating to abide the EMP for the entire life of mine will be attached in the EIA 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.

2. Standard Terms of Reference for (Mining of minerals) and 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	The EIA/EMP report have been prepared for peak capacity (0.06 MTPA) operation in mining plan under 0.91.0 Ha.
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 was granted in the name of project proponent. P. Viswanathan: R.C. No. 80/Mines/2023, Dated: 09.01.2024
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	Contents in all documents are synchronizing with one another in terms of mine lease area, production levels, waste generation, its management and mining technology. The mining plan was approved by the Assistant Director, Geology and Mining, R. C. No. 80/Mines/2023, Dated: 16.02.2024
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)	The study area lies between Northern Latitude of 11°02'22.50" N to 11°02'26.21"N and eastern longitude to 77°15'27.33"E to 77°15'30.24"E The area is marked in the survey of India Topo sheet No. 58 E/08. Land Use / Land Cover map of the study area (core and buffer zone) has been prepared on the basis of Satellite imagery using RS & GIS Technique & the same has been incorporated in Fig No: 3.13 of Chapter 3 (Refer Pg. No: 69). Geology & Geomorphology of the mine is given in chapter 3 of page no. 25.

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	Survey of India Toposheet No. 58 E/08 1:50,000 scale indicating physical and surface features 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 is given in Fig No: 1.2, 1.3, 2.9 and Refer pages 5, 6, 25 respectively.
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	The land proposed for mining activities is given in Table No.2.8 of Pg. No. 30 in Chapter 2.
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 Thiru. P.Viswanathan is very much conscious of implementing Environment management plan with systematic mining. The proponent will submit and compliance the EC conditions within stipulated time.
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	Issues relating to mine safety pertaining to failure of Pit slope for open cast mining is described in Table 7.1, Refer Pg. No. 177. Safety for blasting is given in Clause 4.5 (Chapter 4) Pg. No.149.
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 of the proposed mining project comprises of 10 km zone around the mining Lease boundary has been prepared. Refer fig No. 1.2 - Pg. No. 5. Data like reserves, waste generation up to life of mine (at the end of the 5 th year) have been incorporated in Chapter 2 (Clause 2.7, Pg. No. 30-37) of the Draft EIA report.

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	10 km radius map of the Study area delineating forest area, agricultural land, grazing land, wildlife sanctuary and national park, migratory routes of fauna, water bodies, human settlements, other existing mines/industrial activity and other ecological features are shown in Fig No. 3.13 of Chapter 3, Pg. No. 69. Land use plan of the mine lease area is given in Table No.2.8 of Pg. No. 30.
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 dump proposed for this quarry.
12.	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the State Expert Appraisal Committees	The quarry area does not involve forest land and hence there is no requirement of clearance certificate from Forest Department. Refer Table No.1.4, Pg. No. 9 respectively.
13.	Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished	The quarry area does not involve forest land and hence there is no requirement of clearance certificate from Forest Department.
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 reserve forest found in the study area of around 10 km Radius.
16.	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area	Eco biodiversity (EB) study has been done for the project which details the impact on surrounding

	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	wildlife and mitigation measures are discussed and given in Chapter-4.
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	There is no reserve forest or social forest and wild life sanctuaries found around 10km radius. It is a Patta land.
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	Details of Flora and Fauna found in the study area are given in the clause 3.12 (Pg. No 93-108).
19.	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered	The project site is neither falling under ‘Aravalli range’ nor it is located in proximity to area declared as Critically Polluted Area.
20	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the	Not Applicable. The mining area is located 145 km from Arabian sea (SW). Hence, the project doesn’t attract the C.R.Z. Notification, 2011.

	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)	
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	The mining project does not involve any kind of displacement of the population since the mining will be concentrated only in the quarry area. The impact of mining activity on the population will be insignificant. Hence, Rehabilitation of settlements is not anticipated under this project as it will not be required. (Refer Clause 7.3 Pg. No. 180). The Socio-Economic study detailed in Clause 3.11 of Chapter 3, (Pg. No:108-129 of the Draft EIA 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 PM ₁₀ , particularly for free silica, should be given	Pre monsoon season monitoring data on Air quality for a period of three months and Water quality, and Noise level, Soil and Flora & Fauna in core and buffer zones are detailed in Chapter 3.
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 detail on air quality status predicted is detailed in Clause 4.1 of Chapter 4, Pg. No. 130-142.

	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	Wind Rose Pattern is shown in Fig. 3.1, (Pg. No: 43) of Chapter 3.
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 water requirement for the Project is 3.5 KLD. Chapter 2, table no 2.13 (Pg. No: 37). Water Balance chart in clause 4.6 of chapter 4 & Fig No: 4.8 (Pg. No. 151).
25.	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided	Thiru P. Viswanathan requires water for drinking and for water spraying, dust suppression and plantation. Water for drinking will be utilized from the certified supplier of water vendor. Water for dust control shall be taken from the existing bore wells.
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 project does not consume any process water except for drinking, dust suppression & plantation. Plantation is proposed, which will increase the water holding capacity & help in recharging of ground water. The storm water collection pond will be used for rain water harvesting post operationally. Refer Chapter – 7 page no 180.
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	The impacts of the project on the water quality are assessed and necessary safeguard measures will be provided. (Refer Clause 4.3.1 of Chapter 4, Pg. No: 130-142).
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 State Ground Water Authority for working below ground water	The mining operation will be 41m Below Ground Level. The ground water table is 58-62 m below the ground level and therefore mine working as proposed on higher level will not affect water regime. Hence there will not be any intersect of mining operation with ground water table. Refer Fig 4.5 in Chapter 4 page no 153. A detailed Hydro Geological Study has been carried out and furnished in Clause 3.7 of Chapter 3, Pg. No: 82-92.

	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	There is no stream crossing inside the mine lease area and no need for modification / diversion.
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 ground water table is 58-62 m below the ground level and therefore mine working as proposed on higher level will not affect water regime. Hence there will not be any intersect of mining operation with ground water table. Refer Fig 4.5 in Chapter 4.
31.	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution	Phase-wise plan of plantation and Compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the name of the species is detailed in Table 4.29. Refer pg. No. 166.
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	The mining activities will be carried out through the existing roadways during leisure hours only, with no increase in the existing traffic pattern. (Refer Fig No 2.5 Page No 18 in Chapter 2).
33.	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report	Onsite shelter and facilities like temporary shed will be provided to the mine workers. Refer Clause 2.13.4 of chapter 2. The workers in the

		mines will be provided rest shed, first aid centre, ambulance facility. The hazardous protecting equipment also will be provided to the employees such as helmet, ear muff, mask etc. (Refer Table 10.1 of Chapter 10 refer page 189).
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	Post-Mining (Conceptual) Land Use with Environment Management has been prepared. (Fig 2.11, Pg. No. 36 Chapter 2).
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	Occupational Health impacts of the Project will be anticipated and the proposed preventive measures are detailed in EIA the report. (Refer Clause 4.13 of Chapter 4, Pg. No: 168).
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	All control measure for air emission, noise control, and waste management will be taken as per norms. Hence there will not be any impact on population. (Refer Chapter 4 & Pg. No: 130-142).
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	Details of community welfare activities proposed for the local community, along with proposed budget have been incorporated in EIA Report (Refer Clause 8.1 of Chapter 8, Pg. No: 183).
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	Environmental Management Plan for the existing mining project has been prepared and incorporated in Chapter 10 (Pg.No.189).
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	Draft EIA report is prepared for Public Hearing only. Public consultation will be included in Final EIA report.
40.	Details of litigation pending against the project, if any, with direction /order passed by any Court of	No litigation pending against the project

	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	Total Cost of the Project (capital cost and recurring cost) is Rs. 60.48 Lakhs. The cost towards EMP is Rs. 3.80 Lakhs. (Refer Clause 2.14 Pg. No: 38).
42.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report	A detailed Risk and Disaster Management Plan has been prepared and detailed in clause 7.2 of Chapter 7. (Pg. No: 177).
32.	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.,	If the Project is implemented, mining activity will help in improving environmental, social, and economic and employment potential directly and indirectly in the study area. Refer Chapter 8 of, Pg. No: 183.
44.	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	Yes, all documents are properly referenced with index and continuous page numbering. All lab analysis using NABL laboratories only the lab report annexed in the Annexure- XVII.

than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation. h) As per the circular no. J-11011/618/2010-IA. II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable. i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.	
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3. 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.	Agreed. The Cluster Management Committee will be formed as per SEAC guidance.
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. After forming CMC, the all the members will implement environment management plan effectively. Effective plan has been given in chapter – 4.
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. The List of members of the committee formed will be submitted to AD/Mines before the commencing the quarry activity.
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.	Certified Blaster will be engaged for blasting having adequate knowledge in Environmental safety aspects. Plan will be included in the EIA report. The usage of haul roads by the individual quarry is attached in EIA report. Refer fig 2.5 in page 18 of chapter 2.
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	Risk Management is elaborated in chapter 7 of the EIA report.

	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.	Agreed. The CMC will form Environmental Policy to practice sustainable mining in a scientific and systematic manner. The same shall be displayed within the cluster area.
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.	The conceptual plan for the quarry lease area 0.91.0 Ha is attached in draft EIA report. Refer Fig No 2.10 in page No 35 of Chapter 2. After forming CMC, the restoration strategy of individual quarry will be submitted to DD Mines, Tiruppur.
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.	Occupational safety and Health care of the workers are included in Chapter – 4 in draft EIA report
Agriculture & Agro-Biodiversity		
9.	Impact on surrounding agricultural fields around the proposed mining Area.	The impact on surrounding agricultural fields is given in chapter 4. Refer Clause 4.14 in page.
10.	Impact on soil flora & vegetation around the project site.	The impact on ecology and biodiversity including soil flora & vegetation around the project site is mentioned in Chapter 4. Refer Page No.158.
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.	Only few shrubs are present within the lease area. It will be cleared before the commencement of quarry activity. The PP has planned to plant 30 tree sapling per annum along the boundary of mining lease area.
12.	The Environmental Impact Assessment should study the agro-biodiversity, agroforestry, horticultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem	The impact on ecology and biodiversity including the soil micro flora, fauna and soil seed banks around the project site is mentioned in Chapter 4. Refer Page No.158.
13	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.	At the end of mining, the quarried-out pit will be used as water storage pond which improves the agricultural activity in the buffer zone. Refer Page No 180 in Chapter 7. The afforestation plan for five years is given in Chapter 4. Refer Table No 4.29 in Page No.166.
14.	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	Anticipated impact on Agriculture, Horticulture and livestock is given Chapter 4. Refer Clause 4.14.2 in Page No 167.
Forests		

15.	The project proponent shall detailed study on impact of mining on Reserve forests and free ranging wildlife	There are No reserve forests located within 25km radius of the project site. There are no wildlife sanctuaries within 10km radius. Refer Table 2.2 in Page No 16 of Chapter 2. The impact on reserve forest and wild life sanctuary is given in Chapter 4.
16.	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	There is no endangered species found within 10km radius study area.
17.	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection	There are no trees present within the lease area. As the mining activity is carried out only within the lease area, the impacts on trees present in buffer zone will be negligible.
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 protected areas, National Parks, Corridors and Wildlife pathways within 10km radius of the project site. There is no reserve forest located within 10km radius. The impact on reserve forest is given in Chapter 4. Refer Clause 4.10 in page No 158.

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.	The hydro geology study has been conducted within the study area of project site. Refer Page No 82 in Chapter 3. The details of water bodies in the study area are given chapter 2. Refer page no 16. The depth of water table identified by Geo resistivity survey is 58-62m bgl whereas the proposed depth of mining is 41m bgl. Therefore, the mining activity will not intersect ground water table. The schematic diagram is given in chapter 4. Refer Page No 153.
20.	Erosion Control measures.	To control the erosion, the tree sapling will be planted along the mining lease boundary. Garland drainage will be developed around the dump to control the washout of dump due to hydrostatic pressure.
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	The impact of mining on the nearby villages and water bodies are given detail in chapter 4.
22.	The project proponent shall study impact on fish	The detailed study of impact on fish habitation

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	habitats and the food WEB/ food chain in the water body and Reservoir.	and food WEB/ food chain in the water body and reservoir is given in Chapter 4. Refer Table 4.27, Page No 158.
23.	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	The detailed impact studies are given in Chapter 4.
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.	The study and the impact on aquatic plants and animals in water bodies are mentioned in Chapter 4. Refer Clause 4.10 in Page No 158. There are no caves, heritage site, and archaeological site found within 10km radius of project site.
25.	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	The impact study on soil health and erosion is given in Clause 4.7 in Chapter 4. Refer Page no 157. The soil physical, chemical components and microbial components are given in Chapter 3.
26.	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.	The impact study on surface water bodies and agricultural land is given in Chapter 4.
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.	NA
Energy		
28	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.	The mitigation measure for air pollution and noise pollution is given in chapter 4.
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	The carbon emission due to proposed mining activity and its mitigation measures are given in Chapter 4. Refer Clause 4.2 in Page No 142.
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	The carbon emission due to proposed mining activity and its mitigation measures are given in Chapter 4. Refer Clause 4.2 in Page No 142.
31.	Impact of mining on pollution leading to GHGs	The GHGs emission due to proposed mining

	emissions and the impact of the same on the local livelihood.	activity and its mitigation measures are given in Chapter 4. Refer Clause 4.2 in Page No 142.
Mine Closure Plan		
32.	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued is given in Chapter 2, pg. No. 35 and 36.
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 given in Chapter 10, pg. No. 189.
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.	The environmental management plan is given chapter 10. The cost for green belt development is mentioned in Table 10.2 in Chapter 10. Refer Page No 194. Budget for mine closure plan is given in Table 10.3 in Page No 194 of Chapter 10. The disaster management plan is given in Chapter 7. Refer page no 177.
Risk Assessment		
35	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	Disaster management plan is given in Chapter 7, pg. No. 177
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/untooward 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.	Details are furnished in Table 7.1 in chapter 7, pg. No. 177.
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.,	The letter regarding approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake, pond, tank within 300m radius has been obtained from VAO. Refer Annexure 8.

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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.	Draft EIA is been prepared for conducting public hearing. The points raised in PH and funds allocated will be included in Final EIA report.
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.	The study on pollution due to plastic its ecological risk is mentioned in Chapter 7. Refer Clause 7.5 in Page no 182.

CHAPTER – 1: INTRODUCTION

1.1 PURPOSE OF THE REPORT

The Applicant, Thiru. P. Viswanathan, No. 275/A3, Neelakadu, 63, Velampalayam, Palladam Taluk, Tiruppur District, Tamil Nadu-641663. The State Government has granted mining lease over an extent of 0.91.0 Hectares in S.F. No: 153/2A Patta land of Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu for quarrying rough stone and gravel. The validity of lease period is 5 years (From the date of execution)

The proponent excavated 25m bgl during the duration of the mine's life in this quarry (2018 to 2023), which had been approved by the District level Impact Assessment Authority (DEIAA) Lr. No: DEIAA-TPR/F. No: 601/ 3 (i)/ 2017 Dated: 08.03.2018 at a depth of 32m bgl. In continuation, the Assistant Director, Department of Geology and Mining, Tiruppur has directed the applicant, Thiru.P.Viswanathan, vide his precise area communication letter Roc. No. 80/Kanimam/2023 dated 09.01.2024 obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying lease to rough stone and gravel quarry in Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu for the period of 5 years (From the date of execution).

The mining plan is prepared as per the Precise area communication letter, 80/Kanimam/2023 dated 09.01.2024 under Rule 41& 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying rough stone and gravel it is approved by Deputy Director, Department of Geology and Mining, Tiruppur vide letter 80/Mines/2023 dated 18.02.2024. About 26340 m³ of rough stone will be produced in five years (from the date of excavation) up to a depth of 41 m bgl. The project cost is about Rs. 60.48 lakhs and EMP cost is Rs. 3.80 lakhs per year.

As per the cluster letter issued by Deputy Director, Department of Geology and Mining, Tiruppur vide Rc.No.80/Mines/2023, dated 18.02.2024 for Thiru. P.Viswanathan (0.91.0 Ha) the lease area of above said 5 applicants comes in cluster of 500m radius. The total area of cluster is 5.39.24 Ha. The extents of lease area of all individual as per cluster letter are given below,

Existing Quarries

1. Tmt.P.Sumathi	–	3.00.5 Ha
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Proposed Quarries

1. Mr.P.Viswanathan	–	0.91.0 Ha
2. Mr.M.Kanagarathinam	–	0.84.0 Ha

3. Mr.R. Loganathan – 0.64.74 Ha

Abandoned Quarries

1. P. Viswanathan – 0.91.0 Ha

As per MoEF&CC OM: F.No. L-11011/175/2018-IA-II(M), dated 12.12.2018, the EIA/EMP report has to be prepared for the cluster area based on ToR recommended by SEIAA. Therefore, the applicant applied for ToR through PARIVESH website vide online proposal no. SIA/TN/MIN/511310/2024 dated 02.12.2024. The ToR proposal was placed in 523rd SEAC meeting, dt 27.12.2024 and 787th SEIAA meeting, dated 08.01.2025. Then ToR has been issued by the SEIAA vide TOR Identification No. TO23B0108TN5985133N/File No: 11559 dated 12.01.2025. The EIA report has been prepared based on the recommended Standard ToR and Specific ToR.

1.2. IDENTIFICATION OF PROJECT AND PROJECT PROPONENT

1.2.1. IDENTIFICATION OF PROJECT

The applicant, Thiru.P.Viswanathan, proposed to Rough stone and gravel quarry located in S.F. No. 153/2A over an Extent of 0.91.0 Ha in Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu. The Assistant Director, Department of Geology and Mining, Tiruppur District has directed the applicant, Thiru.P.Viswanathan through his Precise area communication letter Roc.No.80/Kanimam/2023, dated 09.01.2024 to get AMP and obtain EC form SEIAA as per the EIA Notification, 2006.

1.2.2. IDENTIFICATION OF PROJECT PROPONENT

Table. 1.1 Identification of Project	
Particulars	Details
Applicant	Thiru.P.Viswanathan
Lease Area	0.91.0 Hectares (Patta land)
Site Location	Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu
Precise Area Communication	Roc.No.80/Kanimam/2023 dated 09.01.2024
Period of Lease	5 Years
Mining Plan Approval Details	Mining plan approved by DD, Dept of Geology and Mining, Vide Roc.No.80/Mines/2023, dated 18.02.2024

Table. 1.2 Identification of Project Proponent	
Address of the Project Proponent	Thiru. P. Viswanathan No. 275/A3, Neelakadu, 63, Velampalayam, Palladam Tiruppur District, Tamil Nadu-641663
Status	Individual

Table No: 1.3 Land Particulars

State & District	Taluk	Village	S.F. No	Permissible for quarrying (Ha)	Ownership Occupancy
Tamil Nadu & Tiruppur	Palladam	Velampalayam	153/2A	0.91.0	Patta land
			TOTAL	0.91.0	

1.3. BRIEF DESCRIPTION OF THE PROJECT

1.3.1. Nature and Size of the Project

Open cast Mechanized mining shall be adopted to raise the production in this area and transportation of ore and waste. The excavated rough stone is used for building's basement stones and also used for crushing units and other infrastructure development work in and around the district.

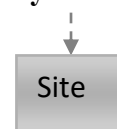
The geological resources of rough stone are estimated as 146433m³, the mineable reserves are estimated as 26340m³ by leaving the required statutory safety distance from the lease boundary as indicated in the letter issued by the Deputy Director of the Department of Geology and Mining, Tiruppur. Production Schedule is proposed as 26340m³ @ 100% of rough stone for five years, up to depth of 41m. Average year wise production of rough stone is 5268m³ per annum or 17.56m³ per day for the 300-working day in a year by open cast mining. The above said reserves and productions are as per approved mining plan.

1.3.2. LOCATION OF THE PROJECT

The area is accessible from Tiruppur to Palladam by 14 km further travel 7.3km to reach Velampalayam then 2.2km reach the site. The village road is located on the western side for transportation materials.

Route:

Tiruppur 14 Km -- ➔ Palladam 7.3Km -- ➔ Velampalayam 2.2km



The area is represented by Survey of India Toposheet No. 58 E/08. It is given in fig 1.2. The location map is given in fig 1.1. The area lies in the northern latitude of 11° 02' 22.50"N to 11°02'26.21"N and eastern longitude of 77° 15' 27.33"E to 77°15'30.24"E.

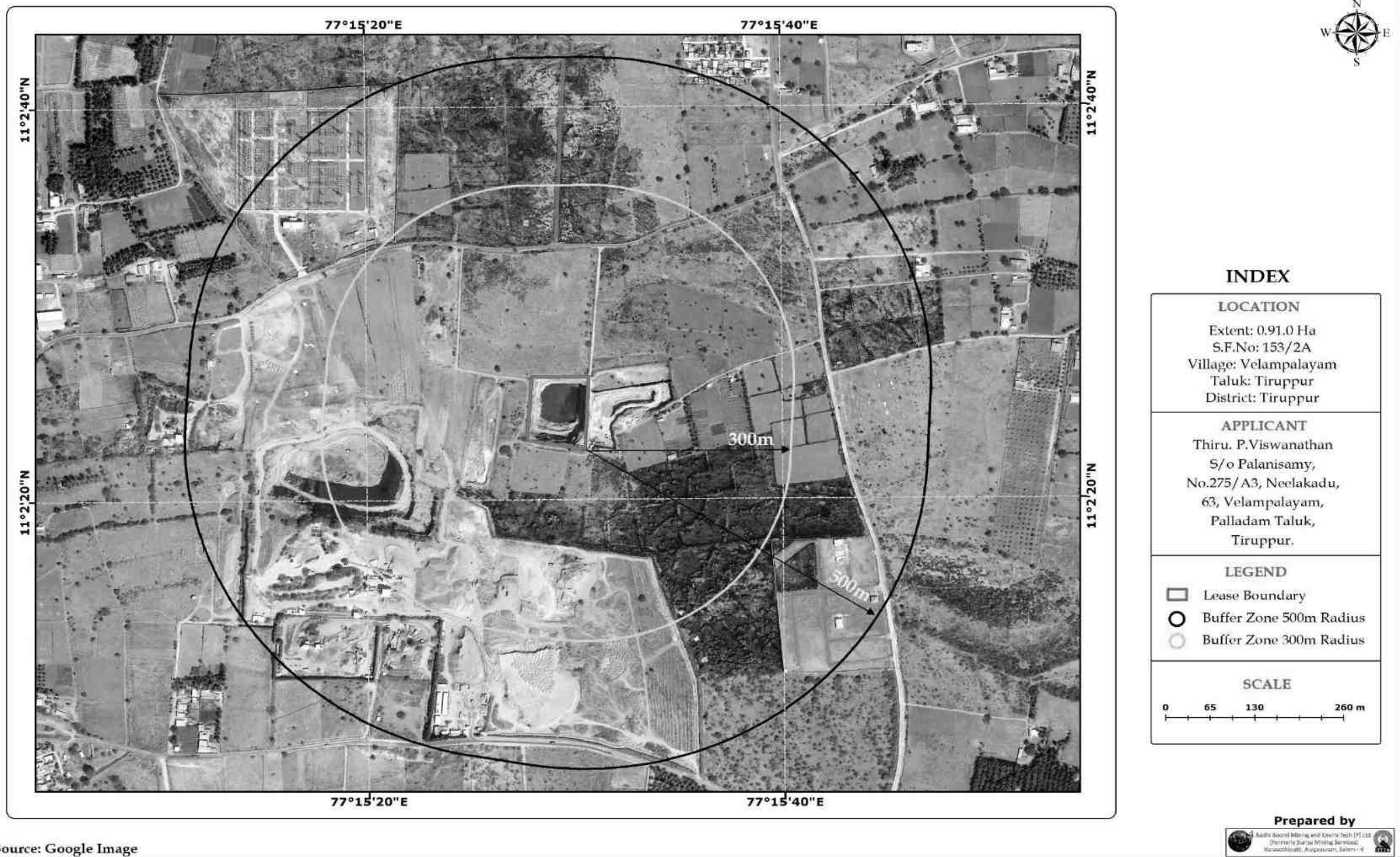


Fig.No.1.1: Showing Location and route map of Proposed quarry lease area



Fig.No.1.2: Toposheet showing Location of the quarry

GIS based buffer of 300/500m radius over the Google Image



Source: Google Image

Fig.No.1.3: Google Earth Image showing 300m and 500m radius around lease area

1.4. ENVIRONMENTAL CLEARANCE

The Environmental Clearance process for the project will comprise of four stages. These stages in sequential order are given below: -

1. Screening,
2. Scoping
3. Public consultation &
4. Appraisal

SCREENING:

- ✚ The precise area communication Letter **Rc. No: Na. Ka. 80/Kanimam/2023 dated: 09.01.2024** for a period of 5 years.
- ✚ The mining plan was prepared in respect of rough stone and gravel quarry and the same was approved by the Assistant Director of Geology and Mining, Tiruppur, vide **Rc. No. 80/Mines/2023 dated 18.02.2024.**
- ✚ Proponent applied for ToR to get Environmental Clearance vide online Proposal No. **SIA/TN/MIN/511310/2024, Dated: 02/12/2024.**

SCOPING:

- The proposal was placed in 523rd SEAC meeting held on 27.12.2024 the committee recommended for issue of ToR.
- The proposal was considered 787th SEIAA meeting held on 08.01.2025 and issued **ToR vide Lr. No TO24B0108TN5985133N Dated: 12.01.2025**

PUBLIC CONSULTATION:

Application to The District Environmental Engineer of the Tamil Nadu Pollution Control Board (TNPCB) to conduct Public Hearing in a systematic, time bound and transparent manner ensuring widest possible public participation at the project site or in its close proximity in the district is submitted along with this Draft EIA/ EMP Report English and Tamil. The outcome of public hearing proceedings will be detailed in the Final EIA/EMP Report.

1.5. SCOPE OF THE PROJECT

The proposal for Environment Clearance of Rough stone and gravel quarry lease of Thiru.P.Viswanathan, requires Environmental Impact Assessment (EIA) study to be carried out as per Standard, Specific and additional TOR specified by the SEAC. Based on the documents furnished for TOR, the Committee observed that the project falls under the category B1(Cluster) and schedule 1(a) of the EIA Notification, 2006 as the cluster area is

greater than 5 Ha and less than 250 Ha. This is primarily to ascertain the potential impacts of the mining activity on environmental components, prediction and evaluation of environmental impacts to delineate Environment Management Plan.

The EIA/EMP report also includes an independent chapter prepared by an Accredited Consultant. The collection and analysis of air, water and soil sample required for preparation of EIA report data will be done by an Environmental Laboratory duly notified under the Environment (Protection) Act, 1986, accredited by NABET/NABL.

The scope of the study includes a detailed characterization of the environment in an area of 10km radius from the quarry lease Area. The EIA covers one season baseline environmental data, as per the standard generic model given by the MoEFCC, New Delhi.

In order to assess the likely impacts arising out of this project on the surrounding environment and evaluating the quantum of likely negative impacts, if any, from this mine, the proponent has selected Aadhi Boomi Mining and Enviro Tech Pvt. Ltd., Salem as their EIA consultant for this project. ABM prepared an Environmental Impact Assessment (EIA) report and made an effective Environment management Plan (EMP) for various environmental components likely to be affected.

The scope covers all the conditions along with the specific and additional TOR prescribed by SEAC/SEIAA, Tamil Nadu vide TOR Identification No. TO24B0108TN5985133N Dated: 12.01.2025.

1.5 METHODOLOGY OF EIA STUDY

The EIA study includes detailed baseline data generation and characterization of existing status of environment in an area of 10km radius with the project as its Centre for various environmental components viz. air, noise, water, land, geo-hydrology, Noise & Vibration, biological and socio-economic components and other parameters of interest. The envisaged scope of EIA is as follows:

- To assess the present status of air, biota, water, land, biological and socio-economic components of environment within 10km radius of study area from the project site.
- To identify and quantify the significant positive and negative impacts due to various mining operation in various components of the environment through identification and prediction of impacts
- To identify the impact and description of the impact with quantitative and qualitative data

- To prepare a detailed Environment Management Plan for implementation of mitigate measures
- To suggest a monitoring program to evaluate the effectiveness of mitigate measures
- Post-project environmental quality monitoring program to be followed

The baseline monitoring study has been carried out during the December 2022 to February 2023 for various environmental components so as to assess the anticipated impact on the environment and suggest suitable mitigation measures for likely adverse impacts due to the project. Environmental attributes, source and frequency of monitoring are outlined in table 1.4.

Table: 1.4 Environment Attributes

S. No	Attributes	Parameters	Source and Frequency
1	Meteorology	Temperature, Wind Speed, Wind Direction, Rain fall, Relative Humidity,	Secondary sources of IMD station, Tiruppur. Hourly recorded data for the period of 3months.
2	Ambient Air Quality	PM ₁₀ , PM _{2.5} , SO ₂ and NO _x	8-hour samples twice in a week for three months at 5 locations.
3	Water Quality	Physical, Chemical and Biological parameters	Grab sampling at 3 locations once during study period.
4	Noise levels	Noise levels in dB(A)	At 5 locations data monitored once in a month for three months for 24 hours during EIA study.
5	Soil Characteristics	Physical and Chemical parameters	Once at 3 locations during study period
6	Hydrogeology	Drainage area and pattern, nature of streams, aquifer characteristics, recharge and discharge areas	Based on data collected through field investigation devices once in a study.
7	Land use	Existing land use for different categories	Based on Survey of India Toposheet and Google Earth imagery
8	Ecology and Biodiversity	Existing terrestrial flora and fauna within 10Km radius	Field observation and utilization of Secondary data.
9	Socio–Economic aspects	Socio–economic and demographic characteristics, worker characteristics	Based on collection of primary data through questionnaire analyses and utilization of Secondary data from census

			records (2001 –2011), statistical hand books, topo sheets, health records and relevant official records.
10	Risk assessment and Disaster Management Plan	Identify areas where disaster can occur by fires and explosions and release of toxic substances if any	Based on the findings of risk associated with explosives, landslides, slips and fire/explosion during blasting etc.,

The impacts of the project activities on environmental components can be quantified through EIA Studies within the impact zone of the project activities. The results of EIA studies form the basis for the preparation of a viable EMP for mitigation of the adverse impacts.

1.7. Regulatory Compliance & Applicable Laws/Regulations.

- ✚ Application for Quarrying Lease as per Tamil Nadu Minor Mineral Concession Rules, 1959.
- ✚ Obtained Precise Area Communication Letter as per Tamil Nadu Minor Mineral Concession Rules, 1959 for Preparation of Mining Plan and obtaining Environmental Clearance
- ✚ The Mining Plan of Mining rough stone quarry has been approved under Rule 41 & 42 as amended of Tamil Nadu Minor Mineral Concession Rules, 1959.
- ✚ Environmental Clearance vide **Lr. No. DEIAA-TPR/F.No.601/3(I)/2017/Dated 08.03.2018.**
- ✚ Obtained the CTO from TNPCB, Tirupur District.
- ✚ MoEF&CC - CCR Ref. No: **E.P/12.1/2024-25/SEIAA/172/TN/729 Dated: 09.05.2025.**
- ✚ ToR Identification No. **TO24B0108TN5985133N Dated: 12.01.2025.**

CHAPTER – 2: PROJECT DESCRIPTION

2.1. NEED FOR THE PROJECT

The applicant Thiru. P. Viswanathan, residing at, 275/A3, Neelakadu, 63, Velampalayam, Palladam, Tiruppur District, and Tamil Nadu has applied for quarry lease rough stone and gravel quarry in a consent patta land over an area of 0.91.0 hectares, located in S.F. No: 153/2A Patta land of Velampalayam Village, Palladam Taluk and Tiruppur District, Tamil Nadu.

The mining plan was approved by Deputy Director, Department of Geology and Mining, Tiruppur vide letter Rc.No.80/Mines/2023, dated 18.02.2024. The proposed rate of production of Rough Stone is about 26340m³ up to the depth of 41mbgl.

Rough stone is one of the important materials for the building construction. The rough stone is used as both as coarse aggregate and fine aggregate after the proper sizing of stone. The coarse and fine aggregate are essential for preparing concrete which is used in foundation, beam, column, roof slab work of the buildings. The infrastructure is the sign of development of nation. So, it is very need to excavate the rough stone for economic and infrastructure development of our Nation.

2.2 DEMAND – SUPPLY GAP

The coarse and fine aggregate are the basic raw material for the building construction and the road formation. It takes place in all villages, towns, cities and metropolitan cities. There is great demand in availability of rough stone. So, it is necessary to fulfill the demand by starting the proposed rough stone quarry.

2.3 LOCATION

The area is represented by Survey of India Toposheet No. 58 E/08. The lease boundary with Geo Co-ordinates is shown in fig 2.1. The area lies in the northern latitude of 11° 02' 22.50"N to 11° 02'26.21"N and eastern longitude of 77°15' 27.33"E to 77°15'30.24"E. Latitude and Longitude of all boundary Pillars are given below,

Table No-2.1 Co-ordinates of Quarry lease Boundary Pillars

Pillar Id	Latitude (N)	Longitude (E)
1	11° 02'22.97"N	77°15'27.33"E
2	11° 02'26.20"N	77°15'27.56"E
3	11° 02'26.21"N	77°15'30.24"E
4	11° 02'22.50"N	77°15'30.05"E

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

- No Trees will be uprooted due to this quarrying operation.
- 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.
- There will be no Export of this quarrying rough stone

Google Image showing Lease Boundary with Coordinates



Source: Google Image



Coordinates of Pillars

P.No	Latitude	Longitude
1	11° 2' 22.97" N	77° 15' 27.33" E
2	11° 2' 26.20" N	77° 15' 27.56" E
3	11° 2' 26.21" N	77° 15' 30.24" E
4	11° 2' 22.50" N	77° 15' 30.05" E

INDEX

LOCATION

Extent: 0.91.0 Ha
S.F.No: 153/2A
Village: Velampalayam
Taluk: Tiruppur
District: Tiruppur

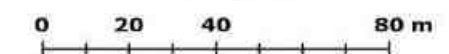
APPLICANT

Thiru. P.Viswanathan
S/o Palanisamy,
No.275/ A3, Neelakadu,
63, Velampalayam,
Palladam Taluk,
Tiruppur.

LEGEND

- Lease Boundary
- Buffer Zone 500m Radius
- Buffer Zone 300m Radius

SCALE



Prepared by

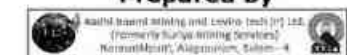


Fig.No.2.1: Google image showing lease boundary and Coordinates of the Quarry

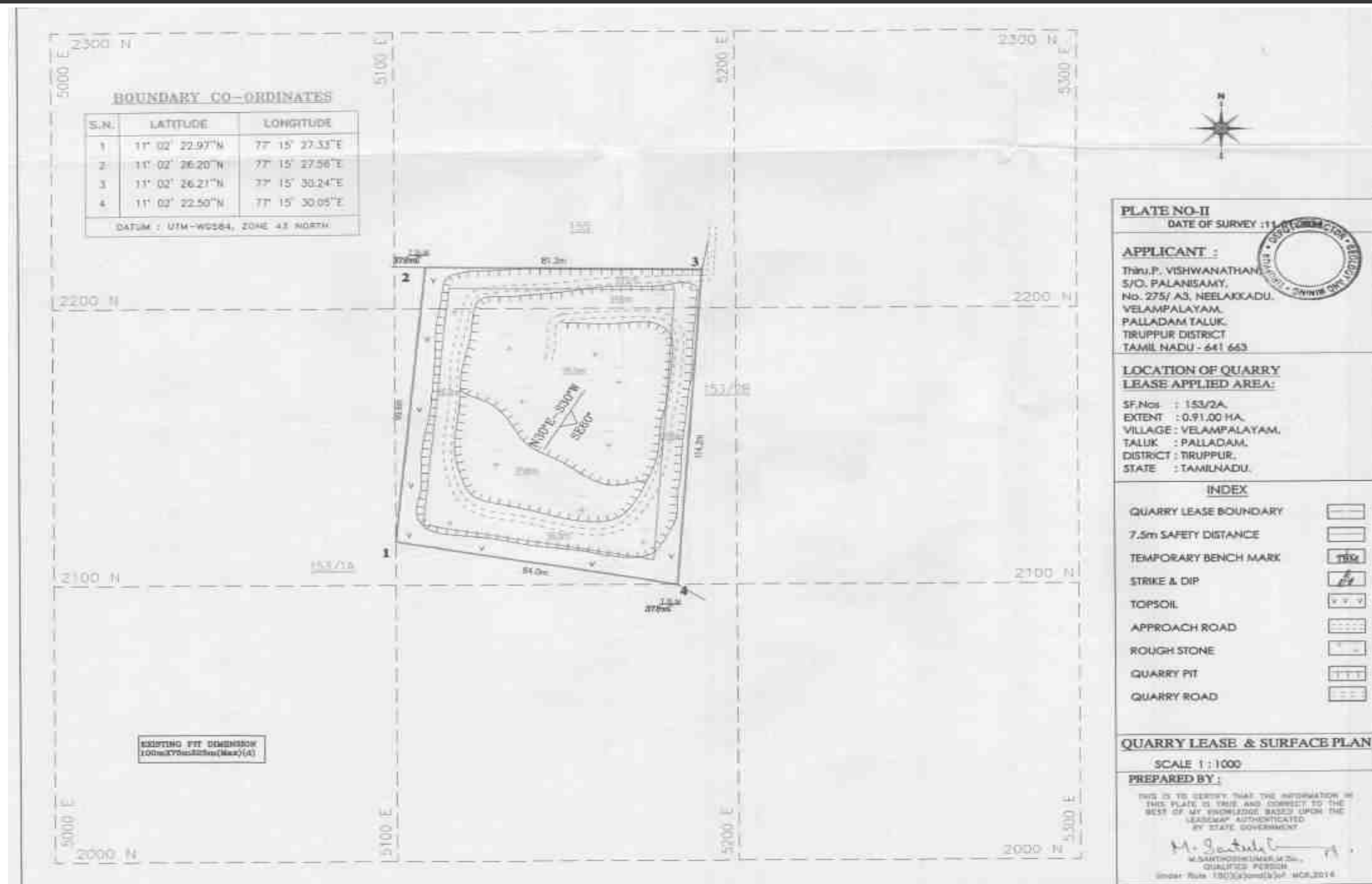


Fig.No.2.2: Quarry Lease and Surface Plan

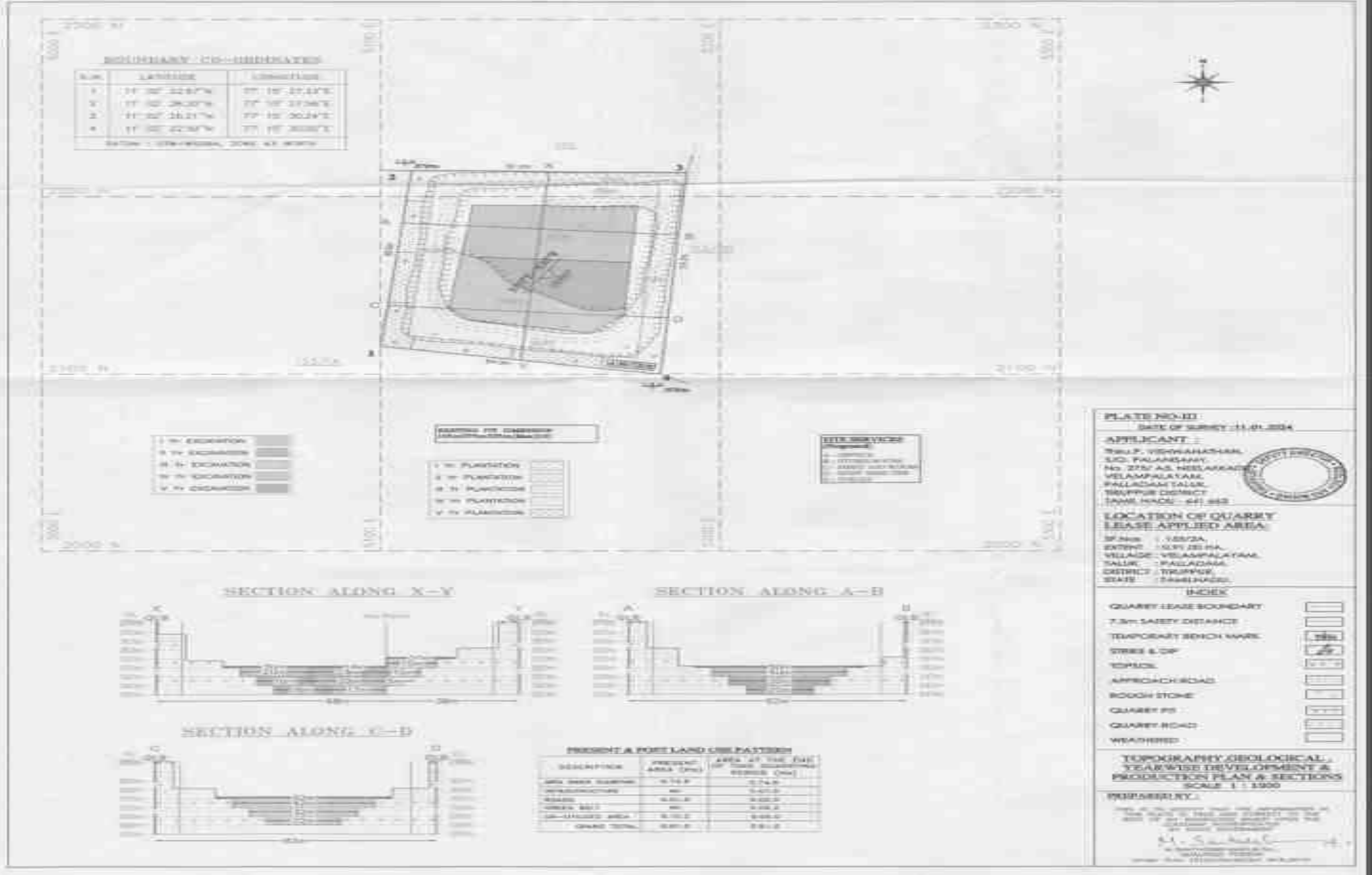


Fig.No.2.3: Year Wise Development, Production Plan and Sections



Fig. No. 2.4 Photograph shows general view of lease area

Table No. 2.2.: Environmental Settings

Project Details				
Proponent	Thiru. P. Viswanathan			
Total Mine Lease Area	0.91.0 Ha - Rough Stone and Gravel			
Survey No.	S.F. No. 153/2A (Patta land)			
Site Location	Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu			
Geographical Co-ordinates	Latitude: 11° 02' 22.50"N to 11° 02'26.21"N Longitude: 77°15' 27.33"E to77°15'30.24"E			
ToposheetNo.	58 E/08			
Elevation	Elevation of the area is 391m above MSL andToposheet No. 58E/08.			
Accessibility				
Nearest Habitation	310m - NW			
Nearest Village	Naduvelampalayam 1.52km-W			
Nearest Settlement	Name of Village	Direction	Distance from Mines (Approx.)	Population

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT
Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

	Velampalayam	NE	2.2 km	360
	Sedapalayam	E	3.8 km	2913
	Pallipalayam	NW	3.8 km	4787
	Naranapuram	SE	2.5 km	14018
Nearest Town	Palladam – 5.5km - SE			
Nearest Roadway	SH -166- Palladam to Avinashi-1.90km-E NH-44- Coimbatore to Trichy-4.22 km-S			
Nearest Railway station	Vanjipalayam Railway Station – 8.6km - N			
Nearest Airport	Coimbatore –22.0 km -W			
Environmental Sensitiveness				
Interstate Boundary	Kerala – Tamil Nadu Interstate Boundary – 46.7km – SW			
Coastal Zone	Arabian Sea-146 km – SW			
Reserve Forest	There is no Reserve Forest up to 25 km in lease area			
Wildlife sanctuary	Nil within 10km radius			
Water bodies	There are no major river or water bodies, odai track, nallah and ponds found within 500m radius.			
Defense Installations	Nil within 10km radius			
Critically Polluted area	Nil within 10km radius			
Quarries around 500m radius	One existing quarry, three present proposed quarries and one abandoned quarry located within the 500m radius from the lease boundary of the proposed project site. Total Cluster area: 5.39.24 Ha AD Cluster Letter: Rc. No: 80/Mines/2023 dated: 18.02.2024			
Seismic zone	Zone-II, Low damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002			

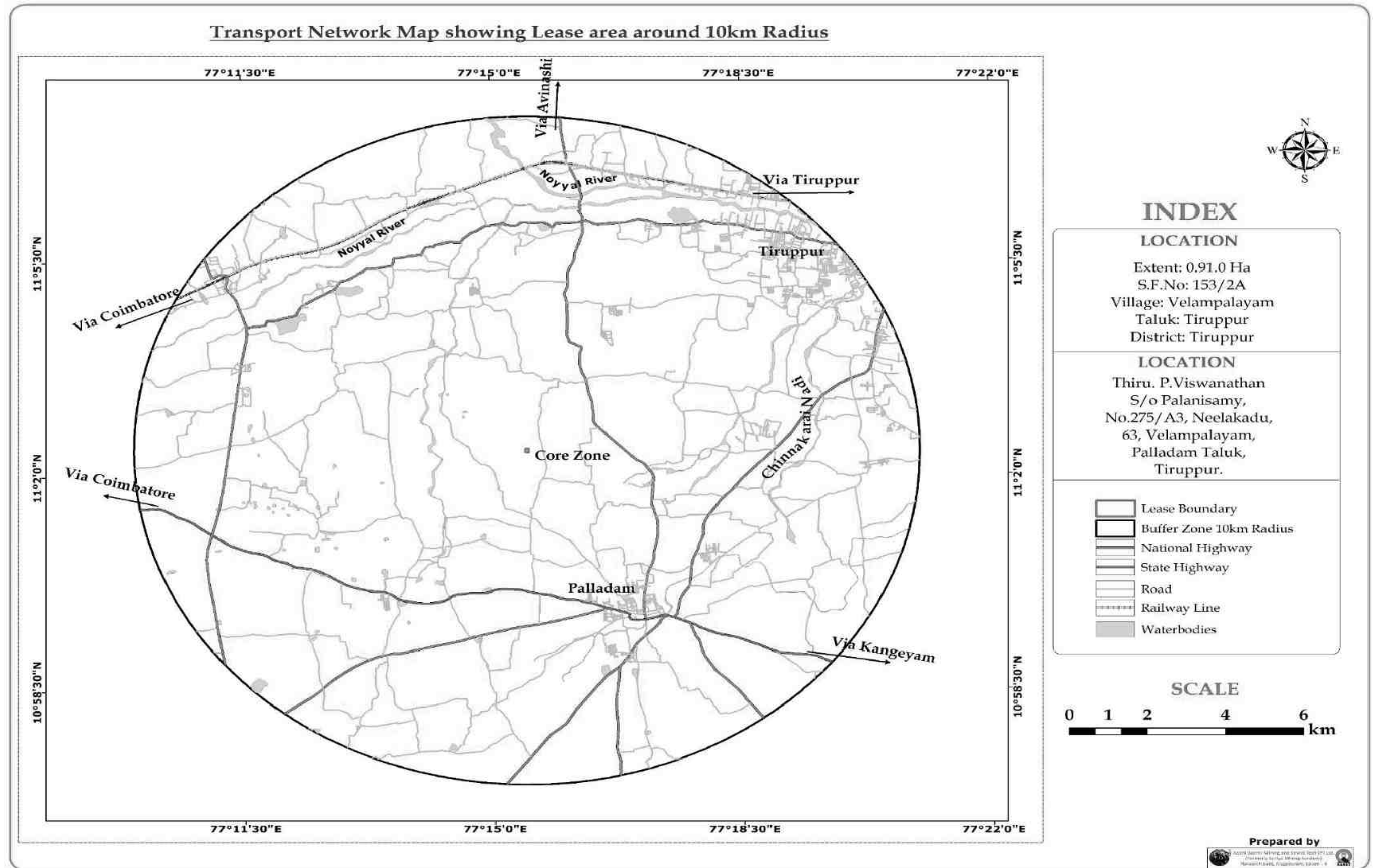


Fig.No.2.5: Google Earth Image showing Transport Network of 10 km radius around Proposed Project Site

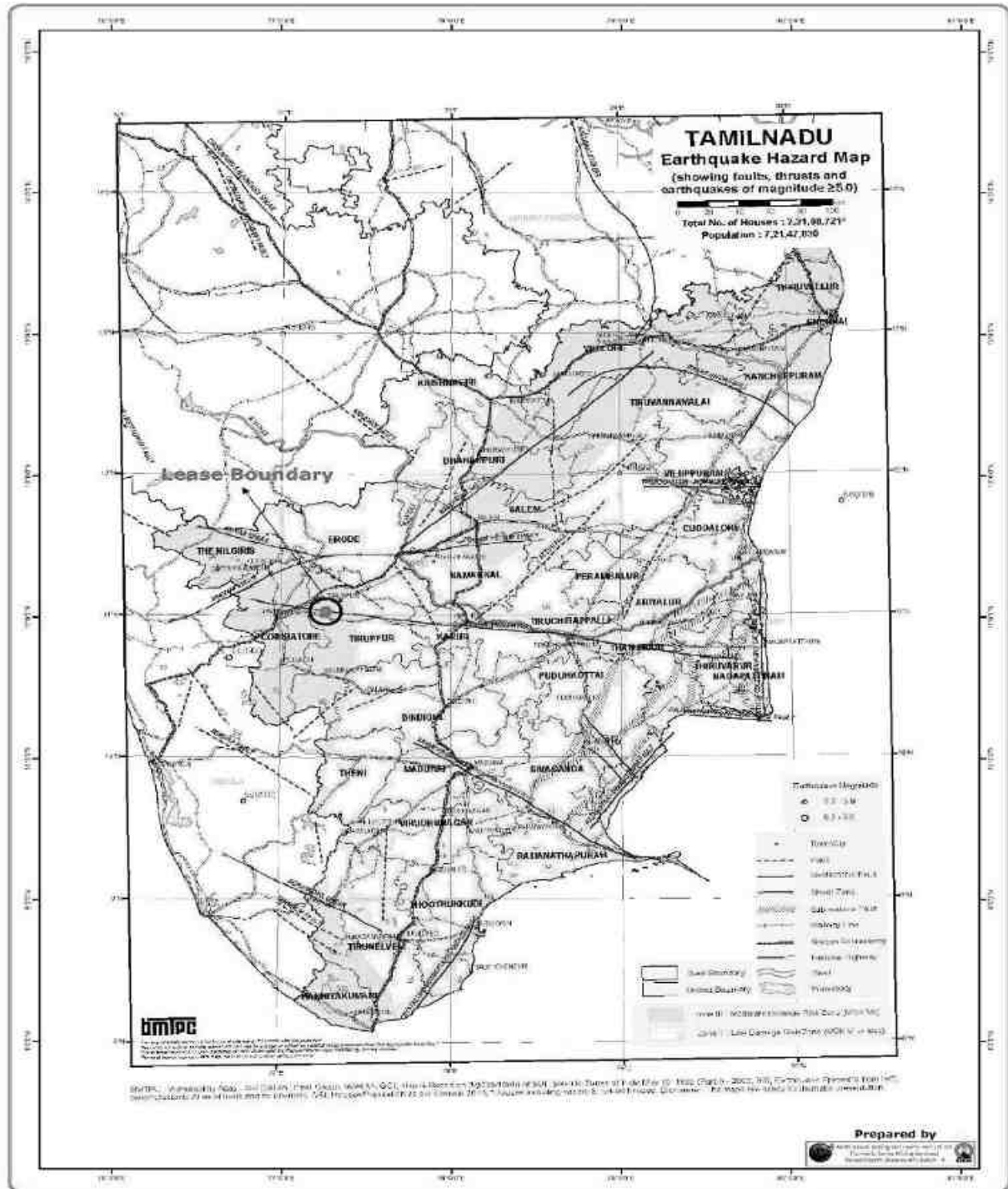


Fig No: 2.6 Earthquake Hazard Map

The area falls under Zone-II, Low damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002.

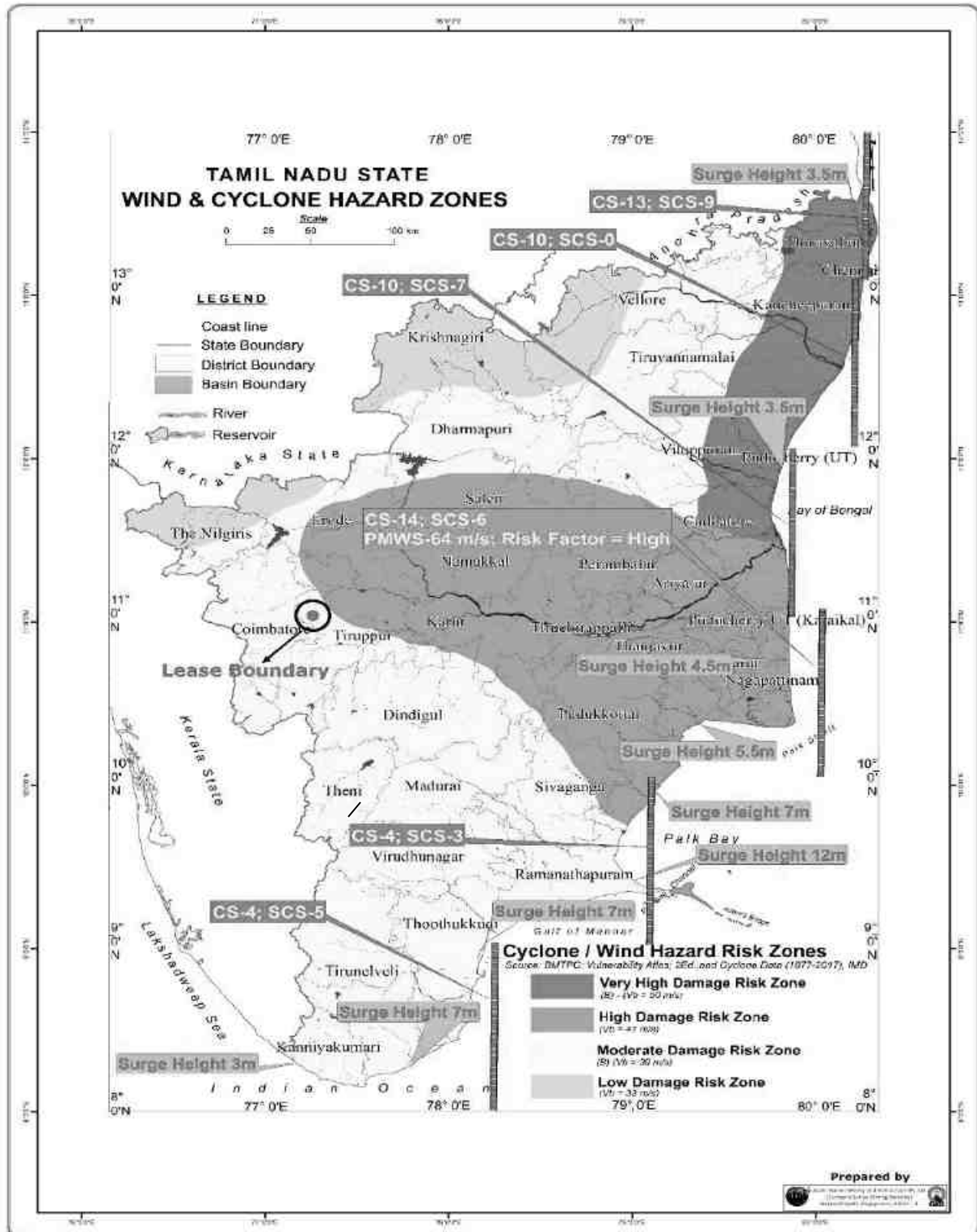


Fig No: 2.8 Winds and Cyclone Hazard Map

The area falls under moderate Damage Risk Zone-B ($V_b = 39$ m/s).

2.4 Size or Magnitude of Operation

Table No. 2.3: Mining Details

Particulars	Details
Method of Mining	Open cast mechanized mining
Geological resources	146433 m ³
Mineable reserves	Rough stone -26340m ³ for five years
Production (95%)	Rough stone -26340 m ³ for five years 5268m ³ per annum
Top soil	-
Ore: Waste ratio	1: 0.07
Depth of Mining	41m bgl
Water Table	58m bgl
Road design	1: 10 inside the pit and ramp 1:16 for transport
Overall Pit Slope	45°
Period of Lease	5 years from the date of execution

2.5 Proposed schedule for approval and implementation

The proposed activity will be commenced only after obtaining Environment Clearance from SEAC/SEIAA, Tamil Nadu and CTE/CTO from TNPCB and other necessary clearance from concerned departments.

2.6 Technology and process description

2.6.1 Regional Geology

Geologically, Tiruppur district of Tamil Nadu forms a part of southern Granulitic terrain and is predominantly occupied by crystalline rocks of Archaean to late Proterozoic age. Regionally, the rocks can be grouped under five categories namely i. Charnockite Group represented by Charnockite, Pyroxene Granulite and Magnetite Quartzite, ii. Peninsular Gneissic Complex (II) comprising hornblende-biotite gneiss, iii. Basic intrusive include Pyroxinite/Dunite iv. Younger intrusive comprising, Nepheline-Syenite, Pink Granite, Pegmatite and Quartz veins and v. Quaternary sediments of Kankar and soil. Tiruppur District is predominantly occupied by hornblende Biotite gneisses of PGC (II) with enclaves of Magnetite Quartzite, Pyroxene Granulite and Charnockite. The area exposes several bands of Pyroxene Granulite which is medium grained, medium to dark grey in colour and stand out prominently in the gneissic country generally parallel to regional foliation. Charnockite is

coarse grained, massive, many places it is foliated, grey coloured and greasy and exposed as bouldery outcrops and small knolls. It is well exposed in Central, Western and Southern parts of the Tiruppur District. The general strike of foliation varies from ENE-WSW, E-W with dipping towards NW and N respectively.

Hornblende-Biotite gneiss is well foliated, medium to coarse grained, pale grey and exposed as sheets and small knolls. Pink Granite gneiss occurs as thin bands and lensoidal bodies. It is a medium grained rock composed of alternating bands of mafic (mainly of biotite and hornblende) and felsic (Feldspar and Quartz) minerals. It is well recognized in Avinashi area.

Stratigraphy of the area

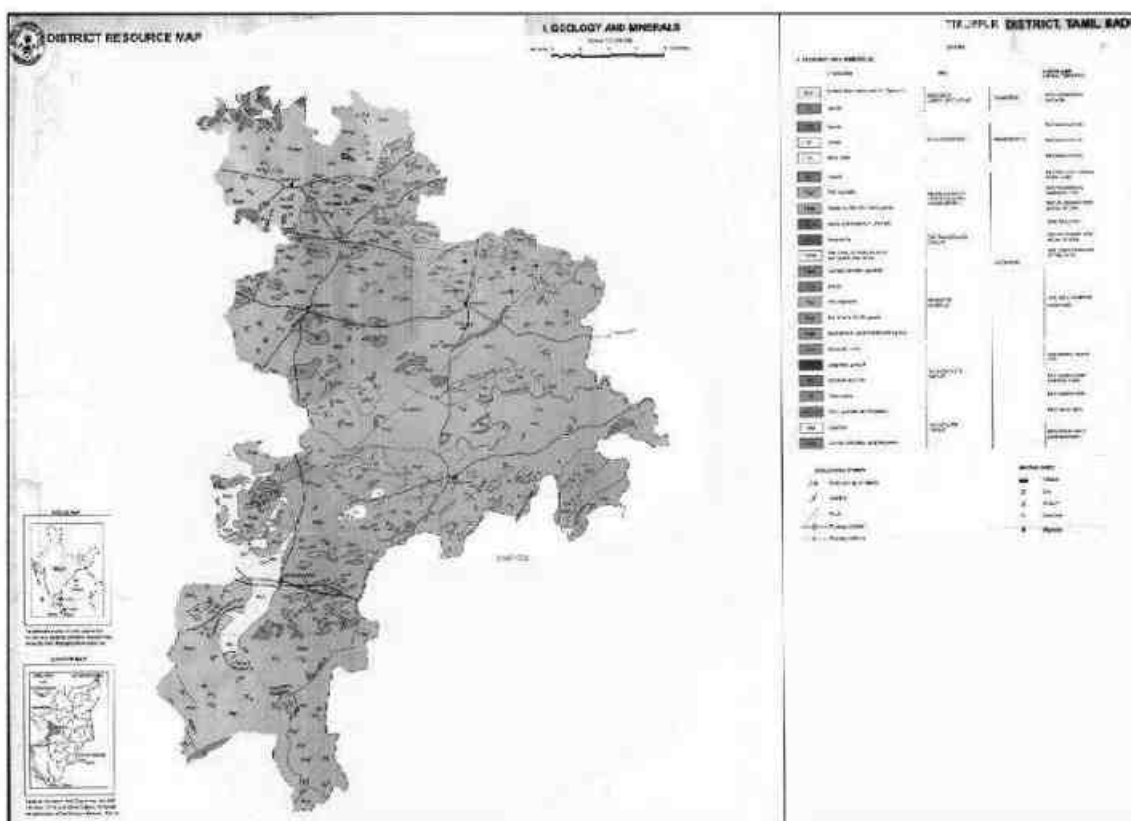
Age	Group	Lithology
Holocene		Blockcotton soil/clay±gypsum
Cenozoic		Kankar/calc-tufa
Neoproterozoic	Acid intrusive	Quartz veins, Pegmatite and Pink Granite
	Sivamalai syenite Complex	Nepheline-syenite
	Chalk Hills (Basic Intrusives)	Pyroxenite/Dunite
Archaean-Palaeoproterozoic	Peninsular Gneissic Complex (II)PGC (II)	Pink Granite Gneiss Hornblende Biotite gneiss
Archaean	Charnockite Group	Charnockite (Unclassified) Pyroxene Granulite BandedMagnetite Quartzite

Basic rocks such as pyroxinite/dunite occur as outcrop and lensoidal body in the country rock and mostly concordant to the regional foliation. Many basic intrusive are reported in south and south-east of Tiruppur town. The trend of these bodies is east-west. Nepheline syenite is a leucocratic, coarse-grained rock and composed mainly of Feldspar with Nepheline and shows pitted appearance due to removal of Nepleline. This alkaline rock is available in and around Sivanmalai area only.

Acid intrusive comprising pink granite, pegmatite and quartz veins are traversed country rocks in micro (cm wide-meter long) to meso-scale (few meters wide and several meter long) extend. Granite is exposed around 9 km SW of Avanashi. Small scale pegmatite and quartz veins are noticed almost in all the rock types.

Acid intrusives are overlain by sediments of Quaternary age, represented by Kankar and black cotton soil with Gypsum. Most of the area is covered by brown and red brown soil. Some part of the area covered with black cotton soil contains Gypsums lumps. Black cotton soil covers south-western part of the district.

GEOLOGY MAP OF TIRUPPUR DISTRICT



2.6.2. Geology of the lease area

Mining activities carried out in the district is Opencast Semi Mechanized/Mechanized and Manual method.

The Economic important mineral found in Tiruppur District are mainly Gypsum, Kankar, Magnesite, Dunite, Quartz, Feldspar, varieties of colour Granites (Dimensional stones), Rough stone (Aggregates) and Gravel/Earth. Mining activities based on these minerals are very less. However, numerous Rough Stone quarries are under operation for production of construction materials and earth fill (gravel) in Kodangipalayam, Morattupalayam, Madathukulam, Kiranur, Moolanur areas in the In addition to above, 'Dimensional Stones' (Granite) is also available in Avinashi, and Kangeyam Taluks. It is mainly used in fencing stone and Stone crushing units and size reduced in to ½, ¾ and 1½ inches Jelly and M sand, P sand which are mainly used in road and building construction purpose.

Geology and Geomorphology Features map of Lease area around 10km radius

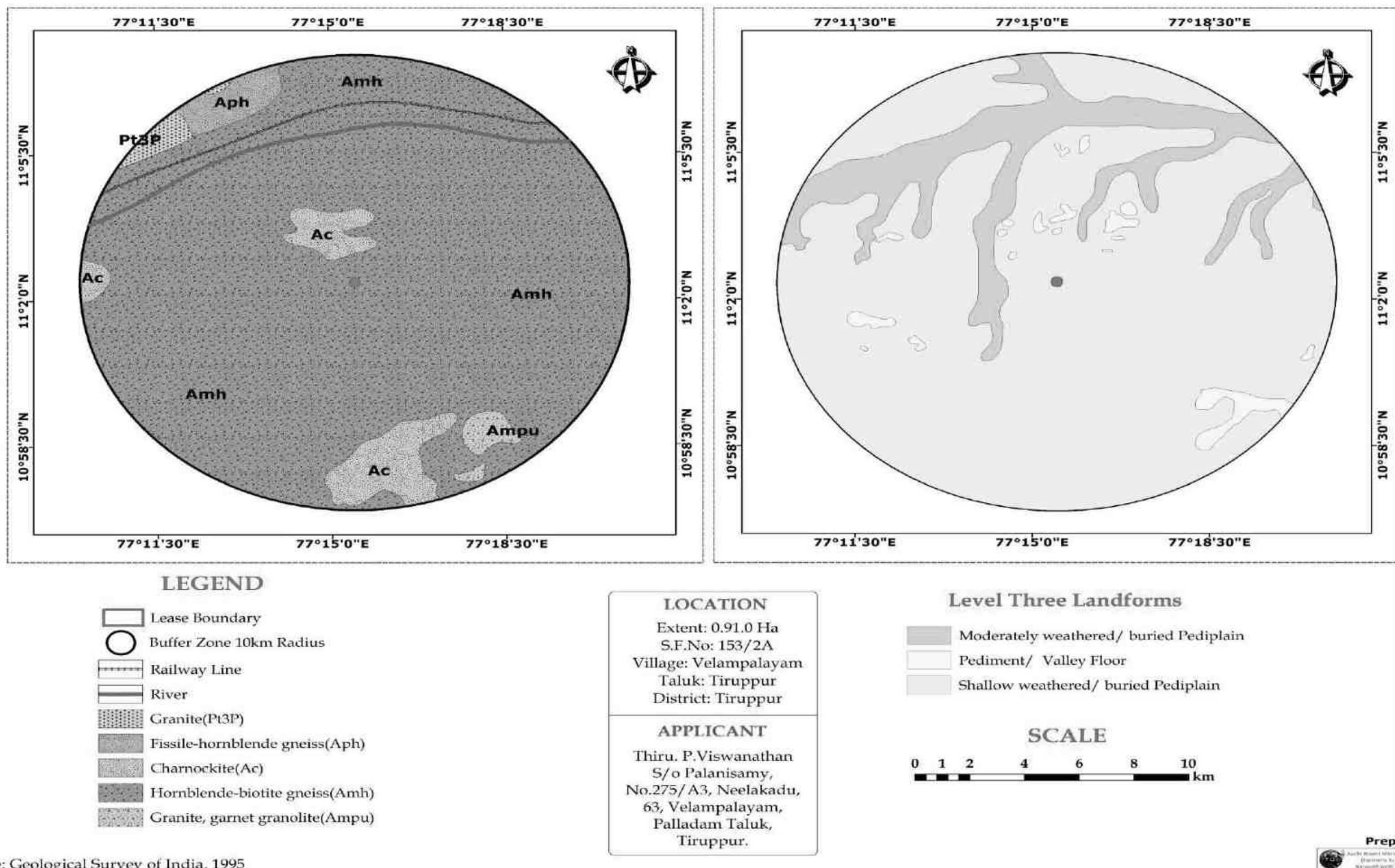


Fig.No.2.9: Regional Geology and Geomorphology Map

2.6.3 Method of Mining

a) Open cast working:

Mechanized opencast quarrying method will be adopted for exploiting the rough stone. Before opening a mine, several aspects should be considered like construction of semi-permanent structures, planning for the development / production works, formation of faces, lying of approach road to various benches for movement of dumpers, recruitment of man power, deployment of machinery, selection of dump sites, stacking yards etc.

Hydraulic excavators and tippers in combination will be utilized to recover the sizeable rough lumps and deliver to the crushing plant to get the required size of M. Sand, ½, ¾, 1½ inches and Jelly chips, etc. Bench height is designed as 6m based on boom height of excavator (8.5m) and permitted additional height of 1.5m for hard formations as per Reg. 106 (2) (b) of MMR, 1961. The bench slope is 60°. S1 fencing shall be constructed at the top of high benches in order to safe guard the unauthorized entry of men and machinery. In the case of entry and exit of pit(s), G1 fencing as a parapet should be made to control tress passes.

Gravel shall be removed and used for construction and afforestation purposes.

b) Mode of working:

The quarry operation involves drilling, muffle blasting, excavation, loading and transportation of rough stone to the needy crusher/other buyers. The production of rough stone and gravel in this quarry involves the following method which is typical for rough stone and gravel quarrying in contrast to other major mineral mining.

Splitting of rock mass of considerable volume from the parent rock mass by jackhammer drilling and blasting, hydraulic excavators are used for loading the rough stone from pit head to the needy crusher/other buyers.

2.6.4 Extent of Mechanization

The following machinery is proposed to be exclusively for the development and production work at this quarry. The machinery is proposed to be purchased or engaged on hire basis.

i) Drilling equipment:

Drilling of shot-holes will be carried out using compressor and Jack Hammers combination on hire basis. Depth of holes shall be 1-2m. The spacing shall be 0.75m and burden shall be 0.60m from the preface. To achieve a correct blasting geometry certain amount of trial blast is prerequisite to effect a perfect pre-determined fragmentation and fly rock control. In case of heavy blasting qualified mine manager has to be appointed for proper

calculation of powder factor and control blasting sequencing and arrangement of explosives etc. Details of drilling equipment's are below as

Table No. 2.4: Details of drilling equipment

Type	Nos	Dia.of hole	Size/Capacity Make	Make	Motive Power
Jack Hammer	2	32mm	Hand held	-	Compressed Air
Compressor	1	-	400psi	-	Diesel

ii) Loading Equipment:

Loading of waste and reject materials shall be done by excavator into 15tonnes tippers from the working place periodically. The applicant is proposed to engage one hydraulic excavator with 1.2 Metric tons capacity and two tippers of 10/15 tonnes capacity for internal transport of waste from the working face to the dumps. Details of loading equipment are tabulated below,

Table No. 2.5: Details of loading equipment

Type	Nos	Bucket/Capacity(m ³)	Make	Motive Power
excavator with bucket and rock breaker	1	300m ³	-	Diesel

iii) Transportation:

Transport of Rough stone, Rejects and waste shall be done by Tippers of 10tonne capacity.

Table No. 2.6: Details of transportation equipment

Type	Nos	Size/Capacity(m ³)	Make	Motive Power
Tipper	1	20 tones	Ashok Leyland and Tata	Diesel
Water sprinkler	1	4000ltrs	-	Diesel

2.6.5 Blasting Pattern

The quarrying operation is proposed to carried out by Mechanized Opencast Method in conjunction with conventional method of mining using shallow Jack hammer drilling and mild blasting with NONEL initiation of shattering effect for loosen the rough stone. NONEL initiation provides reasonably good solution to fly rock problem. The main objectives of NONEL Blasting are to reduce the ground vibration, noise, fly rocks generated due to

blasting operations. The overall cost of blasting in NONEL is very less compared to electrical blasting and hence it optimizes the cost of blasting.

2.6.5.1 Anticipated theoretical calculation of PPV

The empirical equation for assessment of peak particle velocity (PPV) is:

$$V = K [R/Q^{0.5}]^{-B}$$

Where-

V peak particle velocity (mm/s)

K = site and rock factor constant

Q=maximum instantaneous charge (kg)

B = constant related to the rock and site (usually 1.6)

R=distance from charge (m)

Table No. 2.7: Predicted PPV Values Due To Blasting

Maximum Charge per day (kg)	Number of Round Blast per day	Number of holes blasted per round	Number of holes blasted per day	Nearest Infrastructure (m)	PPV (mm/s)
11	1	22	22	110	1.844

From the above table, the charge per blast of 11kg is well below the Peak Particle Velocity of 8 mm/s as per Directorate General of Mines Safety for safe level criteria through Circular No. 7 dated 29/8/1997. If charge per blast will be required for more than 100 kg, the applicant ensures that carry out the blasting twice or thrice a day based on the onsite conditions under the supervision of competent qualified statutory personnel employed. However, as per statutory requirement control measures will be adopted to avoid the impacts due to ground vibrations and fly rocks due to blasting

Drilling and blasting parameters are as follows:

Depth of Each hole	:1.6m
Spacing between holes	:1.2m
Burden for hole	:1.0m
Diameter of hole	:32mm
Pattern of hole	: Zigzag-Multi-rows
Inclination of holes	: 80°from horizontal
Use of delay detonators	:25 millisecond delays
Detonating fuse	: Non-Electric Detonators

Staggered "V" Pattern of Blasting Design

Spacing	=1.2m
Burden	= 1.0m
Depth of the hole	= 1.6m
No of holes proposed per day (Peak Production)	= 22 Holes

2.6.5.2 Type of explosives to be used:

Small Dia. 25mm Slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of rough stone. No deep hole drilling or secondary blasting is proposed. NONEL blasting and muffle blasting may be adopted after permission from DGMS.

2.6.5.3 Measures proposed to minimize ground vibration due to blasting:

The quarry is situated more than 300m away from the nearby villages, Controlled blasting measures of NONEL initiation is being adopt for minimizing ground vibration and fly rock. Shallow depths jackhammer drilling & blasting is proposed to be carried out with minimum use of explosive mainly to give heaving effect in rough stone for easy excavation and to control fly rock.

NONEL Delay detonators:

Delay blasting (millisecond delays) permits to divide the shot in to smaller charges, which are detonated in a predetermined millisecond sequence at specific time intervals.

The major advantages of delay blasting are:

- Reduction of ground vibration.
- Reduction in air blast.
- Reduction in over break.
- Improved fragmentation.
- Better control of fly-rock.

Blasting program for the production per day:

Peak production (3rd Year)	= $6,340\text{m}^3 \times 2.6(\text{Bulk Density}) = 16,484 \text{ Tons}$
No of Holes	= 22 Holes
Yield	= 55 Tons
Powder factor	= 5 Tons/Kg of explosives
Total explosive required	= 11 Kg-Slurry explosives
Charge/hole	= 0.5 Kg
Blasting at day time only	= 1.00-1.30 P.M. (whenever required)

v) Storage of explosives

The Applicant is advised to store the explosives as per the Indian Explosives Act, 1958 and the Explosive Rules, 1983. Necessary permissions should be obtained from the Joint Controller of Explosives to store and uses of explosives in the quarry in the magazine

permit under Form -23 or Agreement shall be made with holder of Form-22 who can supply and fire explosives as per safety practices. However, blasting in the quarry shall be done as per MMR 1961 under the supervision of Mines Blasting certificate holder appointed under Reg160 of Metalliferous Mines Regulations, 1961.

2.7 Land Use Pattern of the Core Zone

The proposed area is flat terrain, composed of gravel with elevation about 391m above mean sea level. The table indicating the area put on use at start of plan and additional requirement during plan period for calculation of net area and the area considered for reclamation has given below.

Table No 2.8: Computation of present and proposed land use pattern

S. No	Head	Area put on use at start of plan (Ha) (Present)	Are required during the first five year of plan (Ha)	Total Area used at the end of plan (Ha)
i)	Area under quarry	0.74.8	0.74.8	0.74.8
ii)	Site Services	Nil	0.01.0	0.01.0
iii)	Road	0.01.0	0.02.0	0.02.0
iv)	Greenbelt	Nil	0.08.2	0.08.2
v)	Utilized Area	0.15.2	0.05.0	0.05.0
Total		0.91.0	0.91.0	0.91.0

2.8 ESTIMATION OF RESERVES

a) GEOLOGICAL RESOURCES

The Geological Resources of Rough Stone and Gravel are calculated upto a depth 41m [1m Gravel + 10m Weathered formation 30m Rough stone] below ground level. The total geological resources are estimated after depleting the existing pit and the inferred resources are given table below:

Table No. 2.9: Computation of Geological Resources and Reserves

SECTION	Bench	L (m)	W(m)	D(m)	Geological Resources	Gravel(m ³)	Weathered information
XY -AB	i	0.5	6	1	-	3	-
	ii	0.5	6	5	-	-	15
	iii	0.5	6	1	-	-	3
		8.5	6	4	204	-	-
	iv	8.5	6	4	204	-	-
		8.5	14	1	119	-	-
	v	8.5	14	4	476	-	-

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		8.5	21	1	178.5	-	-
	vi	8.5	21	1	178.5	-	-
		19	21	3	1197	-	-
		68	82	1	5576	-	-
	vii	68	82	5	27880	-	-
	viii	68	82	5	27880	-	-
	ix	68	82	5	27880	-	-
	TOTAL				91773	3	18
XX-CD	i	6	7	1	-	42	-
	ii	6	7	5	-	-	210
	iii	6	7	5	-	-	210
	iv	6	7	4	168	-	-
		18	30	1	540	-	--
	v	18	30	4	2160	-	-
		39	83	1	3237	-	-
	vi	39	83	5	16185	-	-
	vii	39	83	5	16185	-	-
	viii	39	83	5	16185	-	-
Total					54660	42	420
Grand total					146433	45	438

The Geological Resources of Gravel : **45m³**
The Geological Resources of Weathered formation : **438m³**
The Geological Resources of Rough Stone : **1,46,433m³**

Geological Resources has been computed based on the physical investigation and filed survey data.

b) ESTIMATION OF MINEABLE RESERVES:

The mineable reserves are calculated after leaving the safety distances and benches.
Details of estimation of mineable reserves are given in table 2.10

Table No. 2.10: Computation of Mineable/Recoverable Reserves

SECTION	BENCH	L (m)	W (m)	D (m)	Volume (m ³)
XY-AB	vi	48	50	1	2400
	vii	43	40	5	8600
	viii	38	30	5	5700
	ix	33	20	5	3300
Total					20000
XY-CD	v	20	52	1	1040
	vi	15	42	5	3150
	vii	10	32	5	1600
	viii	5	22	5	550

Total	6340
Grand total	26340

The mineable reserves have been computed as 26,340m³ of Rough Stone at the rate of 100% recovery for a period of five years upto a depth of 41m below ground level. The Gravel was already removed in previous quarry operation.

2.9 Year Wise Production and Development

Table No: 2.11. Computation of year wise production and development

YEARS	Section	Bench	L(m)	W(m)	D(m)	Recoverable reserves Rough Stone (m ³)
I	XY-AB	Vi	30	50	1	1500
		Vii	20	40	5	4000
	Total					5500
II	XY-AB	Vi	18	50	1	900
		Vii	23	40	5	4600
	Total					5500
III	XY-CD	V	20	52	1	1040
		Vi	15	42	5	3150
		Vii	10	32	5	1600
		viii	5	22	5	550
	Total					6340
IV	XY-AB	viii	22	30	5	3300
		ix	17	20	5	1700
	Total					5000
V	XY-AB	Viii	16	30	5	2400
		ix	16	20	5	1600
Total						4000
Grand Total						26340

The Recoverable reserves have been computed as 26,340m³ of Rough Stone at 100% recovery for five years up to a depth of 41m below ground level (R.L.378m to R.L.337m) (Refer Plate No. III). The peak production capacity in the quarry is 6,340m³ of Rough Stone on 3rd year and the proposed production schedule is arrived as per applicant's requirement

The applicant ensures the total quantity proposed in the benches will not exceed during the quarrying operation. Besides the rough stone locked up in benches will be exploited after obtaining necessary permission from the office of Director of Mine Safety, Chennai region by submitting relevant documents, appropriate safety plans and its Mitigation measures.

One lorry load	=6m ³ (approx.)
Total No of Working days	= 300 Days per year
Total quantity to be removed during the five years plan period	= 26,340m ³
Peak production capacity during the 3rd year	= 6,340m ³ /6m ³
Hence total Lorry loads per day	= 1,057 Lorry loads
	= 1,057/300 days
Rough Stone	= 3-4 Lorry loads per day

Working hours = 9.00 am to 6.00 pm (with 1.00-2.00 P.M. lunch break)

2.10 Mineral Rejects and Disposal of overburden/ Waste

There is no Waste anticipated during this plan period hence, disposal of waste does not arise. The overburden in the form of Gravel, the Gravel will be directly loaded into Tippers for the filling and leveling of low-lying areas. The excavated rough stone (100%) will be directly loaded into Tippers to the needy customers.

2.11 Conceptual Mining Plan/ Final Mine Closure Plan

Conceptual mining plan is prepared with an object of long-term systematic development of benches, layouts, selection of permanent structures, depth of quarrying and ultimate pit dimensions, selection of sites for construction of infrastructure, etc., The ultimate pit size is designed based on certain practical parameters such as economical depth of mining, safety zones, permissible area, etc., As the applicant has applied quarry lease for five years, the ultimate pit limit (dimension) at the end of this mining plan period is given below.

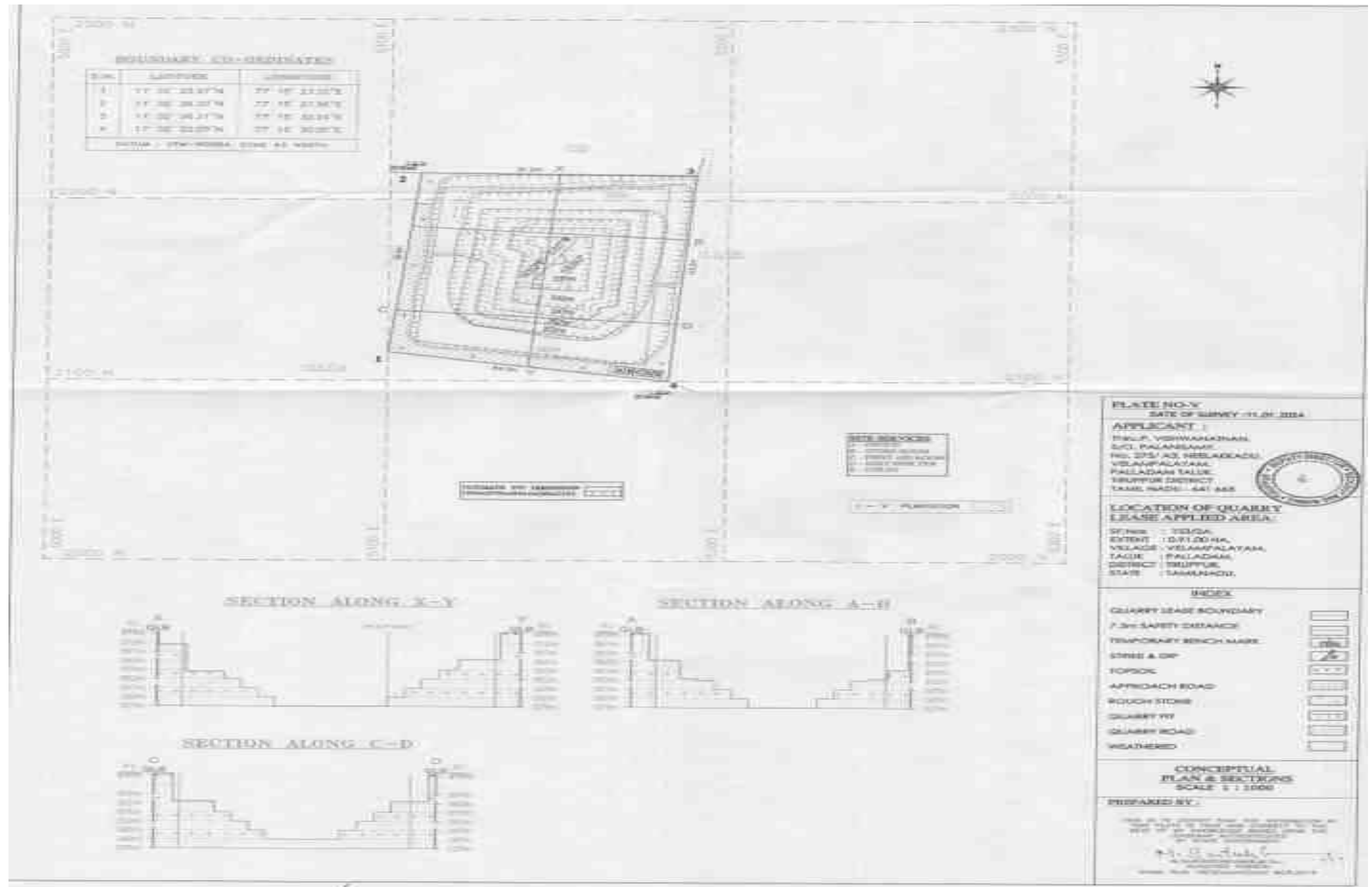
All the base line information studies like Air quality monitoring, Noise and vibration monitoring, Water analysis studies will be carried out every year as per the MoEF & CC Norms. Please refer Plate Nos. III & IV. As per the NGT orders the applicant is directed to plant 500 trees per hectares along the quarry site and in the haul road either at the regular or the phased manner by planting native species.

There is no waste anticipated during the entire life of quarry. Hence, backfilling is not possible in this rough stone quarry. After completion of quarry operation, the quarried-out pit will be allowed to collect the seepage and rainwater and the water storage will be kept as temporary reservoir for charging the nearby wells and the water will be utilized for green belt

development purpose. The quarry area will be fenced with barbed wire fencing also safety bund constructed around the quarry to prevent inadvertent entry of public and cattle (Refer Plate No. IV and V).

2.11.1 Restoration, Reclamation of land affected during mining activities and at the end of (refilling /fencing etc.).

In the mining plan only to a maximum depth of 41m below ground level has been envisaged as workable depth for safe & economic quarrying operation during entire life of quarry. There is no waste generated hence, backfilling is not possible. After completion of quarry operation, the quarried-out pit will be allowed to collect the seepage and rainwater and the water storage will be kept as temporary reservoir for charging the nearby wells and the water will be utilized for green belt development purpose. The quarry area will be fenced with Barbed wire fencing also safety bund constructed around the quarry to prevent inadvertent entry of public and cattle



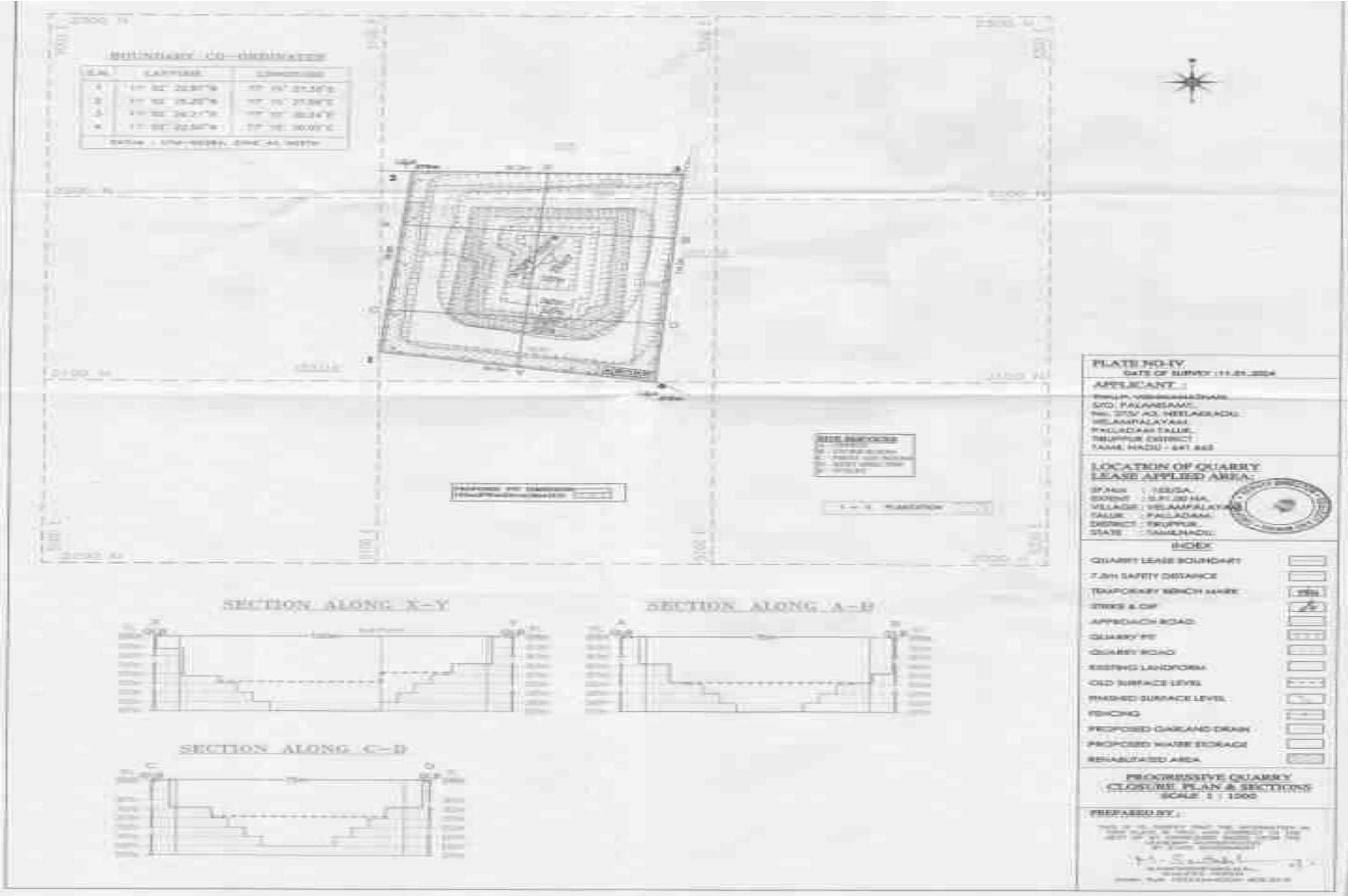


Fig No 2.11 Progressive Mine closure plan and Afforestation

2.12 Employment Potential (Management & Supervisory personal)

Table No 2.12: Employment Potential of Thiru. P. Viswanathan, Rough stone and gravel quarry

Management and supervisory personal	Geologist	1 No
Skilled	Mine foremen	1 No's
	Blaster	1 No
	Excavator- Operator	1 No
	Tipper driver	1 No
	Water sprinkler driver	1 No
	Jackhammer drillers	4 No's
Unskilled	Security	1 No
	Labours & helper	2 No's
	Co-operated & cleaner	2 No's
Total		15 No's

Table No 2.13: Water Requirements (3.5 KLD)

Domestic & Sanitary	Drinking Water- 0.5KLD Domestic Purposes- 1.0KLD
Dust suppression & Green Belt	Green belt purpose -0.8KLD water sprinkling on haul roads – 1.0KLD Wet drilling operation- 0.2KLD
Source	Drinking water - Mineral water industries by water canes. Domestic, Dust suppression and green belt - water tank vendor

2.13 Amenities

2.13.1 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 main rules, 1955 separately for males and Females. Washing facilities shall also be arranged as per rule (36) of the mines Rules, 1955.

2.13.2 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 hospital located in Palladam. The competent and statutory of Foreman / Mate / Permit Manager will be in charge of the First aid.

2.13.3 Labour Health

Periodic medical examination has to be made for occupational health once in a year in addition to attending medical treatment of occupational injuries under Rule 45(A).

2.13.4 Precautionary safety measures to the Labourers

Safety provisions like helmet, goggles, safety belt, safety shoes etc., have to be provided as per the circulars and amendments made for Mine labors under guidance of DGMS.

Necessary training will be conducted once in a year to all the employees with the help of qualified and experienced officers to train about the safe and systematic quarrying operation

2.13.5 The Child labor Employment

As per the Mines Act, 1952, no child labors below 18 years of old were engaged for any work in the quarry.

2.14 Project Cost/operational cost /investment

Proposed financial estimate / budget for (EMP) Environment Management

a) Project cost / investment

i.	Land Cost	Rs. 40,48,000/-
ii.	Machinery to be used	Rs. 10,00,000/-
iii.	Fencing of the lease area	Rs. 1,20,000/-
iv.	Laborers Shed	Rs. 3,00,000/-
v.	sanitary facility	Rs. 80,000/-
vi.	first aid & room accessories	Rs. 50,000/-
vii.	drinking water facilities	Rs. 1,00,000/-
viii.	sanitary arrangements	Rs. 50,000/-
ix.	safety kit	Rs. 50,000/-
x.	water sprinkling	Rs. 1,00,000/-
xi.	Garland	Rs. 60,000/-
xii.	green belt etc,	Rs. 90,000/-
Total cost		60,48,000/-

b) EMP Cost (per year)

1	Air quality monitoring	Rs. 52,000/-
2	Water quality sampling	Rs. 18,000/-
3	Noise monitoring	Rs. 2,000/-
4	Ground vibration	Rs. 4,000/-
Total cost		Rs. 76,000/-
Total EMP Cost For the five-Year period is Rs. 3,80,000/-		
	Description	Amount (Rs.)
	A. Operational Cost	Rs. 60,48,000/-
	B. EMP Cost	Rs. 3,80,000/-
	Total project cost (A+B)	Rs. 64,28,000/-
	The applicant Indents to involve corporate environment	

	responsibilities (CER) activity like Water Purifier, Plantation, Books to Library, sanitary facility and as per requirement to the Naduvelampalayam Government School at 2.0% from the total project cost. The Cost would be around Rs.1,29,000/-.	
	If the concerned authority is directed to modify the CER cost and mode of utilization of the cost, the same will be implement by the applicant.	Rs. 1,29,000/-
	Total cost	Rs.65,57,000/-

2.15 End Use

The excavated rough stone is used for building's basement stones and other infrastructure development work in and around the district.

CHAPTER – 3: DESCRIPTION OF THE ENVIRONMENT

3.1 GENERAL

Collection of baseline environmental data of the project influenced area helps to predict the magnitude of impacts that are likely to be caused due to proposed activity of project. It also helps to identify critical environmental attributes required to be monitored during and after the proposed improvements. The baseline status of the project on environment is described section wise for better understanding of the broad-spectrum conditions. The baseline environment quality represents the background environment scenario of various environment components such as Land, Water, Air, Noise, Biological and Socio-economic status of the study area. Field monitoring studies to evaluate the base line status of the project site were carried out covering March 2025 – May 2025 with CPCB guidelines. Environmental data has been collected with reference to proposed rough stone and gravel quarry for:

- ❖ Land
- ❖ Water
- ❖ Air
- ❖ Noise
- ❖ Biological
- ❖ Socio-economic status

3.2 STUDY AREA

Exploitation of mineral resources from the land through mining causes Environmental and ecological instability, severe land degradation besides biological physical and socio-economic imbalance. The impact of the mining activities can be quantified through Environmental Impact Assessment Studies within the impact zone. The findings of EIA studies help in preparation of the environmental management plan for mitigating the adverse impacts. For the purpose of studying the baseline status of the environment, core zone and buffer zone are considered for Impact Assessment.

The core area for the purpose comprises mining lease area of 0.91.0 Ha and located in S.F. No. 153/2A, Velampalayam Village, Palladam Taluk, Tiruppur District and Tamil Nadu. Geographical coordinates of the project site are 11° 02' 22.50"N to 11°02'26.21"N and eastern longitude of 77° 15' 27.33"E to 77°15'30.24"E longitude. The buffer zone comprises a 10 km from around the core area. This section contains a description of the existing baseline environmental status of the area surrounding the core zone. The data collected has been used

to define the environmental scenario of the area, against which the potential impacts of the project has been assessed.

3.3 STUDY PERIOD

Collection of base line data is an integral part of the preparation of environmental impact assessment reports. The scope of the study includes preparation of Environmental Impact Assessment study with detailed characterization of various environmental components such as, air, noise, water, land, biological and socio economic and other impacts of mining like hydrogeological disturbances of the area around 10 km radius around the mine located at Velampalayam Village of Tiruppur District, Tamil Nadu. The scope covers all the conditions outlined in the TOR prescribed by SEIAA, Tamil Nadu for this mining project vide TOR Identification No. TO23B0108TN5985133N/File No: 11559 dated 12.01.2025. EIA study was conducted during the period of March 2025 – May 2025 to assess the Impact of this project to the environment and society.

3.4. BASELINE ENVIRONMENT

3.4.1. Scope of Baseline Data Collection

The scope of baseline data collection with respect to project activity covers the following environmental components.

- **Site Meteorology:** Collection of micro meteorological data on wind speed, Wind direction, temperature, relative humidity and solar radiation on hourly basis continuously during the study period.
- **Ambient Air Quality:** Collection of AAQ data at five locations for PM₁₀, PM_{2.5}, SO_x and NO_x.
- **Noise Environment:** Collection of noise levels at five locations on hourly basis to compute the day equivalent and night equivalent.
- **Water Environment:** Collection of water samples from various sources in and around mine site within 10 km radius were collected for assessment of the existing physico-chemical and bacteriological quality.
- **Land Environment:**
 - ❖ **Soil quality:** Collection of soil samples from five locations within 10 km radius of in site for analysis of the Physico-chemical characteristics.
 - ❖ **Land use and land cover:** Assessment of land use and land cover pattern of the study area through Remote sensing technique.
 - ❖ **Hydrology:** Collection of information on surface water bodies is to assess the interference with project activities.

- ❖ **Hydro Geology:** Collection of information on ground water status (Quality, quantity and ground water table) is to assess impact of mining on subsurface water bodies.
- **Ecology and Biodiversity:** Collection of primary data to understand baseline ecological status, important floristic and faunal elements, sensitive habitat and rare species; from field observation; collection of data from local village about importance and status of plants and animals. Compare the data so generated with authentic past records to understand changes with respect to proposed project; Identification of sensitive locations or protected as per Wildlife Conservation and Protection Act, 1972.
- **Socio-economic Environment:** Collection of details of the project affected persons does draw Rehabilitation & Resettlement. Collection of socio-economic status of various villages and amenities exists within an area of 10 km around the project area.

3.5 METEOROLOGY

Meteorology is the important characteristics in assessing the diffusion pattern of air pollutants released into atmosphere. Meteorological characteristic plays a vital role in assessing possible environment impacts and in preparing environmental management plan. Since meteorological factors show wide fluctuations with time, meaningful interpretation can be drawn from long-term reliable data. Such source of data is India Meteorological Department (IMD), which maintains a network of meteorological stations at important locations. The nearest IMD station for this proposed site is located at Tiruppur district.

3.5.1 Regional Meteorology

The Tiruppur district receives rainfall during NE monsoon, SW monsoon, summer and winter. The normal annual rainfall varies from 712 mm per year. Tiruppur has a tropical climate. The summers are much rainier than the winters in Tiruppur. The driest month is January, with 0.2 in of rainfall.

The rest of the district lies in the rain shadow region of the Western Ghats and experiences decent climate throughout the year, except the central and northern parts of the district. However, the eastern part of the district also having a meaningful rainfall and hood climate. The temperature ranges from 23.5°C to 33°C in plains and in hilly terrain of the district experiencing a maximum of 22°C in summer and a minimum of 10°C during winter.

3.5.2 Meteorological Data Recorded at IMD Station, Tiruppur District

The meteorological parameters were recorded on hourly basis during the study period for parameters like rainfall, wind speed, wind direction and temperature. In the present study,

in the month of March 2025 to May 202 meteorological data has been taken to find the dispersion of pollutant concentration. Wind-rose diagram for the study period is shown given below in fig 3.1.

Table No 3.1: Summary of the Meteorological data for the study period

S. No	Month	Temperature (°C)		Rainfall (mm)	Humidity (%)	Avg. wind speed (mps)
		Max	Min			
1	March, 2025	34.2	24.3	114	64.4	2.4
2	April, 2025	32.7	20.5		63.2	2.2
3	May, 2025	35.3	22.8		58.6	2.0

In the present study, in the month of March 2025 to May 2025 meteorological data has been taken to find the dispersion of pollutant concentration. Wind-rose diagram for the study period is given below in fig 3.1.

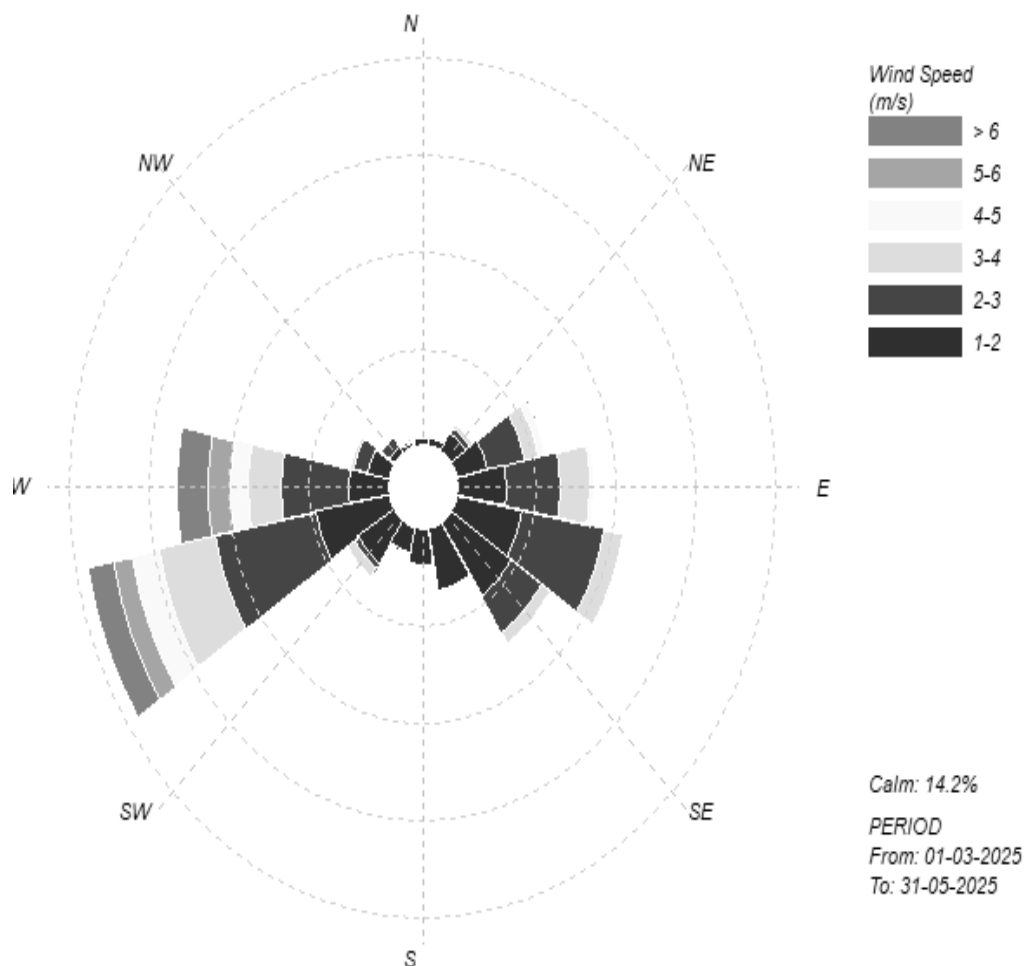


Fig No 3.1 Wind Rose Pattern

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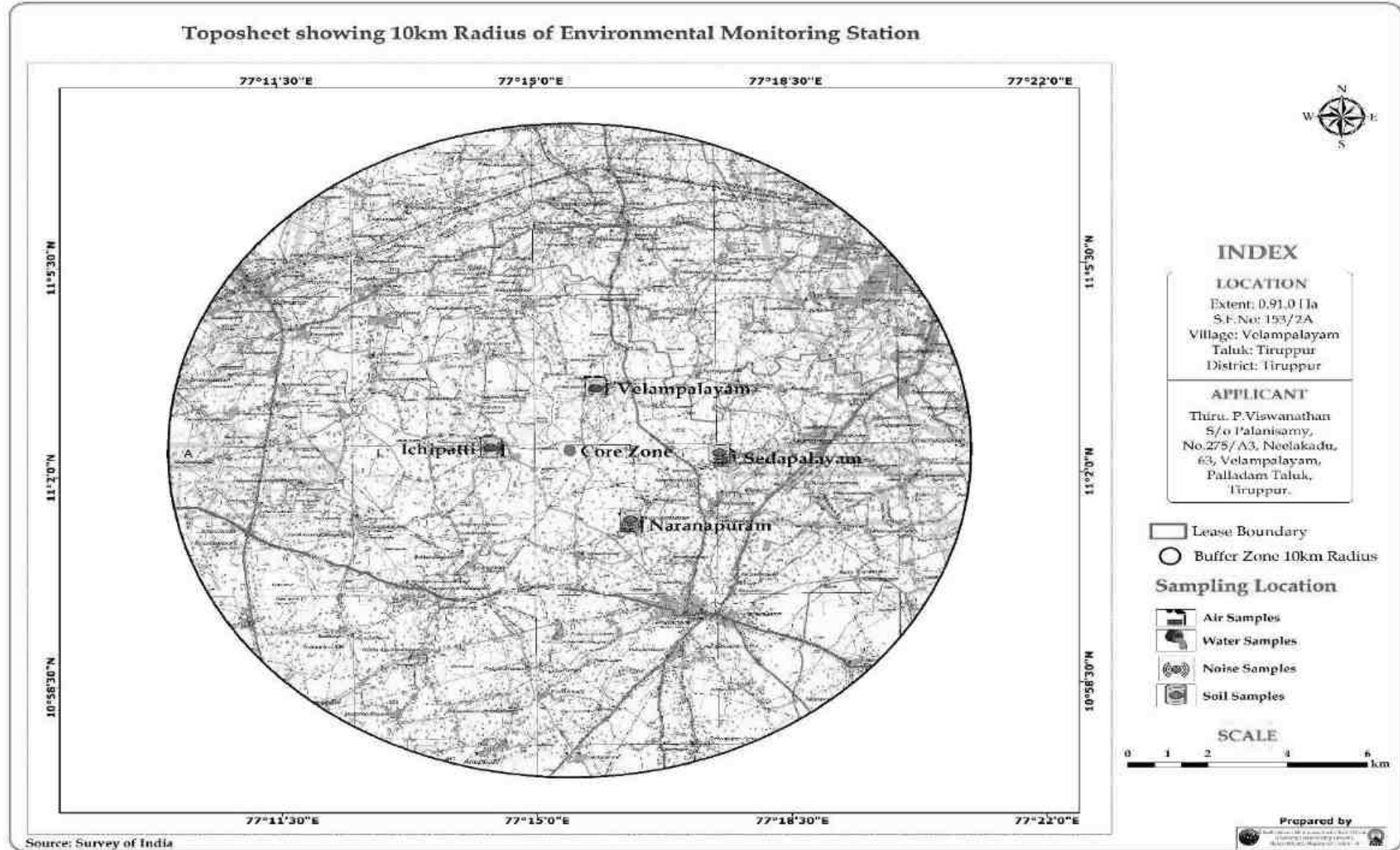


Fig No 3.2 Geo-Referenced Toposheet showing 10km radius of Environmental Monitoring Stations

3.6 AIR ENVIRONMENT

To assess the existing air quality of the study area, the baseline air quality was carried out. This will also be useful for assessing the standards of the ambient air quality of the proposed project after the operation.

3.6.1 Ambient Air Monitoring

3.6.1.1 Selection of sampling location

To assess the ambient air quality, monitoring was carried out on monthly basis in the surrounding areas of the project site. Air quality survey has been conducted for assessing the ambient air quality of the study area at 5 locations over a period of summer season i.e. March 2025 to May 2025. Major air pollutants viz, Particulate matter (PM₁₀ & PM_{2.5}), Sulphur Dioxide (SO_x) and Nitrogen Dioxide (NO_x) represents the basic air pollutants in the region for Ambient Air Quality Monitoring (AAQM). The ambient air quality monitoring stations are given in table 3.2.

Table No 3.2: Ambient Air Quality Monitoring Stations

Sampling Code	Location	Latitude (N)	Longitude (E)	Distance (km)	Direction
AAQ1	Lease area	11°2'23.17"	77°15'30.24"	--	--
AAQ2	Velampalayam	11° 3'29.39	77°15'51.11	2.1	NE
AAQ3	Sedapalayam	11° 2'17.08	77°17'35.65	3.8	E
AAQ4	Ichipatti	11° 2'28.79	77°14'24.59	2	W
AAQ5	Naranapuram	11° 1'12.39	77°16'19.02	2.6	SE

3.6.1.2 Parameters and Monitoring Methodology

Ambient air quality monitoring was conducted over 3 months i.e. from March 2025 to May 2025 at a frequency of twice a week at each station adopting a 24-hours schedule. The sampling equipment was placed at a height of 3 to 3.5 meters above ground level at each monitoring station, thus negating the effects of wind blow ground dust. Ambient Air quality monitoring was conducted in respect of the following parameters:

- ❑ Particulate Matter (PM₁₀)
- ❑ Particulate Matter (PM_{2.5})
- ❑ Sulphur Dioxide (SO_x)
- ❑ Nitrogen Dioxide (NO_x)

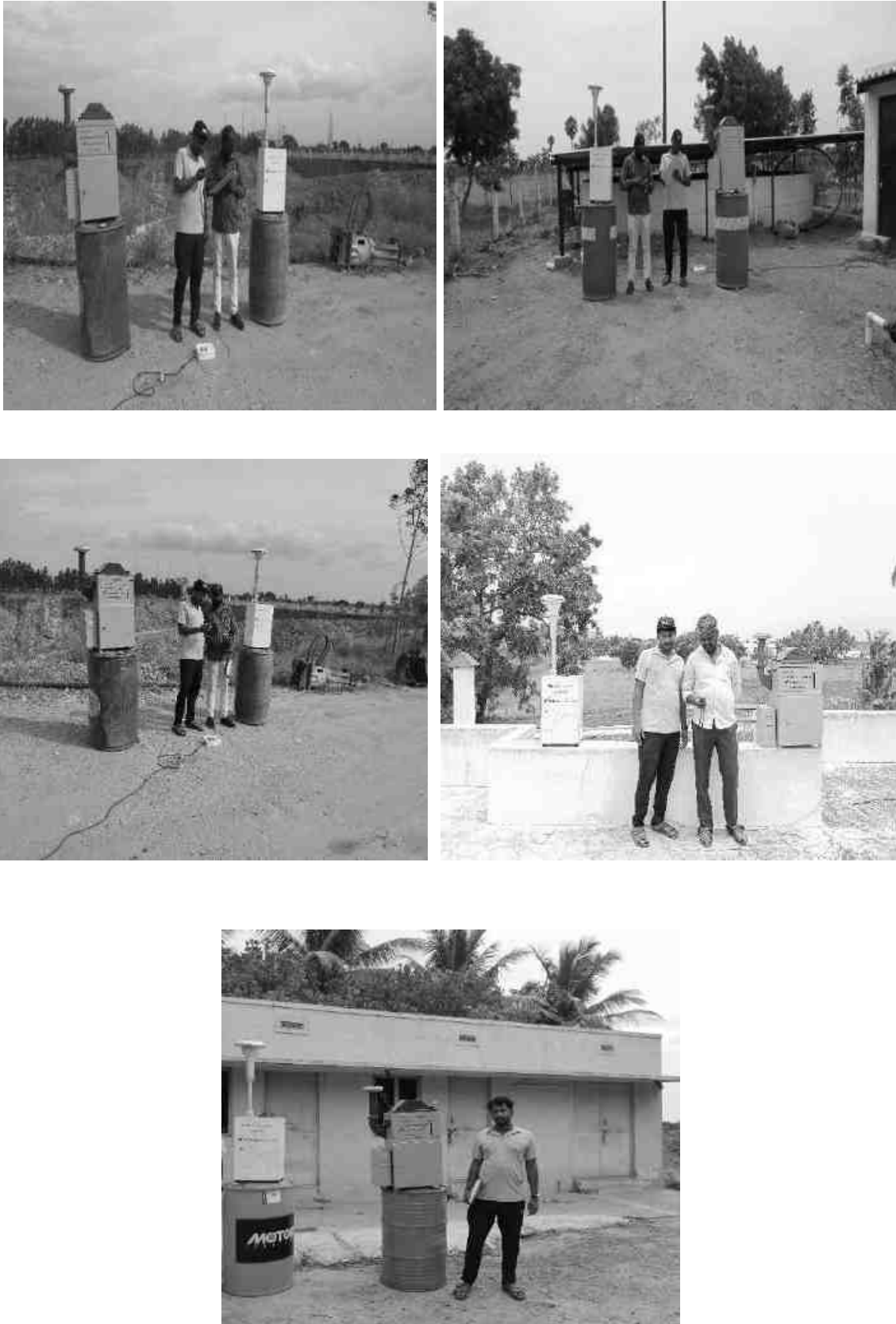


Fig No 3.3: Air Sampling at Core and Buffer Zone

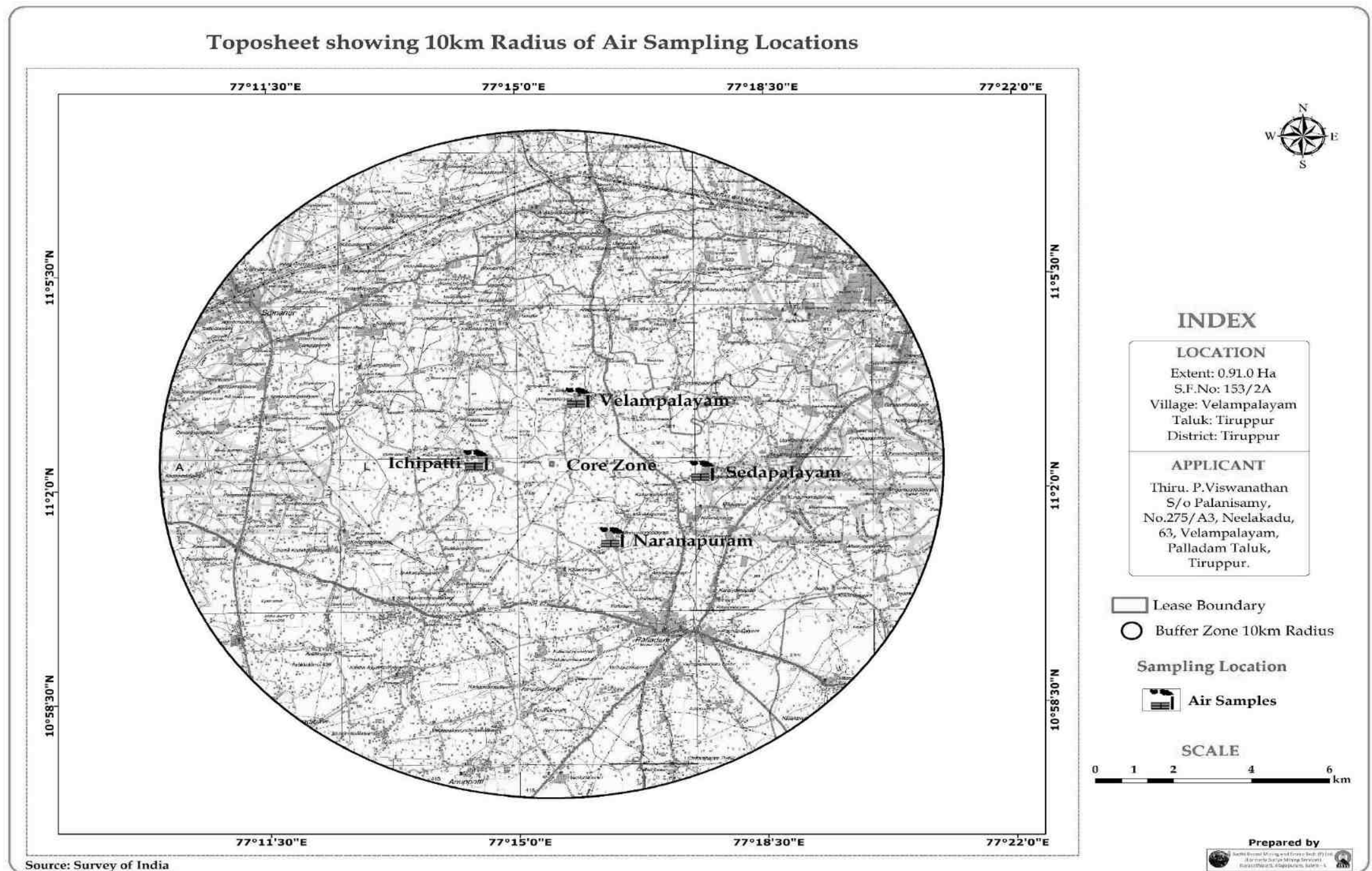
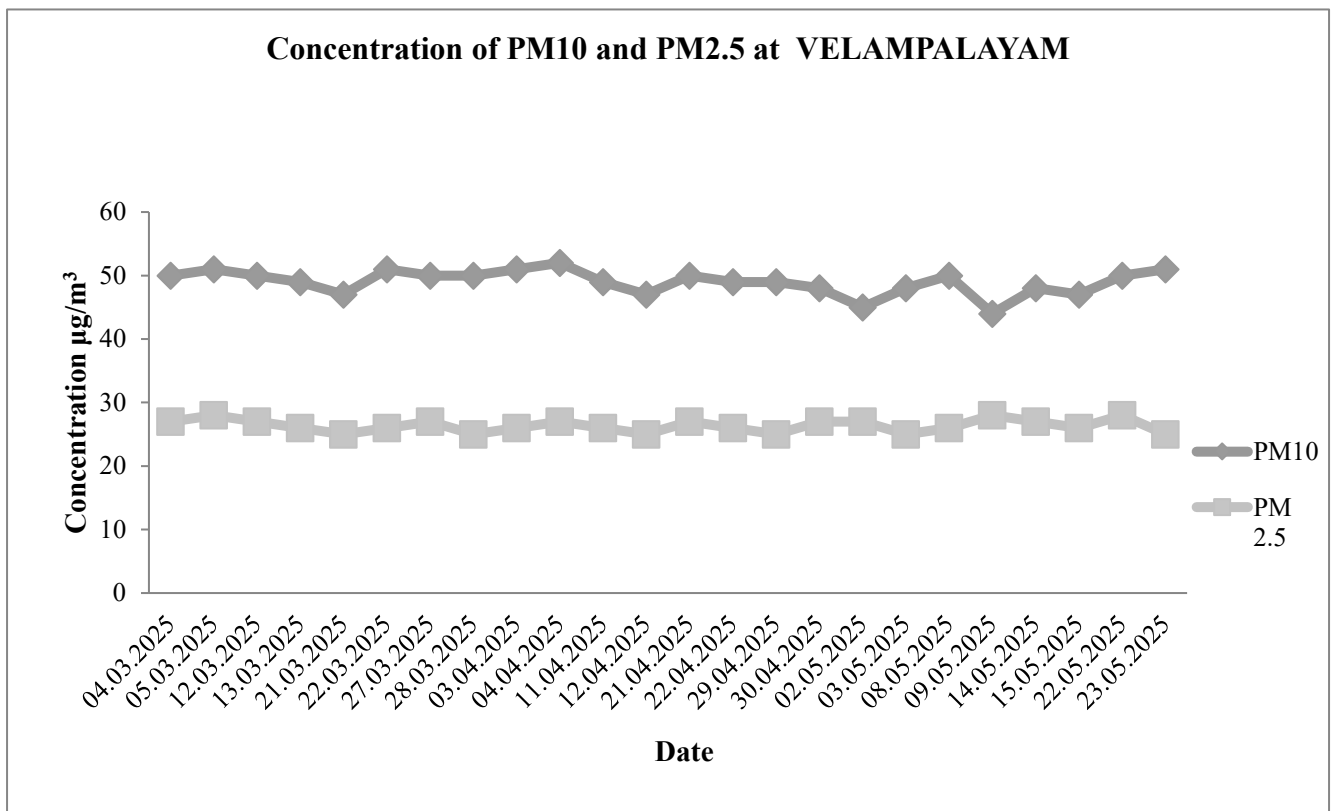
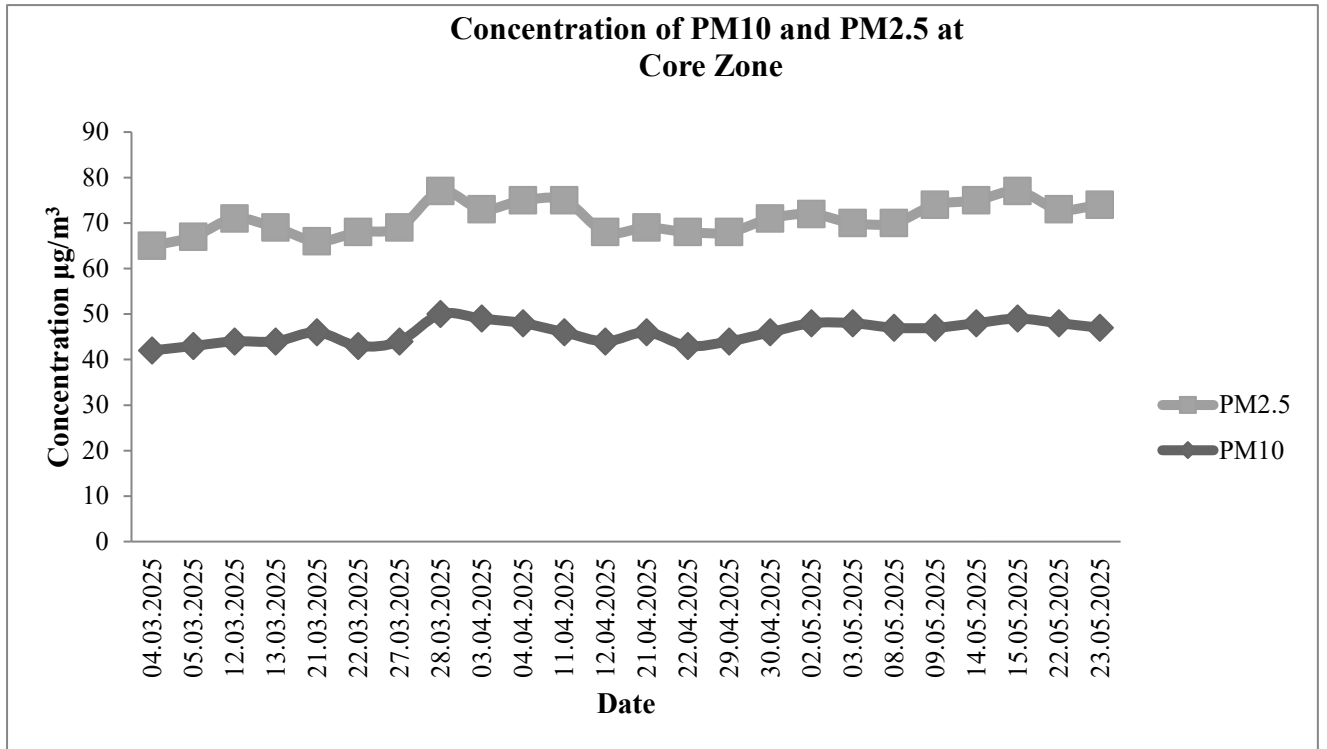


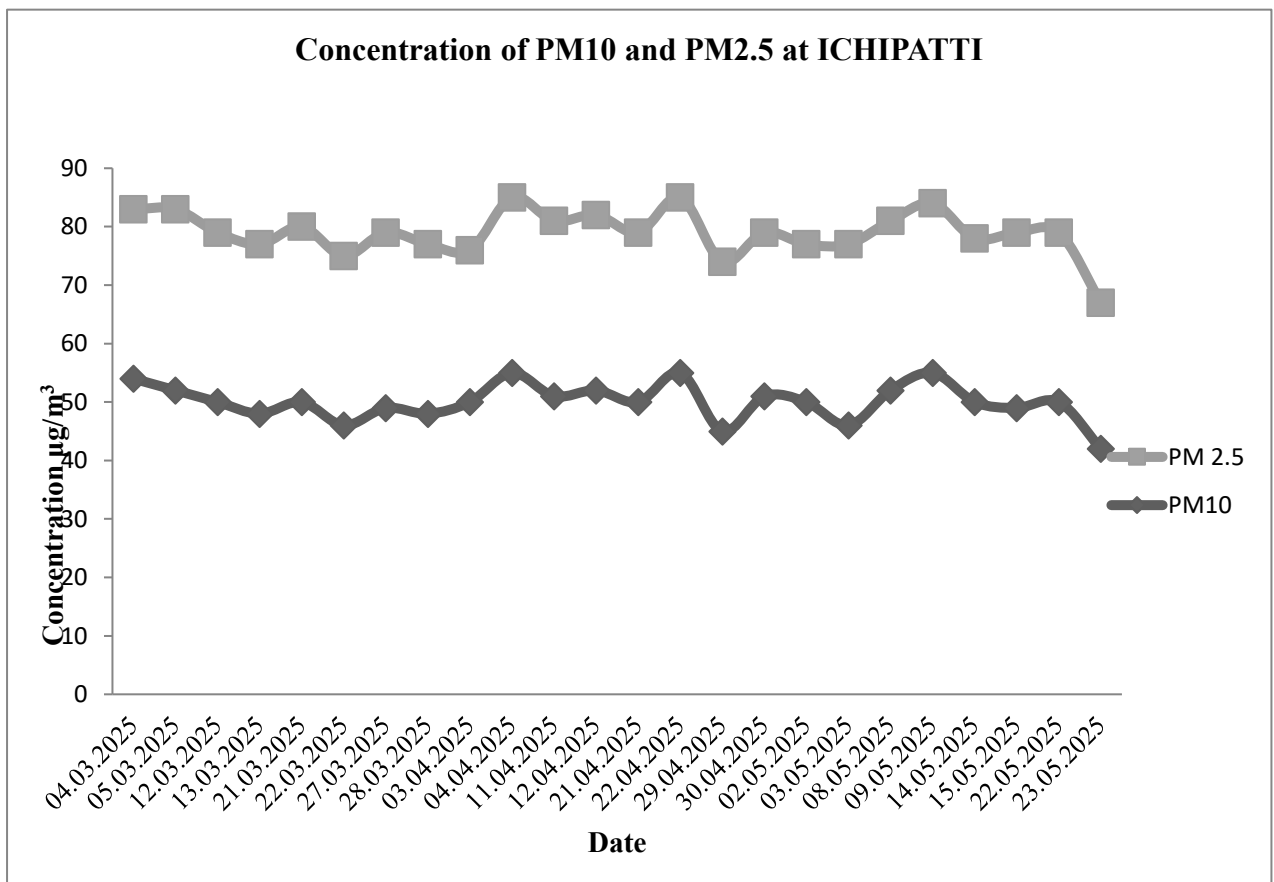
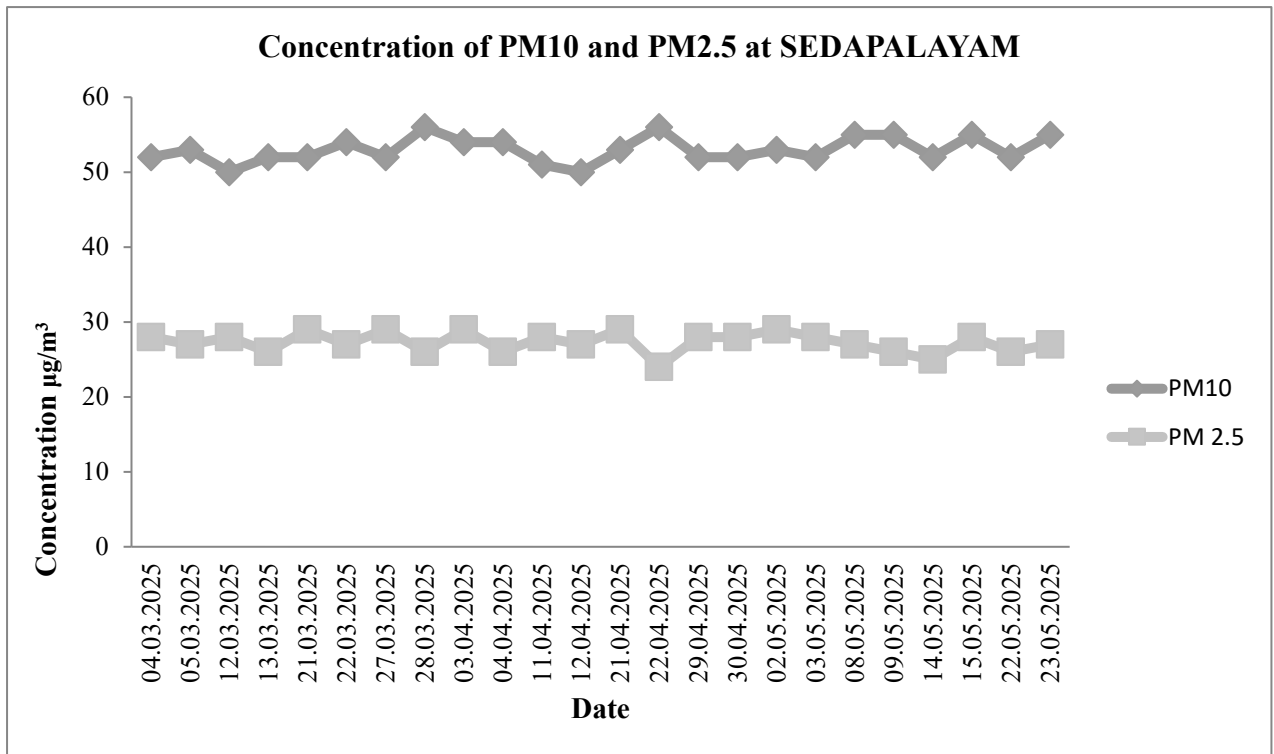
Fig No 3.4: Geo referenced Toposheet showing air sampling location

3.6.2 Monitoring Result

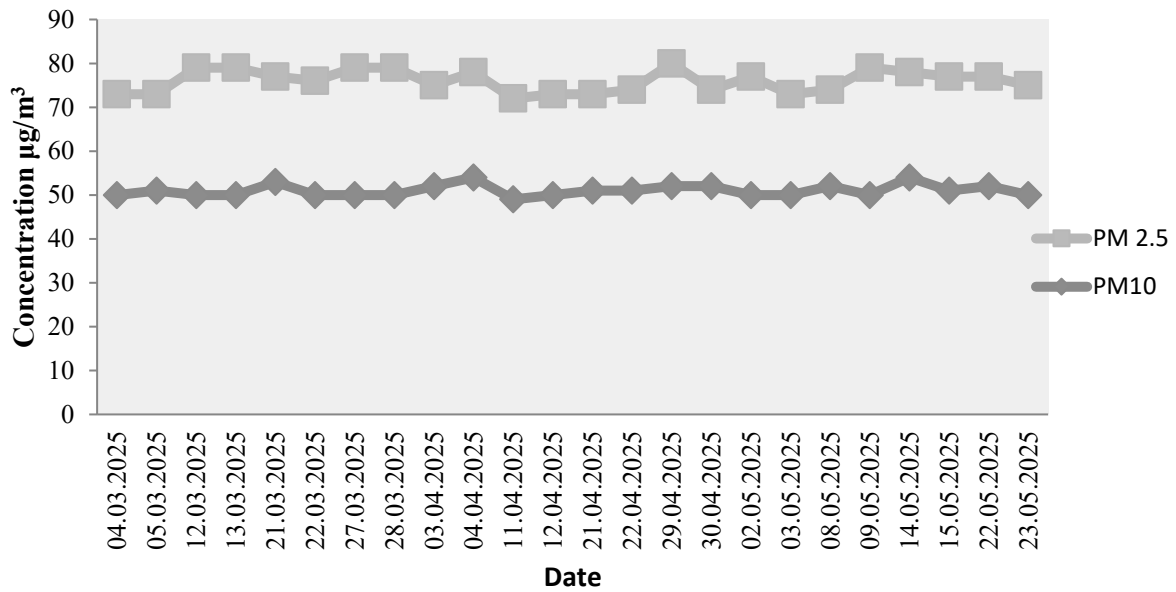
Statistical Analysis of Ambient Air Quality in the study area for the monitoring period are shown parameter wise in table 3.3.

SAMPLING SITE		PARAMETERS															
		PM ₁₀ (µg/m ³)				PM _{2.5} (µg/m ³)				SO _x (µg/m ³)				NO _x (µg/m ³)			
		Minimum	Maximum	Average	98%	Minimum	Maximum	Average	98%	Minimum	Maximum	Average	98%	Minimum	Maximum	Average	98%
Lease Area		36	50	46	49.54	17	30	25	28.54	9	19	14	18	14	30	20	25
Buffer Zone	Velampalayam	39	53	49	51.54	18	29	26	28	9	19	15	18	17	32	27	30
	Sedapalayam	44	57	53	56	18	30	27	29	7	17	13	15	11	25	21	23
	Ichipatti	42	57	50	55	15	32	29	31	11	22	15	19	14	30	24	29
	Naranapuram	44	54	51	54	15	30	25	29	9	17	12	15	12	25	23	24
	NAAQS	100				60				80				80			

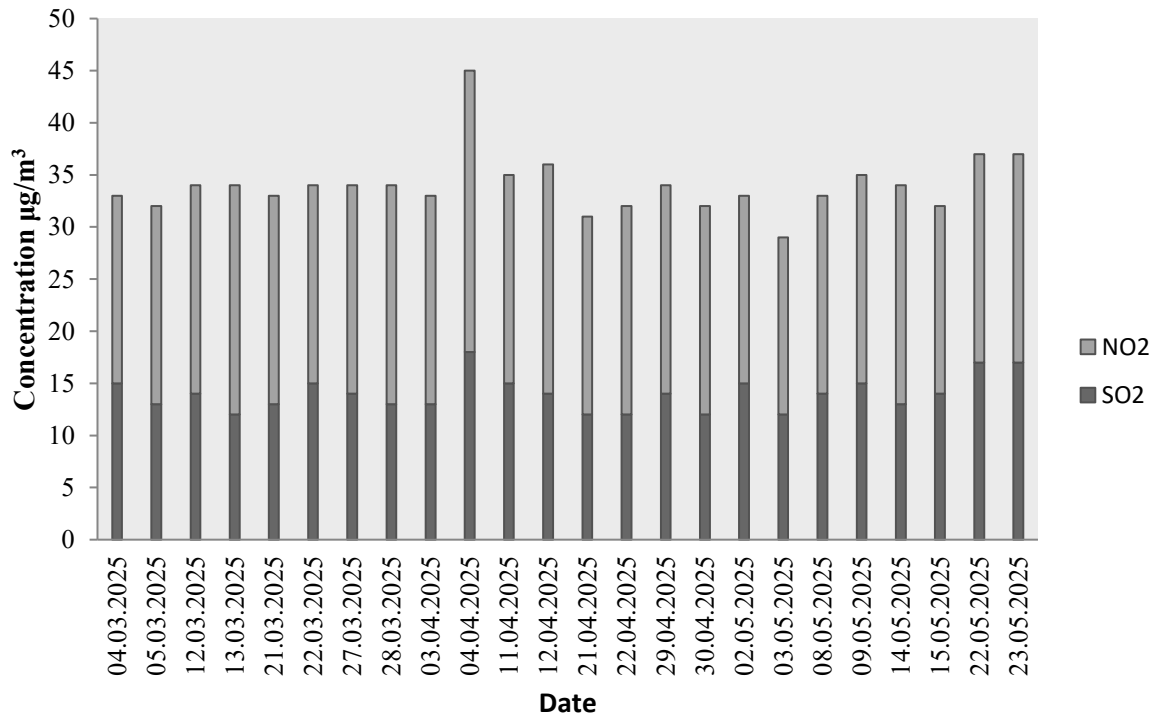


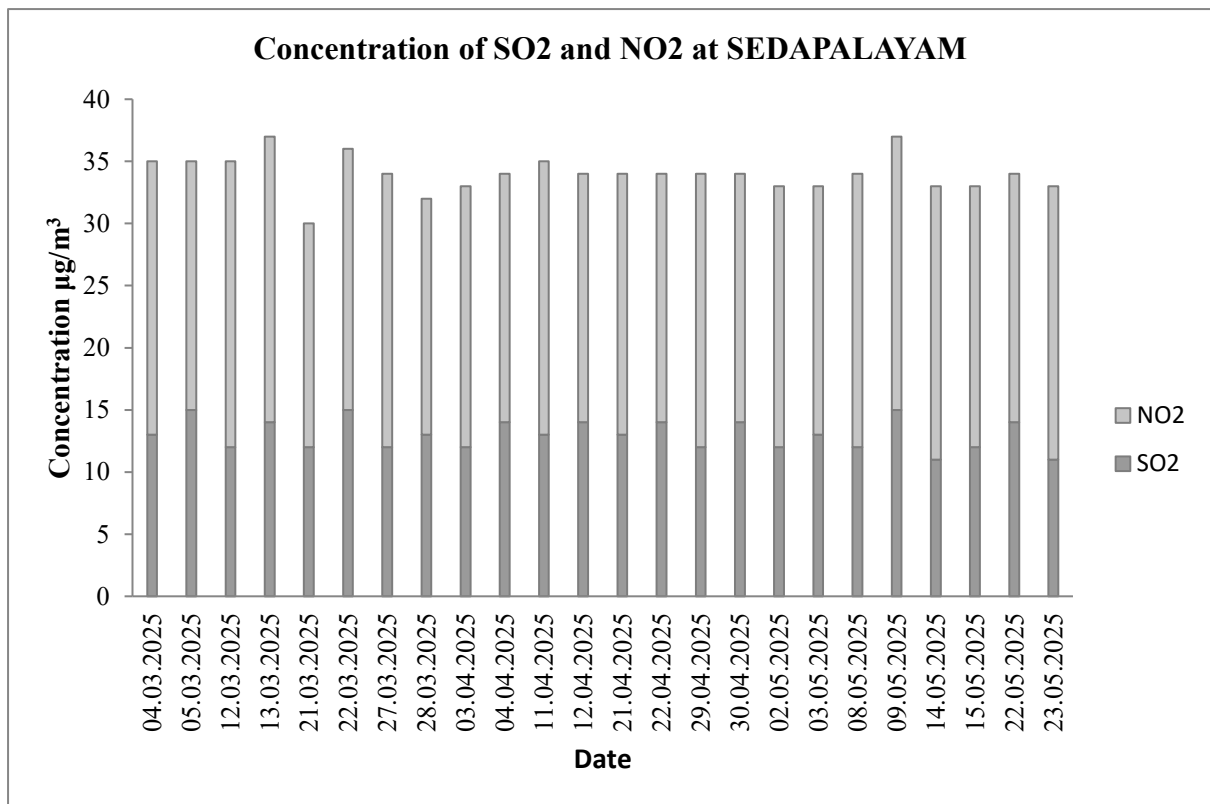
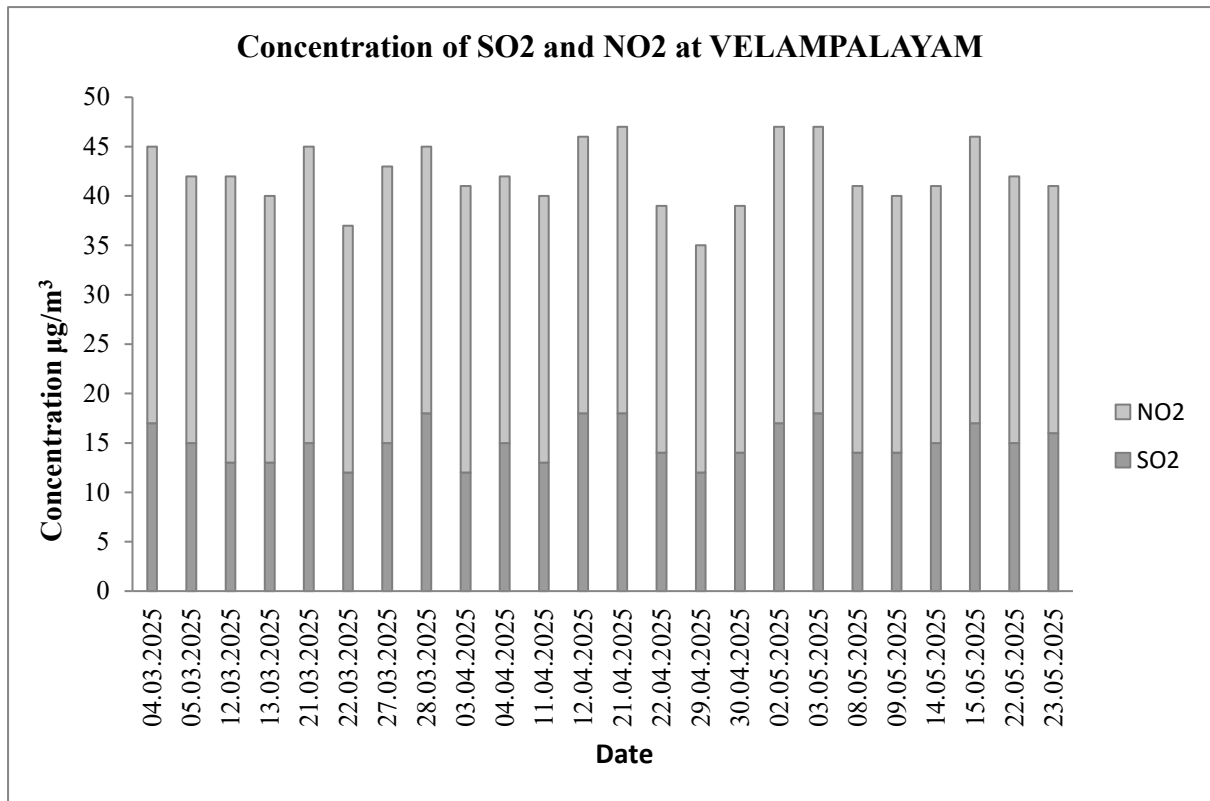


Concentration of PM10 and PM2.5 at NARANAPURAM



Concentration of SO2 and NO2 at core zone





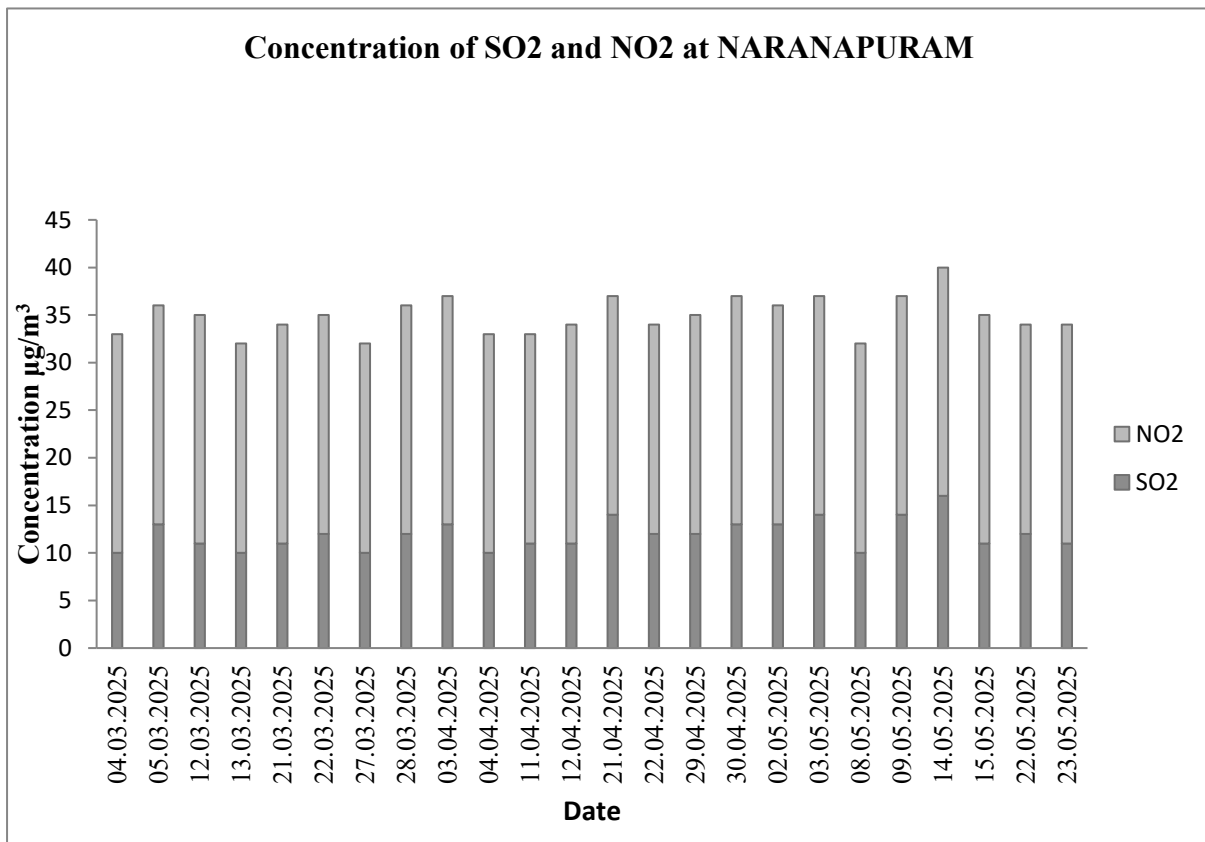
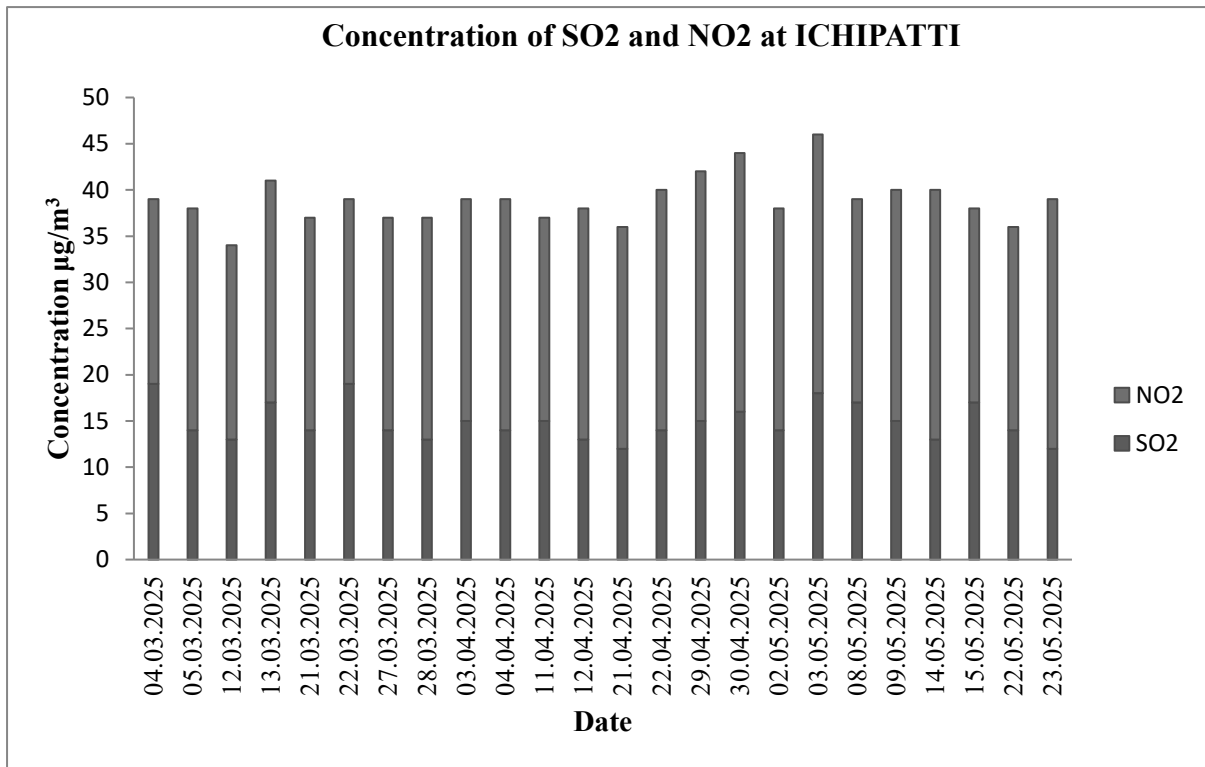


Fig No 3.5: Air quality analysis of Core and Buffer Zone

3.6.3 Observation

Air pollution has a negative impact on environmental quality and global climate change, which requires almost every country to make policies to improve air quality. The primary statistical analysis was performed with respect to the parameter such as PM₁₀, PM_{2.5}, SO_x and NO_x. The study area PM_{2.5} range was about 17 to 30 µg/m³, with an average value of 28.54 µg/m³ in lease area. Other four station minimum and maximum value on 15 to 32 µg/m³ at Ichipatti with an average value of 26 to 29 µg/m³ during the study period. Further discussed PM₁₀ was observed in five station minimum and maximum of 36 to 57 µg/m³, with an average value 46 µg/m³ in lease area and other station maximum concentration was noticed on 57 µg/m³ in Sedapalayam and Ichipatti, minimum was observed in 36 µg/m³ at lease area.

In this study area SO₂ minimum and maximum concentration was 9 to 19 µg/m³, with an average value of 14 µg/m³ at lease area during the study period. Other sampling station minimum and maximum concentration of 7 to 22 µg/m³ at Sedapalayam and Velampalayam village, with an average value of 12 to 15 µg/m³ with the same. NO₂ concentration of the during the study period minimum and maximum of 14 to 30 µg/m³ with an average value of 20 µg/m³ was noticed in the lease area. Further four station air sample minimum and maximum concentration was observed in 11 to 32 µg/m³ at Sedapalayam and Velampalayam village, with an average value of 21 to 27 µg/m³ at Sedapalayam and Velampalayam village. Based on comparison study of results with NAAQS for monitored parameters, it is interpreted that ambient air quality of the monitored locations can be considered good as all the results of tested parameters are well within the limits of NAAQS prescribed by CPCB.

3.7 NOISE ENVIRONMENT

A preliminary reconnaissance was undertaken for identification and evaluation of the present noise status on the general population. Therefore, noise level measurement was carried out at each ambient air quality station and also at site. The objectives of Noise environment studies are:

- To assess the ambient noise level in the study area.
- To characterize the noise pollution area.
- To predict the temporal changes in the ambient noise level of the area.

The baseline noise levels were taken to assess the Impact of Noise on the workers in the mine site and on the nearby settlements due to mining machineries, movements of vehicles etc. Ten locations were identified based on the activities in the study area in dB (A)

scale. Georeferenced top map showing location of noise sampling is given in the fig 3.7. The noise recording stations are shown below in table 3.4 and fig 3.6.

Table No 3.4: Noise Monitoring Stations

Sl. No	Location	Station code	Distance (km)	Direction
1	Lease area	N1	--	--
	Lease boundary pillar (North)	N2	0.1	N
	Lease boundary pillar (South)	N3	0.1	S
	Lease boundary pillar (East)	N4	0.1	E
	Lease boundary pillar (West)	N5	0.1	W
2	Velampalayam	N6	2.1	NE
3	Sedapalayam	N7	3.8	E
4	Ichipatti	N8	2.0	W
5	Naranapuram	N9	2.6	S

3.7.1. Method of Monitoring

Sound Pressure Level (SPL) was measured at nine locations; one reading per hour was taken for 24 hours. The day time noise levels were monitored during 6 am to 10 pm and night time levels during 10 pm to 6 am at all the monitoring locations within the study area. Noise monitoring location of core and buffer zone are given in the fig 3.8.





Fig No.3.6: Noise Sampling at Core and Buffer Zone

For each location, day and night time Leq values have then been computed from the hourly Leq values such that comparison could be made with the national ambient noise standards.

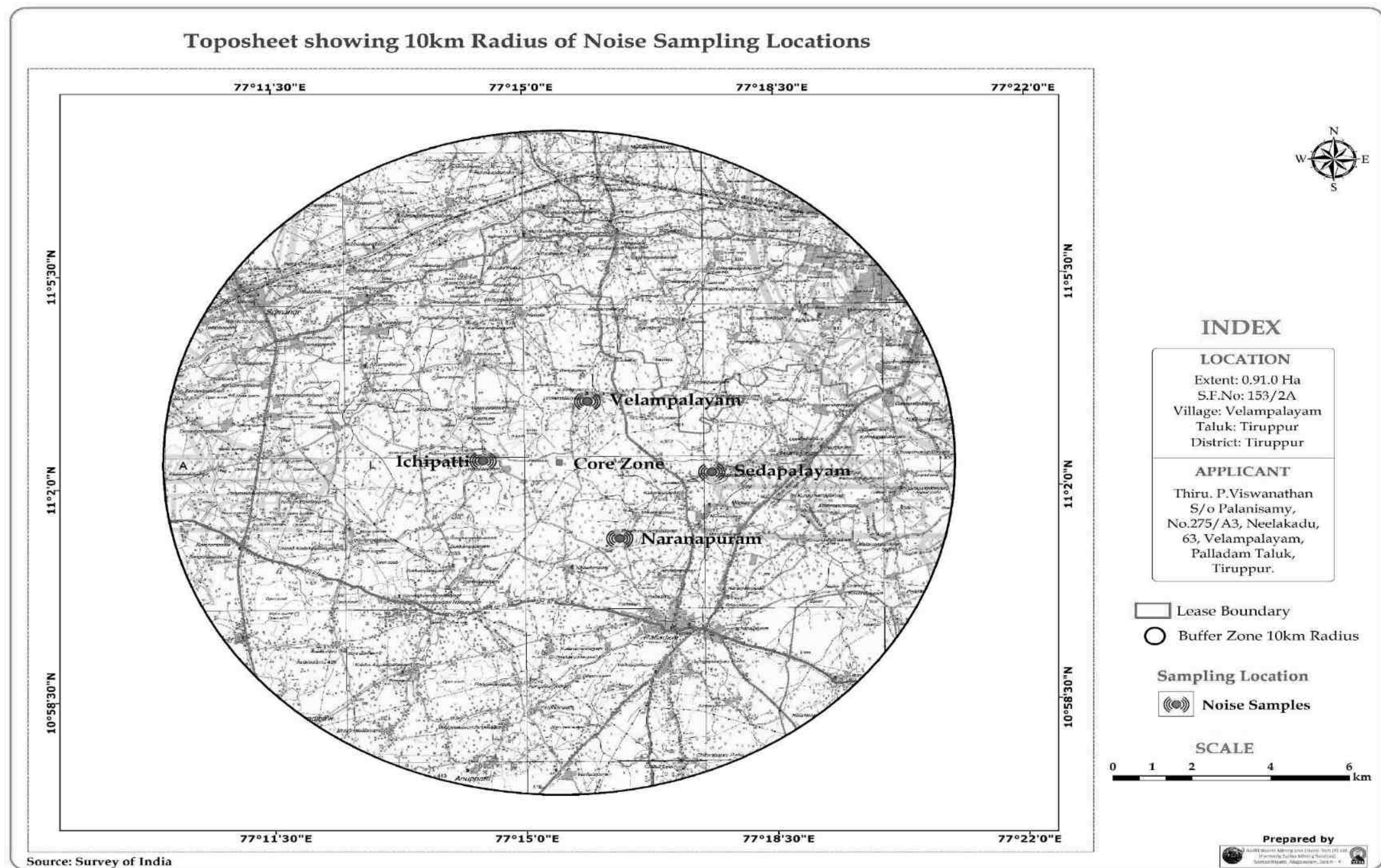


Fig No 3.7: Georeferenced Toposheet showing Noise sampling locations

Table No 3.5: Summary of Ambient Noise Level during study period

Sample code	Location	Decibel dB (A)		TNPCB Standards
		Day Time	Night Time	
N1	Lease area	40.1	36.2	Industrial – 75 dB(A)
N2	Lease boundary pillar (North)	38.9	35.2	
N3	Lease boundary pillar (South)	36.8	32.5	
N4	Lease boundary pillar (East)	37.4	32.7	Residential – 55 dB(A)
N5	Lease boundary pillar (West)	38.4	33.8	
N6	Velampalayam	36.4	32.6	
N7	Sedapalayam	39.2	37.1	
N8	Ichipatti	38.7	34.6	
N9	Naranapuram	38.5	33.3	

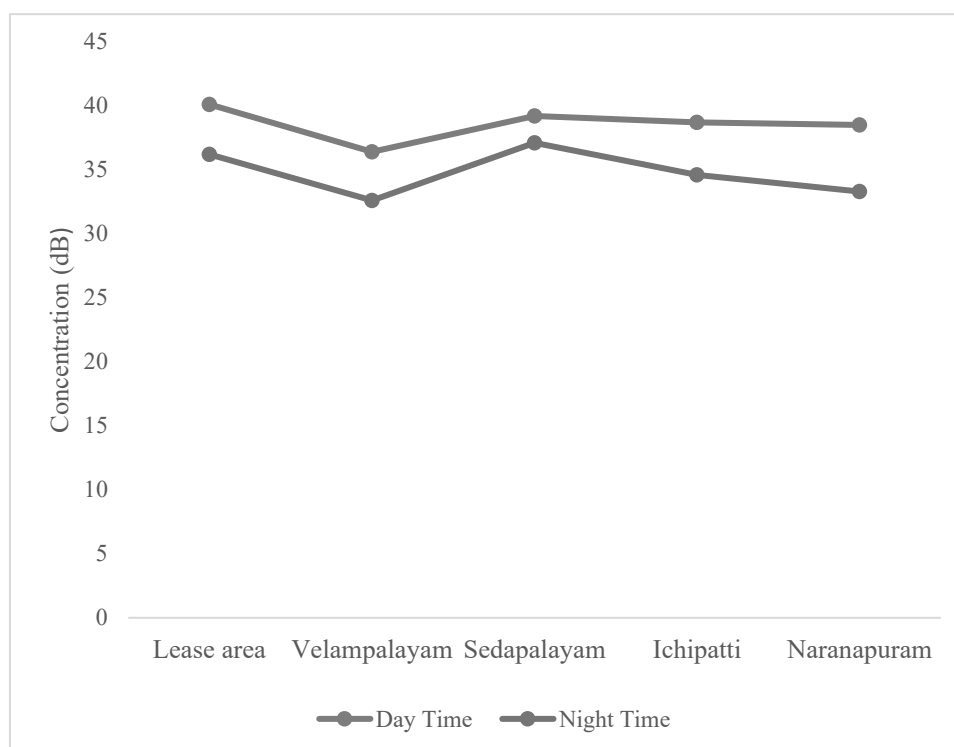


Fig No 3.8: Ambient Baseline Noise Level

3.7.2 INTERPRETATION

Sound begins as the movement of air molecules. A vibrating object sets up alternating bands of compression and expansion in the surrounding air. The human ear is the organ of the body that directly responds to sound and can be damaged if the sounds are too loud. Unwanted, uncontrollable, and unpredictable sounds, whether soft or loud labeled noise can be annoying and very disturbing. The body reacts to the annoyance of these unwanted sounds, or noises, through a complex set of physiological responses that are collectively

labeled stress. These physiological responses can include: a rise in blood pressure, excessive secretion of certain hormones, a change in heart rhythm, or a slowing down of digestion. Should the noise continue to be disturbing and the stress reaction sustained, then permanent ailments may occur in the circulatory, cardiovascular, or gastrointestinal system. Thus, noise mediated by stress can affect many organs of the body indirectly.

The day time noise levels at lease area were observed as 40.1 dB (A) being well within the Industrial area prescribed limit of 75 dB (A) whereas the noise levels at all study area such as Velampalayam, Ichipatti, Sedapalayam and Naranapuram were observed to be in the range of 36.4, 38.7, 39.2 and 38.5 dB (A) being well within the Residential area prescribed limit of 55 dB (A) as per CPCB Standard for Industrial Areas.

In this study area night time noise levels at Velampalayam, Ichipatti, Sedapalayam and Naranapuram villages were observed to be in the range of 32.6, 34.6, 37.1 and 33.3 dB (A) being well within the residential area prescribed limit of 55 dB (A) whereas the Noise level in the lease area was observed as 36.2 dB (A) which is also within the prescribed limit of 75 dB (A) as per CPCB Standard for Industrial Areas.

3.8 WATER ENVIRONMENT

Reconnaissance survey was undertaken and monitoring locations were selected based on:

- ❖ Identification and Location of major surface and ground water sources
- ❖ Location of the project site
- ❖ Water samples were collected and analysed for physical, chemical and biological parameters characteristics as per IS 10500:2012

Five water samples were collected one from lease area and four from the buffer area. Samples for chemical analysis were collected in polyethylene bottles. Samples for bacteriological analysis were collected in sterilized glass bottles. Selected physico-chemical and bacteriological parameters have been analyzed for projecting the existing water quality (baseline values) status of ground and surface water in the study area. Photographs of core and buffer zone water sampling locations are given in the fig 3.9. Details of water sampling locations are present in table 3.6. In addition, water quality details are given in the table 3.7. The following image of Georeferenced topo map showing locations of water samples are given in the fig 3.10.

Table No 3.6: Water Sampling Locations

Sampling code	Location	Latitude (N)	Longitude (E)	Distance (km)	Direction
WQ 1	Lease area	11°02'23.17"	77°15'30.24"	--	--
WQ 2	Velampalayam	11° 3'26.30"	77°15'50.10"	2.1	NE
WQ 3	Sedapalayam	11° 2'16.68"	77°17'36.67"	3.8	E
WQ 4	Ichipatti	11° 2'31.36"	77°14'24.65"	2.0	W
WQ 5	Naranapuram	11° 1'12.39"	77°16'19.02"	2.6	S



Fig No. 3.9: Water Sampling at Core and Buffer Zone

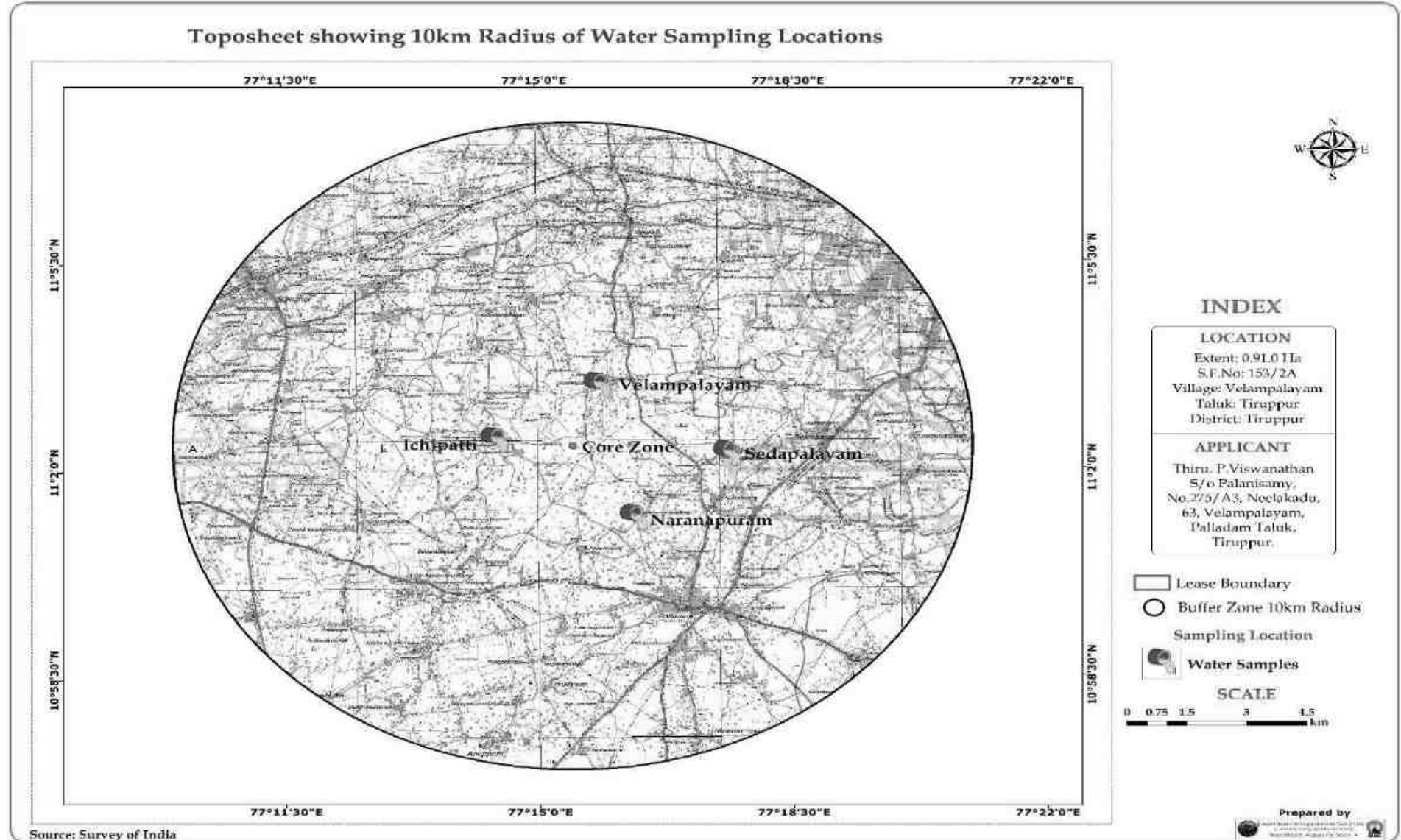


Fig No 3.10: Geo referenced Toposheet showing water sampling location

Table No: 3.7: Summaries of Water Quality Results

Sampling Site		Parameters												
		pH	EC μs/cm	Tur (NTU)	TSS (mg/l)	TDS (mg/l)	TH (mg/l)	Ca (mg/l)	Mg (mg/l)	Cl (mg/l)	TA (mg/l)	HCO ₃ ⁻ (mg/l)	SO ₄ ²⁻ (mg/l)	Fe (mg/l)
Core Zone		6.75	528	BDL	<2	292	130	35	10	26	104	104	18	0.012
Buffer Zone	Velampalayam	6.86	2870	BDL	16	1736	488	111	51	190	114	114	54	1.02
	Sedapalayam	7.58	937	BDL	4	552	280	86	15	58	188	188	29	0.07
	Ichipatti	7.03	1190	BDL	8	716	348	94	27	62	184	184	32	0.09
	Naranapuram	6.70	2940	BDL	16	1792	496	108	55	240	148	148	60	1.48
IS 3025/Ref lab report	AL	6.5-8.5	-	1	-	500	200	75	30	250	200	-	200	0.3
	PL	6.5-8.5	-	5	-	2000	600	200	100	1000	600	-	400	0.3

***Protocol followed by:** APHA 23rd Edition 2017

Tur- Turbidity, **TSS-** Total Suspended Solids, **TDS-** Total Dissolved Solids, **TH-** Total Hardness, **Ca²⁺-** Calcium, **Mg²⁺-** Magnesium, **Cl-** Chloride, **TA-** Total Alkalinity, **HCO₃⁻-** Bicarbonate, **SO₄²⁻-** Sulfate and **Fe-** Iron.

AL- Acceptable Limit.

PL- Permissible limit.

3.8.1. Interpretation

The physico-chemical characterization of the collected groundwater samples was performed as per the standard protocol IS 10500:2012.

Natural groundwater quality depends on the geological and geographical structures of the region. Typically, hydrochemical assessment of groundwater flow systems are based on the available information regarding groundwater chemistry. The study area groundwater pH range was about 6.70 to 7.58, all water sample pH is within the acceptable limit.

The range of electrical conductivity (EC) in 528 to 2940 $\mu\text{S/cm}$ during the study period. The groundwater samples exceeding the permissible limit in the study area. Based on electrical conductivity, groundwater can be graded as Type I if the salt enrichments are low ($\text{EC} < 1500 \mu\text{S/cm}$); Type II if the salt enrichments are medium ($\text{EC}: 1500 \text{ and } 3000 \mu\text{S/cm}$); and Type III if the salt enrichments are large ($\text{EC} > 3000 \mu\text{S/cm}$) (Subba Rao et al. 2012). Therefore, most groundwater samples in this study region falls under category-I. Turbidity from all the water samples was found below detectable limit. Total Dissolved Solids found in the range of 292 - 1792 mg/l in the study area. Core zone TDS value within the permissible limit and also Sedapalayam. Other three water samples higher than the acceptable limit in the study area such as Velampalayam, Naranapuram, and Ichipatti villages.

In the range of total hardness groundwater samples for 130 to 496 mg/l during the study period. Lease area groundwater samples within the acceptable limit. Other four groundwater samples fall under permissible limit in the study area. In the study area, calcium concentration was observed 35 to 111 mg/L in the study period. For most rocks, calcium is found in groundwater because of its simple solubility and its abundance. Study area magnesium concentration was 10 to 55 mg/L during the study period. Magnesium is an essential activator of many enzymes but it is also cathartic and diuretic. Even the Silicate rocks and dolomitic rock deposits were found to contribute calcium and magnesium ions.

Chloride in the water samples ranged from 26 to 240 mg/l, all water sample chloride is within the acceptable limit. Chloride in drinking water is usually reported to be not toxic in humans except at a higher concentration. High chloride concentration makes the taste of water and beverages salty. High chloride containing water intake causes health problems such as hypertension, ventricular hypertrophy, osteoporosis, renal stones and asthma. Total Alkalinity in the study area water sample within the permissible limit.

The concentration of bicarbonate in the study area 104 to 188 mg/l all water samples under permissible limit. Sulfate ion concentration of 18 to 60 mg/l in the study area and Iron in the study area water samples within the permissible limit.

Overall, the study region's water samples fell into the "Good" category according to the water quality index, and no concern zones could be found in the lease area and within 10 km of the nearby villages.

3.9 LAND ENVIRONMENT

In order to assess impacts of project activities on existing physical, biological and social environment, it is necessary to collect information of Land Environment

3.9.1 Soil Environment

Tiruppur district is characterized by red brown soil, brown soil and black cotton soil etc., Some part of the area covered with black cotton soil contains Gypsum as lumps. Black cotton soil covers south-western part of the district

3.9.2 Methodology

Soil quality study has been carried out at the site and in the study area of 10km radius around the project site during March 2022 to May 2023 understands the physico-chemical nature of the soil. The frequency and methodology of soil quality sampling process is given in table 3.8. The soil quality sampling monitoring locations are given in table 3.9. The soil analysis results and discussion is given in table 3.10. Locations of the soil sampling villages core and buffer zone are given in fig 3.11 and Georeferenced soil map of around 10km radius is given in fig 3.12. The sampling locations have been identified with the following objects:

1. To determine the baseline soil characteristics of the study area.
2. To determine the impact of the project on soil characteristics and
3. To determine the impact on soil on fertility from agricultural productivity.

Table No: 3.8. Frequency and Methodology for Soil Sampling & Monitoring

S. No	Particulars	Details
1	Frequency	One sample from each station— once during the Study Period
2	Methodology	Soil Sample has been collected as per the CPCB standard and

Table No: 3.9: Soil Sampling Locations

Sampling code	Location	Latitude (N)	Longitude (E)	Distance (km)	Direction
S 1	Lease Area	11°2'23.17"	77°15'30.24"	--	--
S 2	Velampalayam	11° 3'27.30"	77°15'51.13"	2.1	NE
S 3	Sedapalayam	11° 2'21.93"	77°17'32.36"	3.8	E
S 4	Ichipatti	11° 2'28.29"	77°14'23.97"	2.0	W
S 5	Naranapuram	11° 1'15.63"	77°16'18.79"E	2.6	S



Fig No.3.11: Soil Sampling at Core and Buffer Zone

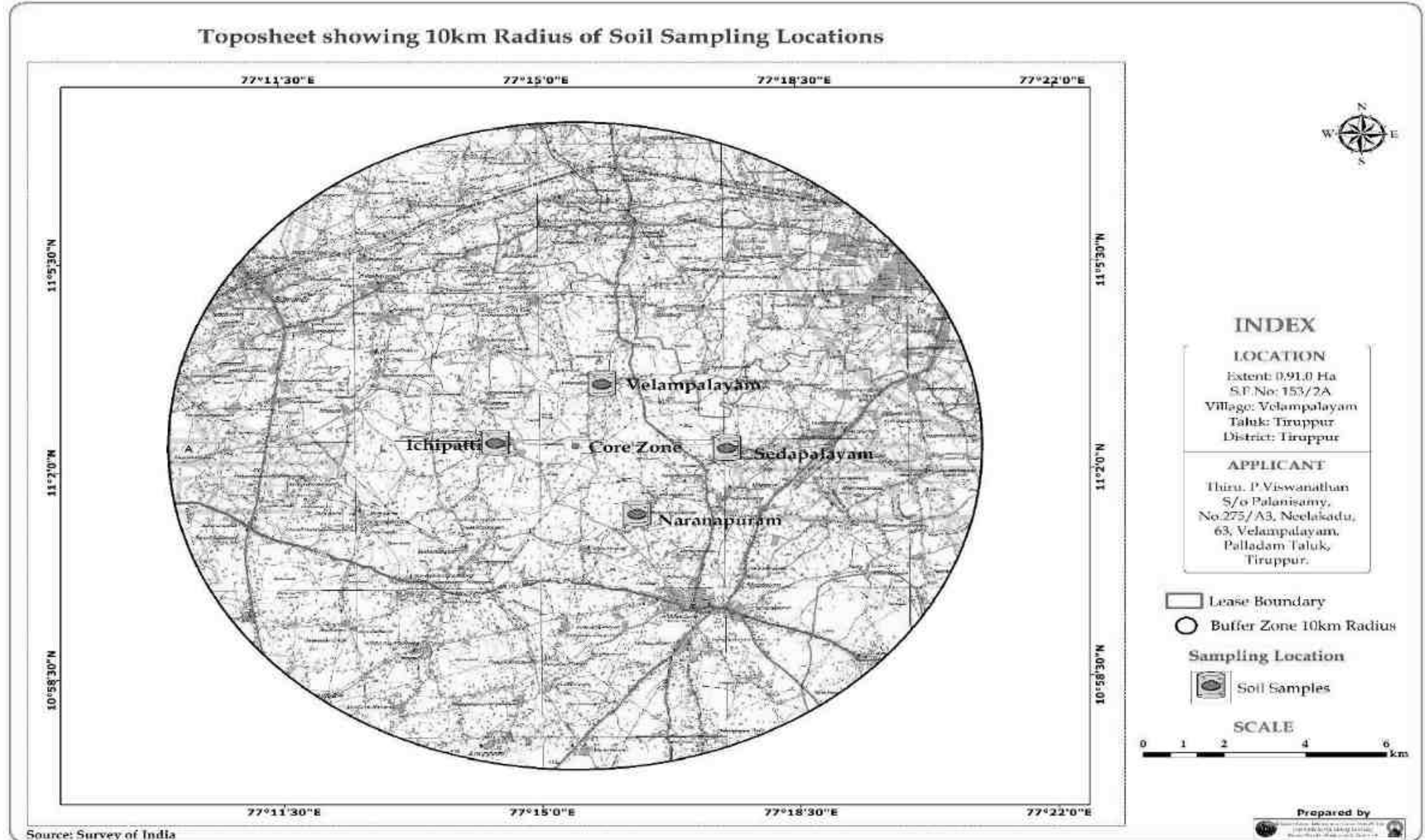


Fig No 3.12: Georeferenced Toposheet showing soil sampling locations

Table No 3.10: Result of Soil Sample Analysis for Core and Buffer Zone

Sample Site		Soil Parameters											
		pH (10%Sol)	EC (10% Sol) μs/cm	M (%)	BD (g/cc)	WHC (%)	*Texture (%)			OM (%)	Ca (meq/l)	Mg (meq/l)	Cl (meq/l)
							Sand	Silt	Clay				
Core Zone		6.95	221	2.5	1.49	56	54	24	22	0.2	1.8	1.3	5.1
							Sandy Clay Loam						
Buffer Zone	Velampalayam	7.74	174	1.8	1.22	64	48	32	20	0.2	1.2	1.0	5.7
							Sandy Loam						
	Sedapalayam	7.63	294	2.1	1.30	56	52	28	20	0.4	2.2	0.6	1.8
							Sandy Loam						
	Ichipatti	8.20	306	2.8	1.25	52	48	24	28	0.3	1.4	1.2	5
							Sandy Clay Loam						
Naranapuram	6.82	245	2.6	1.30	48	48	28	24	0.3	2.4	2.0	5.3	
						Sandy Loam							

EC-Electrical Conductivity, **M**- Moisture, **BD**- Bulk Density, **WHC**- Water Holding Capacity, **OM**- Organic Matter, **Ca**- Calcium, **Mg**-Magnesium and **Cl**-Chloride.

BDL = Below the Detectable Limit.

DL = Detection Limit. * Texture Parameter - Without NABL

3.9.3 Observation

Physical characteristics of soil were characterized through specific parameters such as pH, electrical conductivity, moisture, bulk density, water holding capacity, texture, organic carbon, calcium, magnesium and chloride. Soil pH plays an important role in the availability of nutrients. Soil microbial activity as well as solubility of metal ions is also dependent on pH. In the study area, variations in the pH of the soil were found to be 6.82 to 8.20. The soil analysis result shows that, the pH of the soil samples collected was found to be neutral to slightly basic.

Electrical conductivity (EC) is a measure of the soluble salts and ionic activity in the soil and was found to be in the range 174 to 306 micromhos/cm. According to the analysis of soil texture in different site of core and buffer zones the soil texture is mostly sandy loam and sandy clay loam in study area. Total organic matter of the soil varies from 0.2 to 0.4%. From the soil analysis result it can be concluded that the soil of the area is highly fertile and suitable for agricultural purpose.

3.10 LAND USE/LAND COVER STUDY

This section includes the study of natural features like topography, climate, drainage pattern etc. which has been discussed below:

Land Use Studies- Studies on Land use aspects of eco-system play an imperative role in identifying susceptible issues and to take appropriate action to uphold ecological equilibrium in the region. The mining and allied activities involved in river bed mining are creation of temporary haul roads / transportation track and formation of mined pits inside river, etc. The main objective of this section is to provide a baseline status of the study area covering 10km radius around the exiting cluster site so that temporal changes due to the mining activities on the surroundings can be assessed in future.

3.10.1 Objectives

- To determine the present land use pattern;
- To ascertain the temporal changes in land use pattern due to mining.
- To scrutinize the impacts on land use due to existing mining activities in the study area;

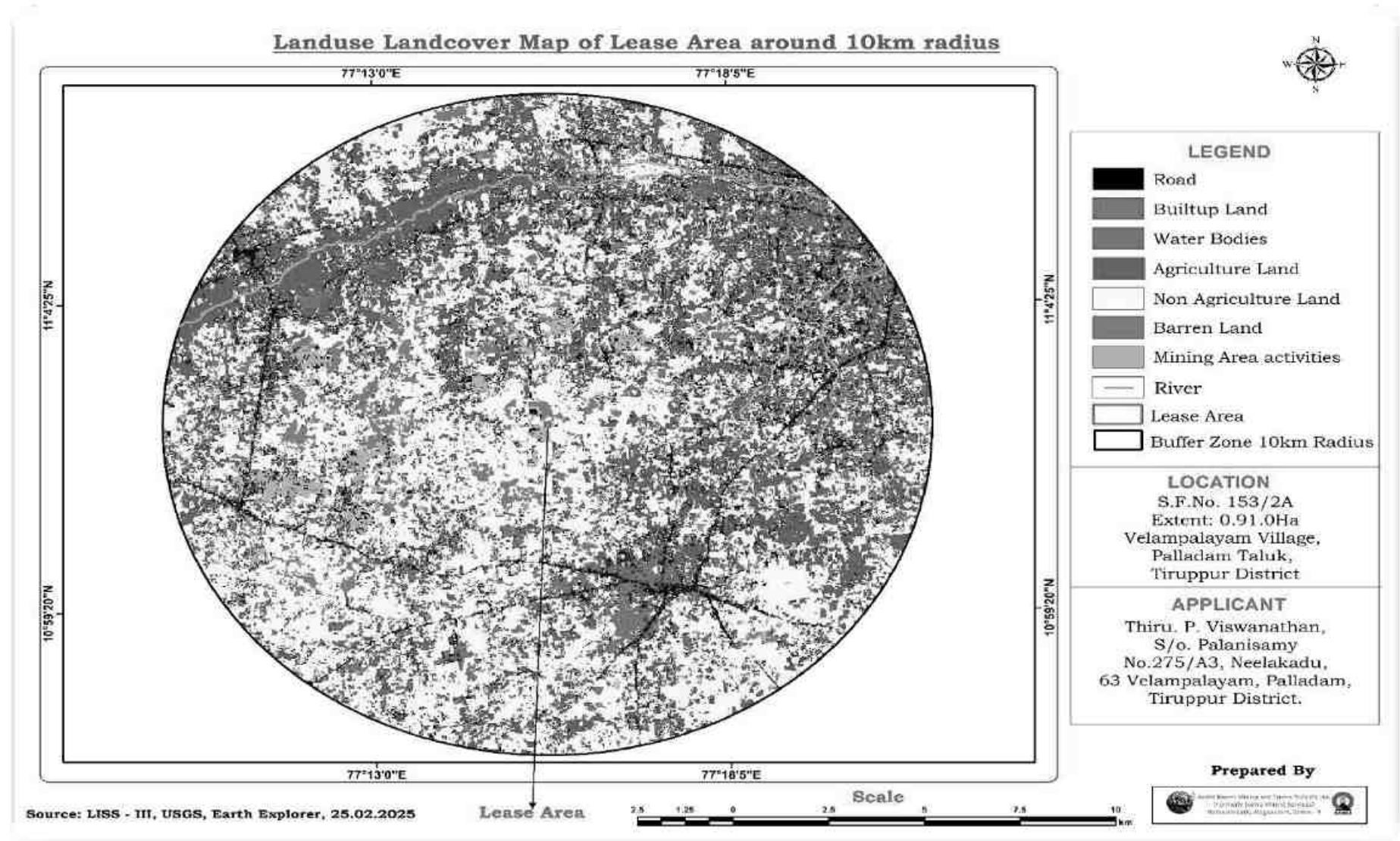


Fig No. 3.13: Land use / Land cover statistics of project study area Land Use cover of 10km radius.

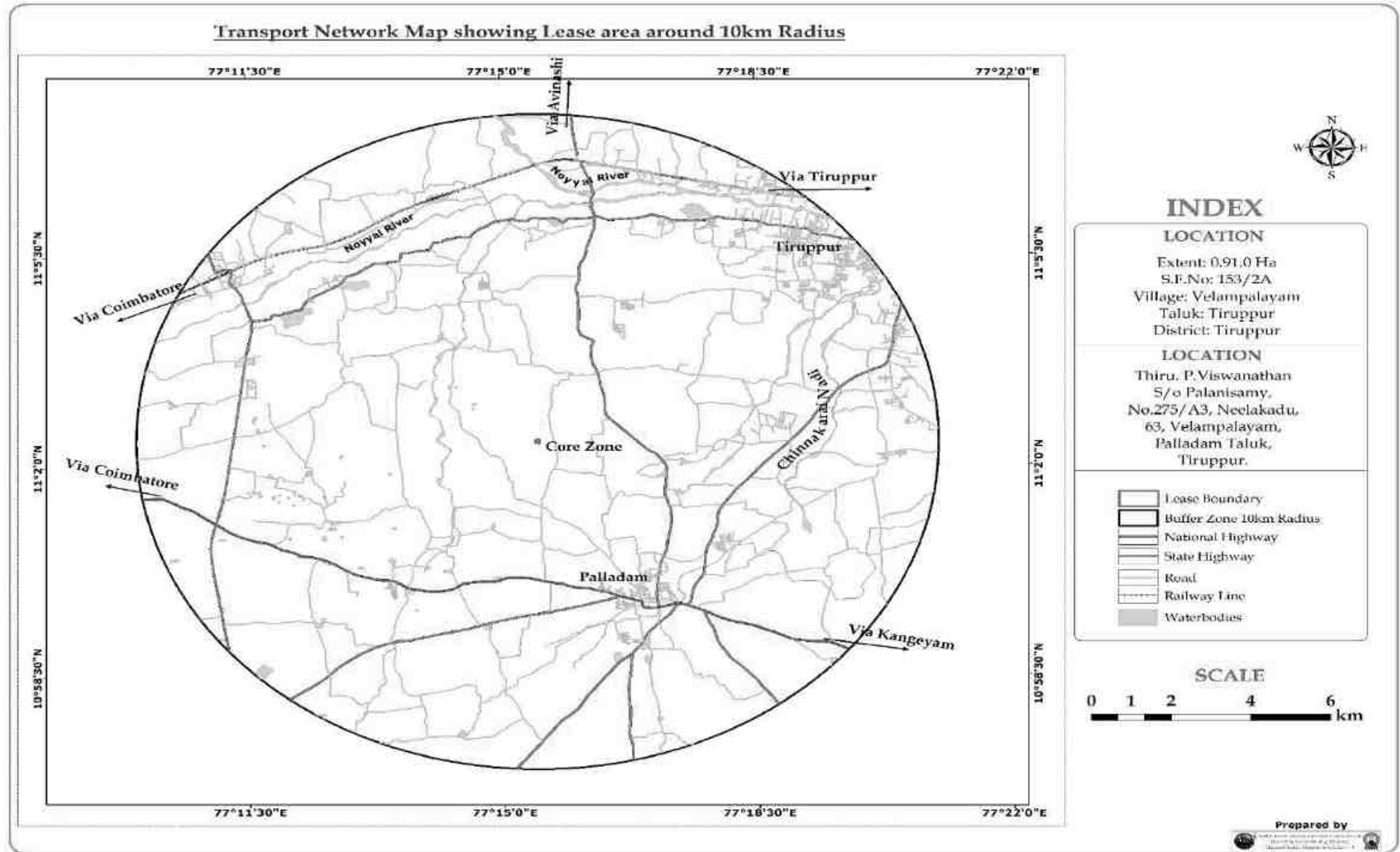


Fig No. 3.14: Toposheet showing Road Accessibility details of 10 Km Radius

3.10.2 Methodology for Baseline Data Generation

Land use/Land cover map preparation, Base map creation; Geometric and Radiometric correction of satellite image have been processed using ERDAS Imagine 9.2 and Arc GIS 10.8 Software. The methodology used for present LU/LC of study area is shown and is detailed below:

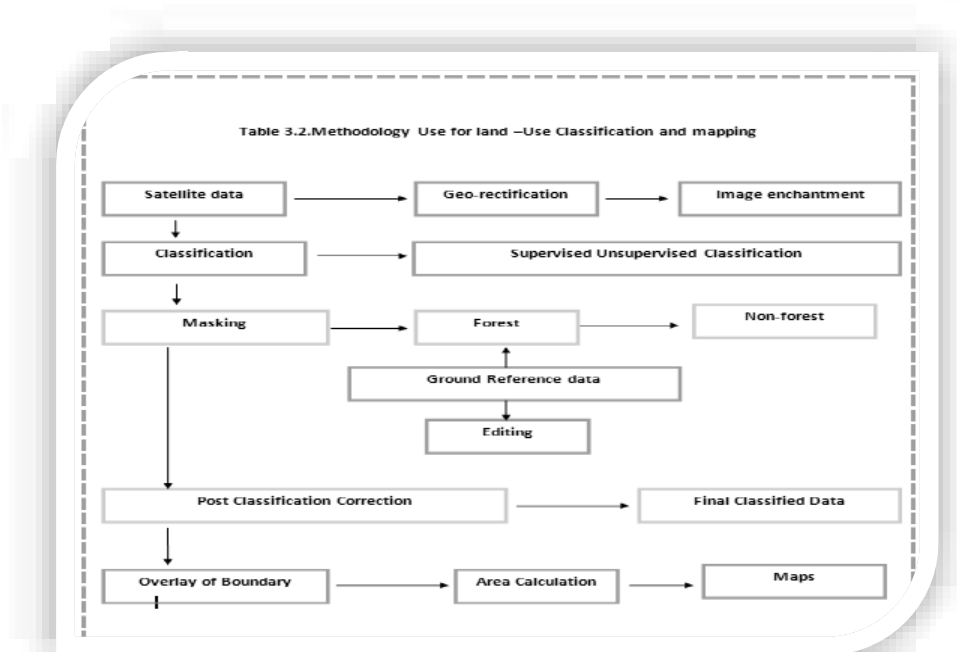


Fig No. 3.15: Methodology use for land- use classification and mapping

3.10.2.1 Methodology Adopted for Thematic Data Extraction from The Satellite Imageries:

ERDAS image processing software and ArcGIS Software were used for the project. Erdas 9.2 Image Processing Software was used for digital processing of the spatial data. Digital image processing techniques were applied for the mapping of the land use/land cover classes of the provided area from the satellite data. The methodology applied comes under following steps:

- a. Image Extraction: Satellite imageries were obtained and a sub set for the Area of Interest was created through ERDAS image processing software. Processing functions primarily done to improve the appearance.
- b. Geo-Rectification: Geometric correction includes correction for geometric distortions due to sensor, earth geometry variations and conversion of the data to real world coordinates (e.g. Latitude and Longitude) on the Earth's surface. The satellite imagery was geometrically rectified with reference to the geo-referenced toposheets and vector data.

- c. Image Enhancement: Image enhancement is one of the important images. Imagery to assist in visual interpretation and analysis. Various options of image enhancement techniques were tried out to get the best image for visual interpretation. Histogram equalized stretch enhancement techniques was applied to the imagery of the study area for better interpretation of different features in the satellite imagery.
- d. Classification: Satellites images are composed of array of grid; each grid has a numeric value that is known as digital number. Smallest unit of this grid is known as a pixel that captures reflectance of ground features represented in terms of Digital number, which represent a specific land feature. Using image classification technique, the satellite data is converted into thematic information map based on the user's knowledge about the ground area.

Hybrid technique has been used i.e. visual interpretation and digital image processing for identification of different land use and vegetation cover classes based on spectral signature of geographic feature. Spectral signature represents various land use classes. Image interpretation keys are developed based on image characteristics like colour, tone, size, shape, texture, pattern, shadow, association etc which enables interpretation of satellite images for ground feature. Training sites are then assigned based on their spectral signature and interpretation elements.

Land use/Land cover Map has been broadly classified into five classes namely, Built-up Area, Plantation, Agriculture, Water Bodies, Non-agriculture, Barren Land and mining areas have been categorized in others class. Using image classification algorithm land use map is then generated.

3.10.2.2 Topography

The area is marked in the survey of India Toposheet No.58 E/08. The area lies in the northern latitude of 11° 1' 19.75"N to 11° 1'25.26"N and eastern longitude of 11° 02' 22.50"N to 11°02'26.21"N and eastern longitude of 77° 15' 27.33"E to 77°15'30.24"E with elevation 385m above MSL. Velampalayam is a Village in Palladam Block in Tiruppur District of Tamil Nadu State, India. It is located 14 KM towards North East from District headquarters Tiruppur 463 KM from State capital Chennai. The total geographical area is 5087.26 Ha.

The base maps of the study area were prepared, with the help of Survey of India Toposheet on 1:50,000 scale. This project site is granted mining lease over an extent of 0.91.0 Hectares in S.F. No: 153/2A patta land of Velampalayam Village, Palladam Taluk, Tiruppur District and Tamil Nadu for quarrying rough stone and gravel.

Tiruppur is known for the cluster activity and mostly each activity of garment making is being carried out by outside units say Knitting units, Dyeing and Bleaching Units, Fabric Printing, Garmenting, Embroidery, Compacting and Calendaring and other ancillary units. Amaravathi Dam at Amaravathinagar is located in Indira Gandhi Wildlife Sanctuary in Tiruppur District. It was built primarily for irrigation and flood control and now 4 megawatts of Hydal Electric Power Generating unit commissioned. The major horticulture products cultivated in the districts are Fruits (Mango and Amla etc.,) vegetables medical plants etc., In Tiruppur District, Coconut is grown mainly in Gudimangalam Block (9000 Hec.) followed by Udumalai 5346 Hec., Kundadam 3870 Hec. Pongalur 3508 Hec and Madathukulam 3041 Hec. Remaining area of the district contributes to 2200 Hec. In Tiruppur District, Kangayam Taluk plays a major role in procuring copra for oil production. Coconut production play major role in farming the Agro based industries namely production of coconut oil and other by-products of Coconut like coirindustries, Husk production etc.,

Table No. 3.11: LU/LC classes and their coverage in sq. Km of 10 km radius

S. No	Name	Area	Ha	%
1	Road	260959.94	2609.60	8.20
2	Built-up Land	355047.14	3550.47	11.16
3	Water Bodies	12986.56	129.87	0.41
4	Agriculture Land	676150.65	6761.51	21.25
5	Non-Agriculture Land	1555242.66	15552.43	48.89
6	Barren Land	184637.75	1846.38	5.80
7	Mining Area activities	136245.21	1362.45	4.28
Total		3181269.90	31812.70	100.00

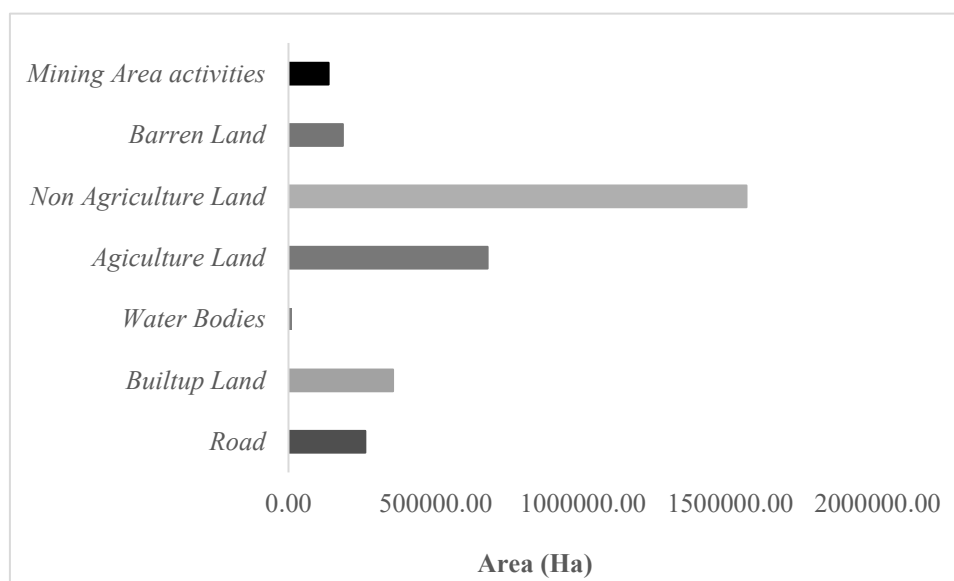


Fig No. 3.16: Chart showing Land use/ Land cover Analysis

3.10.3 Drainage Pattern of the Area

Drainage pattern of the area is dendritic with high stream density due to rugged topography. In the cluster no permanent Nalla/river throwing in the lease area. The rainwater flows down toward the slope of the area and flows into the nearby fields outside the lease area. Ground water occurs under phreatic conditions. The maximum saturated thickness of these aquifers is up to 5m depending upon the topographic conditions. The area lying at the foot hill zones which are seen in the northern parts of the district is underlain by the colluvial material derived from the nearby hill ranges comprising sands and gravels. The maximum saturated thickness of these aquifers is up to 20 m depending upon the topographic conditions. Ground water occurs under phreatic conditions.

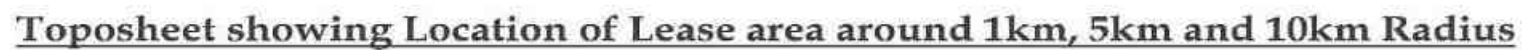
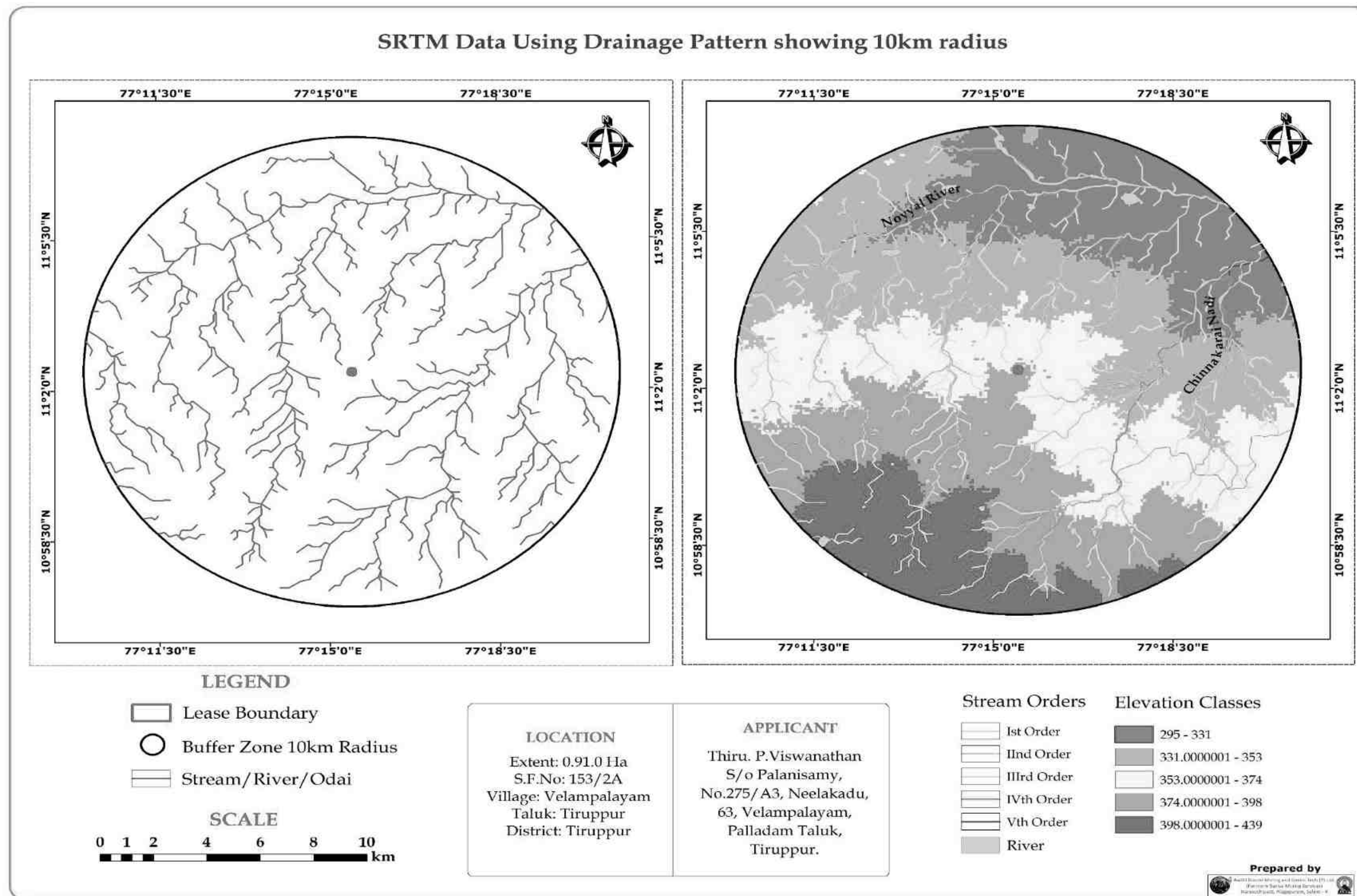


Fig No 3.17: Project Site Located in the Topomap



3.10.4 Contour

Contour lines are the greatest distinguishing feature of a topographic map. Contour lines are lines drawn on a map connecting points of equal elevation, meaning if you physically followed a contour line, elevation would remain constant. Contour lines show elevation and the shape of the terrain in the study area. The contour map was derived from a SRTM data of the study area. Contour interval at 10m, minimum 120m has very plain with fluvial landforms and general terrain is quite elevated at maximum 391m above. To make topographic maps easier to read, because it's impractical to mark the elevation of every contour line on the map, the index contour lines are the only ones labeled fig 3.19.

3.10.5 Slope

The slope map was derived from a SRTM data of the study area. The slope of the study area was classified into five classes, such as less than 10 Percent/degree flat to almost flat no meaningful denudation process. The contour map is prepared in 1:50000 scale from SOI topo sheets. TIN map is created from contour map. Based on the TIN map, slope map is prepared for the study area. The slope map of the study area reveals that the slope is high in hilly 22 terrains which are present in north and east parts. The most part of the study area contains a gentle slope of 0- 1 degree especially landslides that area flat. 30-40° and above 40° very steep, rocks generally begin to unfold a very intensive denudation process have begun to produce rework material Fig.3.19.

3.10.6 Geological structure

Tiruppur District is predominantly occupied by hornblende Biotite gneisses of PGC (II) with enclaves of Magnetite Quartzite, Pyroxene Granulite and Charnockite. The area exposes several bands of Pyroxene Granulite which is medium grained, medium to dark grey in colour and stand out prominently in the gneissic country generally parallel to regional foliation. Charnockite is coarse grained, massive, many places it is foliated, grey coloured and greasy and exposed as bouldery outcrops and small knolls. It is well exposed in Central, Western and Southern parts of the Tiruppur District. Hornblende-Biotite gneiss is well foliated, medium to coarse grained, pale grey and exposed as sheets and small knolls. Pink Granite gneiss occurs as thin bands and lensoidal bodies. It is a medium grained rock composed of alternating bands of mafic (mainly of biotite and hornblende) and felsic (Feldspar and Quartz) minerals. It is well recognized in Avinashi area fig. 3.20.

3.10.7 Soil

Soil Environment soil quality of the study area is one of the important components of the land environment. The composite soil samples were collected from the study area and

analysed for different parameters. The locations of the monitoring sites are shown in Table 3.5 and Figure 3.4. The lease area soil characterization in and around 10km radius in four type such as Entisols, Inceptisols, Rockout Crop and Vertisols in fig.3.21.

Contour and Slope Map analysis around 10km Radius

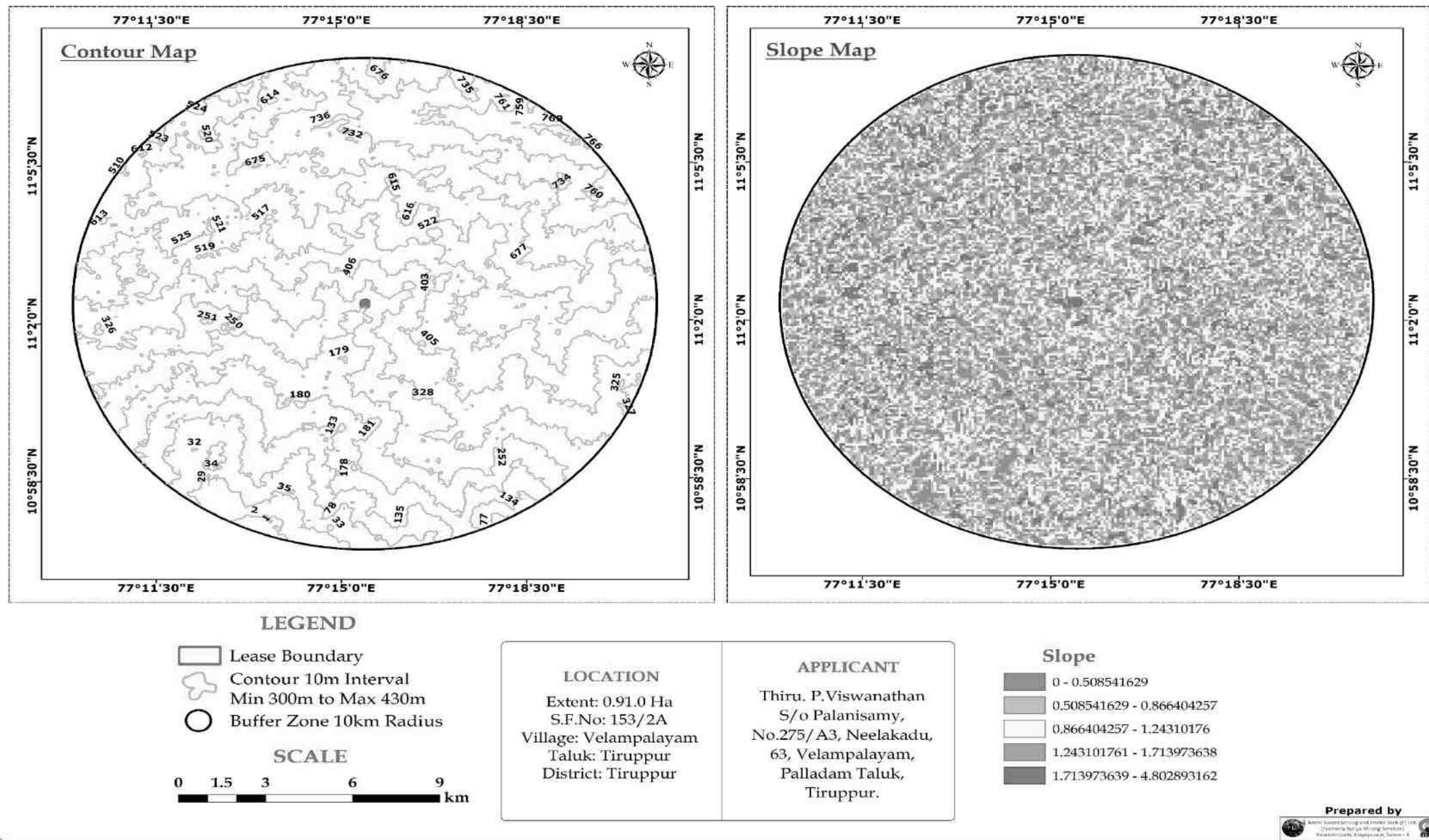
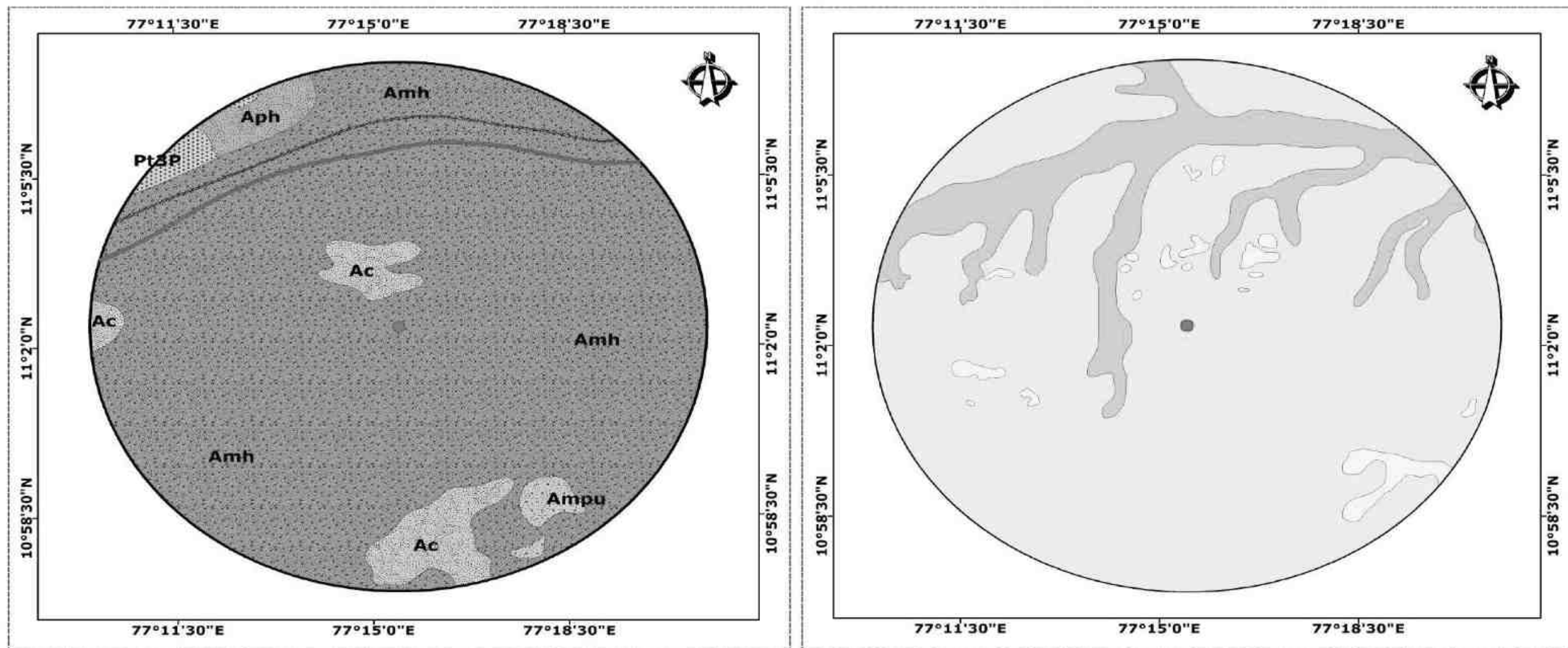


Fig No 3.19: Image Showing Contour and Slope of the lease area around 10km radius

Geology and Geomorphology Features map of Lease area around 10km radius



LEGEND

- Lease Boundary
- Buffer Zone 10km Radius
- Railway Line
- River
- Granite(Pt3P)
- Fissile-hornblende gneiss(Aph)
- Charnockite(Ac)
- Hornblende-biotite gneiss(Amh)
- Granite, garnet granolite(Ampu)

LOCATION

Extent: 0.91.0 Ha
S.F.No: 153/2A
Village: Velampalayam
Taluk: Tiruppur
District: Tiruppur

APPLICANT

Thiru. P.Viswanathan
S/o Palanisamy,
No.275/ A3, Neelakadu,
63, Velampalayam,
Palladam Taluk,
Tiruppur.

Level Three Landforms

- Moderately weathered/ buried Pediplain
- Pediment/ Valley Floor
- Shallow weathered/ buried Pediplain

SCALE



Source: Geological Survey of India, 1995

Prepared by

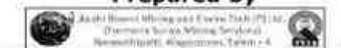


Fig No 3.20: Geology and Geomorphology of 10km Radius

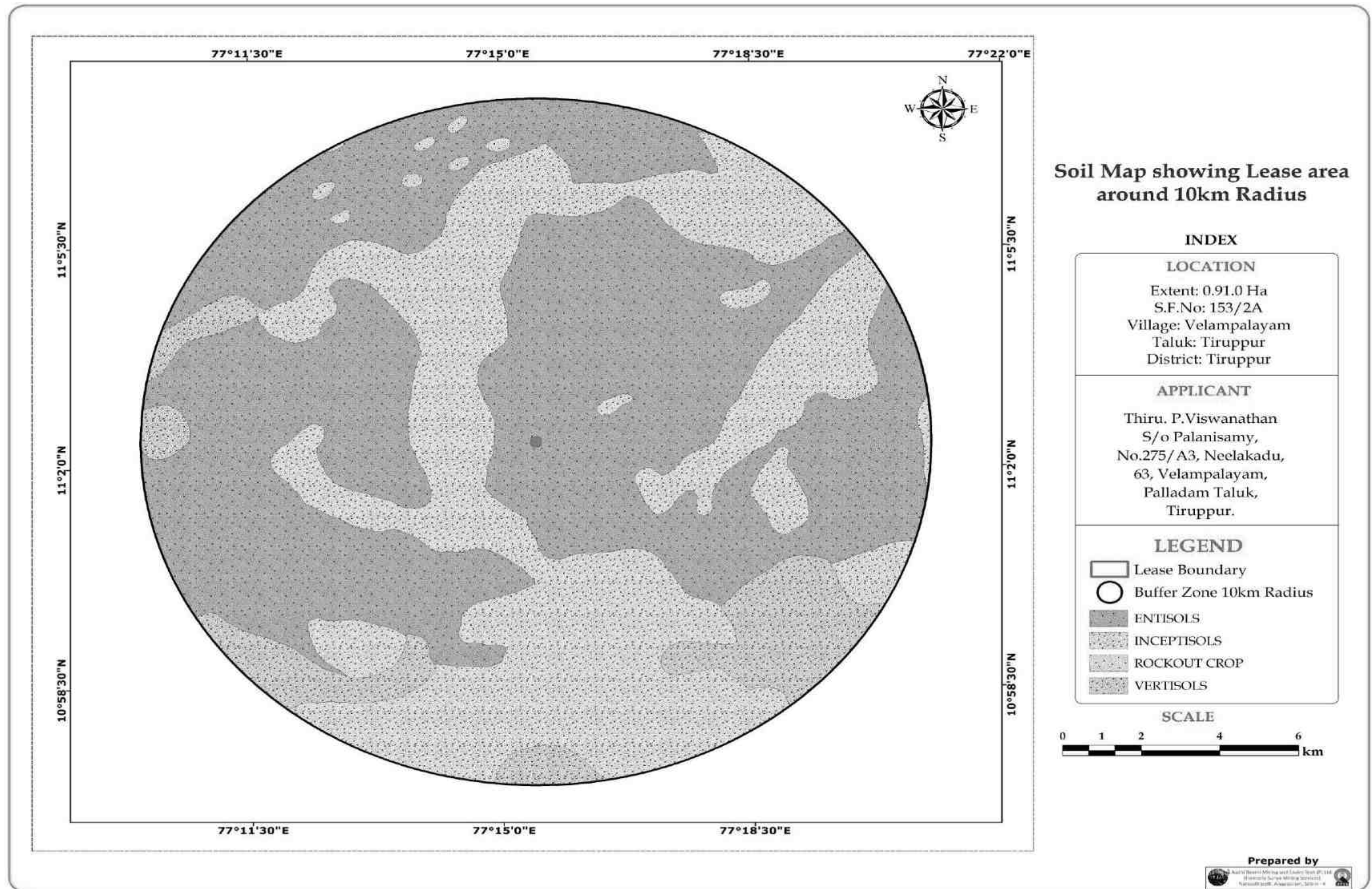


Fig No. 3.21 Image Representing the Soil Characteristics around 10km of the Lease area

3.10.9 CONCLUSION

The most of the land area in the agriculture and non-agriculture land entire quarried land will get replaced every year hence there will be no impact on the land use. It is an eco-friendly mining project land.

3.11 Hydrogeology of the District

3.11.1 Major Geological formations:

Tiruppur District is underlain by crystalline metamorphic complex in the western parts of district and sedimentary tract in eastern side. An area of 4551 Sq.km is covered by crystalline rocks (63%) and 2671 Sq.km is covered by sediments (37%). The general geological sequence of formation is given below:

- Quaternary - Laterites, Sands and Clays Tertiary-Sand stone, Gravels and Clays
- Cretaceous - Limestone, Calcareous Sandstone and Clay unconformity.
- Archaean - Charnockites, Gneisses, Granites, Dolerites and Pegmatite

- The major part of the area is covered by metamorphic crystalline rocks of charnockite, granitic gneiss of Archaean age intruded by dolerite dykes and pegmatite veins. These rocks are highly metamorphosed and have been subjected to very severe folding, crushing and faulting.
- Ground Water occurs under the phreatic condition and wherever there are deep seated fractures, it occurs under semi-confined to confined conditions.
- Occurrence of Ground Water in hard rock depends upon the intensity and depth of weathering, fractures and fissures present in the rocks.
- Granites and gneisses yield moderately compared to the yield in Charnockites.
- Depth of well in hard rock generally ranges between 8 and 15m below ground level.
- Generally, yield in open wells ranges from 30 to 250 m³/day and in bore well between 260 and 430 m³/day. The weathered thickness varies from 2.5 m to 42m in general there are 3 to 5 fracture zones within 100m and 1 to 4 fracture zones between 100 and 200m.

The Cretaceous formation is represented by Arenaceous Lime stone, Calcareous and - stone and marl. The Tertiary formation is argillaceous comprising of Silty clay stones, argillaceous Lime stone. The Quaternary deposits represented by the river deposits of Ponnaiyar and Varahanadhi spread over as patches in Tiruppur District. The alluvium consists of unconsolidated sands, gravelly sands, clays and clayey sands. The thickness of the sands ranges between 15 and 25 m in the alluvial formation which also form potential

aquifers. In some areas, sand stone of tertiary formation are the potential groundwater reservoirs.

3.11.2 Aquifer Systems:

Occurrence and storage of groundwater depend upon three factors viz., Geology, Topography and rainfall in the form of precipitation. Apart from Geology, wide variation in topographic profile and intensity of rainfall constitutes the prime factors of groundwater recharge. Aquifers are part of the more complex hydro geological system and the behaviour of the entire system cannot be interpreted easily. In hard rock terrain the occurrence of Ground Water is limited to top weathered, fissured and fractured zone which extends to maximum 30 m on an average it is about 10-15 m in Tiruppur District.

In Sedimentary formations, the presence of primary inter granular porosity enhances the transmitting capacity of groundwater where the yield will be appreciable. The sedimentary area which occupies the eastern part of the District along the coastal tract is more favourable for groundwater recharge. Ground Water occurs both in semi confined and confined conditions. A brief description of occurrence of groundwater in each formation is furnished below.

3.11.2.1 Alluvial Formations

In the river alluvium groundwater occurs under water table condition. The maximum thickness is 37 m and the average thickness of the aquifer is approximately 12 m. These formations are porous and permeable which have good water bearing zones.

3.11.2.2 Tertiary Tirupur sand stone

Tertiary formations are represented by Cuddalore Sandstone and characterized as fluvial to brackish marine deposits. Predominantly this formation is divided into Lower and Upper Cuddalore formations. In the Upper Cuddalore formations the groundwater occurs in semi confined conditions, whereas in the Lower Cuddalore the groundwater occurs in confined condition with good groundwater potential.

3.11.2.3 Cretaceous Formations

Groundwater occurring in the lens shape in the sandy clay lenses and fine sand is underlain by white and black clay beds which constitute phreatic aquifer depth which ranges 10m to 15m below ground level. Phreatic aquifer in Limestone is potential due to the presence of Oolitic Limestone.

3.11.2.4 Hard Rock Formations

Groundwater occurs under water table conditions but the intensity of weathering, joint, fracture and its development is much less in other type of rocks when compared to gneissic formation. The groundwater potential is low, when compared with the gneissic formations.

3.11.2.5 Granitic Gneiss

Groundwater occurs under water table conditions in weathered, jointed and fractural formations. The pore space developed in the weathered mantle acts as shallow granular aquifers and forms the potential water bearing and yielding zones water table is shallow in canal and tank irrigation regions and it is somewhat deeper in other regions.

3.11.2.6 Charnockite

Groundwater occurs under water table conditions but the intensity of weathering, joint, fracture and its development is much less when compared to gneissic formations. The groundwater potential is low, when compared with the gneissic formations.

3.11.2.7 Aquifer Parameters

The thickness of aquifer in this district is highly erratic and varies between 15 m to 40 m below ground level. The inter granular Porosity is essentially dependent on the intensity and degree of weathering and fracture development in the bed rock. As discussed earlier deep weathering has developed in Gneissic formations and moderate weathering in charnockite formations.

3.11.3 Geophysical Electrical Resistivity Survey

For understanding subsurface hydrogeological conditions geophysical investigation is carried out. The geophysical investigation is especially useful in the areas where there are no adequate exploratory well data about the aquifer conditions. Electric resistivity method is one of the well-known geophysical methods for delineating lateral as well vertical discontinuities in the resistivity's of the earth's subsurface layers. It is mainly applied to locate aquifers in the field of hydrogeology. The present study makes use of vertical electric sounding (VES) to delineate earth's subsurface layers. The electrical resistivity investigation used four electrodes collinear set up where current is sent through outer electrodes into the ground and the inner electrodes measure the potential difference, as shown in Figure 3.22.

3.11.4 Methodology and Data Acquisition

Geophysical Electrical Resistivity survey conducted in schlumberger Configuration (VES) method using IPI2 win Software. The Schlumberger array is an array where four electrodes are placed in line around a common midpoint. The two outer electrodes, A and B, are current electrodes, and the two inner electrodes, M and N, are potential electrodes placed close together. With the Schlumberger array, for each measurement the current electrodes A and B are moved outward to a greater separation throughout the survey, while the potential electrodes M and N stay in the same position until the observed voltage becomes too small to measure (source). At this point, the potential electrodes M and N are moved outward to a new spacing. As a rule of the thumb, the reasonable distance between M and N should be equal or less than one-fifth of the distance between A and B at the beginning. This ratio goes about up to one-tenth or one-fifteenth depending on the signal strength. The Schlumberger array is commonly used for vertical electrical sounding (VES) for groundwater and aggregate minerals. Vertical electrical sounding (VES) using the Schlumberger array provides better resolution.

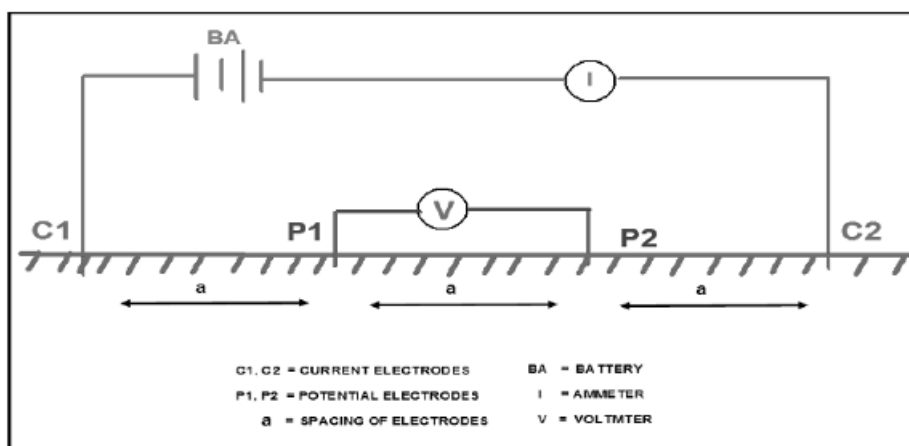


Fig No.3.22: Schlumberger Array



Fig. No. 3.23: DDR-3 Electrical Resistivity Meter

The resistivity surveys were carried by the consultants in the site at selected one point at Tested in the proposed Project site. The vertical electrical sounding (VES) using digital resistivity meter is carried out and the apparent resistivity curves are obtained. Ipi2 win software is used and the data are interpreted. The computer output of geo-electric layers are given in fig 3.24 which gives the Resistivity cross section and Resistivity curve, depth wise resistance and interpreted layers with corresponding resistivity.



Fig. No.3.24: Photos showing Geophysical survey conducted at proposed project site

The study area of lies in the Northern latitude of 11°2'26.34"N, Eastern longitude 77°15'28.89"E which is represented by Toposheet No. 58 E/8. The applied area is mostly plain, elevation of 397m above mean sea level.

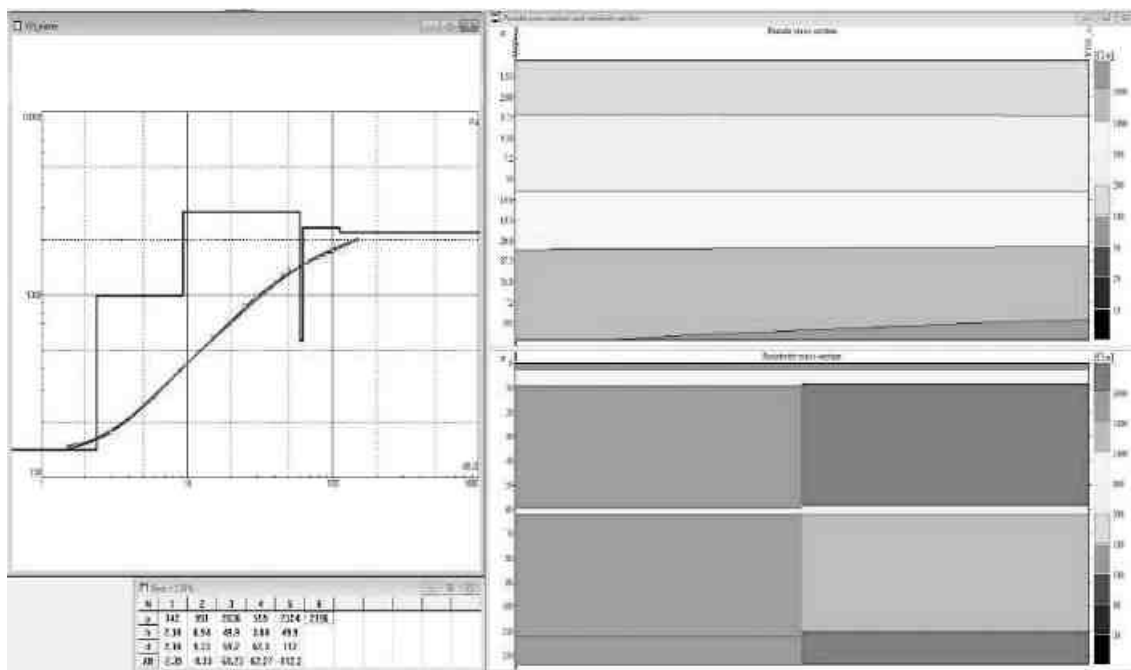


Fig. No. 3.25: Image showing Resistivity cross section and Resistivity curve, depth of data

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Proponent: V. Gangesan, Rough Stone and Gravel Quarry, Tiruppur District

Table No. 3.12: Geophysical Vertical Electrical Sounding Data

Geo-Coordinates: Latitude 11°2'26.34"N Longitude 77°15'28.89"E					
S. No.	AB/2 (m)	MN/2 (m)	Geometric factor (K)	Resistance Value (R) ohm	Apparent Resistivity Rho ohm-meter
1	1.5	0.5	6.3	22.9	144.27
2	3	0.5	27.5	6.4	176
3	6	0.5	112.3	2.49	279.627
4	9	0.5	253.6	1.52	385.472
5	12	0.5	451.4	1.1	496.54
6	12	2	109.9	5.25	576.975
7	15	2	173.5	4.16	721.76
8	20	2	310.9	2.78	864.302
9	25	2	487.5	2.01	979.875
10	30	2	703.4	1.5	1055.1
11	30	6	226.1	5.13	1159.893
12	35	6	311.1	4.12	1281.732
13	40	6	409.2	3.3	1350.36
14	45	6	520.5	2.74	1426.17
15	50	6	644.7	2.37	1527.939
16	60	6	932.6	1.73	1613.398
17	60	10	549.5	3.02	1659.49
18	70	10	753.6	2.3	1733.28
19	80	10	989.1	1.81	1790.271
20	90	10	1256	1.48	1858.88
21	100	10	1554.3	1.24	1927.332
22	100	20	753.6	2.56	1929.216
23	110	20	918.5	1.73	1589.005
24	120	20	1099	1.26	1384.74

3.11.5 Geophysical Data Interpretation

0-2.39m: Top soil & Gravel with 142 Ohm. Resistivity

2.39-9.33m Weathered rock formation with 991 ohm. Resistivity

9.33-59.2m: Massive Charnockite formation with 2836 ohm. Resistivity

59.2-62.3m –Jointed and fractured rock with about 559 ohm. Resistivity

Above 62.3m: hard massive formation with 2324 Ohm. Resistivity

The presence of top soil and Gravel 0-2.39m followed by 2.39-9.33m with medium resistivity is indicative of the weathered rock. The water table is having curve breaks around 59.2-62.3m depth with possible water level.



Fig. No. 3.26: Photographs showing Open well water level survey around 1kms radius

3.11.6 Groundwater Levels and flow direction

As the groundwater moves from the points of highest static groundwater elevation to the points of lowest static groundwater elevation under the influence of gravity, data regarding depth to groundwater levels are essential to infer the direction of groundwater movement within the study area. Knowledge of groundwater flow direction is must in choosing location for background groundwater quality monitoring well and in locating recharge and discharge areas. Therefore, data regarding groundwater elevations were collected from 6 open wells at various locations within 1km radius around the proposed project site for the period from October, 2024 to December 2024 (Post monsoon season) and from the period of March 2025 to May 2025. The

data thus collected from 6 open wells are provided in Tables 3.13 and 3.14. According to the data, the three months' average depths to the static water level in open wells range from 10.35 to 12.86m BGL in post monsoon and 14.56 to 17.49m BGL in pre monsoon. The depths to static water level and potentiometric surface data were used to calculate static groundwater table and potentiometric surface elevations for open wells, respectively to draw contour lines connecting groundwater elevation (also known as equipotential hydraulic head) to determine the groundwater flow direction perpendicular to the contour lines.

From the maps of groundwater flow direction (Figures 3.27 & 3.28), it is understood that most of the open well groundwater underneath the proposed project site flows towards the open well numbers 5&6 located in NW&NE of the proposed project site. On the basis of the groundwater flow information, the open well number 2 located in Southwest of the proposed project site can be chosen for water quality monitoring purpose as the wells may get easily affected by the contaminants resulting from the mining activities of the site in future.

Table No. 3.13: Post-Monsoon Water Level of Open Wells within 1 km Radius

Open well	Latitude	Longitude	Depth to Static Water Level BGL (m)			
			Oct 2024	Nov 2024	Dec 2024	Average Water Level
OW-1	11° 2'35.62"N	77°15'7.44"E	8.86	9.65	10.47	9.66
OW-2	1° 2'7.53"N	77°15'10.73"E	11.21	11.94	12.86	12.00
OW-3	1° 2'5.92"N	77°15'34.05"E	10.44	11.16	12.03	11.21
OW-4	1° 2'5.89"N	77°15'54.00"E	9.46	9.83	10.78	10.02
OW-5	11° 2'40.68"N	77°15'53.69"E	9.69	10.42	11.13	10.41
OW-6	1° 2'50.05"N	77°15'8.77"E	9.34	9.56	10.35	9.75

Table No. 3.14: Pre-Monsoon Water Level of Open Wells within 1 km Radius

Open well	Latitude	Longitude	Depth to Static Water Level BGL (m)			
			March 2025	April 2025	May 2025	Average Water Level
OW-1	11° 2'35.62"N	77°15'7.44"E	12.13	13.15	14.68	13.32
OW-2	11° 2'7.53"N	77°15'10.73"E	14.72	16.06	17.49	16.09
OW-3	11° 2'5.92"N	77°15'34.05"E	13.53	14.64	16.17	14.78
OW-4	11° 2'5.89"N	77°15'54.00"E	12.97	13.85	15.38	14.07
OW-5	11° 2'40.68"N	77°15'53.69"E	12.68	13.63	14.7	13.67
OW-6	11° 2'50.05"N	77°15'8.77"E	12.35	13.33	14.56	13.41

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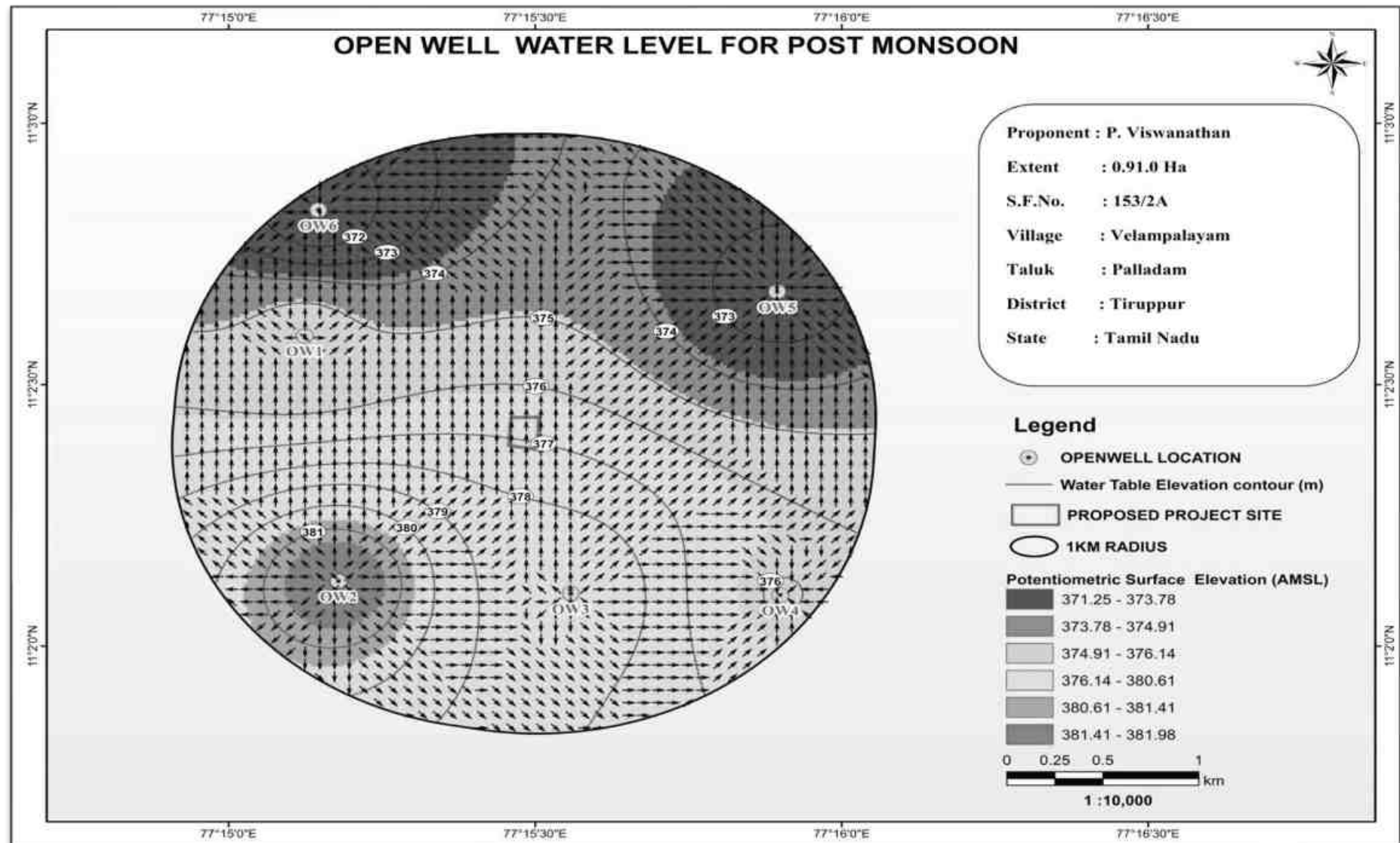


Fig. No. 3.27: Open Well Static Ground Water Elevation Map Showing Direction of Groundwater flow during Post Monsoon (Oct-Dec-2024)

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Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

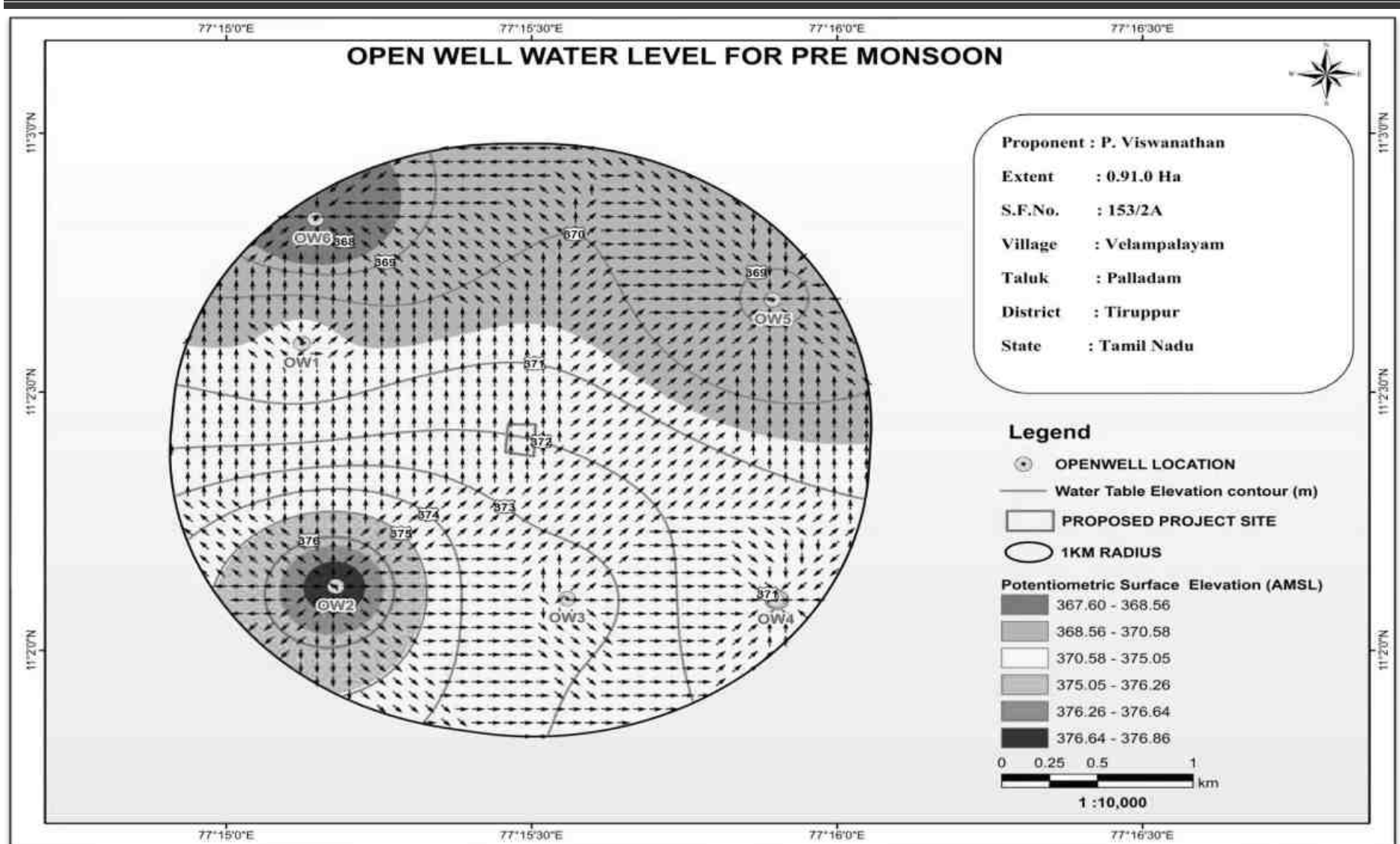


Fig. No. 3.28: Open Well Static Ground Water Elevation Map Showing Direction of Groundwater flow during Pre Monsoon (Mar to May-2025)

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT
Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

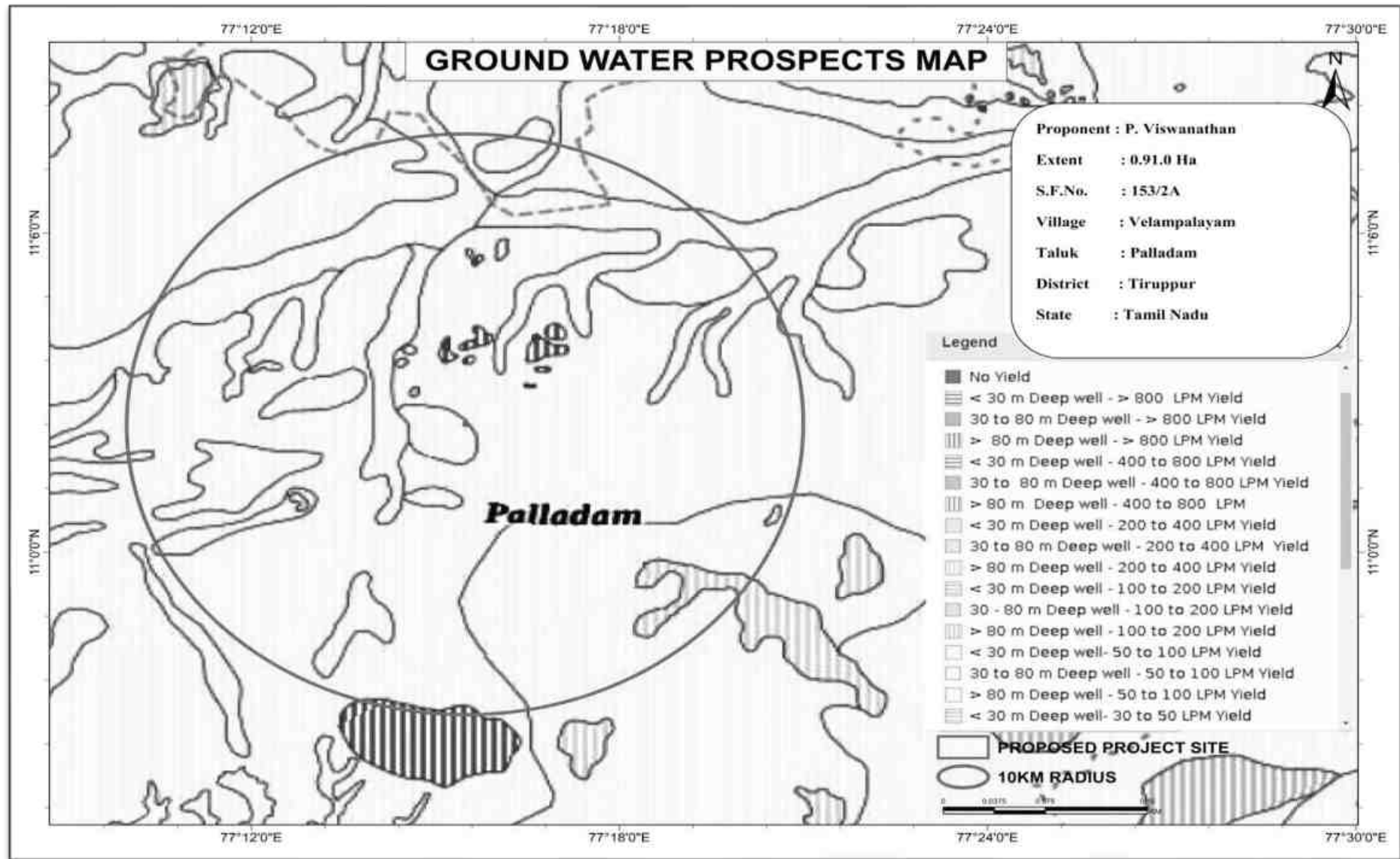


Fig. No. 3.29: Ground Water prospects map proposed project site around 10km Radius

3.11.7 Conclusions

The hydro geological, geophysical studies indicate the water bearing aquifer is located at 59-62m below ground level (BGL). The maximum depth of mining proposed project for five years 41m below ground level. Therefore, the mining operation will not affect the aquifer throughout the entire mine life period.

3.12 ECOLOGY AND BIOLOGICAL ENVIRONMENT

The present chapter focuses on the ecological and biological assessment of the project site and its surrounding areas within a 10 km radius, pertaining to the proposed Rough Stone and Gravel Quarry project. The ecological study aims to document the existing terrestrial and aquatic biodiversity, assess the presence of ecologically sensitive areas, and evaluate the potential impact of quarrying activities on flora and fauna.

The project site, located at S.F. No. 153/2A, Velampalayam Village, Palladam Taluk, Tiruppur District, covers an area of 0.91.0 hectares, falling under Toposheet No. 58 E/08. The ecological assessment is conducted as per the guidelines of the Ministry of Environment, Forest and Climate Change (MoEF&CC).

3.12.1 Description of Tiruppur District Environment

Tiruppur popularly known as “Banian City” of the South India is located 60 km away from Coimbatore city. It has come a long way from a small cotton marketing centre with a few ginning factories to become a prominent cluster of small and medium manufacturing enterprises gainfully engaged in the production and export of a range of knitted apparels. This township started with the production of low valued cotton hosiery items, mainly under garments during the 1930’s.

Tiruppur is located at 11°06'27.3" N 77°20'23.3" E / 11.1075°N 77.3398°E Geographical area of Tiruppur district is 5186.34 square kilometers. Tiruppur district lies on the western part of Tamil Nadu bordering the Western Ghats and hence the district enjoys a moderate climate. The district is surrounded by Coimbatore district in the west, Erode district to the North 2 and northeast and Karur district in the east and Dindigul district in the south east. To the south the district is surrounded by Kerala State (Idukki district). The district has an area of 516.12 square kilometers.

The mean maximum and minimum temperatures for Tiruppur city during summer and winter vary between 35°C to 18°C. The average annual rainfall in the plains is around 700 mm with the North East and the South West monsoons contributing to 47% and 28% respectively to the total rainfall.

3.12.2 Agriculture activities in Tiruppur District

Tiruppur district though an industrial district plays important role in Agriculture also. The food production required to be enhanced to provide food and nutritional security do the growing district population. Tiruppur more than 80% of the farmers belongs to small and marginal category and they play a key role in overall development in Agriculture. The total area of cultivation is around 2,28,556 hectares, mainly food and commercial crops. The chief food crops are paddy, millets and pulses. The nonfood or commercial crops in the district are cotton, oil seeds and coconut. The soil is predominantly black, which is suitable for cotton cultivation, but it also has some red loamy soil.

Table 3.15: Details of Important crops in Tiruppur District

Sl. No	Name	Scientific Name	Family
1	Paddy	Oryza sativa	Poaceae
2	Cholam	Sorgham bicolor	Poaceae
3	kambu	Pennisetum glaucum	Poaceae
4	Ragi	Eleusine coracana	Poaceae
5	Groundnut	Arachis hypogaea	Fabaceae
6	Sugarcane	Saccharum officinarum	Poaceae
7	Black gram	Vigna mungo	Fabaceae
8	Cotton	Gossypium herbaceum	Malvaceae
9	Vargu	Paspalum crobiculatum	Poaceae
10	Maize	Zea mays	Poaceae
11	Green gram	Vigna radiata	Fabaceae
12	Red gram	Cajanus cajan	Fabaceae
13	Castor	Ricinus communis	Euphorbiaceae
14	Kuthiraivali	Echinochloa frumentacea	Poaceae
15	Horsegram	Macrotyloma uniflorum	Fabaceae

3.12.3 Forest resources

Indira Gandhi Wild Life Sanctuary is spread over at the altitude of 1400 meters in the Western Ghats area of Pollachi, Valparai and Udumalaipettai. The area of the sanctuary is 958 sq km of which only 387 sq km spreadover in Tiruppur district. Amaravthy Reserve Forest and part of Anaimalai Reserve Forest of Anaimalai wildlife Sanctuary falls within the Tiruppur district.

3.12.4 Water resources

The major rivers flowing through the district are Noyyal and Amaravathi, which come under the Cauvery basin. Chinnar and Tenar rivers are the main tributary of Amravati River, which is the main source of irrigation in the district. Nallar and Palar River are covered under the Parambikulam-Aliyar basin. Both Amaravathi dam and Thirumurthy dam are the prime source of irrigation in the district, whereas Upbaar dam is another dam which receives water from seasonal rains.

3.12.5 Study Area Ecology

A survey was conducted to study the flora around 10 km radius. Some of the information was gathered from the local habitants. All the collected data were classified to interpret the impact of pollution on the flora and fauna of that region. Survey of the wild plants as well as cultivated crop plants was made and all the available information was recorded. The primary data collected was compared with the Secondary data collected from Forest Department. There are no ecologically sensitive areas such as Biosphere reserves, Wildlife Sanctuaries, national Parks and other protected areas in or around the project site in a radius of 10 km. Generate Baseline Data from field observations.

3.12.6 Methodology of Sampling

A methodology of Sampling Flora and fauna studies were carried out during the winter season to assess the list of terrestrial plant and animal species that occur in the core area and the buffer area up to 10 km radius from the project site. No damage is created to flora and fauna during the sampling. None of the specimens were collected as voucher specimens and for the herbarium. It is basically done through field observations only. The study of flora is conducted as per the guidelines of the Ministry of Environment Forest and Climate Change (MoEF&CC) and Botanical Survey of India (BSI).

The study involved in the collection of primary data by conducting a survey in the field, examination of flora and fauna records in previously published reports and records. Analysis of the information is the view of the possible alteration in the environment of the project site. For the survey of fauna, both direct and indirect observation methods were used

3.12.7 DATA COLLECTION

In order to understand the ecological status of different habitats and the status of biodiversity.

MACRO LEVEL APPROACH

3.12.7.1 Rapid Survey and Secondary data collection

Rapid survey of project area was carried out initially to identify and understand the existing physical and biological environments, which include the core zone and the buffer zone (area of 10 km radius from the mine site).

Interaction and discussion with project proponents were made to understand and get the firsthand information about the project and associated activities.

Collection and compilation of project related information specific to project components (flora, fauna, habitats) from different stakeholders (State and division forest departments, Revenue etc.) and scientific information were collected that were available in the form of published papers, reports, books, State flora and CPCB etc.

3.12.7.2 Field Data Collection

Micro level approach involved mainly the field based primary data collection on different components of the project objectives/scope of works using well established and accepted ecological methods in different habitats identified within the study area. The field data collection mainly included biodiversity status assessment of different life forms (Habit) of floral elements such as Trees, Shrubs, Climbers, Herbs and Grass. Faunal diversity was assessed by inventorying the major taxonomical groups like Herpes to fauna (amphibian and reptiles), birds (both aquatic and terrestrial) and mammal

3.12.7.3. Flora

- Status of floral species was assessed in the representative habitat types (Forest, Agriculture and Wetland habitats) existing in the study area.
- Quantitative data were collected using standard Quadrature methods using circular plots followed by Mueller-Dombois and Ellenberg (1967) and Kershaw (1973).
- Status of tree, shrub and annuals (grass and herb) were quantified using circular plots of different sizes, 15m, 8m radius and 1 x 1m two plots respectively. Other habits like climbers and creepers found within the 8m radius plots were also identified and enumerated.

3.12.7.4 Analytical Aspects

Simpsons Diversity

It is often used to quantify the biodiversity of a habitat. As species richness and evenness increase, so diversity increases.

The range is from 0 to 1, where:

- High scores (close to 1) indicate high diversity
- Low scores (close to 0) indicate low diversity

To understand species variation in community, diversity Index was calculated by using the following formula

$$D = 1 - \sum n(n-1) / N(N-1)$$

Where,

D = Simpson's Diversity Index

N = total number of individuals of all species.

n = number of individuals of each species.

d = Shannon Wiener Diversity Index.

Relative Density

Density is the measure of dense in the distribution of an individual species within a given area. Density of a species is defined as the average number of the species per quadrant and calculated as follows:

$$\text{Relative Density} = \frac{\text{Total no. of individuals species}}{\text{Total no. of individuals of all species}} \times 100$$

Relative Frequency:

The frequency of individual species is the number of times the species occurs in the sampling quadrant. It is actually represented as a percentage calculated as follows:

$$\text{Relative frequency} = \frac{\text{No. of quadrats in which the species occurred}}{\text{Total no. Of quadrats studied}} \times 100$$

Relative Value Index:

Relative important value index is nothing but the added value of only Relative Frequency and Relative Density estimated for RVI. This index was used for deriving the dominant status assessment of trees (>20 cm gbh) and woody shrub species.

Relative density and relative frequency and relative value indices were calculated following Curtis and Cottam (1962).

Trees: Trees were studied using the quadrat method as followed during vegetation survey. The size of each quadrat for tree survey was 10 m × 10 m. To study herbaceous and woody vegetation systematically, standard methods of analyzing vegetation were used for determination of vegetation composition and richness. Quadrat numbers depend upon the requirement in specific cases. Comparative analysis of the outcome of the Quadrat Sampling was done to understand the characteristics of species observed in the study area

Shrubs: Shrubs were studied using the quadrat method as followed during vegetation survey. The size of each quadrat for shrub survey was 5 m x 5 m for shrubs of 3 m height.

Herbs: Herbaceous plants were studied using the quadrat method as followed, during vegetation survey. The size of each quadrat for herb survey was 1 m x 1 m.

3.12.7.5 Flora

The present study on the floral assessment for the existing project activity is based on extensive field survey of the area. The plant species were identified with the help of plant taxonomy manual, literatures and Botanical Survey of India website (efloraindia.nic.in). In addition, besides the collection of plant species, information was also collected with vernacular names of plant species made by local inhabitants.

3.12.7.6 Flora in Core Zone

Taxonomically a total of 39 species distributed in 26 families have been recorded from the core mining lease area. Based on habitat classification of the enumerated plants the majority of species were tree 22 (56%) followed by shrubs 6(15%), herbs 9 (23%) and creeper 2 (5%). Details of flora with the scientific name were mentioned in Table No. 3.16 and Fig No: 3.30. No ecologically sensitive plant species has been reported from this area.

3.12.7.7. Flora in Buffer Zone

Taxonomically a total of 63 species distributed among 35 families have been recorded from the buffer area. Based on habitat classification of the enumerated plants the majority of species were tree 31 (49%) followed by shrubs 13(21%), herbs 15(24%) and rest 4 (6%) is a climber. Details of flora with the scientific name were mentioned in Table No. 3.16 and Fig No: 3.30.

3.12.7.8 Crop Pattern in Buffer Zone

The buffer area of mining lease area mostly cultivated for varieties of flowers such as, jasmine, firecracker flower, marigold and crops area mango and groundnut. Details crops with name mentioned in table 3.17.

Table 3.16: Floral Diversity in Core and Buffer area (Thiru P.Viswanathan, R700ough Stone and Gravel Quarry, Tiruppur District)

S. No.	Common Name	Local Name	Family	Scientific Name	Core	Buffer
TREES						
1.	Egyptian Pea Tree	Sethakathi Maram	Fabaceae	<i>Sesbania sesban</i>	+	+
2.	Pithraj Tree	Pithraj Maram	Meliaceae	<i>Aphanamixis polystachya</i>	+	+
3.	Cat-thorn Tree	Chimati Maram	Rhamnaceae	<i>Scutia buxifolia</i>	+	+
4.	Mesquite Tree	Mullu Maram	Fabaceae	<i>Prosopis juliflora</i>	+	+
5.	Neem Tree	Vempa Maram	Meliaceae	<i>Azadirachta india</i>	+	+
6.	Khejri Tree	Vanni Maram	Fabaceae	<i>Prosopis spicigera</i>	-	+
7.	Ceylon olive Tree	Ularga karai Maram	Elaeocarpaceae	<i>Elaeocarpus serratus</i>	+	+
8.	Palmyra palm Tree	Panai Maram	Arecaceae	<i>Borassus flabellifer</i>	+	+
9.	Mango Tree	Maa Maram	Anacardiaceae	<i>Mangifera indica</i>	+	+
10.	Papaya Tree	Papali Maram	Caricaceae	<i>Carica Papaya</i>	-	+
11.	Teak Tree	Tekku Maram	Lamiaceae	<i>Tectona grandis</i>	+	+
12.	Sandal wood Tree	Santhana Maram	Santalaceae	<i>Santalum album</i>	-	+
13.	Chebolicmyrobalan	Kudukkai Maram	Combretaceae	<i>Terminalia chebula</i>	+	+
14.	Pungamin Tree	Pungai Maram	Fabaceae	<i>Pongamia pinnata</i>	+	+
15.	Lemon-Scented Gum Tree	Thaila Maram	Myrtaceae	<i>Eucalyptus citriodora</i>	+	+
16.	Black plum Tree	Naval Maram	Myrtaceae	<i>Syzygium cumini Sps.</i>	+	+
17.	Banana Tree	Vaazhai Maram	Musaceae	<i>Musa paradisica</i>	-	+
18.	Thorn mimosa Tree	Karuvelam Maram	Mimosaceae	<i>Acacia nilotica</i>	+	+
19.	Coconut Tree	Tennai Maram	Arecaceae	<i>Coccus nucifera</i>	+	+
20.	Guava Tree	Koiya Maram	Myrtaceae	<i>Psidium guajava</i>	-	+
21.	Indian date Tree	Elandhai Maram	Rhamnaceae	<i>Ziziphus jujuba</i>	+	+
22.	Sweet acacia Tree	Kastuurivel Maram	Fabaceae	<i>Vachellia farnesiana</i>	-	+
23.	Iron wood Tree	Savukku Maram	Casuarinaceae	<i>Casuarina equisetifolia</i>	+	+
24.	Broome rain Tree	Vagai Maram	Fabaceae	<i>Albizia lebbeck</i>	-	+
25.	Custard apple Tree	Seethe pazham Maram	Annonaceae	<i>Annona squamosa</i>	+	+

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26.	Cannonbal Tree	Nagalinga Maram	Lecythidaceae	<i>Couroupita guianensis</i>	-	+
27.	Tanner's cassia Tree	Avaram poo Maram	Fabaceae	<i>Senna auriculata</i>	-	+
28.	Blackboard Tree	Aezhilai Paalai Maram	Apocynaceae	<i>Alstonia scholaris</i>	-	+
29.	Drumstick Tree	Murungai Maram	Moringaceae	<i>Moringa oleifera</i>	-	+
30.	Banyan Tree	Ala Maram	Moraceae	<i>Ficus benghalensis</i>	-	+
31.	Tamarind Tree	Puliya Maram	Fabaceae	<i>Tamarindus indica</i>	+	+
SHRUBS						
1.	Rough cocklebur	Marul umattai	Asteraceae	<i>Xanthium strumarium</i>	+	+
2.	yellow lucerne	Kutirai macal	Fabaceae	<i>Medicago falcata</i>	+	+
3.	Gwar patha	Katrazai	Liliaceae	<i>Aloe vera (or) Aloe barbadensis miller</i>	+	+
4.	Spiral cactus	Thirugu kalli	Euphorbiaceae	<i>Euphorbi tortilis</i>	+	+
5.	Indian Abutilon	Thuthi keera	Meliaceae	<i>Abutilon indicum</i>	+	+
6.	Peacock flower	Mayil kontai	Fabaceae	<i>Caesalpinia pulcherrima</i>	+	+
7.	Marigold	Samanthi cheedi	Asteraceae	<i>Tagetes erecta</i>	-	+
8.	Jasmine	Mali cheedi	Oleaceae	<i>Jasminum officinale</i>	-	+
9.	Firecracker flower	Kanakambaram	Acanthaceae	<i>Crossandra infundibuliformis</i>	-	+
10.	Hibiscus	Cembarutti	Malvaceae	<i>Hibiscus rosanaceae</i>	-	+
11.	Crown flower	Erukku cheedi	Apocynaceae	<i>Calotropis gigantea</i>	+	+
12.	Jimson weed	Ummathai cheedi	Solanaceae	<i>Datura stramonium</i>	+	+
13.	Coat buttons	Veddukaiya cheedi	Asteraceae	<i>Tridax procumbens</i>	-	+
14.	Rose	Rosa	Rosaceae	<i>Rosa rubiginosa</i>	-	+
HERBS & GRASS						
1.	Mountain knotgrass	Pulappoo	Amaranthaceae	<i>Aerva lanata</i>	+	+
2.	Weeping alkaligrass	Mara uri	Poaceae	<i>Puccinellia distans</i>	+	+
3.	Hair fescue	Vatra pul	Poaceae	<i>Festuca filiformis</i>	+	+
4.	Indian Copper leaf	Kuppaimeni	Euphorbiaceae	<i>Acalypha indica</i>	-	+
5.	Devil bean	Kilukiluppai	Fabaceae	<i>Crotalaria retusa</i>	+	+
6.	Indian comet grass	Narival	Poaceae	<i>Perotis indica</i>	-	+
7.	Villosa	Kavali	Fabaceae	<i>Tephrosia villosa</i>	-	+
8.	Sickle senna	Thagarai	Fabaceae	<i>Senna tora</i>	+	+

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9.	Indian doab	Arugampul	Poaceae	<i>Cynodon dactylon</i>	+	+
10.	Carrot grass	Mookkuthi poo	Asteraceae	<i>Parthenium hysterophorus</i>	+	+
11.	Black nightshade	Manathakkali	Solanaceae	<i>Solanum nigrum</i>	+	+
CREEPERS/CLIMBERS						
1.	Veldt grape	Perandai	Vitaceae	<i>Cissusqua drangularis</i>	+	+
2.	Bitter cucumber	Petikari	Cucurbitaceae	<i>Citrullus colocynthis</i>	-	+
3.	Bitter melon	Pavakkai	Cucurbitaceae	<i>Momordica charantia</i>	-	+
4.	Ivy gourd	Kovakkai	Cucurbitaceae	<i>Coccinia grandis</i>	-	+

Table No: 3.17: Crops pattern in Thiru V. Gangesan, Rough Stone and Gravel Quarry, Tiruppur District

Sl. No	Common Name	Scientific Name	Family
1.	Jasmine flower	<i>Jasminum officinale</i>	Asteraceae
2.	Marigold plant	<i>Tagetes erecta</i>	Asteraceae
3.	Firecracker flower	<i>Crossandra infundibuliformis</i>	Acanthaceae
4.	Mango plant	<i>Mangifera indica</i>	Anacardiaceae
5.	Groundnut plant	<i>Arachis hypogaea</i>	Fabaceae



Fig a. Ricinus communis

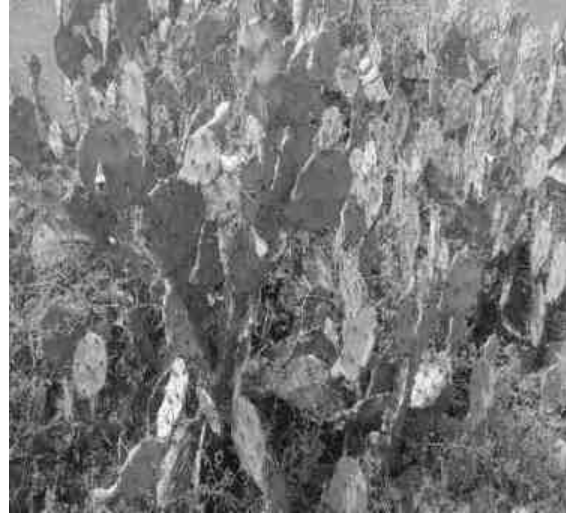


Fig b. Opuntia ficus indica



Fig c. Ziziphus mauritiana



Fig d. Psidium guajava



Fig e. Vinca rosea



Fig.f. Carica papaya

Fig. No. 3.30: Photos of Flora in Core and Buffer Area

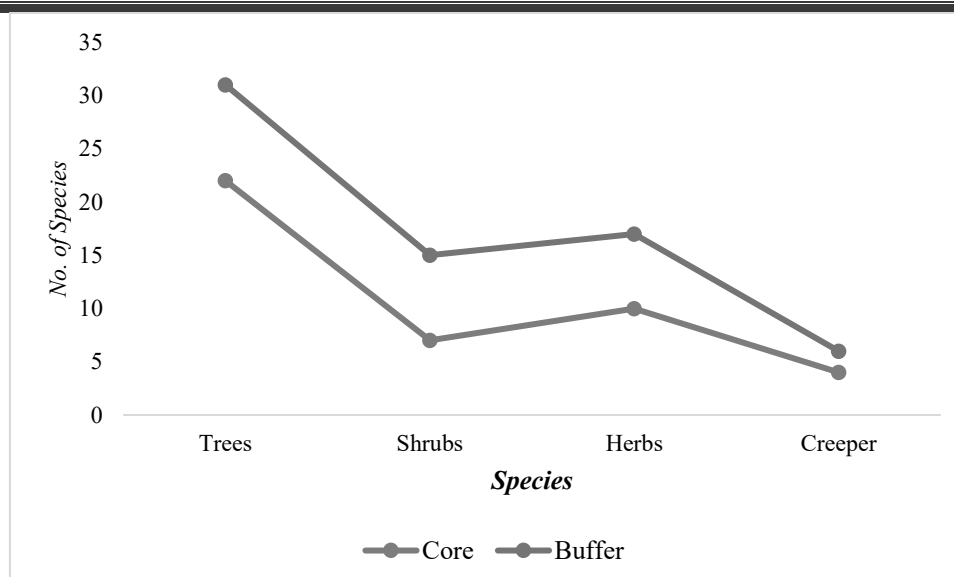


Fig. No. 3.31: Floral diversity in Core and Buffer Zone

3.12.8. Fauna

The fauna survey has been carried out as per the methodology cited and listed out Mammals, birds, Reptiles, Amphibians, and Butterflies. All the listed species were compared with Red Data Book and Indian Wildlife Protection Act, 1972.

The study of fauna takes a substantial amount of time to understand the specific fauna characteristics of the area. The assessment of fauna has been done on the bases of primary data collected from the lease sites. The presence was also confirmed from the local inhabitants depending on the animal sightings and the frequency of their visits in the project area. In addition, officials, local peoples were another source of information for studying the fauna of the area. Field activities are physical/active search, covering rocks, burrows, hollow inspection and location of nesting sites and habitat assessment etc. Taxonomical identification was done by the field guide book and wildlife envis database (wiienvis.nic.in/Database/Schedule Species Database) and Zoological Survey of India (ZSI).

Table 3.18: Methodology applied during survey of fauna

S. No	Taxa	Method of Sampling	References
1	Insects	Random walk, Opportunistic observations	Pollard (1977); Kunte (2000)
2	Reptiles	Visual encounter survey (Direct Search)	Daniel J.C (2002)
3	Amphibians	Visual encounter survey (Direct Search)	
4	Mammals	Tracks and Signs	Menon V (2014)
5	Avian	Random walk, Opportunistic observations	Ali S (1941); Grimmett R (2011); Collins 2015

3.12.8.1. Fauna in Core Zone

Varieties of species were observed in the core zone (0-2km radius) of the Quarry. Number of species decreases towards the mining area this might be due the lack of vegetation and forest cover in mining lease area. None of these species are threatened or endemic. Taxonomically a total of 25 species belonging to 25 families have been recorded from the core mining lease area. Based on habitat classification the majority of species were birds 10 (40%) followed by insects 10 (36%), reptiles 5 (8%) and mammals 4 (16%). Dominant species were mostly birds and insects no amphibians were observed during the extensive field visit. Details of fauna with the scientific name were mentioned in Table 3.18.

There are no critically endangered, endangered, vulnerable and endemic species were observed.

3.12.8.2. Fauna in Buffer Zone

Taxonomically a total of 39 species belonging to 39 families have been recorded from the buffer mining lease area. Based on habitat classification the majority of species were birds 16 (41%) followed by insects 12 (36%), reptiles 5 (8%) and mammals 8 (15%). There were no critically endangered, endangered, vulnerable and endemic species were observed. Details of fauna with the scientific name were mentioned in Table 3.18.

There were no critically endangered, endangered, vulnerable and endemic species were observed.

Table 3.19: Faunal in Core and Buffer area (Thiru. P.Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District)

Sl. No	Common Name	Family Name	Scientific Name	Core Area	Buffer Area	Schedule list wildlife protection act 1972	IUCN Red list data
MAMMALS							
1.	House mouse	Muridae	<i>Musmus culus</i>	+	+	NL	LC
2.	Common mongoose	Herpestidae	<i>Herestes edwardsii</i>	-	+	NL	NL
3.	Bat	Pteropodidae	<i>Pteropus medius</i>	+	+	NL	NL
4.	Palm squirrel	Sciuridae	<i>Funambulus pennantii</i>	-	+	NL	NL
INSECTS							
1.	Eight-spotted forester	Noctuidae	<i>Alypia octomaculata</i>	+	+	Schedule IV	LC
2.	Mottled emigrant	Pieridae	<i>Catopsilia pyranthe</i>	+	+	Schedule IV	LC
3.	Yellow Albatross	Pieridae	<i>Appias paulina</i>	+	+	Schedule IV	LC
4.	Jezebel butterfly	Pieridae	<i>Delias aestiva</i>	+	+	Schedule IV	LC
5.	Common grass yellow	Pieridae	<i>Eurema brigitta</i>	-	+	Schedule IV	LC
6.	Marbled white	Nymphalidae	<i>Melanargia galathea</i>	-	+	Schedule IV	LC
7.	Banded hairstreak	Lycaenidae	<i>Satyrium calanus</i>	+	+	Schedule IV	NE
8.	Blue basher	Libellulidae	<i>Pachydiplax longipennis</i>	+	+	NL	LC
9.	Slaty skimmer	Libellulidae	<i>Libellula incesta</i>	-	+	NL	LC
10.	White butterfly	Pieridae	<i>Pieris rapae</i>	-	+	Schedule IV	LC
11.	Baronet	Nymphalidae	<i>Euthalia nais</i>	+	+	Schedule IV	NE
12.	Milkweed butterfly	Nymphalidae	<i>Danaus plexippus</i>	+	+	NL	LC
13.	Red-veined darter	Libellulidae	<i>Sympetrum fonscolombii</i>	+	+	NL	LC
14.	Common Tiger	Nymphalidae	<i>Dananus genutia</i>	+	+	NL	NE

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15.	Plain Tiger	Nymphalidae	<i>Dananeus chrysippus</i>	+	+	NL	NE
REPTILES							
1.	House gecko	Gekkonidae	<i>Hemidactylus platyurus</i>	+	+	NL	NL
2.	Peninsular rock agama	Agamidae	<i>Psammophilus dorsalis</i>	+	+	NL	NL
3.	Common house gecko	Gekkonidae	<i>Hemidactylus frenatus</i>	-	+	NL	NL
4.	Fan-Throated Lizard	Agamidae	<i>Sitana ponticeriana</i>	+	+	NL	LC
BIRDS							
1.	Fan tailed cuckoo	Cuculidae	<i>Cacomantis flabelliformis</i>	-	+	NL	LC
2.	Yellow billed cuckoo	Cuculidae	<i>Coccyzus americanus</i>	-	+	NL	LC
3.	White browed coucal	Cuculidae	<i>Centropus superciliosus</i>	-	+	NL	LC
4.	Common cuckoo	Cuculidae	<i>Cuculus canorus</i>	+	+	NL	LC
5.	Cattle egret	Ardeidae	<i>Bubulcus ibis</i>	-	+	NL	LC
6.	Japanese quail	Phasianidae	<i>Coturnix japonica</i>	-	+	NL	LC
7.	House crow	Corvidae	<i>Corvus splendens</i>	+	+	NL	LC
8.	White-breasted waterhen	Rallidae	<i>Amaurornis phoenicurus</i>	+	+	NL	LC
9.	Rose-ringed parakeet	Psittacidae	<i>Psittacula krameri</i>	+	+	NL	LC
10.	Common myna	Sturnidae	<i>Acridotheres tristis</i>	+	+	NL	LC
11.	Black drongo	Dicruridae	<i>Dicrurus macrocercus</i>	+	+	NL	LC
12.	Crow Pheasant	Cuculidae	<i>Centropus sinensis</i>	+	+	Schedule IV	LC
13.	Koel	Cuculidae	<i>Eudynamis scolopacea</i>	+	+	Schedule IV	LC
14.	House sparrow	Passeridae	<i>Passer domesticus</i>	+	+	Schedule IV	LC
15.	White throated king fisher	Alcedinidae	<i>Halcyon smyrnensis</i>	+	+	Schedule IV	LC

((+)) Symbol indicate presence of Species, (-) Symbol indicate absence of Species, *NL- Not listed, NE- Not evaluated, LC- Least concern



Fig. a Mylabris phalerata



Fig. b Funambulus pennantii



Fig. c. Pachydiplax longipennis



Fig.d. Chamaeleon zeylanicus



Fig. e. Ardeola grayii



Fig.f. Ardea purpurea



Fig.g. Junonia hierta



Fig.h. Junonia almanac

Fig. No. 3.32: Photos of Fauna in Core Area

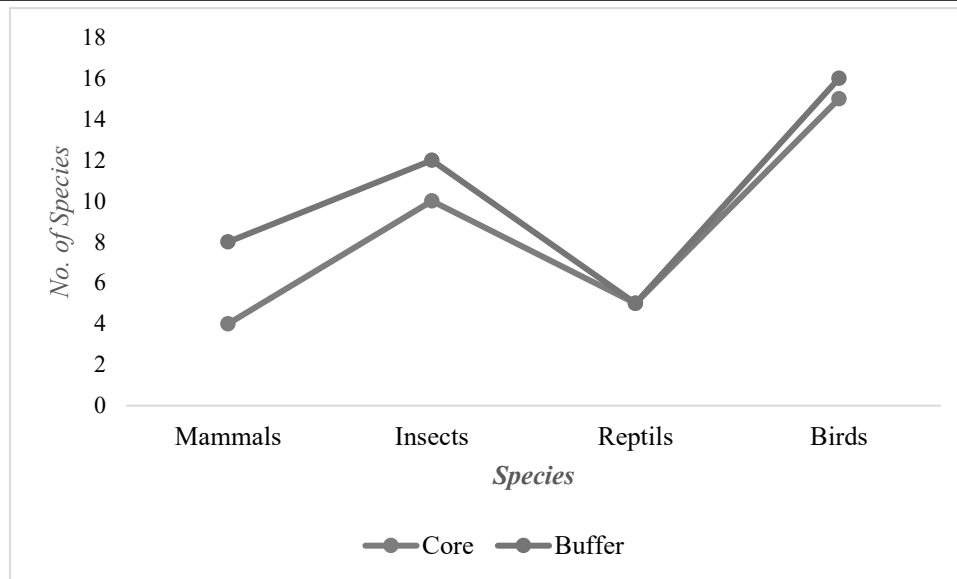


Fig. No. 3.33: Faunal diversity in Core and buffer Zone

3.13 SOCIO-ECONOMIC ENVIRONMENT

3.13.1 Introduction

Socio- economic Environment is the creation of new firms is a good indicator of economic development. The socio-economic environment are the external conditions that influence the standard of living, economic opportunities, development of individuals and communities. This section presents an overview of the socio-economic environment within the study area of the proposed Rough Stone and Gravel Quarry project to be undertaken by Thiru. P. Viswanathan. The project site is located at S.F. No. 153/2A, Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu, covering an area of 0.91.0 Hectares.

Understanding the socio-economic characteristics of the region is essential to assess the potential impacts and benefits of the mining activity on the local community. This section includes an analysis of demographics, literacy, employment, land use, and infrastructure within the 10 km radius of the project area, based primarily on the 2011 Census data and field observations.

3.13.2 Objectives of the Study

The primary objective of this socio-economic assessment is to understand the existing human and economic conditions in the study area and to evaluate the potential social and economic impacts of the proposed quarry project. The specific objectives include:

- To assess the demographic profile of the local population, including population size, sex ratio, literacy levels, and age distribution.

- To understand the economic structure of the region, with particular focus on employment patterns, income sources, and dependence on agriculture, labor, or industrial activities.
- To identify vulnerable and marginalized groups, such as Scheduled Castes (SC), Scheduled Tribes (ST), landless laborers, and women-headed households, for inclusive planning and benefit-sharing.
- To evaluate the availability and quality of basic infrastructure such as education, healthcare, water supply, sanitation, electricity, and transport facilities in the surrounding villages.
- To assess the potential positive and negative impacts of the quarry project on the local community in terms of employment, resource use, displacement (if any), and quality of life.
- To conduct stakeholder consultations and document community concerns, expectations, and suggestions related to the project.
- To recommend appropriate mitigation measures and CSR strategies to enhance local development and minimize any adverse impacts.

3.13.3 Scope of Work

The scope of the socio-economic study has been defined in alignment with the requirements of the Environmental Impact Assessment (EIA) Notification, 2006, and the Terms of Reference (ToR) issued by SEIAA, Tamil Nadu. The study covers all relevant socio-economic aspects within the 10 km radius of the project site, ensuring comprehensive understanding of the local environment and people.

1. Delineation of the Study Area

Identification of villages within a 10 km buffer zone around the project location using satellite imagery and topographic maps.

2. Collection of Baseline Socio-Economic Data

Compilation and analysis of demographic statistics from Census 2011 and District Human Development Reports.

Assessment of population distribution, household structure, literacy, occupational pattern, and social stratification (SC/ST population).

3. Field Surveys and Community Consultations

Interaction with local stakeholders, including village leaders, landowners, workers, and women's groups to gather qualitative data and assess perception toward the project.

4. Evaluation of Existing Infrastructure and Public Services

Documentation of access to education, healthcare, drinking water, sanitation, electricity, roads, and communication facilities in the study villages.

5. Assessment of Potential Social and Economic Impacts

Identification of possible positive (e.g., employment generation, local development) and negative (e.g., dust nuisance, traffic hazards) project-related impacts.

6. Development of Mitigation and Enhancement Measures

Formulation of strategies to address any adverse impacts and enhance local benefits through Environmental Management Plan (EMP) and Corporate Social Responsibility (CSR) initiatives.

7. Integration of Socio-Economic Findings into EIA Framework

Aligning socio-economic findings with other environmental components (e.g., air, noise, land use) for holistic impact assessment and sustainable quarry management.

3.13.4 Study Area – Velampalayam village, Palladam Taluk, Tiruppur District, Tamil Nadu, covering an area of 0.91.0 hectares.

The study area for the socio-economic environment assessment has been defined as a 10-kilometre (km) radial buffer zone surrounding the proposed Rough Stone and Gravel Quarry Project located at S.F. No. 153/2A, Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu. This area has been delineated based on the guidelines of the Ministry of Environment, Forest and Climate Change (MoEF&CC) for B1 category projects.

The study area includes multiple settlements of varying sizes, encompassing rural villages, agricultural zones, minor industries, and associated infrastructure. This area is representative of the direct and indirect impact zone in terms of resource use, transportation, employment, and potential environmental influences.

Parameter	Details
Buffer Zone Radius	10 km from the project boundary
Total Villages Covered	Approximately 20–25 villages
Core Zone (Project Site)	0.91.0 ha in Velampalayam Village (core mining zone)

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Parameter	Details
Taluk	Palladam Taluk
District	Tiruppur District, Tamil Nadu
Geographical Coordinates	Toposheet-58E/08. Latitude 11°02'22.50" N to 11°02'26.21" N. Longitude- 77°01'527.33E' to 77°15'30.24" E
Land Use	Predominantly agricultural, with fallow land and minor rural industries
Nearest Habitation	Velampalayam Village (~1 km)
Nearest Major Town	Palladam (~8 km from project site)
Nearest Highway	State Highway SH-19 (~4 km)

Land Use and Settlement Pattern are characterized by:

- Predominantly agriculture-based rural settlements,
- Moderate population density,
- Villages with basic amenities such as schools, primary health center's (PHCs), and bus connectivity,
- Employment dominated by agriculture, stone work, and textile-related labour.

Velampalayam Village, where the quarry is located, falls within a developing rural-industrial transition zone, and is typical of the regional socio-economic structure of western Tamil Nadu.

Table No.3.20. Villages within 10 km of the Project Site

S. No.	Village Name	Approx. Distance	Notes
1	Velampalayam	Core	Project village; detailed in census data.
2	Poomalur	~5 km	Nearby census village
3	Naranapuram	~6 km	Census-listed, populous village
4	Velarasivadamalaipalayam	~7 km	Demographic data available
5	Ganapathipalayam	~8 km	Census-recognized village
6	Vavipalayam	~9 km	Census village
7	Sukkampalayam	~7 km	Detailed demographic profile
8	Ichipatti	~9 km	Census-listed
9	Elavanthi	~9 km	Census-listed
10	Kodangipalayam	~10 km	Census-listed

These villages form the core socio-economic impact zone and should be included for:

- Demographics (population, literacy, SC/ST).
- Occupational pattern analysis (agriculture, labor).

➤ Infrastructure audit (schools, healthcare, roads). And Stakeholder consultations and CSR targeting.

3.13.5 Velampalayam Village – Census 2011 (Palladam Taluk, Tiruppur District)

Table No. 3.21: Velampalayam Village – Census 2011 (Palladam Taluk, Tiruppur District)

S. No.	Particulars	Total	Male	Female
1	Number of Households	971	–	–
2	Total Population	3,512	1,789	1,723
3	Children (0–6 years)	369	185	184
4	Sex Ratio (females per 1,000 males)	963	-	-
5	Child Sex Ratio	995		
6	Literacy Rate (overall)	66.85%	75.56%	57.76%
7	Scheduled Caste (SC) Population	497	247	250
8	Scheduled Tribe (ST) Population	6	3	3
9	Total Working Population	1,873	1,170	703
10	Main Workers	1,852	–	–
11	Marginal Workers	21	8	13
12	Cultivators	282	–	–
13	Agricultural Labourers	503	–	–

Sources: Census of India 2011, Tiruppur District, Primary Census Abstract (village-level).

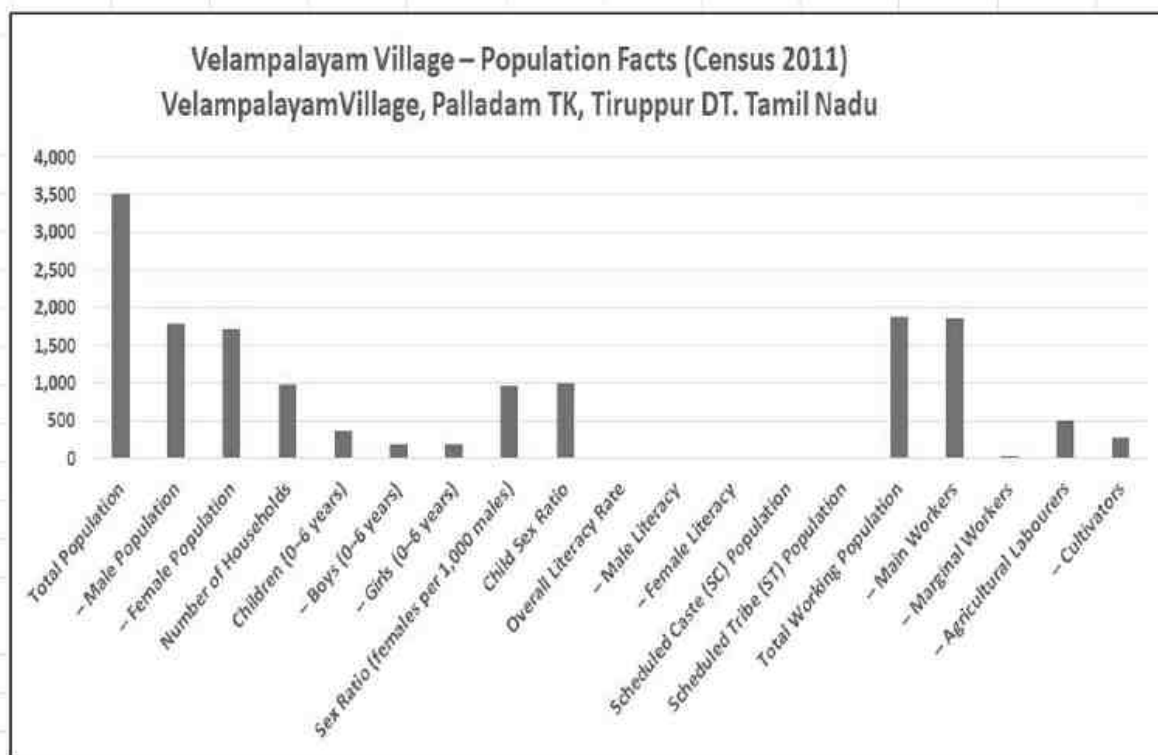


Fig. No. 3.34: Velampalayam Village Population Facts

- ✓ Moderate population (~3,500); over 25% are children.
- ✓ Sex ratio of 963, slightly below state average.
- ✓ Literacy gap: Overall 66.9%, with male 75.6% and female 57.8%.
- ✓ SC/ST population totals ~14.2% (important for social inclusion in employment/CSR).
- ✓ Workforce participation is ~53%; majorities are main workers with significant agri labour presence.

Total Population of Velampalayam in 2011 was 3,512 (1,789 males; 1,723 females). The number of literate persons was 2,101 (1,212 male, 889 females). Total Workers (main + marginal) were 1,873 (1,170 male; 703 female). Hence non-Workers = 3,512–1,873 = 1,639 (619 male; 1,020 female). Among main workers, 503 persons were Cultivators (164Male, 339Female), 164 were Agricultural Labourers (104Male, 60Female), 282 were in Household Industries (179Male, 103Female), and 903 were Other Workers (715Male, 188Female).

3.13.6 Population Characteristics – Velampalayam Village (2001–2011)

Table No. 3.22 Population Characteristics – Velampalayam Village (2001–2011)

S. No.	Demographic Parameter	2001	2011	Decadal Change (%)
1	Total Population	3,087	3,512	+13.8%
2	Male Population	1,578	1,789	+13.4%
3	Female Population	1,509	1,723	+14.2%
4	Number of Households	~840 (est.)	971	+15.6%
5	Children (0–6 years)	399	369	–7.5%
6	Sex Ratio (Females per 1,000 Males)	956	963	+0.7%
7	Child Sex Ratio	978	995	+1.7%
8	Literacy Rate (Total)	59.3%	66.85%	+7.55%
9	Male Literacy	68.2%	75.56%	+7.36%
10	Female Literacy	50.1%	57.76%	+7.66%
11	Scheduled Caste (SC) Population	459	497	+8.3%
12	Scheduled Tribe (ST) Population	5	6	+20.0%
13	Working Population	~1,600 (est.)	1,873	+17.1%

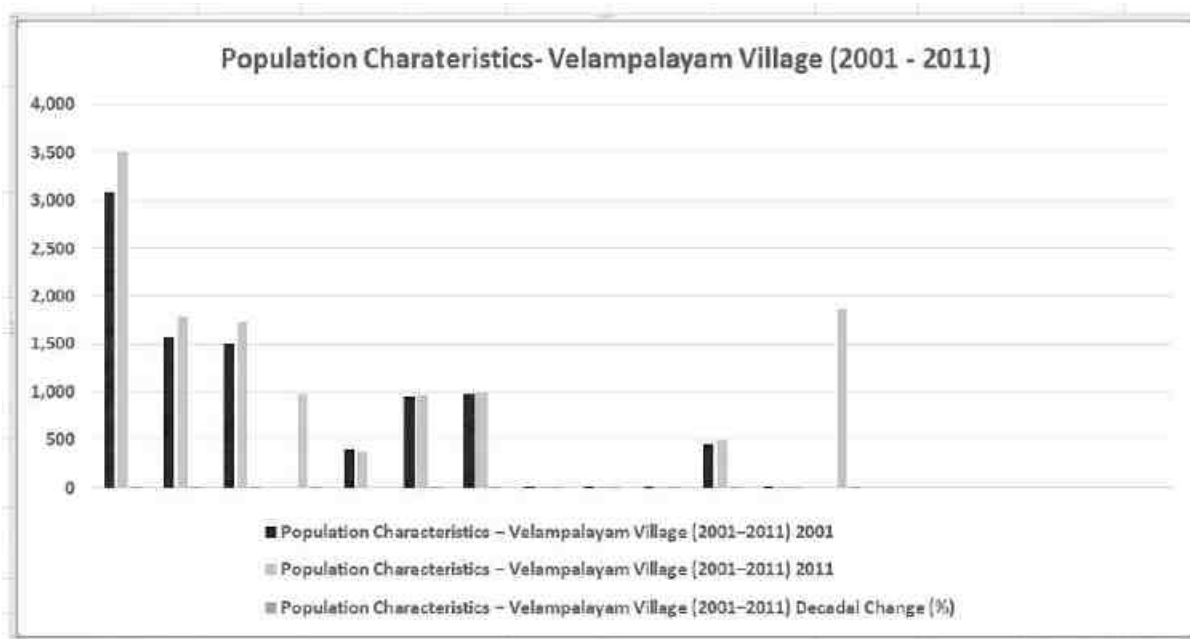


Fig. No. 3.35: Population Characteristics of Velampalayam village Tiruppur Dt. (2001-2011)

Overall population growth: ~13.8% over the decade, in line with rural Tamil Nadu trends. Improved literacy, especially among women (from 50.1% to 57.76%). Decline in child population, indicating lower fertility or family planning awareness. Balanced sex ratio,

with improvement in child sex ratio—a positive social indicator. Working population rose by ~17%, showing increasing labor force participation.

3.13.7 Occupational profile of Velampalayam Village

Velampalayam Village, located in Palladam Taluk of Tiruppur District, Tamil Nadu, represents a typical semi-rural settlement transitioning between agriculture-based livelihoods and an emerging industrial economy. Its proximity to Tiruppur city—renowned for textile exports—has had a significant influence on the occupational structure of the local population. The occupational profile of a village plays a vital role in understanding local economic patterns, the standard of living, and the extent of dependency on primary, secondary, and tertiary sectors.

Compares the Census 2011 data with field-based 2021 estimates to provide a deeper understanding of how livelihood patterns have evolved over the last decade, especially in the context of ongoing land use change, urban influence, and proposed industrial/quarry developments. According to the 2011 Census, the total population of Velampalayam was 3,512, with 1,873 individuals (53.3%) classified as workers and 1,639 (46.7%) as non-workers. A gender-wise analysis reveals that out of 1,170 male workers, the majority were engaged in non-agricultural activities such as textile work, driving, masonry, and other tertiary services. Among female workers (703), a significant number were involved in agriculture and household-based industries.

- **Cultivators (26.8%):** Many families owned small agricultural plots and were involved in subsistence or part-time cultivation, often supplemented by wage labor.
- **Agricultural Labourers (8.7%):** These workers were hired on daily wages, usually from small or marginal households.
- **Household Industry (15%):** Female workers contributed significantly through tailoring, beedi-making, weaving, and home-based textile work.
- **Other Workers (48.2%):** The largest group, this includes transport workers, textile unit laborers, shop owners, quarry laborers, and construction workers.

By 2021, a visible shift in the occupational structure had occurred due to multiple factors:

- ❖ Urbanization and peri-urban expansion of Palladam and Tiruppur
- ❖ A steady decline in smallholder agriculture due to water scarcity and land sale
- ❖ Increased reliance on non-farm employment, particularly in textile and transport sectors
- ❖ Migration of rural youth to nearby industrial hubs and cities.

- ❖ Agricultural activities declined by 20–30%, as more land was sold or left fallow due to groundwater depletion.
- ❖ Tertiary sector employment rose sharply, especially in warehousing, logistics, textile dyeing units, and construction.
- ❖ Female workforce participation increased slightly in self-help group (SHG) based microenterprises and stitching units.
- ❖ The share of Household Industry Workers remained stable or slightly increased, aided by government skill initiatives and SHGs.

Dependency on daily wage labor and contractual jobs increased, with rising informal employment and reduced job security. In 2011, women were more involved in agriculture and home-based industry. By 2021, while male participation in driving, construction, and industrial work had grown, women began taking up roles in garment finishing units and small tailoring hubs. However, overall female participation in formal employment remained lower than males due to traditional gender roles, household responsibilities, and lack of safe transport and crèche facilities.

The occupational trend analysis helps determine how the proposed Rough Stone and Gravel Quarry Project might impact local livelihoods:

Positive Impacts:

- ❖ Short-term jobs for youth in loading, transporting, and handling material
- ❖ Indirect opportunities for food vendors, small shops, and vehicle owners

Potential Impacts:

- ❖ Loss of cultivable land (if leased or sold)
- ❖ Air/dust pollution affecting agriculture and micro-enterprises
- ❖ Disturbance to female-led home industries near haul roads

Hence, the project EMP should consider local skill mapping, offer training and employment preference to displaced or under-employed residents, and invest CSR funds in SHG support, irrigation revival, and road safety. The quarry project should align with these occupational trends to ensure inclusive growth, minimal disruption, and maximum local benefit.

Table No: 3.23. Velampalayam Village, Paladam TK, Tiruppur- DT. (2011 Census)

Parameter	Total	Male	Female
Total Population	3,512	1,789	1,723
Total Literacy	2,101	1,212	889
Total Workers	1,873	1,170	703
Main Non-Workers	1,639	619	1,020
Cultivators	503	164	339
Main Agricultural Labourers	164	104	60
Household Industry Workers (HHI)	282	179	103
Other Tertiary Workers	903	715	188

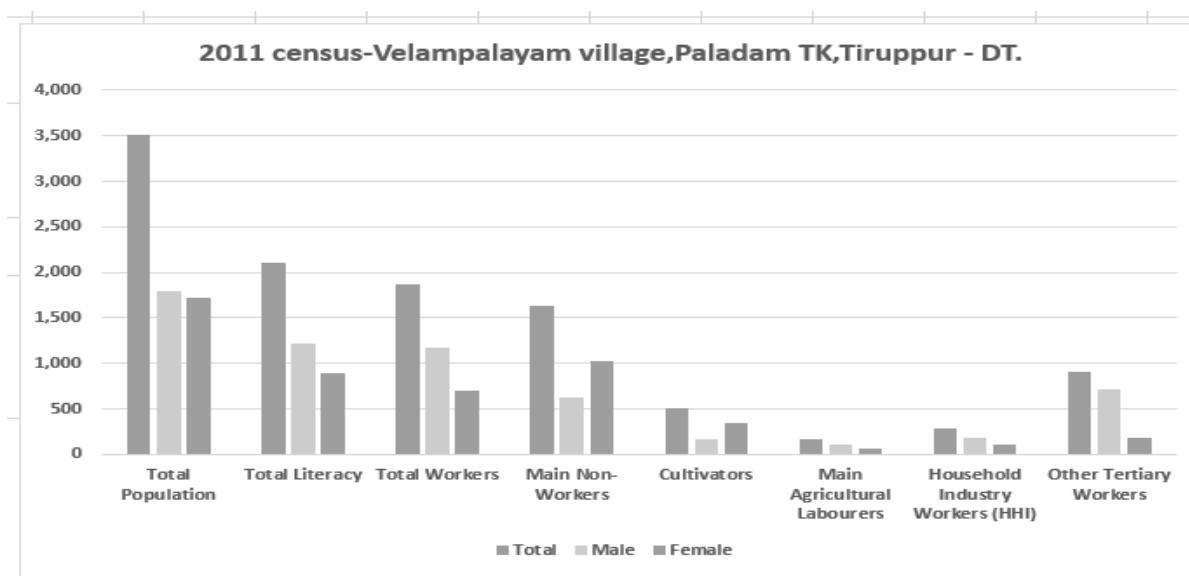


Fig. No.3.36: 2011 Census-Velampalyam village, Palladam TK, Tiruppur- DT.

Table No.3.24: Velampalayam Village, Paladam TK, Tiruppur District, Socio-Economic Comparison (2011 vs. Estimated 2021)

Parameter	2011 Census	% (2011)	2021 Estimate	% Change (2011-21)
Total Population	3,512	100%	4,285	+22%
Male Population	1,789	50.9%	2,157	+20.6%
Female Population	1,723	49.1%	2,128	+23.5%
Total Literacy	2,101	59.8%	2,702	+28.6%
Male Literacy	1,212	67.7%	1,580	+30.4%
Female Literacy	889	51.6%	1,122	+26.2%
Total Workers	1,873	53.3%	2,243	+19.8%
Male Workers	1,170	65.4% (of M)	1,410	+20.5%
Female Workers	703	40.8% (of F)	833	+18.5%
Main Non-workers	1,639	46.7%	2,042	+24.6%
Male Non-workers	619		747	+20.7%
Female Non-workers	1,020		1,295	+26.9%
Cultivators	503	26.8% (of W)	405	-19.5% ▼
Male Cultivators	164		145	-11.6%
Female Cultivators	339		260	-23.3%
Agricultural Labourers	164	8.7%	138	-15.8% ▼
Male Agri. Labourers	104		90	-13.5%
Female Agri. Labourers	60		48	-20.0%
Household Industry Workers (HHI)	282	15%	315	+11.7% ▲
Male HHI	179		195	+8.9%
Female HHI	103		120	+16.5%
Other Tertiary Workers (Main)	903	48.2%	1,385	+53.4% ▲
Male OT Workers	715		1,050	+47%

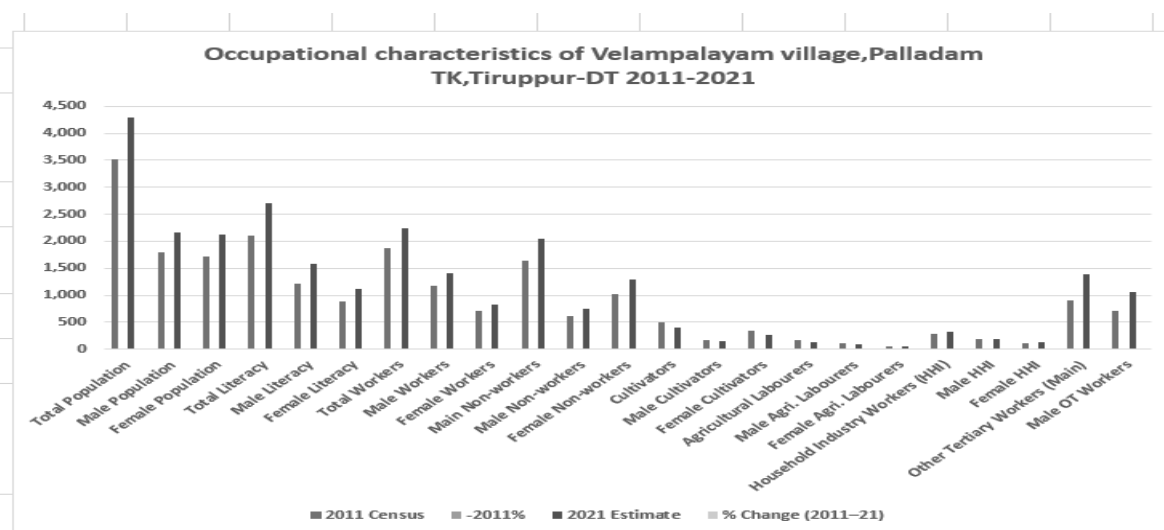


Fig. No. 3.37: Occupational Characteristics of Velampalayam Village

Total population grew ~22% from 2011 to 2021. Literacy rates increased, particularly among females, aided by state schemes and urban exposure. Agricultural occupations declined, with many shifting to wage labor or selling farmland. Tertiary sector employment boomed, especially in textiles, transportation, construction, and quarrying. HHI (Household industries)—mostly female-led—rose due to SHGs, tailoring, and small-scale food/garment work. Female workforce participation saw slight growth but remains below male participation.

▼ = Negative change (decrease)

❖ Cultivators: 2011: 503, 2021: 405, Change: -19.5% ▼

This means the number of people working as cultivators has reduced by 19.5% from 2011 to 2021.

▲ = Positive change (increase)

You also saw symbols like ▲ in HHI and Other Workers rows—these mean growth/increase.

▼ falling trends (agriculture, cultivation)

▲ rising trends (tertiary sector, household industry)

Table No. 3.25: List and Details of Revenue villages within 10km radius

Sl. No	Village Name	Approx. Distance (km)	Remarks
1	Poomalur	~1.5 km	Nearby textile and farming zone
2	Kondangipalayam	~2.5 km	Mixed economy; semi-urban stretch
3	Semmandampalayam	~3.5 km	Predominantly agricultural
4	Kodangipalayam	~4.2 km	Small settlements + SHG-based economy
5	Kunnathur	~5.0 km	Small-scale industries & schools
6	Kallakinaru	~6.0 km	Mainly cultivators & quarry workers
7	Mangalam	~7.5 km	Textile-based occupation cluster
8	Karadivavi	~9.0 km	High density, tailoring & transport
9	Thekkalur	~10 km	Good road access, school zone
10	Palladam (Municipal)	~9.5 km	Urban center, industrial region

3.13.8 Socio economic studies in buffer area

The socio-economic study in the 10 km buffer area around the proposed rough stone and gravel quarry project (0.91.0 Ha) in Velampalayam Village, Palladam Taluk, Tiruppur District, has been conducted in alignment with MoEF&CC guidelines for Category “B1” projects. The buffer zone includes rural and peri-urban revenue villages, where socio-economic patterns are predominantly shaped by a combination of agriculture, textile-based industries, and emerging informal sector employment.

The buffer comprises over 10 revenue villages, including Poomalur, Kondangipalayam, Semmandampalayam, Kunnathur, Karadivavi, Thekkalur, and parts of the Palladam municipality. These villages exhibit varied demographic and occupational structures. The total population in this buffer area exceeds 35,000 (Census 2011), with moderate literacy levels, particularly among males. The occupational profile reveals a shift from agriculture (cultivators and agricultural laborers) toward tertiary activities such as textile manufacturing, transport, quarry loading, and warehousing, driven by proximity to Tiruppur.

Landholding patterns show prevalence of small and marginal farmers, while women are engaged in household industries, tailoring, and SHG-based microenterprises. Access to infrastructure like primary schools, PHCs, drinking water, and rural roads is present in most villages, although health and sanitation conditions vary. Youth employment trends show a gradual drift toward semi-skilled industrial jobs, while seasonal migration to urban centers is also reported.

Public consultations and stakeholder feedback indicate concerns over dust pollution, traffic increase, and groundwater stress but also acknowledge the potential for local job creation and CSR-linked infrastructure benefits from the proposed mining activity. Thus, this socio-economic analysis provides essential baseline insights to design appropriate mitigation, compensation, and livelihood enhancement strategies under the Environmental Management Plan (EMP).

Table No. 3.26: Population Data of Study Area

Sl. No	Village Name	No. of House holds	Total Popula tion	Male	Fema le	Total Liter ates	Male Liter ates	Fema le Liter ates	Total Illitera tes	Male Illiterate s	Female Illiterates
1	Velampalayam	1,024	3,512	1,789	1,723	2,101	1,212	889	1,411	577	834
2	Kondangipalayam	760	2,892	1,460	1,432	1,720	1,010	710	1,172	450	722
3	Poomalur	690	2,504	1,245	1,259	1,495	850	645	1,009	395	614
4	Semmandampalayam	615	2,260	1,140	1,120	1,240	720	520	1,020	420	600
5	Kunnathur	510	1,985	995	990	1,195	680	515	790	315	475
6	Thekkalur	880	3,402	1,730	1,672	2,115	1,230	885	1,287	500	787
7	Karadivavi	710	2,860	1,428	1,432	1,720	980	740	1,140	448	692
8	Mangalam	1,240	4,665	2,360	2,305	2,785	1,530	1,255	1,880	830	1,050

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT
Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

Table No. 3.27: Communication & Transport Facilities in the Study Area

S.No	Village Name	PO	SPO	PTO	T	PCF	BS	PBS	RS	SH	MDR	BTR	GR	FP
1	Velampalayam	1	0	0	0	0	1	1	0	0	1	1	1	1
2	Kondangipalayam	1	0	0	0	0	1	1	0	0	1	1	1	1
3	Poomalur	0	0	0	0	0	1	1	0	0	1	1	1	1
4	Semmandampalayam	1	0	0	0	0	1	1	0	0	1	1	1	1
5	Kunnathur	1	1	1	0	6*	1	1	0	2*	2*	1	1	1
6	Thekkalur	1	0	0	0	1	1	1	0	1	1	1	1	1
7	Karadivavi	0	0	0	0	0	1	1	0	0	1	1	1	1
8	Mangalam	0	0	0	0	0	1	1	0	0	1	1	1	1
9	Pappampalayam	1	0	0	0	0	1	1	0	0	1	1	1	1
10	Palladam (Town)*	1	1	1	0	6*	1	1	0	2*	2*	1	1	1

Abbreviations: **PO:** Post Office, **SPO:** Sub-Post Office, **PTO:** Public Telephone Office, **T:** General Telephone Connectivity, **PCF:** Private Courier, Facility, **BS:** Bus Service Availability, **PBS:** Public Bus Stop, **RS:** Rail Station within/near village, **SH:** State Highway access, **MDR:** Major District Road, **BTR:** Black Top Road, **GR:** Gravel Road.

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT
Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

Table No. 3.28: Water & Drainage Facilities in the Study Area

S.No	Village Name	TP	CW	UCW	HP	TW/BH	S	R/C	T/P/L	CD	OD	CT
1	Velampalayam	1	1	0	1	1	0	0	1	1	1	1
2	Kondangipalayam	1	1	1	1	1	0	0	1	1	1	1
3	Poomalur	1	0	1	1	1	0	0	1	0	1	0
4	Semmandampalayam	1	1	1	1	1	0	0	1	0	1	0
5	Kunnathur	1	1	1	1	1	0	1	1	1	1	1
6	Thekkalur	1	1	1	1	1	0	0	1	1	1	1
7	Karadivavi	1	0	1	1	1	0	0	1	0	1	0
8	Mangalam	1	1	1	1	1	0	0	1	1	1	1
9	Pappampalayam	1	1	1	1	1	0	0	1	0	1	0
10	Palladam (Town)	1	1	1	1	1	0	1	1	1	1	0

Abbreviations: **TP** Tap Water Supply, **CW**-Covered Well, **UCW**-Uncovered Well, **HP**-Hand Pump, **TW/BH**- Tube/Bore Well, **S**-Spring, **R/C**- River or Canal nearby, **T/P/L**- Tank / Pond / Lake (Water Source), **CD**- Closed Drainage, **OD**- Open Drainage, **CT**- Community Toilet Facility.

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT
Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

Table No. 3.29: Educational Facilities in the Study Area (10 km Buffer)

S.No	Village Name	PPS	PS	MS	SS	SSS	DC	EC	MC	MI	PT	VTS	SSD
		G/P	G/P	G/P	G/P	G/P	G/P	G/P	G/P	G/P	G/P	G/P	G/P
1	Velampalayam	1/1	1/1	1/0	0/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0
2	Kondangipalayam	1/1	1/1	1/0	0/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0
3	Poomalur	1/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
4	Semmandampalayam	1/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
5	Kunnathur	1/1	1/1	1/1	1/1	1/1	1/0	1/0	0/0	0/0	1/0	1/0	1/0
6	Thekkalur	1/1	1/1	1/1	1/0	1/1	1/1	1/1	0/0	0/0	1/0	1/0	1/0
7	Karadivavi	1/1	1/1	1/0	0/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0
8	Mangalam	1/1	1/1	1/1	1/0	1/1	1/1	1/0	0/0	0/0	1/0	1/0	1/0
9	Pappampalayam	1/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
10	Palladam (Town)	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

PPS: Pre-primary School, **PS:** Primary School, **MS:** Middle School, **SS:** Secondary School, **SSS:** Senior Secondary School (H.Sc), **DC:** Degree College, Engineering/Technical College, **MC:** Medical College, **MI:** Management Institute, **PT:** Polytechnic/ITI, **VTS:** Vocational Training School, **SSD:** Special School for Disabled/Minorities

Table No.3.30: Medical Facilities in the Study Area (10 km Buffer)

Sl. No	Village Name	CHC	PHC	PHSC	MCW	TBC	HA	HAM	D	VH	MHC	FWC	NGM-I/O
1	Velampalayam	0	1	1	1	0	1	0	1	1	0	1	0
2	Kondangipalayam	0	1	1	1	0	1	0	0	1	0	1	0
3	Poomalur	0	0	1	1	0	0	0	0	1	0	0	0
4	Semmandampalayam	0	0	1	1	0	0	0	0	1	0	0	0
5	Kunnathur	1	1	1	1	1	1	1	1	1	1	1	1
6	Thekkalur	1	1	1	1	1	1	1	1	1	1	1	1
7	Karadivavi	0	1	1	1	0	1	0	1	1	0	1	0
8	Mangalam	1	1	1	1	0	1	1	1	1	1	1	1
9	Pappampalayam	0	0	1	1	0	0	0	0	1	0	0	0
10	Palladam (Town)	1	1	1	1	1	1	1	1	1	1	1	1

Abbreviations: **CHC:** Community Health Centre, **PHC:** Primary Health Centre, **PHSC:** Primary Health Sub-Centre, **MCW:** Maternity and Child Welfare Centre, **TBC:** TB Clinic, **HA:** Health Assistant (Male/Female), **HAM:** Health Assistant (Male), **D:** Doctor, **VH:** Visiting Health Worker, **MHC:** Mobile Health Clinic, **FWC:** Family Welfare Centre, **NGM-I/O:** NGO Medical – Inpatient/Outpatient.

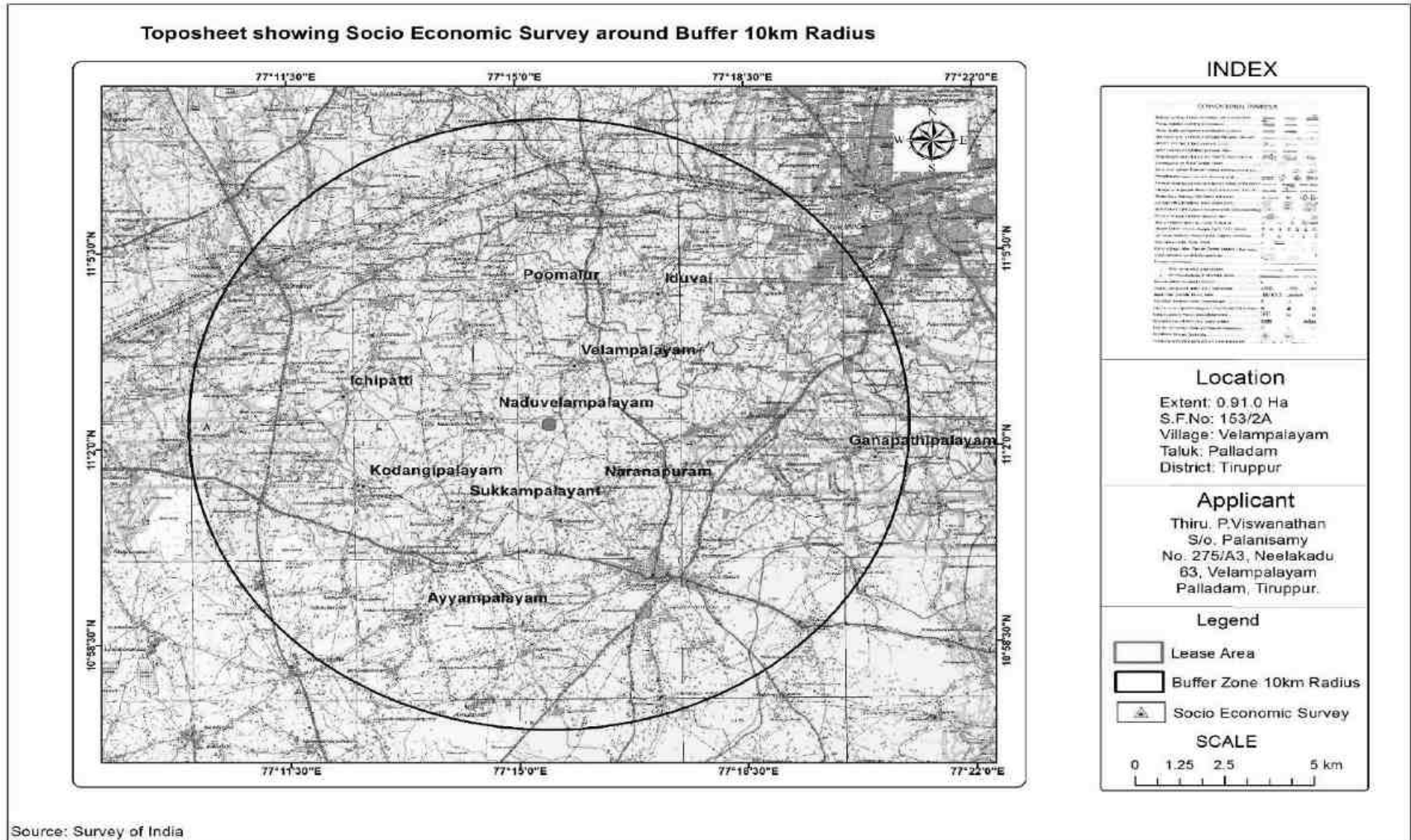


Fig. No.3.38: Toposheet showing socio Economic survey around Buffer 10 km Radius

3.13.9 Primary survey conducted by FAE- SE

3.13.9.1 Introduction:

To assess the current socio-economic conditions of the local communities in and around the project area, a primary household-level survey was conducted by the Functional Area Expert (FAE) for Socio-Economic Environment (SE), as per the MoEF&CC guidelines. The survey aimed to gather data on the living standards, occupation, access to infrastructure, and the perception of the local population towards the proposed Rough Stone and Gravel Quarry project.

3.13.9.2. Objectives of the Primary Survey:

- To collect first-hand demographic and economic data of the households in the study area (10 km radius).
- To identify occupational patterns, literacy levels, and access to amenities such as drinking water, health care, education, and transport.
- To assess the level of awareness and perception of local residents about the proposed project.
- To supplement secondary census and government records with updated and ground-level information.

3.13.9.3. Methodology:

A structured questionnaire was developed covering both close-ended and open-ended questions.

The survey was carried out through door-to-door interviews and focus group discussions (FGDs) in selected sample villages such as Velampalayam, Kondangipalayam, Kunnathur, Thekkalur, and others within the 10 km buffer.

The sampling was stratified and purposive, ensuring representation from SC/ST groups, women, elderly, and economically vulnerable households.

A total of [insert number] households were surveyed, covering approximately [insert percentage] % of the total population in the core and buffer zones.

3.13.9.4 Data structures

The socio-economic data collected during the primary survey was systematically organized into structured formats to facilitate analysis and interpretation. The data structure design followed national census templates and guidelines from the Ministry of Environment, Forest and Climate Change (MoEF&CC).

- ❖ Pre-tested bilingual (Tamil/English) questionnaires

- ❖ GPS-enabled mobile devices for geo-tagging locations
- ❖ Field photographs and audio records (where permitted)
- ❖ Support from local Panchayat representatives and SHGs for outreach



3.13.10. Summary & Conclusion:

The socio-economic primary survey conducted by the FAE-SE served as a vital input to understand community dynamics and the potential impacts of the quarry project. The findings are integrated into the impact assessment and management plan, ensuring that the project design remains inclusive, responsible, and sensitive to local needs. A detailed socio-economic assessment was carried out as part of the Environmental Impact Assessment (EIA) study for the proposed Rough Stone and Gravel Quarry project at Velampalayam village. The study was conducted within a 10 km radius (buffer zone) covering [insert number] revenue villages using both primary surveys and secondary data sources, including Census 2011. The demographic structure indicates a moderately populated rural zone with a balanced gender ratio. Velampalayam village, the core zone, has a total population of [insert population], with a literacy rate above [insert]%, suggesting access to basic education.

The primary occupation in the study area is agriculture and agricultural labor, followed by daily wage work and small-scale trade. A growing section of the youth is engaging in tertiary sector jobs. The region exhibits moderate socio-economic conditions with availability of basic amenities like drinking water, primary schools, PHCs, roads, and power supply in most villages.

The primary survey conducted by the Functional Area Expert (FAE-SE) revealed that the local residents have a neutral to positive perception of the proposed project, mainly due to expectations of local employment opportunities, road improvement, and indirect economic benefits. The vulnerable groups such as women-headed households and SC/ST communities are present in limited numbers. Their participation and inclusion were considered during stakeholder consultations.

The infrastructure facilities, including education, transport, water supply, and medical care, are adequate in major villages like Palladam, Thekkalur, and Kunnathur, but need strengthening in smaller villages like Poomalur and Semmandampalayam. The socio-economic study concludes that the proposed quarry project is not likely to have any significant adverse impact on the socio-economic fabric of the surrounding villages. On the contrary, the project has the potential to contribute positively through employment generation, local procurement, and CSR initiatives. However, continued community engagement, inclusive development planning, and mitigation of temporary disturbances (e.g., noise, dust near habitations) must be ensured. Regular health check-ups, road maintenance, and skill development programs can enhance the community's support and ensure a sustainable operational phase.

Thus, the socio-economic environment is conducive to the implementation of the project, provided the Environmental Management Plan (EMP) is followed in letter and spirit.

CHAPTER – 4: ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Open cast mining is carried out by using excavators and dumpers combination. Scientific mining with proper benches with width and slope will be enabled as per MMR, 1961. Jackhammers with compressors will be deployed for drilling. Manual labors will be engaged for jack hammer drilling, sorting of waste and excavator will be used for loading the rough stone into trucks. Primary Blasting will be carried out Nonel blasting techniques with minimum vibration or detonating card with electric detonator initiation system. Sizing of materials shall be done by rock breakers or muffle blasting or pop shooting to the required size for better loading into trucks.

All these operations can disturb the environment in various ways, such as removal of mass, change of landscape, flora and fauna of the area, surface drainage, and change in air, water and soil quality. Therefore, it is essential to assess the impacts of mining on different environmental parameters before starting the mining operations, so that abatement measures could be planned in advance for eco-friendly mining in the area. The likely impacts on various environmental aspects and mitigation measures are discussed below.

4.1 Air Environment

The air borne particulate matter is the main air pollutant by opencast mining. The mining operation will be carried out by jack hammer drilling, blasting, excavation, loading and transportation.

4.1.1. Anticipated Impact

The air borne particulate matter generated by handling, operations and transportation of rough stone are the main air pollutant. The emissions of Sulphur dioxide (SO₂), Oxides of Nitrogen (NO_x) contributed by diesel operated excavation/loading equipment and vehicles plying on haul roads are marginal. Prediction of impacts on air environment has been carried out taking into consideration of proposed volume of rough stone -26340m³ for five years on air environment and net increase in emissions on air environment.

4.1.2 Emissions Details

Drilling, Blasting, Loading, unloading and transportation of rough stone and wind erosion of the exposed area and movement of light vehicles will be the main polluting source in the mining activities that releasing Particulate Matter (PM₁₀) affecting Ambient Air of the area. Emission during Blasting, Loading and unloading was calculated as the area sources. Transportation of the rough stone by 2 nos of trucks operated on the haul road was calculated as the line sources. It was assumed that truck will carry 20 T of rough stone. Details of

emission during loading/unloading and transportation on the haul road, wind erosion of the exposed area and road maintenance were discussed and combined impact was predicted in the worst-case scenario under worst meteorological condition given as follows:

4.1.2.1 Drilling

Drilling is the process of making holes in rough stone to carry out smooth blasting. The drilling is most representative for point source. The rate of emission from the drilling process will be very high when compared to loading, unloading, transporting and blasting. So wet drilling will be proposed for the rough stone quarry which completely suppresses the dust emitted during drilling process. Also, dust extractor will be used over the wet drilling for the effective emission control system.

4.1.2.2. Loading of Rough stone

Chakraborty et al. (2002) was used to calculate emission of particulate matter released into the atmosphere during loading of Mineral.

$$E = \{[(100 - m) (m)^{-1}]^{0.1} \{s (100 - S)^{-1}\}^{0.3} h^{0.2} \{u (0.2 + 1.05)^{-1}\} \{xl (15.4 + 0.87xl)^{-1}\}]$$

Table 4.1: Source Parameters (Loading of Rough stone)

S. No	Description	Symbol	Quantity
1	Moisture content (%)	m	0.9%
2	Silt content (%)	s	0.1(approx)
3	Wind speed (m s ⁻¹)	u	2.6
4	Drop height (m)	h	1m above the tipper body
5	Size of loader (m ³)	l	1.20
6	Frequency of loading(no.h ⁻¹)	x	3 times
7	Quarry area (m ²)	a	9100
8	Uncontrolled emission rate (g s ⁻¹)	ue	0.61
9	Control efficiency (%)	c	90
10	Controlled emission rate (g s ⁻¹)	ce	0.061

Totally 2 tippers and 1 hydraulic excavator will be proposed for proposed rough stone quarry. The maximum rate of production per hour is estimated at 3 m³. The loading capacity of excavator is 1.20 m³.

x = frequency of loading (no. h⁻¹) = 3/1.20 = 3 times.

Emission of PM₁₀ during Roughs stone loading was calculated and found to be 0.061 g/s based on moisture content 0.9% and average wind speed was 2.6 m/s as observed with site data.

4.1.2.3 Haul Road

Chaulya (2006) was used to calculate emission of particulate matter released into the atmosphere during transportation of rough stone by truck operated per hour on haul road.

$$E = [\{ (100-m) (m)^{-1} \}^{0.35} \{ (us) (100-s)^{-1} \}^{0.7} \{ 0.5 + 0.1(f + 0.42v) \}] 10^{-3}$$

Table 4.2: Source Parameters (During Vehicle Movement on Haul Road)

S.No	Description	Symbol	Quantity
1	Moisture content (%)	m	70
2	Silt content (%)	s	12
3	Wind speed (ms ⁻¹)	u	2.4
4	Frequency of transporting (no. h ⁻¹)	f	6 times (maximum)
5	Average vehicle speed(ms ⁻¹)	v	4.1
6	Haul road area (m ²)	a	110
7	Uncontrolled emission rate (g s ⁻¹)	UE	0.006
8	Control efficiency (%)	c	90
9	Controlled emission rate (g s ⁻¹)	CE	0.0005

Emission of PM₁₀ due to transportation of Rough Stone on haul road was 0.0005 g/s based on assumption that silt content spread on road surface was 12% and average wind speed of 2.6 m/s as observed with site data. Based on the above consideration there was low emission of PM₁₀ during transportation of Rough Stone and Gravel.

4.1.2.5 Blasting

In another scenario when controlled blasting is carried out at the mine site and all the other activities are brought to halt. Significant amount of PM₁₀ is released during blasting at mining site for very short-term.

$$E = E_f \times Q$$

Table 4.3: Source Parameters (During Blasting)

S.No	Description	Symbol	Quantity
1	Uncontrolled Particulate matter emissions rate in pounds per year	UE	54
2	Emission factor in unit of pounds of particulate per ton shifted by blasting	E _f	TSP E _f = 0.0001 pounds/ton PM ₁₀ E _f = 0.0008 pounds/ton PM _{2.5} E _f = 0.0008 pounds/ton
3	Amount of material of all types shifted by blasting during the year in tons	Q	1860

(Reference: Mojave Desert Air Quality Management District, 1403 Park Avenue, Victoria, CA 92392 -2310).

Loading and unloading of Rough Stone, overburden, movement of trucks on haul roads and open pit source were considered as combined action. So, the emission during loading, unloading and transportation were taken combined and US EPA based Dispersion AERMOD model was used for prediction of impact with 1-h meteorological data of the study period for the assessment of incremental GLC. Then blasting was considered as separate action and US EPA based Dispersion AERMOD model was used for prediction of impact separately.

4.1.2.6 Summary of calculated Emission Rates

Table 4.4: Emissions Rates of PM₁₀

Source type	Controlled Emission Rate (g/s/m ²)
Rough stone loading	2.8 x 10 ⁻⁸
Haul Road	3.3 x 10 ⁻⁶
Blasting	2.1 x 10 ⁻⁶

Table 4.5: Emissions Rates of SO₂

Source type	Average Emission rate for HDDV as per EPA	Emission rate (Proposed Project)
Tippers	0.012 g/mile	1.5 x 10 ⁻⁷ g/s/m ²
Excavators	0.012 g/mile	3.6 x 10 ⁻⁸ g/s/m ²
Total Emission Rate		3.6 x 10 ⁻⁸ g/s/m ²

Table 4.6: Emissions Rates of NO₂

Source type	Average Emission rate for HDDV as per EPA	Emission rate (Proposed Project)
Tippers	0.725 g/mile	5.1 x 10 ⁻⁸ g/s/m ²
Excavators	0.725 g/mile	3.4 x 10 ⁻⁷ g/s/m ²
Total Emission Rate		3.4 x 10 ⁻⁷ g/s/m ²

4.1.3 Frame work of Computation & Model details

By using the above-mentioned inputs, ground level concentrations due to the mining activities have been estimated to know the incremental rise in ambient air quality and impact in the study area. The effect of air pollutants upon receptors are influenced by concentration of pollutants and their dispersion in the atmosphere. Air quality modeling is an important tool for prediction, planning and evaluation of air pollution control activities besides identifying

the requirements for emission control to meet the regulatory standards and to apply mitigation measures to reduce impact caused by mining activities.

4.1.3.1 Model Input data

The air pollution modeling carried out represents the normal operating scenarios. As the proposed activity is mining the major source of pollution is particulate matter and gaseous emission. The following data has required as input data for dispersion pattern.

- 1) Baseline data of PM_{2.5}, PM₁₀, SO_x and NO₂ is needed along with meteorological data. Meteorological data preprocessor (AERMET) needs meteorological data which calculates atmospheric turbulence characteristics, mixing heights, surface heat flux for finding the atmospheric dispersion. Site specific data recorded during summer season (December 2022 to February 2023) at project site for executing modeling studies.
- 2) The emission rates of PM_{2.5}, PM₁₀, SO_x and NO_x from the various sources was taken.
- 3) Location of the project.

4.1.3.2 Model Results

The Air Quality Impact Prediction has been done by using AERMOD of USEPA". The main sources of air pollution with regard to the proposed project for the purpose of estimation of increase in PM₁₀, SO_x and NO₂ are identified due to

1. Scenario 1 – PM₁₀

- (i) Loading/unloading of rough stone and overburden
- (ii) Transportation of Rough stone, overburden by trucks on the Haul roads from mining benches.

2. Scenario 2 - PM₁₀

- (i) Due to blasting

3. Scenario 3 – SO_x and NO₂

- i. From Operation of Excavator and movement of transporting vehicle

Scenario1:

Table 4.8: Total predicted GLC of PM₁₀ in core and buffer zone due to combined action of loading, unloading and Transportation of Rough stone by trucks on the haul road, of the mining lease area.

Location	Location Code	Background value in $\mu\text{g}/\text{m}^3$	Incremental GLC in $\mu\text{g}/\text{m}^3$	Total Predicted GLC in $\mu\text{g}/\text{m}^3$
Mine site	AQ1 - Centre	46	29.11	75.11
Receptor 01	AQ2 - 860m - E	46	1.03	47.03
Receptor 02	AQ3- 940m – NW	46	0.64	46.64
Receptor 03	AQ4 - 1700m - SW	46	0.52	46.52
National Ambient Air Quality Standards (NAAQS)				100

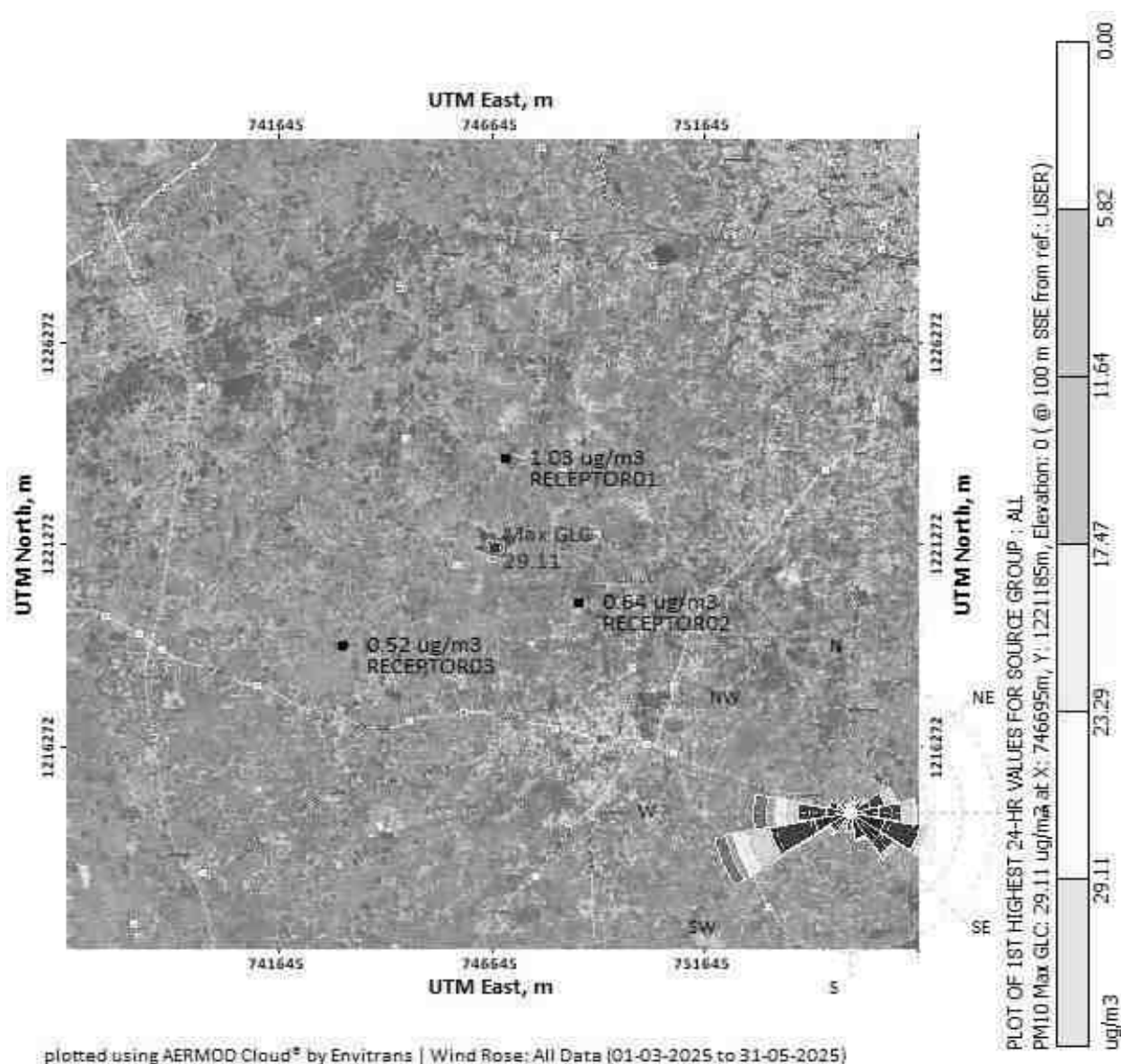


Fig 4.1: Isopleths of PM₁₀ is 29.11 $\mu\text{g}/\text{m}^3$ (Core) occurred at the project site during i) loading and unloading and ii) transportation of rough stone over the haul road

Scenario 2:

Table 4.9: Total predicted GLC of PM₁₀ in core and buffer zone due to blasting activity in the mining lease area.

Location	Location Code	Background value in $\mu\text{g}/\text{m}^3$	Incremental GLC in $\mu\text{g}/\text{m}^3$	Total Predicted GLC in $\mu\text{g}/\text{m}^3$
Mine site	AQ1 - Centre	46	36.71	82.71
Receptor 01	AQ1 - 860m - E	46	1.33	47.33
Receptor 02	AQ2 - 980m NW	46	0.60	46.60
Receptor 03	AQ3-1400m – W	46	0.52	46.52
National Ambient Air Quality Standards (NAAQS)				100

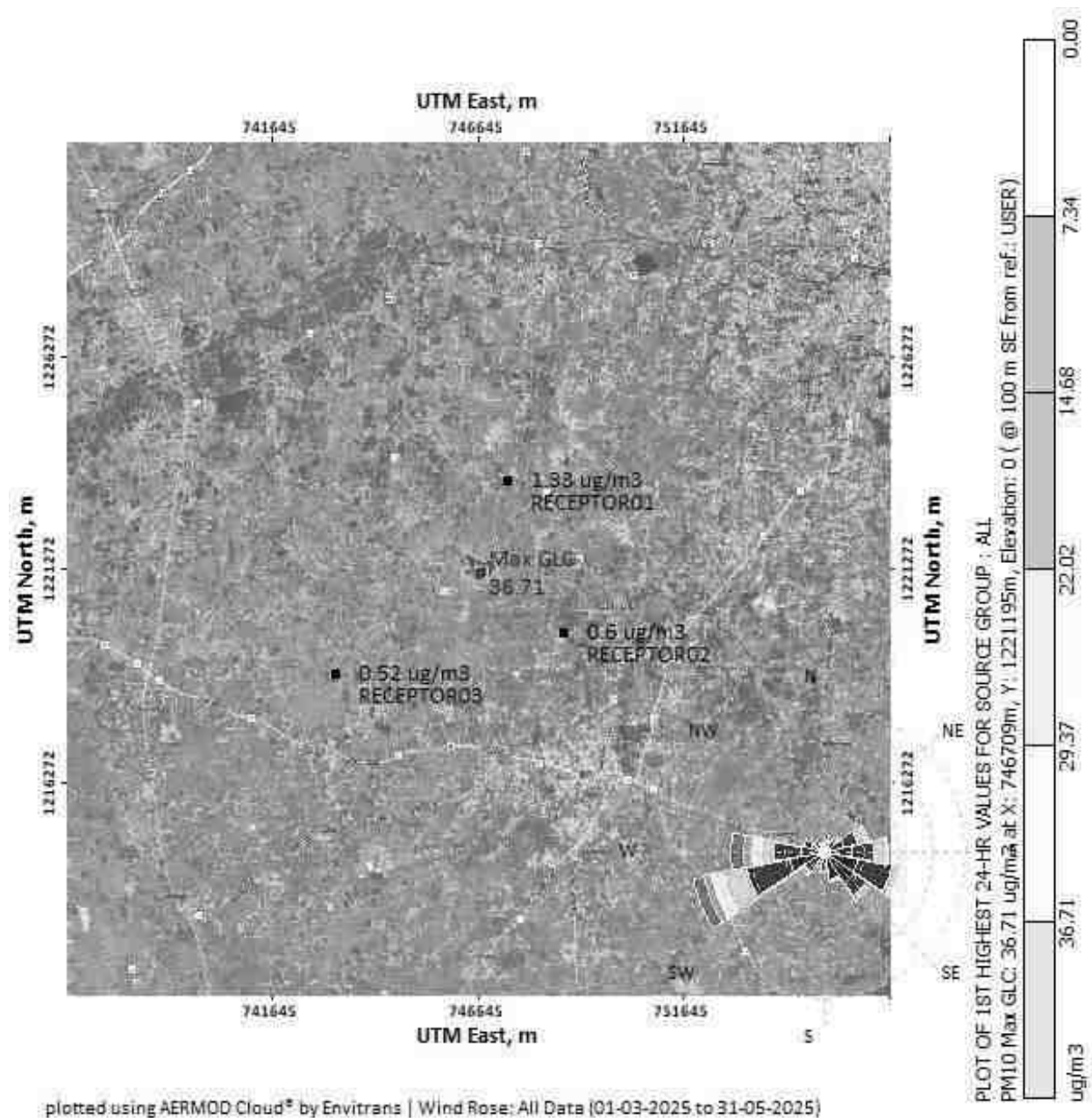


Fig 4.2: Isopleths of PM₁₀ is 36.71 $\mu\text{g}/\text{m}^3$ occurred near the project site during blasting in the mining area

Table 4.10: Impact of SO_x due to Operation of Excavator and Movement of Vehicle in the mining lease area

Location	Location Code	Background value in $\mu\text{g}/\text{m}^3$	Incremental GLC in $\mu\text{g}/\text{m}^3$	Total Predicted GLC in $\mu\text{g}/\text{m}^3$
Mine site	AQ1 - Centre	14	BDL	14
National Ambient Air Quality Standards (NAAQS)				80

Table 4.11: Impact of NO_x due to Operation of Excavator and Movement of Vehicle in the mining lease area

Location	Location Code	Background value in $\mu\text{g}/\text{m}^3$	Incremental GLC in $\mu\text{g}/\text{m}^3$	Total Predicted GLC in $\mu\text{g}/\text{m}^3$
Mine site	AQ1 - Centre	22	BDL	20
National Ambient Air Quality Standards (NAAQS)				80

Total predicted 24-h maximum GLC of PM₁₀ at project site for scenario 1 i.e. loading-unloading, transportation and scenario 2 i.e. Blasting was 82.71 $\mu\text{g}/\text{m}^3$ and 75.11 $\mu\text{g}/\text{m}^3$ respectively after superposition of base-line value 46 $\mu\text{g}/\text{m}^3$ over the incremental GLC 29.11 $\mu\text{g}/\text{m}^3$, 1.03 $\mu\text{g}/\text{m}^3$ scenario 1 and 36.71 $\mu\text{g}/\text{m}^3$ for scenario 2 respectively due to combined impact of loading, unloading, open pit and transportation over the haul road and due to blasting.

The predicted incremental GLC of SO_x and NO_x for under below the desirable limit. Maximum Impact of PM₁₀ was observed close to the source within the lease area due to moderate wind speeds.

4.1.4 Combined Impact on Air Environment due to proposed quarry and adjacent quarry within 500m radius.

There is one existing quarry namely Tmt.P.Sumathi. There are three proposed quarries namely Mr.P.Viswanathan, Mr.M.Kanagarathinam and Mr.R. Loganathan located within the 500m radius of Proposed Thiru. Mr.P.Viswanathan, Rough stone and gravel quarry. The predicted incremental GLC of PM₁₀, PM_{2.5}, SO_x and NO_x due to the proposed mining activity is given in below table.

Table 4.12: Incremental GLC of PM₁₀, PM_{2.5}, SO_x and NO_x due to the proposed mining activity

S. No	Air Pollutants	Incremental GLC due to proposed quarry (Controlled) µg/m ³
1.	PM ₁₀	29.11
2	SO _x	0
3.	NO _x	0

Assume that emission rate from the various mining activity in adjacent 4 quarries are same as the proposed quarry. So, the incremental GLC will also be same as proposed quarry. Therefore, the when the proposed quarry and four adjacent quarries are working together, the incremental GLC and total predicted GLC are given below table.

Table No.4.13 Total predicted GLC of PM₁₀, PM_{2.5}, SO_x and NO_x due to the combined activity in the cluster

S. No	Air Pollutants	Baseline Value	Incremental GLC due to proposed quarry and three quarries µg/m ³	Total Predicted GLC due to proposed quarry and three adjacent quarry µg/m ³
1.	PM ₁₀	46	87.33	133.33
2.	SO _x	14	0	0
3.	NO _x	20	0	0

From the above table it is found that, when the four quarries are working together the Total predicted GLC of PM₁₀ is slightly beyond the limits which shall be controlled by installation of a greater number of sprinklers and a greater number of greenbelt development in the lease area.

4.1.5. Air Quality Index

An air quality index is defined as an overall scheme that transforms the weighed values of individual air pollution related parameters (for example, pollutant concentrations) into a single number or set of numbers (Ott, 1978). Air quality standards are the basic foundation that provides a legal framework for air pollution control. The basis of development of standards is to provide a rational for protecting public health from adverse effects of air pollutants, to eliminate or reduce exposure to hazardous air pollutants, and to guide national/ local authorities for pollution control decisions.

The objective of an AQI is to quickly disseminate air quality information (almost in real-time) that entails the system to account for pollutants which have short-term impacts. To present status of the air quality and its effects on human health, the following description categories have been adopted for IND-AQI.

AQI breakpoints for eight pollutant parameters considered for AQI and these are summarized below in Table with color scheme to represent the AQI bands.

Table 4.14: AQI and its associated Health Impacts

AQI	Associated Health Impacts
Good	Minimal Impact
Satisfactory	May cause minor breathing discomfort to sensitive people
Moderate	May cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with heart disease, children and older adults
Poor	May cause breathing discomfort to the people on prolonged exposure and discomfort to people with heart disease with short exposure
Very Poor	May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases
Severe	May cause respiratory effects even on healthy people and serious health impacts on people with lung/heart diseases. The health impacts may be experienced even during light physical activity

Table 4.15: Proposed Breakpoints for AQI Scale 0-500
(Units: $\mu\text{g}/\text{m}^3$ unless mentioned otherwise)

AQI Category (Range)	PM₁₀ 24-hr	PM_{2.5} 24-hr	NO₂ 24-hr	O₃ 8-hr	CO 8-hr (mg/m³)	SO₂ 24-hr	NH₃ 24-hr	Pb 24-hr
Good (0-50)	0-50	0-30	0-40	0-50	0-1.0	0-40	0-200	0-0.5
Satisfactory (51-100)	51-100	31-60	41-80	51-100	1.1-2.0	41-80	201-400	0.5-1.0
Moderately polluted (101-200)	101-250	61-90	81-180	101-168	2.1- 10	81-380	401-800	1.1-2.0
Poor (201-300)	251-350	91-120	181-280	169-208	10-17	381-800	801-1200	2.1-3.0
Very poor (301-400)	351-430	121-250	281-400	209-748*	17-34	801-1600	1200-1800	3.1-3.5
Severe (401-500)	430+	250+	400+	748+*	34+	1600+	1800+	3.5+

*One hourly monitoring (for mathematical calculation only)

4.1.5.1. Interpretation of Air quality using IND-AQI:

Table 4.16: Computation of AQI with Baseline data

Air pollutants	Total Predicted GLC due to proposed quarry $\mu\text{g}/\text{m}^3$	AQI	Associated Health Impacts
PM ₁₀	133.33	Moderately Polluted (101-200)	May cause minor breathing discomfort to sensitive people
SO _x	-	Good (0-50)	Minimal Impact
NO _x	-	Good (0-50)	Minimal Impact

The above table shows the AQI quality due to total predicted GLC of quarry in core area. PM₁₀ is between 101-200 of AQI which is satisfactory and may cause minor breathing discomfort to sensitive people. It is found that the value of PM₁₀ high which will be controlled by installing a greater number of sprinklers to combat the increase and to maintain the parameters within the limits of NAAQS.

4.1.6. Mitigation Measures

The pollutants from nearby ongoing mining activities, residential and commercial activities are the primary sources of air pollution. However, in the study area adequate control measures will be implemented in future at the time of mining operation. Mitigate measures suggested for air pollution controls are based on the baseline ambient air quality of the area. From the point of view of maintenance of an acceptable ambient air quality in the region, it is desirable that air quality is monitored on a regular basis to check compliance of standards as prescribed by regulatory authorities. However, to further minimize the pollutant concentration especially PM₁₀, the following control measure should be adopted by the project proponent.

- ❖ Regular water sprinkling on haul roads, blasted heaps, service roads and overburden dumps at regular intervals will help in reducing considerable dust pollution
- ❖ 0.5 KLD will be used for dust suppression.
- ❖ Use of Sharp drill bits for drilling holes and charging the holes by using optimum charge and using time delay detonator.
- ❖ Conventional low explosives are being used.
- ❖ The scale of blasting is however very less considering the rate of production.
- ❖ Covering of material when transport through trucks/dumper
- ❖ The drilling and blasting are being carried out as per the proposals laid down in the approved plan.
- ❖ Proposed to follow up muffle blasting so as to prevent fly rock fragments

- ❖ Avoiding blasting during high windy periods and temperature inversion periods
- ❖ Delay blasting under unfavorable wind and atmospheric conditions
- ❖ Use of appropriate explosives for blasting and avoiding overcharging of blast holes
- ❖ The vehicles and machinery will be kept in well maintained condition so that emissions will minimize
- ❖ Provision of green belt all along the periphery of the lease area for control of dust
- ❖ Information on wind direction and meteorology will be considered while planning, so that pollutants, which cannot be fully suppressed by engineering technique, will be prevented from reaching the residential areas
- ❖ Cabins for shovel and dumpers and dust masks to workmen will be provided
- ❖ The dust respirators should be provided to all workers working in dusty environment
- ❖ Regular health check-up of workers and nearby villagers in the impacted area should be carried out and also regular occupational health assessment of employees should be carried out as per the Factories Act
- ❖ Ambient Air Quality Monitoring will be conducted on regular basis to assess the quality of ambient air.

As discussed above under each activity, there will be increase in terms of dust load and gaseous emissions. However, it can be stated that these incremental contributions will remain within the prescribed limits/norms. Further, the mitigation measures will further bring down these concentrations making the mining activities more eco-friendly.

4.2 Carbon emission and carbon sinks due to proposed mining activity

4.2.1 Carbon emissions

There are both natural and human sources of carbon dioxide emissions. Natural sources include decomposition, ocean release and respiration. Human sources come from industrial activities such as cement production, deforestation as well as the burning of fossil fuels like coal, oil and natural gas.

4.2.1.1 Carbon emission due to natural activity in project site and carbon sinks

a) Carbon from decomposition

As the proposed mining activity is carried out in existing mining pit, there will be no need of cutting of any trees or plants. So, the process of decomposition will not take place which emits carbon dioxide into the atmosphere.

b) Carbon from ocean release

The project site is located 186km away from the Arabian Sea. Hence the carbon release by ocean to the project site is not possible

c) Carbon from respiration

The carbon dioxide we exhale does not contribute to global warming for the simple reason. Since all the carbon dioxide we exhale captured by plants during photosynthesis, we are not disturbing the carbon dioxide content of the atmosphere by breathing.

4.2.1.2 Carbon emission due to human activity in project site and carbon sinks

a) Carbon from Vehicles

The proposed method of mining is semi mechanized which involves activity of excavator and tippers. The burning of fossil fuels used for the tippers and excavators' releases carbon monoxide, carbon dioxide and nitrogen oxide into the atmosphere. When those gases are emitted into the atmosphere it affects the amount of greenhouse gases, which are linked to climate change and global warming. In average based on the production per day, two tippers can travel 25 miles within the lease area for transporting the rough stone. Plants not only absorb carbon dioxide but also absorb other gases and remove the impurities from it.

Table 4.17: Emission of carbon monoxide from vehicle

Source type	Average Emission rate of CO for HDDV as per EPA	Emission rate of CO
Tippers	2.311 g/mile	0.0092 kg/day
Excavators	2.311 g/mile	0.574 kg day
Total Emission Rate		0.5878 kg/day

Average emission rate – 2.311 g/mile or 1.436 g/km or 1.436 g/200ml of diesel

For one liter of diesel consumption by HDDV, ER – 7.18g

Tippers

Travel distance – 4 mile/day

Emission rate by tipper per day – 6 x 2.311 – 13.86g/day or 0.0138kg/day

Excavators

Diesel requirement per day – 80 liters

Emission rate by excavators per day – 80 x 7.18 – 574g/day or 0.574kg/day

Remediation

The project proponent proposed to plant 100 numbers of one-year taller tree sapling along the safety zone of mining lease area to overcome the emission of carbon gases and other gases by vehicles in the quarry. Moreover, they will plant trees along the village road and government schools under CER and CSR schemes. BS–VI model of tippers are proposed to use in the quarry for the controlled emission of gases.

4.3 Soil Carbon stock

Soil carbon sequestration is a process in which CO₂ is removed from the atmosphere and stored in the soil carbon pool. This process is primarily mediated by plants through photosynthesis, with carbon stored in the form of SOC. Carbon is the main component of soil organic matter and helps give soil its water-retention capacity, its structure, and its fertility. The dense carbon stocks below and above the soil are mostly seen in dense forest where more process of photosynthesis takes place and tons of leaves, branches get decomposed. The agricultural activity in field can degrade and deplete the SOC levels during the process of tillage in paddy, sugarcane turmeric crop field.

There is no reserve forest located within 10km radius. Hence the proposed project does not have any impact on soil carbon stock.

4.4 Noise Environment

Noise survey has been conducted in the study area to assess the background noise levels in different zones. In order to assess the baseline noise levels, impact of noise assessment around the mine site due to mining machineries on its workers and on the nearby settlements and movements of vehicles during transportation have been carried out exclusively and objectively in the core and buffer zone covering 10km radius in 5 locations. Following sources of noise in the proposed open cast rough stone quarry project are being observed:

- Drilling;
- Blasting;
- Vehicular Movement.

The drilling operation is being carried out by Jack hammer operated by compressor mounted with tractor. The noise levels in the working environment are being and will be maintained within the standards prescribed by Occupational Safety and Health Administration (OSHA). These standards were established with the emphasis on reducing the hearing loss. The permissible limits, as laid down by CPCB, are presented in below table 4.18.

Noise generated from blasting is always instantaneous. The noise produced by blasting is for extremely short duration of around 0.5 seconds, though with a high intensity. Blasting time is generally fixed at lunch interval or after the working shift taking. Noise of blast is site specific and depends on type, quantity of explosives, dimensions of drill holes, degree of compaction of explosive in the hole and rock. Blasting, in addition to easing the hard strata, generates ground vibrations and instantaneous noise. The noise levels in many

situations will be above Threshold Limit Value. Exposure to noise levels, above Threshold Limit Value may have detrimental effect on the workers' health. The adverse effects of high noise levels on exposed workers may result in Annoyance, Fatigue, Temporary shift of threshold limit of hearing, Permanent loss of hearing and Hypertension and high blood cholesterol, etc.

Noise pollution poses a major health risk to the mine workers. When noise in the form of waves impinges the eardrum, it begins to vibrate, stimulating other delicate tissues and organs in the ear. If the magnitude of noise exceeds the tolerance limits, it is manifested in the form of discomfort leading to annoyance and in extreme cases to loss of hearing. Detrimental effects of noise pollution are not only related to sound pressure level and frequency, but also on the total duration of exposure and the age of the person.

Table 4.18: Permissible Exposures in Cases of Continuous Noise (CPCB)

Sound Level (dB A)	Continuous Duration (Hours)
85	8
88	4
91	2
94	1
97	0.5
100	0.25

Table 4.19: Noise Exposure Levels & Its Effects

Noise Levels dB(A)	Exposure Time	Effects
85	Continuous	Safe
85-90	Continuous	Annoyance and Irritation
90-100	Short term	Temporary shift in hearing threshold, generally with complete recovery
Above 100	Continuous	Permanent loss of hearing
100-110	Several years	Permanent deafness
110-120	Few months	Permanent deafness
120	Short term	Extreme discomfort
140	Short term	Discomfort with actual pain
150 and above	Single exposure	Mechanical damage to the ear

Source: Hand Book of EIA, Rao & Wooten

4.4.1 Anticipated Impacts due to Noise in Core Zone

During the operation phase of mining, movement of HEMM also add some noise level whose impact is being minimized by continuous maintenance of vehicle. The likely generations of noise levels due to operation of HEMM are given in Table 4.20.

Table 4.20: Expected Noise Levels

Equipment's	Expected Noise Levels dB(A)
Mining	
Drilling	90-100
Shovel	75-80
Tipper	75-80
Dozers	85-90
Crusher	85-95

The mine site where heavy earth moving machinery will operate, noise level will be within the stipulated 90 dB (A) norm of DGMS. The protection measures for the operators of this equipment will reduce the impact/exposure.

Predicted noise levels due to mining operations using Mathematical Equations

$L_2 = L_1 - 20 \log_{10} (R_2/R_1)$ Where L_1 dB (A) = Noise level at a distance R_1 (m)

L_2 dB (A) = Noise level at a distance R_2 (m) &

$L = 10 \log_{10} (10^{L_1/10} + 10^{L_2/10} + \dots + 10^{L_n/10})$

Where L_1 , L_2 and L_n are noise level dB (A)

Table 4.21: Predicted Noise levels in Core zone and buffer zone

Location Code	Distance, km	Source Noise Level, dB(A)	L(Day) dB(A)	L(Night) dB(A)	Noise level at Receptor from Mining sources, dB(A)	Resultant noise level, dB(A) day time	Resultant noise level, dB(A) Night time
Core Zone	--	100	40.1	36.2	100	100	36.2
Pillar -1	0.1	100	38.9	35.2	70	70	35.2
Pillar -2	0.1	100	36.8	32.5	70	70	32.5
Pillar -3	0.1	100	37.4	32.7	70	70	32.7
Pillar - 4	0.1	100	38.4	33.8	70	70	33.8
Velampalayam-NE	2.1	100	36.4	32.6	48.5	48.5	32.6
Sedapalayam-S	3.8	100	39.2	37.1	39.7	39.7	37.1
Ichipatti-W	2.0	100	38.7	34.6	45.3	45.3	34.6
Naranapuram-SE	2.6	100	38.5	33.3	43.6	43.6	33.3

Green colour- Baseline Value, **Red Colour** – Noise level due to mining,

Blue colour- Baseline + Noise level due to mining

Although the noise level due to the operation of various mining machineries is 100 dB(A), the noise level at different receptors is lower due to the distance involved and other topographical features adding to the noise attenuation. The calculated values at the receptors and resultant noise level are based on the mathematical formula as mentioned above. From the above table, it can be seen that the ambient noise levels at all the locations will remain within permissible limits even when the project will be in operation phase after getting EC.

Within a 500-meter radius of the proposed lease area, there are one quarry that are currently operational and three quarry that are proposed. When all four quarries are operating together, the noise level slightly exceeds the permissible limits. Thus, add a greater number of greenbelt developments to the lease area as mitigation measures to lower the noise level.

4.4.2 Mitigation measures for Control of Noise

The following noise mitigation measures are proposed for control of Noise.

- ❖ Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas.
- ❖ Limiting time exposure of workers to excessive noise.
- ❖ Proper and regular maintenance of vehicles, machinery and other equipments.
- ❖ The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments.
- ❖ Speed of trucks entering or leaving the mine will be limited to moderate speed to prevent undue noise from empty vehicles.
- ❖ Carrying out blasting only during day time and not on cloudy days.
- ❖ Noise levels will be controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes.
- ❖ Providing proper noise proof enclosure for the workers separated from the noise source and noise prone equipment
- ❖ Provision of Quiet areas, where employees can get relief from workplace noise.
- ❖ The development of green belts around the periphery of the mine to attenuate noise.
- ❖ Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects.

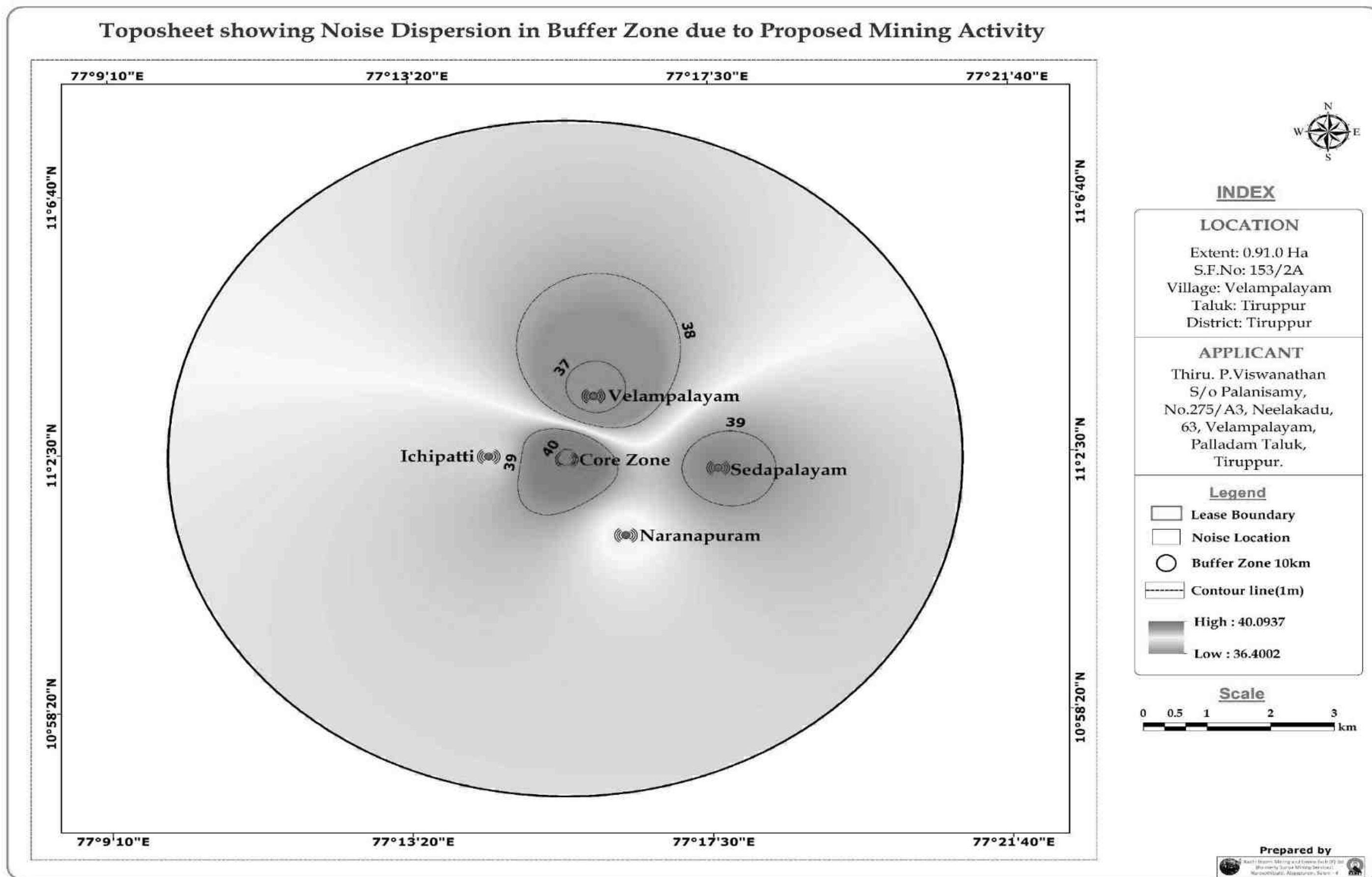


Fig 4.3: Noise dispersion in Buffer zone due to proposed mining activity

4.5 Ground Vibrations

Ground vibration due to mining activities in the area are anticipated due to operation of mining machines like excavators, wheel loaders, drilling and blasting, transportation vehicles, etc. However, the major source of ground vibration from this mine is blasting. Another impact due to blasting activities is fly rocks. These may fall on the houses or agriculture fields nearby the mining lease area and may cause injury to persons or damage to the structures. Nearest habitation from the mine lease area is located in northeast side and nearest village is located on southwest side. The study area does not involve any mining activity so anticipated impact has been assessed using the empirical equation. The empirical equation used for assessment of peak particle velocity (PPV) is:

$$V = 417.8 \{D / (Q^{0.5})\}^{-1.265}$$

Where,

V= Peak particle velocity in mm/s

D= Distance between location of blast and gauge point in m

Q=Quantity of explosive per blasting in kg.

The standards for safe limit of PPV are established by Directorate General of Mines Safety for safe level criteria through Circular No. 7 dated 29/8/1997. Permissible standards of Ground vibration due to blasting as per guidelines of Director General of Mines Safety (DGMS), Dhanbad are given in table 4.24.

Table 4.23: Estimated Peak Particle velocities for different Explosive Charges

Nearest Habitation	Quantity of Explosive/Blast, Kg	PPV, mm/s
110m -N	11	1.84
300m -N	11	1.02

Note: The empirical formula does not take into account the delay factor in blasting due to use of Delay Detonators.

Quantity of broken rock per hole	=	0.45 x 2.6 = 1.17m ³
Blasting efficiency @ 90%	=	1.17 x 90% = 1.05 m ³ / hole
Charge per hole	=	140gm of 25 mm dia. Cartridge
Quantity of rock broken per day (ROM)	=	15.2m ³ or 38MT
Requirement of explosives per day	=	5.4kg @ 7 MT per kg of exp.
No. of holes to be drilled per day	=	22 holes

Table 4.22: Permissible Peak Particle Velocities (mm/s)

S. No	Type of Structure	Dominant excitation Frequency		
		< 8 Hz	8 – 25 Hz	> 25 Hz
A)	Buildings/structures not belonging to the owner			
1	Domestic houses/structures (Kuchcha brick and cement)	5	10	15
2	Industrial Buildings (RCC and framed structures)	10	20	25
3	Objects of historical importance and sensitive structure	2	5	10
B)	Buildings belonging to the owner with limited life span			
1	Domestic houses/structures (Kuchcha brick and cement)	10	15	25
2	Industrial buildings (RCC & framed structures)	15	25	50

Source: DGMS Circular No. 7 dated 29/08/1997

From the above results (Table 4.22), it can be seen that the charge per blast of 11 kg is well below the Peak Particle Velocity of 5mm/s. But the proponent proposes to use only 11 kg of explosives per day. According to the DGMS circular, blasting the ground vibration has no effect within the Peak Particle Velocity of 5mm/s. However, as per statutory requirement additional control measures needs to be adopted to avoid the impacts due to ground vibrations and fly rocks due to blasting. Thus, ground vibrations due to blasting activities will not cause any impact to the nearest habitations.

4.5.1 Mitigation measures for Control of Vibration

Blasting is the major source of vibration and fly rocks. The following mitigation measures are proposed for control of vibration and fly rocks.

- ❖ Specific charge pattern has to be designed by proper trial vibration studies with varying charge ratios.
- ❖ Milli second detonators shall be used preferably 25–50ms per delay to control vibrations.
- ❖ Inclined holes shall minimize back brake and intensive shocks.
- ❖ In case of development work if any, cushion blasting and Deck loading system shall be adopted to minimize throw of fragments and ground vibration.
- ❖ Air blast due to usage of Detonating Cord with 10gm/m shall be reduced to 5gms/m to minimize air reverberation.
- ❖ If the vibration still exceeds the limit a long Trench to a depth of 6m may cut in the direction of wave's movement to break longitudinal waves which travel close to surface, preferably near mine buffer zone.

- ❖ No deep hole blasting shall be practiced.
- ❖ Heavy machineries with high ground pressure shall not be used in the mines.
- ❖ Proper warning signals should be used.
- ❖ In spite of all measures periodical testing of vibration and noise using approved seismograph by DGMS has to be followed as a part of Environmental monitoring.

Though all mitigation measures are pointed out, as such no adverse effects on human life, wild life and other biotic system.

4.6 Water Environment

Mining operations can affect groundwater quality in several ways. The most obvious occurs in mining below the water table, either in underground workings or open pits. This provides a direct conduit to aquifers. Groundwater quality is also affected when waters (natural or process waters or wastewater) infiltrate through surface materials (including overlying waste or other material) into ground water.

Whereas Impacts on surface water include the build-up of sediments or other toxic products, short and long-term reductions in pH levels (particularly for lakes and reservoirs), destruction or degradation of aquatic habitat, and contamination of drinking water supplies and other human health issues. The water balance for the project is presented in fig 4.5.

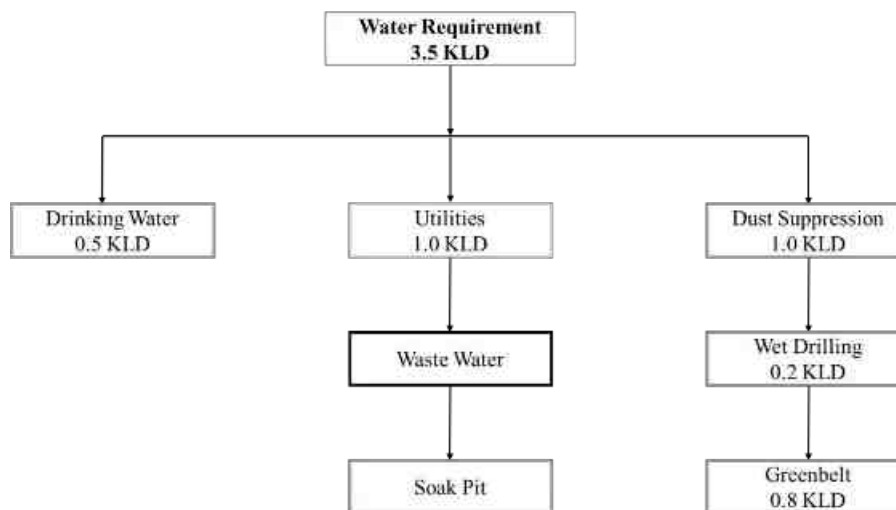


Fig. No. 4.4: Water Balance Chart

Drinking & Utilities	= 1.5 KLD
Water required for Dust Suppression, Green Belt	= 1.8 KLD
Wet drilling	= 0.2 KLD
Total Water Requirement	= 3.5 KLD

4.6.1. Anticipated Impact on Surface Water body due to proposed project

There are no major river or water bodies, odai track, nallah and ponds found within 500m radius. From the proposed mining project, rejects will be generated which is planned to dump within the mining lease area. Even though the streams order not connecting with the nearest dam, there will be chance of siltation of river bed during raining season due to mining activity. To over such siltation in the river the following mitigation measure will be followed.

4.6.1.1 Mitigation Measures:

- i. The garland drainage will be provided around the dump (Top soil and rejects) to prevent the escape of runoff from the dump.
- ii. The repair works of the machineries are strictly prohibited within the lease area to prevent the spillage of grease, oil etc.

4.6.2 Anticipated Impact on Ground water due to proposed project

The water table in this region is about 58-62 m bgl. The proposed depth of mining is 41m bgl for five years. Thus, the mining activity will not intersect ground water table. No chemical having toxic elements will be used for carrying out mining activity. Also, Rough stone does not contain any kind of toxic element which can contaminate the water. So, the rain water or water used for drilling purposes which infiltrates into the ground in the lease area does not affect the quality of ground water. The schematic representation of depth of mining and water table is given in fig 4.5. The lease area is deposited with rough stone and safety distance of 7.5m is planned to left on north, east and west side of the lease area and safety distance of 10m is planned to left on the southern side. The minerals locked under the safety zone will act as barrier to prevent the seepage of aquifer into the quarry pit if any.

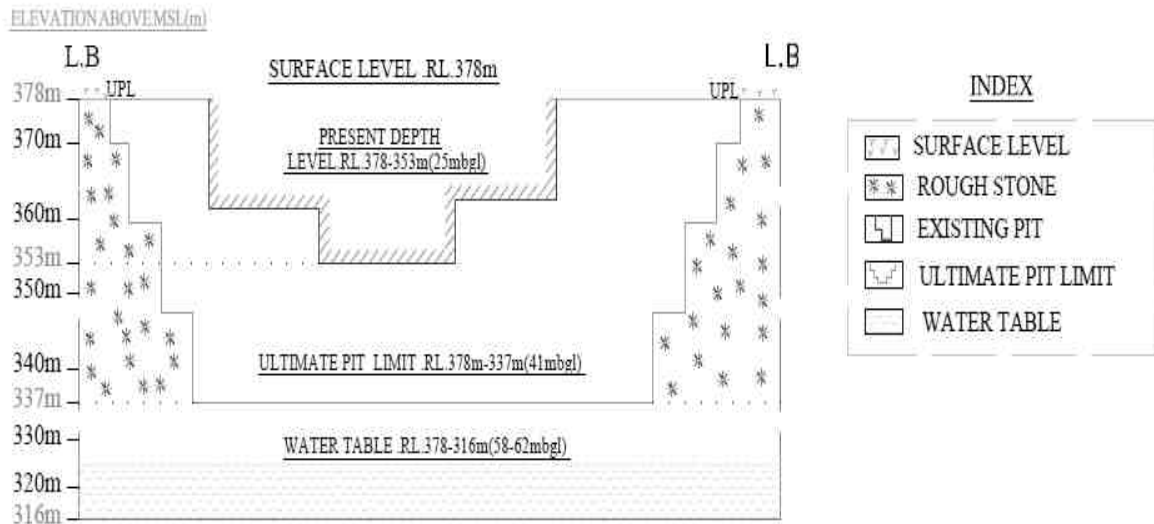


Fig. No. 4.5: Schematic representation of depth of mining and water level

4.6.3 Management of rain water in the pit during Monsoon Season

During monsoon season, the rain water gets stored in the quarried-out pit. For the working purpose, rain water will be pumped and allowed to store in the surface setting tank constructed outside the lease area to remove suspended solids if any. After the sedimentation process, the water from the settling tank will be used for dust suppression, and green belt development within the lease area.

4.6.4 Water Quality Index

Water Quality Index value has been calculated for the observed values and compared with drinking water specification as per IS 10500:2012 and results were discussed. The WQI has been calculated by using the standards of drinking water quality recommended by the World Health Organization (WHO), Bureau of Indian Standards (BIS) and Indian Council for Medical Research (ICMR). The weighted arithmetic index method (Brown et. al.,) has been used for the calculation of WQI of the water body.

$$\text{Water Quality Index} = \frac{\sum q_n W_n}{\sum W_n}$$

Further quality rating or sub-index (q_n) was calculated using the following expression.

$$q_n = 100 * [V_n - V_{io}] / [S_n - V_{io}] \text{ Where,}$$

q_n = Quality rating for the nth water quality parameter.

V_n = Estimated value of the nth parameter at a given sampling station.

S_n = Standard permissible value of the nth parameter.

V_{io} = Ideal value of nth parameter in a pure water.

Ideal value in most cases $V_{io} = 0$ except in certain parameters like PH and dissolved oxygen. V_{io} for PH = 7 and V_{io} for DO = 14.6

W_n = Unit weight for the nth parameter.

The overall Water Quality Index (W.Q.I.) was calculated by aggregating the quality rating with the unit weight linearly.

Table 4.23. Unit weight of the water quality parameters

Parameters	Water quality standard (WHO/BIS)	Assigned weight (AW)	Unit weight (UW)
pH	6.5-8.5 (8)	3.66	0.1628
EC ($\mu\text{S/cm}$)	250	2.50	0.1112
TDS (mg/l)	500	3.33	0.1481
TH (mg/l)	200	3.33	0.1481
Ca²⁺ (mg/l)	75	3.0	0.1334
Mg²⁺ (mg/l)	30	2.66	0.1183
Cl⁻ (mg/l)	250	4.0	0.1779
Total	-	22.48	1.0

Table 4.24: Water quality index of water samples

Sampling Site Name	Water Quality Index Value	Water Quality Index Status
Core Zone	18.0 mg/l	Excellent
Velampalayam	57.62 mg/l	Poor
Sedapalayam	85.36 mg/l	Very Poor
Ichipatti	42.58 mg/l	Good
Naranapuram	34.10 mg/l	

Note: Water Quality is calculated only for Physical and Chemical Parameters

Table 4.25: Water quality scale

Water quality	WQI Yadav et al 2016	WQI Ramakrishnaiah 2004	WQI Mohanty 2001
Excellent	0–25	<50	<50
Good	26–50	50–100	50–100
Poor	51–75	100–200	100–200
Very Poor	76-100	100–200	200–300
Unsuitable	Above 100	<300	<300

The WQI of the samples collected from the study area are given in tables 4.24 and 4.25. It can be seen that the study area has water quality index value ranging from 18.0 to 85.36 mg/l which reflects the excellent to very poor for drinking status of the groundwater quality. The findings demonstrate the varying consistency of groundwater at different locations. All the groundwater samples under excellent to unfit for drinking category; it may be due to the absorption of fertilisers, geological condition, channel water, solid waste, sewer drainage, septic tanks, and agricultural waste. The water should be treated by reverse osmosis to reduce dissolved solids and total hardness to the required rate.

4.6.5 Impact on Hydrogeology

Generally, the ground water occurs Unconsolidated & Semi-consolidated formations and weathered and fractured Archaean crystalline rocks and interconnected shallow fractures and under semi confined to confined condition the major aquifer systems in this district. The occurrence and movement of ground water are controlled by various factors such as physiography, Rainfall, climate, geology and structural features.

Geophysical Investigation by VES (Vertical electrical sounding) method:

Geophysical methods are the irreplaceable tools to explore subsurface with an economical expense of energy, money and man power. A variety of methods are available to assist in the assessment of ground water table, aquifer geometry and sub-surface geological conditions. The main emphasis of the fieldwork undertaken was to determine the thickness and composition of the sub-surface formations and to identify water-bearing zones. This information was principally obtained in the field using vertical electrical soundings (VES), this method is described below.

If a material having a resistant of R , cross-sectional area of A , and length of L , then resistivity is given,

$$R = \frac{V}{I}$$

In resistivity method three quantities are to be measured at each observation point. One is mutual separation between the electrodes that is “geometric configuration”. The other two are the current (I) passed into the ground through the current electrodes and potential difference (V) developed between the potential electrodes. Thus, two pairs of electrodes are used, one pair for sending the current and the other for recording the voltage.

In the present study, to know the subsurface Lithology and layer thickness of groundwater potential zone were carried out vertical electrical soundings (VES). The resistivity signal dimensions were collected by using DDR-3 model resistivity meter. AB/2 electrode spacing

of 100m is used by Schlumberger configuration. The data were analyzed by curve matching techniques. From the apparent resistivity data, the interpreted resistivity curve obtained using the software it is observed that 3-layer curves shown in the fig.4.6. Interpreted Resistivity and layer thickness of various layers shown in table 4.26.

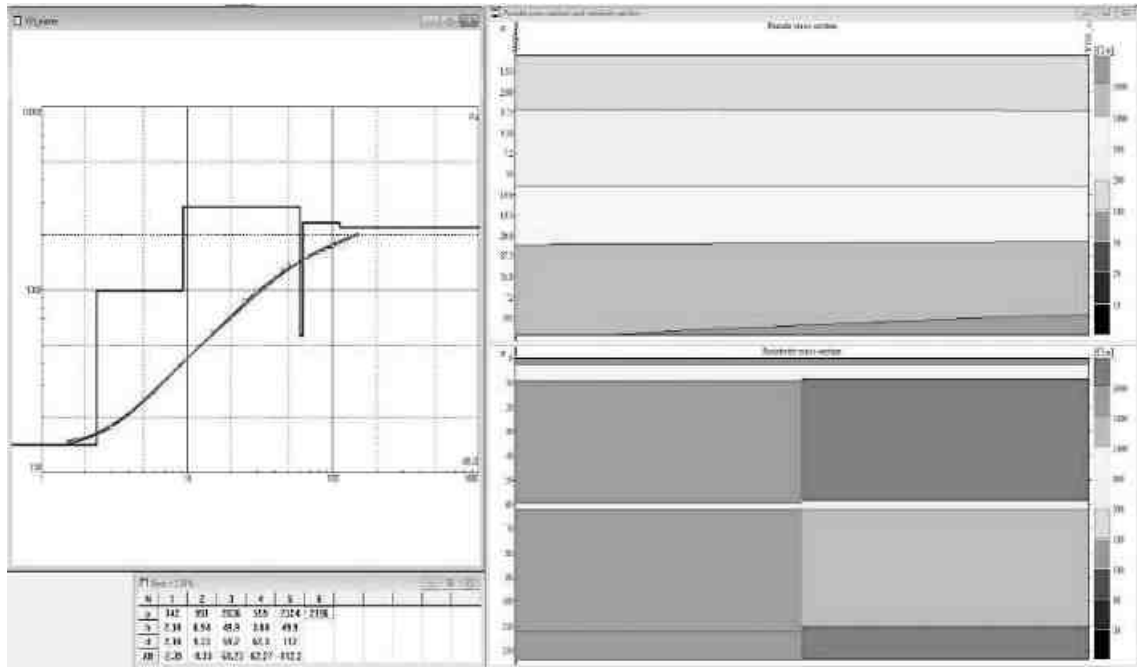


Fig.4.6: Interpreted resistivity curve matching technique

Table 4.26: Resistivity Survey

0-2.39m: Top soil & Gravel with 142 Ohm. Resistivity
2.39-9.33m Weathered rock formation with 991 ohm. Resistivity
9.33-59.2m: Massive Charnockite formation with 2836 ohm. Resistivity
59.2-62.3m –Jointed and fractured rock with about 559 ohm. Resistivity
Above 62.3m: hard massive formation with 2324 Ohm. Resistivity

From the results of Resistivity Survey, it is understood that the study area is composed of rough stone deposit, with little geological disturbances by folding. There is no any seepage in this lease area.

4.6.6 Rainwater Harvesting Potential in Core Zone at the end of project

- 1) Total Pit Area = 7480m²
- 2) Annual rainfall of the area = 0.943m
- 3) Total rainwater available to store in pit area = 7054 m³
- 4) Total volume of Quarried Pit = 289214 m³

4.7 Soil Environment

4.7.1 Impact on Soil Environment

The limited quantity of top soil generated will be dumped along 7.5m inner boundary of the lease area. The top soil will be used to develop greenbelt within the lease area. Part of top soil will be spread over the non-active dumps along the slope and edges to plant tree saplings to form vegetal cover over the dumps. No chemical or toxic elements will be used during mining activity. So, the health of soil in and around the quarry will not be affected.

4.7.2 Mitigation measures for Soil Conservation

- ❖ Garland drains will be provided around the dumps to arrest any soil carried away by the rain water. This will protect the adjacent agricultural land and surface water body from the deposition of soil.
- ❖ Toe drains with low height retaining wall will be provided all along the toe of dumps to arrest any soil from the dump slopes being carried away by the rain water
- ❖ Top soil should not be mixed with other waste or reject materials. It should be conserved by judicious utilization in the mine premises.

4.8 Waste Dump Management

4.8.1 Anticipated Impact

The proposed rate of production of rough stone for five years is about 26340m³ at the rate of 100% recovery up to permissible depth.

4.8.2 Mitigation measures

The mineral rejects and waste shall be dumped systematically with proper repose angle and stabilization as given below,

- ❖ The rejects\ waste dump shall be properly terraced in to 1.5m benches with proper repose angle and then the top soil shall be spread over the dumps and slope to make them humus for some time, after the soil suitable for water retention trees will be planted at the top, slope and toe of the stabilized dumps to form vegetation.
- ❖ Gradation of dump shall be done automatically as coarser materials go to the bottom and finer at the top and therefore drain of rain water flow freely to the bottom without endangering the stability of dump,
- ❖ More over the dump height shall be less than 6m with natural repose angle and hence dump will be more stable.
- ❖ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse.

4.9 Municipal solid waste management

The human waste shall be treated by temporarily built septic tank and soak pit within the mine lease area. The municipal solid waste generated by workers will be properly segregated into biodegradable and non-biodegradable and disposed through garbage collector of Madurai Corporation.

4.10 Ecology and Biodiversity

4.10.1 Impact on Ecology and Biodiversity

The details and list of flora, fauna, reserved forest and cropping pattern within the 10km radius of study area is given in chapter 3. The impact on ecology and biodiversity due to the proposed mining activity has to be studied in detail to prepare the management plan to safeguard the flora, fauna, forest products and aquatic living organism etc. A detailed anticipated impact of Ecology and Biodiversity due to mining activity is described in table 4.27 and 4.28.

Table 4.27: Ecological Impact Assessments and Its Mitigations -Part 1

Sl. No	Issues	Assessment	Mitigations
1	Proximity to national park/ wildlife sanctuary / reserve forest / mangroves / coastline/estuary/sea	No forests are situated within 10km radius. The proposed project does not attract Forest Conservation Act, 1980. There are no wildlife sanctuaries found around 10km radius. Quarry area is 136km (SE) away from the Arabian Sea. Hence the area does not attract Wildlife Protection Act, 1972 and C.R.Z. Notification, 1991.	-
2	Activities of the project affects the breeding/nesting sites of birds and animals	No breeding and nesting site was identified in mining lease site. The fauna sighted mostly migrated from buffer area. The fauna in the buffer zone may be affected by noise generated due to mining activity.	The noise due to the mining activity will be controlled developing green belt all along the lease boundary, regular maintenance of tippers, excavators, transporting the empty tipper within the speed the 20 km/hr.

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3	Located near an area populated by rare or endangered species	No endangered, critically endangered, vulnerable species sighted in core mining lease area and also in buffer zone.	Nil
4	Proposed project restricts access to waterholes for wildlife	No waterholes are in core zone. No Wildlife sanctuary within 10km radius.	Nil
5	Proposed mining project impact surface water quality that also provide water to wildlife	'NO' scheduled or threatened wildlife animal sighted regularly in core area.	Nil
6	Proposed mining project increase siltation that would affect nearby Biodiversity area.	Yes, the runoff from the dump which carries the solid materials may get silt in the adjacent agricultural land and affect the cropping pattern. Also, it may get silt in the adjacent river bed and reduce its water carrying capacity	Garland drainage will be excavated around the dump to arrest the runoff from dump. The drainage will be desilted after every precipitation.
7	Risk of fall/slip or cause death to wild animals due to project activities	'NO'. No Wild life sanctuary within 10km radius.	Nil
8	The project release effluents into a water body that also supplies water to a wildlife	As the proposed project is mining activity there will be no possibilities of release of effluents. Also, no Wild life sanctuary within 10km radius.	Nil
9	Mining project effect the forest-based livelihood/ any specific forest production which local livelihood depended	There is no any reserve forest are located within 10km of lease area. Hence the proposed mining activity will not affect the nearest forest.	-
10	Project likely to affect migration routes	No migration route observed during monitoring period.	Nil
11	Project likely to affect flora of an area, which have medicinal value	No flora having medicinal value found within the lease area	The flora such as neem having medicinal value found in the study area

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			of buffer zone. Those floras will not be affected by the proposed mining activity at it will be carried out only within the lease area.
12	Forestland is to be diverted, has carbon high sequestration	'NO'. There is no forest land within the lease area.	Nil
13	The project likely to affect wetlands, fish breeding grounds, marine ecology	'NO'. No wetland, fish breeding grounds, marine ecology present in core mining area.	Nil

(Format Source: EIA Guidance Manual-Mining and Minerals, 2010)

Table 4.28: Ecological Impact Assessments – Part 2

Ecological Criteria	Identified Impacts	Ecological significance of Impact	Magnitude	Duration /Timing/ Frequency	Reversibility	Mitigation	Cumulative Impact
Zone of Influence	Project site Habitat due to Site Clearance.	The proposed mining lease is located in Velampalayam Village. Since it is an existed area, some shrubs will be cleared before the commencement of the project. The fauna which depends on the shrubs for habitat will be disturbed. No clearance of vegetation in the buffer zone	Low Impact	-	Irreversible in quarry area	During the clearance, it will find the alternate habitat in the buffer zone. During the operation of quarry, the proponent will develop the green belt along the lease boundary. This afforestation will provide the habitat for the migrated fauna.	No Cumulative Impact
Zone of Influence	Ecological Impact Surrounding habitat due to fugitive emission	The fugitive emission due to the mining activities such as drilling, blasting, loading and transportation on the haul road will be deposited on the flora	Temporary Impact	During the mining plan period	Reversible	Before loading the rough stone & gravel will be moisturized to minimize the emission. The sprinkling of water over the haul road	No Cumulative Impact

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		and crop field in the buffer zone which affects growth and its productivity.				will be done. Then completely wet drilling will be take place. The transportation vehicles will be maintained and serviced Properly.	
Accessibilit y	Ecological Impact due to road construction	No Road construction is required to assess the project site. The existing village road connects the project site to the existing MDR road.	No Impact		-	-	No Impact
Zone of Influence	Ecological Impact on Surrounding/ Eco sensitive habitat due to waste water generated from the project activity.	Since the proposed project is a mining activity no waste water generation is expected. Human waste and municipal solid waste will be generated due to the workers.	No Impact	-	-	Human waste will be properly treated by septic tank and soak pit in the lease area and dispose periodically. The municipal solid waste generated by workers will be properly segregated into biodegradable and non-biodegradable	No Impact

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						and disposed through garbage collector of Tiruppur Corporation.	
Zone of Influence	Ecological Impact on Surrounding / Eco sensitive habitat due to Noise generated from the project activity.	During drilling or blasting, transportation of rough stone noise will be generated and it may slightly affect the movement of fauna around the lease area.	Temporary impact	Only during drilling, blasting operation and transportation period. (5 years)	No	Avenue trees will be planted along the lease area to minimize the noise level. Milli second detonators shall be used preferably 25–50ms per delay to control vibrations. Regular maintenance of vehicles and driving the empty tipper within 20km/hr speed also control the noise generations.	No Impact

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Zone of Influence	Ecological Impact On Surrounding/ Eco sensitive habitat due to Transportation	There is no eco sensitive habitat found around the lease area. The fugitive emission from drilling, blasting, vehicle movement will form layer in leaves thus reducing the gaseous exchange process. This ultimately affects the growth of plants. The animals like dog, cattle may get accident due to truck movement.	Temporary impact	During Operation Phase	No	The truck driver will be advised to drive the vehicle within 20km/hr inside the lease area and 40km/hr outside the lease area. Before loading the rough stone will be moisturized to minimize the emission. The sprinkling of water over the haul road will be done. Then completely wet drilling will be taking place.	No Impact
Zone of Influence	Ecological Impact on Natural ecosystem, the soil micro flora and fauna and soil seed banks.	During raining season, the runoff from the lease may affect the habitants.	Temporary Impact	Nil	--	The garland drainage will be around the quarry pit and dump to prevent the escape of runoff from the lease area to the river. The maintenance of	No Impact

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						vehicle will be strictly prohibited in the lease area to prevent the spillages of oil, grease.	
Zone of Influence	Fish habitats and the Food web/food chain in the water body and Reservoir	The Sendevipalayam Check Dam is located at the distance of 12km from the lease area in east direction.	No Impact	Nil	--	The garland drainage will be around the quarry pit and dump. The maintenance of vehicle will be strictly prohibited in the lease area	No Impact

Table 4.29: Afforestation Plan of the Proposed Rough stone and gravel Quarry for the next five years

Year	Place	Type of Trees	Number	Spacing	Rate of survival
I	Lease Boundary & Dump	Pungai, Vagai, Vanni	50	5m X 5m	80%
II	Lease Boundary & Dump	Karungali, Puvarasu,	50	5m X 5m	80%
III	Lease Boundary & Dump	Pungai, Vagai, Vanni	50	5m X 5m	80%
IV	Lease Boundary & Dump	Karungali, Puvarasu	50	5m X 5m	80%
V	Lease Boundary & Dump	Pungai, Vagai, Vanni	50	5m X 5m	80%

Nearly 6430 Sq.m area is proposed to use under afforestation by planting 50 No's of Neem sampling etc., every year in the spacing interval of (5m x 5m) with an anticipated survival rate of 80%.

4.11 Socio Economic

4.11.1 Anticipated Impact

Employment generation (Direct and Indirect) due to the project has generated direct and indirect employment for more than 50 persons. Preference will be given to the local population for employment in all categories including semi-skilled and unskilled. The villages and their inhabitants in the buffer zone will not be disturbed from their settlements due to the mining operations.

It is obvious to assume that the activities of the mining operations will improve the socio-economic levels in the study area. The anticipated impact of this project on various aspects is described in the following sections

- **Impact on human settlement:** Overall, due to employment generation and economic progress, there will be positive changes in the socio-economic condition of the people residing in the vicinity of the project site. The local population will have preference to get an employment. No resettlement occurred due to mining activity. Built up land has been increased marginally.
- **Impact on Population Growth:** Population rate grows annually and demand of primary needs and employment will increase due to population growth. It will provide some direct and indirect employment to the people in and around the villages.

- **Impact on Vegetation:** No decline in agricultural land. It has been increased over a period of time by utilizing the water stored in the working pits. No deforestation will be happened.

Therefore, due to mining, per capita income of local people will be improved. The local people have been provided with either direct employments or indirect employment such as business, contract works and development work like roads, etc. and other welfare amenities such as Sanitary facilities, Solar Lighting to Govt school, Health Care to the villages in buffer zone, Maintenance of village road or Providing funds to local body or Prime minister's fund on Socio economic Development and relief measures. The job/business opportunities will improve the economic condition of the persons. They are in a position to utilize this money for purchase of tractors, trucks, etc. which may be put into use for business purposes. Many **positive impacts** can be resulted from a long-term mine unit. In this context, provision of job opportunities, business, transport and communication, laborer etc., are the major ones. Thus, this unit is highly favorable to poor and landless people.

4.11.2 Mitigation Measures

- Good maintenance practices will be adopted for plant machinery and equipment, which will help to avert potential noise problems.
- Green belt will be developed in and around the project site as per Central Pollution Control Board (CPCB) guidelines.
- Drilling, blasting etc., at specified location will be followed with proper schedule.
- Appropriate air pollution control measure will be taken so as to minimize the environmental impact within the core zone.
- For the safety of workers, personal protective appliances like hand gloves, helmets, safety shoes, goggles, aprons, nose masks and ear protecting devices has been provided which meet 'BIS' (Bureau of Indian Standards).

Thus, no significant impact on health and safety will be occurred due to this project.

4.12 Land Environment

4.12.1 Anticipated Impact on Land Use / Land Cover

Rough stone and gravel quarry project will result in disturbance of the land use pattern of the mine lease area. The impact on the topography in the form of changed landscape is unavoidable during mining activities like excavation, overburden dumping, soil extraction etc. Land requirement for the project has been assessed considering functional needs. So, reclamation of mined out land will be given due importance as a step for sound land resource management. No release of toxic elements into the ground. No adverse impact

is anticipated on land use of buffer zone associated due to the mining activity, as all the activities will be confined within the project site. The mining operations will impact the land usage and land aesthetics of mine lease area.

The land use analyses show that the area is predominantly Agriculture followed by buffer zones of the study area, which clearly indicates that the development of agriculture land increases over a period of time. At the end of the project, the quarried pit will be act as water storage pond. The stored water will be used for developing agricultural activity around the mining lease area. It will improve the livelihood of village people. The evaporation rate of the water in the pit is given detail in the report.

4.12.2 Mitigation measures

- ❖ The restoration of the degraded land would cover backfilling and terracing with the overburden / wastes and surfacing the same with top soil.
- ❖ Provision of Garland drainage around the dumps
- ❖ Fast growing trees and other native shrubs would be planted to stabilize the reclaimed land
- ❖ Appropriate measures will be taken for green belt development.
- ❖ The rain water will be stored in the pit which will recharge the ground water as a part of rain water harvesting scheme for irrigating the nearby agricultural lands.

4.13 Occupational Health Risks

4.13.1 Anticipated Impact

- Occupational health and safety hazards occur during the operational phase of mining.
- Excessive dust, Noise and vibration are the chief health hazards.
- Exposure to fine particulates is associated with work in most of the dust generating stages of mining.
- Workers with long term exposure to fine particulate dust are at risk of pneumoconiosis, emphysema, bronchitis, silicosis and fibrosis.
- Physical injuries during project operation are related to near slips and falls: contact with falling/ moving objects and lifting/ over-exertion.
- Other injuries may be due to contact with or capture in, moving machinery like dump trucks, loaders etc.

4.13.2 Anticipated occupational and safety hazards

- ❖ Health Impact due to Physical activity, Extremes of age, poor physical condition, fatigue, Cardiovascular disease, Skin disorders
- ❖ Noise
- ❖ Burns and shocks due to electricity
- ❖ Respiratory hazards due to Dust exposure
- ❖ Physical hazards
- ❖ Explosives and Fire

4.13.3 Anticipated health impacts on people in nearby villages

- The quarry workers and nearby village people health affected the mining activity.
- The fugitive emission during the heavy wind period travel along the predominant wind direction and people in village located along predominant wind direction gets affected.

4.13.4 Mitigation measures

For the safety of workers at site, the following mitigation measures are proposed

- ❖ Excavators, dumpers, drills other automated equipment's will be enclosed
- ❖ Use of personal breathing protection will be made compulsory
- ❖ Spraying with water on all working faces & haul roads, by water-sprinkler
- ❖ Regular health monitoring of workers once in 6months for silicosis
- ❖ Random health checkup village people around the lease area for identify diseases if any due to mining activity
- ❖ No employee will be exposed to a noise level greater than 75 dB(A) for a duration of more than 8 hours per day without hearing protection
- ❖ Ear muffs provided will be capable of reducing sound levels at the ear to at least 75 dB(A).
- ❖ During mining operations, all the statutory provisions of the Indian Electricity Rules 1956, and Indian Standards for installation and maintenance of electrical equipment etc. will be observed.
- ❖ Care will be taken to evacuate the mining area completely at the time of blasting operations.
- ❖ A blasting SIREN will be used at the time of blasting for audio signal
- ❖ Before Blasting and after blasting, red and green flags will be displayed as visual signals.

- ❖ Warning notice boards indicating the time of blasting and NOT TO TRESSPASS are displayed prominently.
- ❖ First-aid facilities as per provisions under Rule (44) of Mines Rules 1955
- ❖ Initial and Periodical medical examination shall be conducted for the employees under Rule 29B & 45 (A).
- ❖ Insurance will be taken in the name of the labors working in the mines.

4.14 Agricultural Environment

4.14.1 General

The general impacts on agricultural lands will be dust pollution, as volume of dust is discharged into the air during the process of quarrying. Dust gets deposited on the leaves of plants, flowers and soil. This affects the photosynthetic and fruiting ability of the crops.

Silt from the excavation, screening process and reject during monsoon season gets washed and chokes the agricultural fields, rendering them useless for the growth of crops. Due to blasting, fly rocks may fall on agricultural fields making it difficult for the farmer to cultivate.

There is a need for dust control on haul road movements. Vehicles emit fugitive gases during transportation of materials. Those gases enter the plants through the stomata pores; it destructs chlorophyll and affects photosynthesis leading to stunted growth or death of crops.

The pumping of water from the ground for the mining activity will reduce the availability of water for the agricultural purposes.

4.14.2 Anticipated Impacts of Proposed project on Agriculture, Horticulture and livestock

The land use analyst sighted that the agricultural land is surrounded around the project site. The principal cereals crop of this district are Paddy, Millet, Pulses, and Cotton are the major crops and ragi. Among oil, seeds, groundnut, castor, and gingelly (sesame) occupy important places. Of the commercial crop, Sugarcane, cotton and tapioca are some of the important plants were cultivated in the study area.

As the villages are located around the project site, the people in the villages are farming animals like goat, cow, and sheep for their livelihood. The above-mentioned impact may be observed on the nearest agricultural farm during the quarrying activity. So, the following mitigation measures will be suggested to protect the nearest farm. The requirement of water for the proposed project will be getting from water vendors. The ground water from the 2km radius of the project site will not be extracted for the proposed mining activity.

4.14.3 Mitigation Measures

- Spraying of water on the haul roads will be done to suppress the dust in the source itself. Interval of sprinkling depends on the environmental factors such as temperature, rainfall and humidity of the proposed site.
- The trees having tolerance to different air pollutants will be planted along the boundary to prevent the escape of dust to the surroundings.
- Provision of Garland drainage will be provided around the lease area to prevent the leach of silt into the farm.
- Regular check and proper maintenance of Vehicles will be carried out to minimize the emission of pollutants.
- Adequate Blast shield or blast mats will be provided wherever necessary for fly rock protection during blasting, thus to prevent the accident on the nearest farms.
- During monsoon season the dust deposited on the surface of plant body is washed out naturally.
- Making two bore holes which have direct conduit with the water table in the lease area will help ground water recharge during monsoon seasons. It helps the agricultural activity in the buffer area of project site.

4.15 Post COVID Health Management Plan

- The vaccinated persons only will be given employment.
- The labors and other skilled, semi-skilled employees will be given a new mask daily.
- The body temperature of the labors will be checked using the temperature monitoring gun while getting into the quarry and getting out from the quarry.
- The labors will be advised to maintain the social distance of at least 10m and also advised to sanitize the hand.
- The general awareness program will be conducted about the handling of COVID-19 in two weeks once.
- The board referring the “Wear mask” and “Maintain social distance” will be placed in two sides of entrance of the quarry in local language.



Fig 4.7: Maintain social distance of 2m in work place



Fig 4.8: Sanitizing Hand Frequently



Fig 4.9: Wear Mask at the work place

CHAPTER – 5: ANALYSIS OF ALTERNATIVES (TECHNOLOGY AND SITE)

Consideration of alternatives to a project proposal is a requirement of the EIA process. During the scoping process, alternatives to a proposal can be considered or refined, either directly or by reference to the key issues identified. A comparison of alternatives helps to determine the best method of achieving the project objectives with minimum environmental impacts or indicates the most environment friendly and cost-effective options. Analysis of alternatives should be similar to the content of the approved mining plan.

The selection of the site is based on the following considerations which are feasible in terms of location, deposit characteristics, availability of reserves, percentage recovery, road facilities, labor availability, requirement of health and safety and environmental concerns, production scheduling, scope of mechanization/automation, land reclamation, and operating and capital cost estimates.

Geologically, Tiruppur district of Tamil Nadu forms a part of southern Granulitic terrain and is predominantly occupied by crystalline rocks of Archaean to late Proterozoic age. Regionally, the rocks can be grouped under five categories namely i. Charnockite Group represented by Charnockite, Pyroxene Granulite and Magnetite Quartzite, ii. Peninsular Gneissic Complex (II) comprising hornblende-biotite gneiss, iii. Basic intrusive include Pyroxinite/Dunite iv. Younger intrusive comprising, Nepheline-Syenite, Pink Granite, Pegmatite and Quartz veins and v. Quaternary sediments of Kankar and soil. Tiruppur District is predominantly occupied by hornblende Biotite gneisses of PGC (II) with enclaves of Magnetite Quartzite, Pyroxene Granulite and Charnockite. The area exposes several bands of Pyroxene Granulite which is medium grained, medium to dark grey in colour and stand out prominently in the gneissic country generally parallel to regional foliation. Charnockite is coarse grained, massive, many places it is foliated, grey coloured and greasy and exposed as bouldery outcrops and small knolls. It is well exposed in Central, Western and Southern parts of the Tiruppur District.

Hornblende-Biotite gneiss is well foliated, medium to coarse grained, pale grey and exposed as sheets and small knolls. Pink Granite gneiss occurs as thin bands and lensoidal bodies. It is a medium grained rock composed of alternating bands of mafic (mainly of biotite and hornblende) and felsic (Feldspar and Quartz) minerals. It is well recognized in Avinashi area.

CHAPTER – 6: ENVIRONMENTAL MONITORING PROGRAMME

Environmental Monitoring program is mandatory to check the impact of the mining activity in the core and buffer zone. Hence regular monitoring of various environmental parameters helps in maintaining sound operating practices of the mining in line with mining and environmental regulations. Environmental Monitoring program will be conducted for various environmental components as per conditions stipulated in Environmental Clearance Letter issued by SEIAA & Consent to Operate issued by TNPCB.

6.1 Measurement methodologies

The following instruments will be used for environment monitoring for various environmental parameters.

Table No: 6.1 Instruments used for Monitoring

S. No	Instruments	Purpose of Monitoring
1	Respirable Dust Sampler	Air Pollution
2	Fine Particulate Sampler	Air Pollution
3	Sound level meter	Noise level
4	Digital Seismograph	Vibration monitoring
5	Water level indicator	Water level
6	Geophysical Instruments (DDR3)	Water table
7	Camera, Binocular & Lens	Flora, Fauna
8	GPS & DGPS	For fixing the coordinates of sampling location
9.	Electronic Total station	Reduced level & topography monitoring

In addition to the above, Primary data on land use, socio economics will be collected by visiting the field and secondary data will be collected from Government Department and other sources.

6.2 Monitoring Schedule and Frequency

The sampling and analysis of the environmental attributes will be as per the guidelines of Central Pollution Control Board (CPCB). Monitoring program will be followed till the mining operation ceases as per the schedule below.

Table 6.2: Monitoring Schedule

S. No.	Environment Attributes	Location	Monitoring		Remarks
			Duration	Frequency	
1	Meteorology and Air Quality	Continuous monitoring weather station in core zone/ nearest IMD station	24 hours	Monthly Once	Wind speed, direction, Temperature, Relative humidity and Rainfall.
2	Air Pollution Monitoring – PM _{2.5} , PM ₁₀ , SO ₂ and NO _x	5 locations (One station in the core zone and at least one in nearby residential area, one in the upwind, two station on the downwind direction and one in cross wind direction).	8 hours	Six months once	Fine Dust Sampler and Respirable Dust Sampler
3	Water Pollution Monitoring	Mine effluents, Set of grab samples during pre and post monsoon for ground and surface water in the vicinity.	–	Six months once	Physico–chemical and Biological characteristics
4	Hydrogeology	Water level in open wells in buffer zone around 1km at specific wells	-	Six months once	Water level monitoring devices may be used.
5	Noise	Mine boundary, high noise generating areas within the lease and at the nearest residential area	24 hours	Monthly Once	Sound level meter
6	Vibration	At the nearest habitation (in case of reporting)	–	During blasting operation	Digital Seismograph
7	Soil	Core zone and Buffer zone (Grab samples)	–	Six months once	Physical and Chemical characteristics

6.3 Data Analysis

Data analysis will be done by MoEFCC/NABL approved laboratory as per CPCB guidelines & compliance reports shall be submitted to concerned authority (specified in Environment Clearance Letter issued by SEIAA, Tamil Nadu and Consent issued by TNPCCB, Madurai) on regular basis.

6.4 Emergency procedures

The mines manager monitors the emergencies that may occur in opencast mining operations and prepares an emergency plan to deal with emergency situations during the operation of the mine. Preparation of a preventive maintenance schedule program based on recommendations given and maintenance schedules for all equipment's and instruments as per recommendations of the manufacturer's user manuals.

6.5 Detailed Budget

Detailed budgetary provisions for monitoring program are detailed in the following table 6.3.

Table No 6.3 Environment monitoring budget

S. No	Environmental Monitoring Program	No. of samples per year	Cost per sample	Cost
1	Ambient Air Quality monitoring	8	Rs 5000	Rs 40,000
2	Water quality	2	Rs 7000	Rs 14,000
3	Soil quality	2	Rs 4200	Rs 8,400
4	Noise monitoring	2	Rs 3800	Rs 7,600
	Total			Rs 70,000

CHAPTER – 7: ADDITIONAL STUDIES

7.1. Public Consultation

The present draft EIA report is for public consultation only. The proceedings of the public consultation will be included in the final Environmental impact assessment report.

7.2 Risk assessment and Disaster Management Plan

Risk Assessment is all about prevention of accidents and to take necessary steps to prevent it from happening. The mining operation is carried out under the management control and direction of a qualified mines 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, if any.

To overcome such risks, help/aid would be sought from emergency services providers like Police station, Fire station, Hospital, Ambulance services in the vicinity of the mine site. Their telephone numbers and communication facilities are to be provided and displayed on the board at the mine office as well as mine site. Responsibility of coordinating rescue activities is entrusted to quarry-in-charge at the quarry site in addition to quarry-in-charge is also looking after statutory obligatory under Mines Act, 1952. Name and Address of Contact Person coordinating in case of Eventuality is stated below:

Name and Address of the Proponent	Thiru.P.Viswanathan No. 275/A3, Neelakadu 63, Velampalayam, Palladam Tiruppur District Tamil Nadu-641663 Ph: 9715058799
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However, the following natural/industrial hazards may occur during normal operations.

- i. Operational Phase,
- ii. Inundation of mine pit due to flood/excessive rains,
- iii. Accident due to transport & other equipment's, Safety and Environmental aspects.

Table 7.1 Risk Assessment and Disaster Management Plan

S. No	Hazards	Mitigation measures
1	Surface Fire	➤ Fire Extinguishers ➤ Sand Buckets
2	Explosives/Blasting	➤ The applicant is directly purchasing explosives from an authorized dealer and they are blasting with help of certified blaster. Agreement is made with License holder in Form-22 for store, use and sale of explosives. ➤ Shot holes blasting using compressor and Jack Hammers

		combination are adopted to release the mineral.
3	Flooding of Rain water	➤ Escape Routes will be provided to prevent inundation of storm water ➤ Garland drains will be provided at the toe of dump
4	Radioactive hazard	➤ Not Anticipated
5	Failure of Mine Benches and Pit Slope	➤ Ultimate or over all pit slope shall be 45° and each bench height shall be 6m height equal to the boom height of excavator and vertical. ➤ During working normally 3-6m will be maintained as per the plan.
6	Failure of Waste Dumps	➤ Stabilization of dump with top soil and tree plantation shall make the dump more stable. ➤ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse.
7	Dust	➤ Periodical wetting of land by spraying solutions. ➤ Regular water sprinkling on haulage roads ➤ Provision of Dust mask to workers ➤ Green Belt shall be carried out within the mine premises by planting trees, to improve the aesthetics of the area and also to reduce the pollution outside the activity area
8	Noise	➤ Rotation of workers to minimize exposure time of noise ➤ The equipment's and machineries shall be maintained properly ➤ Provision of earmuffs to workers
9	Transportation	➤ Convex mirrors should be kept at all corners ➤ All vehicles should be fitted with reverse horn with one spotter at every tipping point ➤ Loading according to the vehicle capacity ➤ Regular checking of brakes to avoid failures ➤ Periodical maintenance of vehicles
10	General measures	➤ No entry for any unauthorized persons ➤ S1 type fencing as per DGMS circulars ➤ Quarrying as per Approved Plans only ➤ Provision of Personal Protective Equipment's ➤ In case of any closure of mine the compensation under Industrial Dispute Act will be paid as per law

7.2.1 Care and Maintenance during temporary discontinuance

Watch and ward are provided permanently in the mine premises to monitor the mine openings to prevent inadvertent entry. Top soil bund is made partly and Stone fencing is proposed all around lease boundary to safe guard the mine and the adjacent livings.

Temporary discontinuance will be minimal as there is good demand for this material in construction work.

7.2.2 Economic repercussions of closure of mine and manpower retrenchments

7.2.2.1 Number of local residents employed in the mine, status of continuation of family occupation and scope of joining occupation back

There are 18 people employed in the quarry. Most of labors are Agriculturist. In case of closure of mine, they may continue their own work.

7.2.2.2 Compensation given or to be given to the employees connecting with sustenance of himself and their family members

In case of any closure of mine the compensation under Industrial Dispute Act will be paid as per law. All workers shall get retrenchment benefits as per labour laws under enforcement.

7.2.2.3 Satellite occupations connected to the mining industry – number of persons engaged therein – continuance of such business after mine closes

The quarrying activity shall lead to development of several ancillary units and business, which are explained below:

- i. Other than mine employment, workshops, spare parts, hotels, tea shop and related several self-employment opportunities.
- ii. Several shops and service providers shall grow in the public adjacent to mines.
- iii. Schools and city development shall also be possible owing to the fact of economic growth in the village.

7.2.2.4 Continued engagement of employees in the rehabilitate status of mining lease area and any other remnant activities.

In the event of closure of mine, the mine worker shall get alternate work or business-like agriculture etc. No serious repercussions envisaged in the event of cessation of mining activity, as they will be provided employment in other mines belong to the company.

7.2.2.5 Envisaged repercussions on the expectation of the society around due to closure of mine

Persons on roll at the time of closure will get benefit as per State Govt. guidelines as applicable at the time of retrenchment

7.2.3 Time Scheduling for abandonment

The following works are scheduled before abandoning the mine,

- i. Parapet wall of 2m height will be constructed around the pit,
- ii. Planting and monitoring of Afforestation program.

There is no proposal for closure of mine for the next 5 years. The parapet and plantations will be done during operation of mine. In case of any abandonment the following time is required,

Activities	Days for schedule
Time schedule for fencing	6 months
Time schedule for reclamation of mined out area	1 year

7.3 Social Impact Assessment, R&R Action Plans

The Rough Stone quarry project of Thiru. P.Viswanathan does not involve any kind of displacement of the population since the mining will be concentrated only in the mining area only. Not much disturbance in respect of fauna, flora and human settlement of the villages. The impact of mining activity on the population will be insignificant. Hence, Rehabilitation of settlements is not anticipated under this project as it will not be required. Thus R&R Action Plans not proposed.

The project proponent will help in uplifting the poor section of the society as part of CSR activity by undertaking social welfare programs. The Project proponent contributes 2.5% of profit towards CSR activities. This project will have a positive impact on the socio economic as it will provide considerable employment to the families in the nearby villages. Improved health care facilities are expected to come-up in the area for catering to the health needs of the miners. The impact of mining on the civic amenities will be substantial after the commencement of mining activities. The local people who are currently depending on forest and agriculture will have new avenue from the mine.

7.4 Detail study of Rainwater harvesting after the completion of project.

- I. Total Pit Area = 7480m²
- II. Annual rainfall of the area = 0.943 m
- III. Total rainwater available to store in pit area = 7054m³
- IV. Total volume of quarried pit = 289214 m³

Since the rainwater directly getting stored in the quarried pit, the runoff will not take place. The Quarried Pit will be acting as Artificial Ground Water Recharge Pond. After the rainwater getting stored in quarried pit, the water slowly infiltrates into the ground and reaches the ground water table. This will greatly increase the ground water table around the lease area.

By electrical resistivity survey it is found that there is massive rock formation at 20m bgl. So, the infiltration rate of rain water is very less. If the rain water stored in pit for long period the evaporation loss will take place.

Meyer's Formula (1915) is used to find the loss of water in pit due to natural evaporation process.

Meyer's Formula (1915)

$$E_L = K_M (e_w - e_a) (1 + u_9/16)$$

Where

- E_L = Evaporation Rate (mm/day)
- e_w = the saturation vapor pressure at the water temperature in mm of mercury
- e_a = the actual vapor pressure in the air in mm of mercury
- u_9 = monthly mean wind velocity in km/h at about 9 m above ground
- K_M = coefficient accounting for various other factors with a value of 0.36 for large deep and 0.50 for small shallow waters.

Here,

$e_w = 30.5$ mm of Hg (considered average temperature in Tiruppur district during February month of 2023)

$e_a = 0.59 \times 30.5 = 17.9$ mm of Hg.

$u_1 = 15.12$ km/hr

$u_9 = 20.69$ km/hr

Substitute the above parameters in Meyer's equation,

$$E_L = 0.36 (30.5 - 17.9) (1 + 20.69/16)$$

$$E_L = 6.17 \text{ mm/day}$$

$$\text{Evaporated Volume per day} = 13315 \times 0.00617 = 82 \text{ m}^3/\text{day} \text{ or } 82 \text{ KLD}$$

The total quantity of rain water to be stored in quarried pit is 7054 m^3 . The evaporation rate of water per day is 82 m^3 based on the maximum temperature in Tiruppur district. It takes nearly 5 months for the complete evaporation of water. Before that the stored water will be used to irrigate the crop around the quarry area.

Other benefits are that the water will be used for the domestic purposes after the water properly treated by Sedimentation-Filtration processes. A higher quantity of about 20 liters per capita per day should be assured to take care of basic hygiene needs and basic food hygiene.

Thereby the proposed quarry benefits the daily needs of water to so many families around the quarry area for every year. This is very important positive impact of the proposed rough stone and gravel quarry of P. Viswanathan.

7.5 Plastic waste Management Plan

This is proposed rough stone and gravel quarry. So, the project does not need any plastic related material for quarry operations. The plastic materials will be used by the employee and labours in the form of carry bags, water bottles, etc. To avoid such situations the employees and labours will be strictly instructed to avoid the plastic materials in the lease area. Moreover, they will be advised to use cloth bags, jute bags and bring the food by Steel tiffin box.

Water will be provided by the project proponent for both drinking and domestic purposes. So, the dustbins will not be needed in the quarry. To manage the unavoidable situations, Dustbins will be placed in the quarry for both decompose and non-decompose waste separately of Municipal solid waste. The collected waste will be disposed periodically as instructed by TNPCB. The board with the instruction “**Avoid plastics**” is placed in the two sides of quarry and awareness program will be conducted to the labours monthly once.



CHAPTER – 8: PROJECT BENEFITS

Mining activity will help in improving the socio-economic benefits in areas like employment, communication and infrastructure development etc.

8.1 Physical Infrastructure

The rough stone and gravel project located in Velampalayam Village of Tiruppur District has well established roads, communications and other facilities. The impact on the civic amenities will be substantial after increasing the mining capacity.

The following physical infrastructure facilities will further improve due to mine.

- ❖ Afforestation
- ❖ Road Transport facilities
- ❖ Communications
- ❖ Housing facilities
- ❖ Water supply and sanitation
- ❖ Medical, Educational and social benefits will be made available to the nearby Civilian population in addition to the workmen employed in the mine.

Under plantation program, it is suggested to develop green belt further all along the boundary of mining lease area. The species to be grown in the areas will be dust tolerant and fast-growing species so that a permanent green belt is created. Apart from the green belts and aesthetic plantation for eliminating fugitive emission and noise control, all other massive plantation efforts will be executed with the assistance of experts and cooperation of the local community.

8.2. Social Infrastructure

The mining activity will create rural employment. It has been observed that local people mainly depend upon agricultural, where the income is irregular and low. The mining activity in the region will have positive impact on the social economic condition of the area by way of providing employment to the local in-habitants; wages paid to them will increase the per capita income, housing, education, medical and transportation facilities, economic status, health and agriculture by improving the life style of the people. A major part of the labour force will be mainly from local villagers who are expected to engage themselves both in agriculture and mining activities. Part of the royalty is given to local bodies by the State Govt. for the welfare and development of the village. District Mineral Fund @30% of the Royalty shall be given to the Dept. of Geology and Mining, Tiruppur District. The State Government will also benefit directly from the mine, through increased revenue from royalties, excise duty and etc.,

8.3 Employment Potential

The proponent employed about 15 persons for carrying out the mining operations of which 1 are skilled, 9 semi-skilled, 5 unskilled worker personnel. In addition, there will be indirect employment to many more people in the form of contractual jobs like construction of infrastructural facilities, transportation of rough stone to destinations, sanitation, supply of goods and services to the mine and other community services, etc., The local population will have preference to get an employment. The economic status of the local people will be enhanced due to mining project.

8.4 Other tangible benefits

8.4.1 Corporate Social Responsibility

Corporate Social Responsibility (CSR) refers to voluntary actions undertaken by the project proponent either to improve the living conditions (economic, social, environmental) of local communities or to reduce the negative impacts of mining activity. By definition, voluntary actions are those that go beyond legal obligations, contracts, and license agreements.

CSR programs usually invest in infrastructure (potable water, electricity, schools, roads, hospitals, hospital equipment, drainage repairs, etc.), building social capital (providing high-school and university education, providing information on HIV prevention, workshops on gender issues, information on family planning, improving hygiene, etc.), and building human capital (training local people to be employed by the mining enterprise or to provide outsourced services, promote and provide skills on micro business, aquaculture, crop cultivation, animal rearing, textile production, etc.)

8.4.2 CSR activities

The following activities which may be included by companies in their Corporate Social Responsibility Policies are notified as CSR activities under Schedule VII ((See section 135) of the Companies Act 2013:

- i. Eradicating extreme hunger and poverty;
- ii. Promotion of education;
- iii. Promoting gender equality and empowering women;
- iv. Reducing child mortality and improving maternal health;
- v. Combating human immunodeficiency virus, acquired immune deficiency Syndrome, malaria and other diseases;
- vi. Ensuring environmental sustainability;
- vii. Employment enhancing vocational skills;

- viii. Social business projects;
- ix. Contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government or the State Governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, other backward classes, minorities and women; and
- x. Such other matters as may be prescribed.

The Board of every company referred to in sub-section (1), shall ensure that the company spends, in every financial year, at least 2% of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy. Provided that the company shall give preference to local area and areas around it, where it operates for spending the amount earmarked for Corporate Social Responsibility activities. Provided further that if the company fails to spend such amount, the Board shall report under clause (o) of sub-section (3) of section 134, specify the reasons for not spending the amount.

Explanation: For the purposes of this section “average net profit” shall be calculated in accordance with the provisions of section 198.

8.4.2.1 CSR Cost Estimation

CSR activities will be taken up in the nearby villages mainly contributing to education, health, training of women self-help groups and contribution to infrastructure etc., CSR budget is allocated as 2.5% of the profit. Under this programme, the project proponents will take-up following activities for social and economic development of villages through local panchayat.

- ✚ Employment to eligible persons during operational phase of the mine
- ✚ Conducting Medical Camps
- ✚ Infrastructure Development like repair of roads, renovation of ponds, rainwater harvesting schemes, etc.,
- ✚ Financial grant to the existing educational institutions for development of physical infrastructures
- ✚ Training for Self-Employment
- ✚ Plantation in villages and all along roads.
- ✚ Providing solar lamps to nearby schools and villages by going eco-friendly.

8. 4.3 Corporate Environment Responsibility (CER)

CER Activity	Project Cost (Rs. In Lakhs)	CER Cost @ 2% of Project Cost (Rs. In Lakhs)
1. Developing Library Facilities to nearest Government School	60.48	5
Total Cost Allocation	60.48	5

CHAPTER – 9: ENVIRONMENTAL COST BENEFIT ANALYSIS

9.0 PROJECT COST

After making exhaustive study, it is considered that the mining project may be implemented.

Project cost for the proposed rough stone and gravel quarry namely “Rough Stone and Gravel Quarry of Thiru.P.Viswanathan” over an area of 0.91.0 Ha falling in Village Velampalayam, District Tiruppur is Rs. 60,48,000 /- and EMP Cost is Rs. 3,80,000/- per year

- This project provides direct employment to 15 people and indirect employment to nearly 20 people. In a family 5 persons, totally 100 persons will get benefit because of the project.
- Surrounding people will get benefit as they get aggregate (Rough Stone) for construction purposes with less transportation cost.
- The Management will ensure good production and in turn there will be good revenue to the Government of Tamil Nadu and Government of India through taxes. The industry is an asset to the nation.
- At the end of the project the pit will act as rain water harvesting tank which is useful for agricultural purpose. Thereby it will increase the survival of people around the quarry.

CHAPTER - 10: ENVIRONMENTAL MANAGEMENT PLAN

The **Environment Management Plan (EMP)** is required to ensure sustainable development in the study area. Hence it needs to be a comprehensive plan for which the industry, Government, regulating agencies like Pollution Control Board working in the region and more importantly the population of the area need to extend their co-operation and contribution.

It has been evaluated that the project area will not be affected significantly due to mining activity. Mitigation measures at the source level and an overall Management Plan at the site level are elicited so as to improve the surrounding environment.

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT
Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

Table 10.1 Environmental Management Plan

S.No	Parameters	Mining Activity	Mitigation measures
1	Air Environment	Drilling	○ Dust extractor or wet drilling to be followed to control dust at source of emission ○ Use of Sharp drill bits for drilling holes and charging the holes by using optimum charge and using time delay detonator
		Blasting	○ Regular water sprinkling on blasted heaps at regular intervals will help in reducing considerable dust pollution
		Loading	○ Water sprinkling be done before loading by making it moist
		Transportation	○ Water sprinklers along the sides of haul road shall be fixed to control fly of dust while transporting minerals and waste ○ Overloading will be prevented ○ Trucks/Dumpers covered by tarpaulin covers
		DG Sets	○ DG sets will be used only during power failure ○ Adequate stack height for DG sets will be provided as per CPCB norms
		General measures	○ Avenue trees along roads around ML boundary shall be planted as per the norms of MoEF to control fly of dust. ○ Labours engaged in such dust prone areas should be provided with safety devices like ear muff, mask, goggles as per the MMR, 1961 amendments and circulars of DGMS. ○ Regular health check-up of workers and nearby villagers in the impacted area should be carried out and also regular occupational health assessment of employees should be carried out as per the Factories Act ○ Ambient Air Quality Monitoring will be conducted on regular basis to assess the quality of ambient air.
2	Water Environment	Surface water	○ Wastewater discharge from mine if any will be treated in settling tanks before using for dust suppression and tree plantation purposes.

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		Ground water	○ The mining activity will not intersect the ground water table ○ De silting will be carried out before and immediately after the monsoon season
		Storm water	○ Pit will be used for Storage of rainwater ○ Rain water will be collected in sump in the mining pit and will be allowed to store and pumped out to surface setting tank of 15 m x 10m x 3m to remove suspended solids if any. This collected water will be judiciously used for dust suppression onwards and such sites where dust likely to be generated and for developing green belt. ○ The proponent will collect and judiciously utilize the rainwater as part of rain water harvesting
		General measures	○ Regular monitoring and analyzing the quality of water
3	Noise Environment	Drilling	○ Limiting time exposure of workers to excessive noise
		Blasting	○ Carrying out blasting only during day time and not on cloudy days ○ Noise levels will be controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes. ○ Providing proper noise proof enclosure for the workers separated from the noise source and noise prone equipment
		Transportation	○ Proper and regular maintenance of vehicles, machinery and other equipments. ○ The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments. ○ Speed of trucks entering or leaving the mine will be limited to moderate speed to prevent undue noise from empty vehicles. ○ Adequate silencers will be provided in all the diesel engines of vehicles. ○ Minimum use of horns and speed limit of 10 km/hr in the village area. ○ It will be ensured that all transportation vehicles carry a valid PUC Certificates

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		General measures	○ Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas ○ Provision of Quiet areas, where employees can get relief from workplace noise. ○ The development of green belts around the periphery of the mine to attenuate noise. ○ Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects.
4	Vibration	Blasting	○ No deep hole blasting envisaged. ○ Small dia shot holes are used for breaking boulders. ○ Specific charge pattern has to be designed by proper trial vibration studies with varying charge ratios. ○ If the vibration still exceeds the limit a long Trench to a depth of 6m may cut in the direction of wave's movement to break longitudinal waves which travel close to surface, preferably near mine buffer zone ○ In spite of all measures periodical testing of vibration and noise using approved seismograph by DGMS has to be followed as a part of Environmental monitoring
5	Soil Environment	Topsoil	○ Humus top soil shall be preserved for reuse in afforestation and agriculture ○ Top soil should not be mixed with other waste or reject materials. It should be conserved by judicious utilization in the mine premises ○ Garland drains will be provided around the mine and dumps to arrest any soil from the mine area being carried away by the rain water. This will also avoid the soil erosion and siltation in the mining pits and maintaining the stability of the benches
6	Waste Dump	Stabilization of Dumps	○ The rejects\ waste dump shall be properly terraced in to 1.5m benches with proper repose angle and then the top soil shall be spread over the dumps and slope to make them humus for some time, after the soil suitable for

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			water retention trees will be planted at the top, slope and toe of the stabilized dumps to form vegetation. ○ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse ○ Dump should be terraced for every 5m height and stabilized
7	Plantation	Mine lease boundary and waste dump	○ Provision of green belt all along the periphery of the lease area for control of dust and to attenuate noise ○ Stabilization of Dump with plantation ○ It is strongly recommended that the loss of plant in each year will be counted and again planted in subsequent plantation. ○ The plant should be planted taken from nursery, where the survival rate is high.
8	Land Environment		○ The restoration of the degraded land would cover backfilling and terracing with the overburden / wastes and surfacing the same with top soil. ○ Provision of Garland drainage around the dumps ○ Fast growing trees and other native shrubs would be planted to stabilize the reclaimed land ○ Appropriate measures will be taken for Green belt development. ○ The rain water will be stored in the pit which will recharge the ground water as a part of rain water harvesting scheme for irrigating the nearby agricultural lands.
9	Socio Economic		○ Good maintenance practices will be adopted for machinery and equipment, which will help to avert potential noise problems. ○ Green belt will be developed in and around the project site as per Central Pollution Control Board (CPCB) guidelines. ○ Drilling, blasting etc at specified location will be followed with proper schedule.

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		○ Appropriate air pollution control measure will be taken so as to minimize the environmental impact within the core zone. ○ An emergency preparedness plan will be prepared in advance, to deal with firefighting, evacuation and local communication. ○ For the safety of workers, personal protective appliances like hand gloves, helmets, safety shoes, goggles, aprons, nose masks and ear protecting devices has been provided which meet 'BIS' (Bureau of Indian Standards). ○ As a part of CSR activities, community welfare activities will be undertaken by the proponent which leads to socio economic development
10	Occupational Health	○ First-aid facilities as per provisions under Rule (44) of Mines Rules 1955 ○ Initial and Periodical medical examination shall be conducted for the employees under Rule 29B & 45 (A). ○ Insurance will be taken in the name of the labourers working in the mines ○ Workers involved in mining work shall be provided protective equipments such as Thick Gloves, Goggles, ear plugs, safety boot wears, etc...

10.1 Description of the administrative aspects of ensuring that mitigative measures are implemented and their effectiveness monitored, after approval of the EIA

In order to maintain the environmental quality within the standards, regular monitoring network to maintain environmental quality will be implemented.

Table 10.2 EMP Budget for Plan period

S. No	Description	Budget (Rs.)
1.	Drinking water facility for the labourers	80,000
2.	Sanitary arrangement	50,000
3.	Safety kits	50,000
4.	Dust control	1,50,000
5.	Afforestation etc.,	50,000
	Total (Rs.)	3,80,000

Table 10.3 Budget Allocation for Mine Closure Plan as per ToR

S. No	Description	Budget (Rs.)
1.	Garland Drainage around Mines	1,00,000
2.	Earth Bund with Fencing around mines	1,00,000
3.	Making Pit for pond after the activity of mines	50,000
	Total (Rs.)	2,00,000 L

CHAPTER – 11: SUMMARY AND CONCLUSIONS

INTRODUCTION

The Applicant, Thiru. P. Viswanathan, No. 275/A3, Neelakadu, 63, Velampalayam, Palladam Taluk, Tiruppur District, Tamil Nadu-641663. The State Government has granted mining lease over an extent of 0.91.0 Hectares in S.F. No: 153/2A Patta land of Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu for quarrying rough stone and gravel. The validity of lease period is 5 years (From the date of execution)

The proponent excavated 25m bgl during the duration of the mine's life in this quarry (2018 to 2023), which had been approved by the District level Impact Assessment Authority (DEIAA) Lr. No: DEIAA-TPR/F. No: 601/ 3 (i)/ 2017 Dated: 08.03.2018 at a depth of 32m bgl. In continuation, the Assistant Director, Department of Geology and Mining, Tiruppur has directed the applicant, Thiru.P.Viswanathan, vide his precise area communication letter Roc. No. 80/Kanimam/2023 dated 09.01.2024 obtain Environmental clearance from the State Environment Impact Assessment Authority (SEIAA) as per the EIA Notification, 2006 and its amendments for grant of quarrying lease to rough stone and gravel quarry in Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu for the period of 5 years (From the date of execution).

The mining plan is prepared as per the Precise area communication letter, 80/Kanimam/2023 dated 09.01.2024 under Rule 41& 42 of Tamil Nadu Minor Minerals Concession Rules, 1959 for quarrying rough stone and gravel it is approved by Deputy Director, Department of Geology and Mining, Tiruppur vide letter 80/Mines/2023 dated 18.02.2024. About 26340 m³ of rough stone will be produced in five years (from the date of excavation) up to a depth of 41 m bgl. The project cost is about Rs. 60.48 lakhs and EMP cost is Rs. 3.80 lakhs per year.

As per the cluster letter issued by Deputy Director, Department of Geology and Mining, Tiruppur vide Rc.No.80/Mines/2023, dated 18.02.2024 for Thiru. P.Viswanathan (0.91.0 Ha) the lease area of above said 5 applicants comes in cluster of 500m radius. The total area of cluster is 5.39.24 Ha.

As per MoEF&CC OM: F.No. L-11011/175/2018-IA-II(M), dated 12.12.2018, the EIA/EMP report has to be prepared for the cluster area based on ToR recommended by SEIAA. Therefore, the applicant applied for ToR through PARIVESH website vide online proposal no. SIA/TN/MIN/511310/2024 dated 02.12.2024. The ToR proposal was placed in 523rd SEAC meeting, dt 27.12.2024 and 787th SEIAA meeting, dated 08.01.2025. Then ToR

has been issued by the SEIAA vide TOR Identification No. TO23B0108TN5985133N/File No: 11559 dated 12.01.2025. The EIA report has been prepared based on the recommended Standard ToR and Specific ToR.

11.1 SCOPE OF THE PROJECT

The EIA report for Environmental Clearance of Rough stone and gravel quarry Thiru. V.Gangesan has been prepared based on the recommended Standard ToR and Specific ToR issued by SEIAA vide TOR Identification No. TO23B0108TN5985133N/File No: 11559 dated 12.01.2025.

11.2 PROJECT DESCRIPTION

Table No 11. 1 Project Details

Project Details				
Proponent	Thiru. P. Viswanathan			
Total Mine Lease Area	0.91.0 Ha - Rough Stone and Gravel			
Survey No.	S.F. No. 135/2A (Patta land)			
Site Location	Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu			
Geographical Co-ordinates	Latitude: 11° 02' 22.50"N to 11° 02'26.21"N Longitude: 77°15' 27.33"E to77°15'30.24"E			
ToposheetNo.	58 E/08			
Elevation	Elevation of the area is 391m above MSL andToposheet No. 58E/08.			
Accessibility				
Nearest Habitation	310m - NW			
Nearest Village	Naduvelampalayam 1.52km-W			
Nearest Settlement	Name of Village	Direction	Distance from Mines (Approx.)	Population
	Velampalayam	NE	2.2 km	360
	Sedapalayam	E	3.8 km	2913
	Pallipalayam	NW	3.8 km	4787
	Naranapuram	SE	2.5 km	14018
Nearest Town	Palladam – 5.5km - SE			
Nearest Roadway	SH -166- Palladam to Avinashi-1.90km-E NH-44- Coimbatore to Trichy-4.22 km-S			

Nearest Railway station	Vanjipalayam Railway Station – 8.6km - N
Nearest Airport	Coimbatore –22.0 km -W
Environmental Sensitiveness	
Interstate Boundary	Kerala – Tamil Nadu Interstate Boundary – 46.7km – SW
Coastal Zone	Arabian Sea-146 km – SW
Reserve Forest	There is no Reserve Forest up to 25 km in lease area
Wildlife sanctuary	Nil within 10km radius
Water bodies	There are no major river or water bodies, odai track, nallah and ponds found within 500m radius.
Defense Installations	Nil within 10km radius
Critically Polluted area	Nil within 10km radius
Quarries around 500m radius	One existing quarry, three present proposed quarries and one abandoned quarry located within the 500m radius from the lease boundary of the proposed project site. Total Cluster area: 5.39.24 Ha AD Cluster Letter: Rc. No: 80/Mines/2023 dated: 18.02.2024
Seismic zone	Zone-II, Low damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002

11.3 Description of the environment

11.3.1 Base line environmental study

Collection of base line data is an integral part of the preparation of environmental impact assessment reports. The baseline monitoring study has been carried out during March, 2025 – May, 2025 to assess the existing environmental scenario in the area. For the purpose of EIA studies, mine lease area was considered as the core zone and area outside the mine lease boundary up to 10km radius from the lease boundary was considered as buffer zone.

Table No 11.2 Baseline Data

Particulars	Details	Standards
Meteorology (March, 2025 – May, 2025)		
Rainfall (Avg.)	114 mm	--
Temperature (Avg.)	20.5-35.3°C	--
Wind speed	2.4 m/s	--
Wind Direction	Predominantly from West to South West	
Ambient Air Quality (NAAQS)		

PM ₁₀	46-51 µg/m ³	100 µg/m ³
PM _{2.5}	25-29 µg/m ³	60 µg/m ³
SO ₂	13-15 µg/m ³	80 µg/m ³
NO _x	20-27 µg /m ³	80 µg/m ³
Noise Level (CPCB Standards)		
Day time (6:00 am - 10:00 pm)	Core zone – 40.1 dB (A) Buffer zone –36.4 – 39.2 dB (A)	Industrial Area Day Time - 75 dB (A) Residential Area Day Time – 55 dB (A)
Night time (10:00 pm - 06:00 am)	Core zone – 36.2 dB (A) Buffer zone – 32.6 - 37.1 dB(A)	Industrial Area Night Time – 70 dB(A) Residential Area Night Time – 45 dB (A)
Water Quality IS 10500:2012 (Desirable limits)		
pH	6.70-7.58	6.5 to 8.5
TDS	464-1260 mg/l	500 mg/l
Electrical conductivity at 25°C	292-1792 micromhos/cm	-
Total Hardness as CaCO ₃	100-496 mg/l	200 mg/l
Total suspended solids	4-16 mg/l	IS:3025:P.16:1984: R.2012
Chlorides Cl	26-240mg/l	250 mg/l
Total iron Fe	0.012-1.48mg/l	0.3mg/l
Sulfates SO ₄	18-60mg/l	200 mg/l
Soil Quality		
pH	6.82 – 8.20	Neutral to slightly alkaline
Bulk density	1.22 - 1.49 g/cc	Favorable physical condition for plant growth.
Hydro Geology		
Depth of Mining	41m bgl	
Water Table	58-62 m bgl	

11.4 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

11.4.1 Air Environment

The air borne particulate matter is the main air pollutant by opencast mining. The mining operation will be carried out by adopting mechanized methods which involves Jack Hammer drilling and blasting, excavation, loading and transportation.

AERMOD - Total predicted 24-h maximum GLC of PM₁₀ at project site for scenario 1 i.e. loading-unloading, transportation and scenario 2 i.e. Blasting was 82.71 µg/m³ and 75.11 µg/m³ respectively after superposition of base-line value 46µg/m³ over the incremental GLC 29.11 µg/m³, 1.03 µg/m³ scenario 1 and 36.71 µg/m³ for scenario 2 respectively due to combined impact of loading, unloading, open pit and transportation over the haul road and due to blasting.

The predicted incremental GLC of SO_x and NO_x for under below the desirable limit. Maximum Impact of PM₁₀ was observed close to the source within the lease area due to moderate wind speeds.

Maximum Impact of PM₁₀, SO_x and NO_x was observed close to the source within the lease area due to moderate wind speeds.

11.4.2 Noise Environment

Noise pollution poses a major health risk to the mine workers. Following are the sources of noise in the existing open cast mine project are being observed such as Drilling, Blasting. Loading and during movement of vehicles.

The noise generated by the mining activity is dissipated within the core zone. This is because of distance involved and other topographical features adding to the noise attenuation. From the results, it can be seen that the ambient noise levels (day time and night time) at all the locations will remain within permissible limits prescribed by CPCB and 90dB (A) norms of DGMS. At present there is no mining activity carried out. However, the expected noise levels are not likely to have any effect. Precaution will be made to keep down the noise exposure level of 85 dB (A) to the operating personnel for 8 hrs duration. The charge per blast of 6 kg is above the Peak Particle Velocity below 5mm/s. So, the proponent will be advised to use five delays to keep the ground vibration within 5mm/s. However, as per statutory requirement additional control measures needs to be adopted to avoid the impacts due to ground vibrations and fly rocks due to blasting.

11.4.3 Water Environment

Mining operations can affect groundwater quality in several ways. The most obvious occurs in the mining below the water table, either in underground workings or open pits. This provides a direct conduit to aquifers. Groundwater quality is also affected when waters (natural or process waters or wastewater) infiltrate through surface materials (including overlying waste or other material) into ground water. But this Rough stone mine is devoid of any such impacts.

The impact due to mining on the water quality is expected to be insignificant because of no use of chemicals or hazardous substances during mining process. The WQI of the samples collected from the study area are given in tables 4.24 and 4.25. It can be seen that the study area has water quality index value ranging from 18.0 to 85.36 mg/l which reflects the excellent to very poor for drinking status of the groundwater quality. The findings demonstrate the varying consistency of groundwater at different locations. All the groundwater samples under excellent to unfit for drinking category; it may be due to the absorption of fertilisers, geological condition, channel water, solid waste, sewer drainage, septic tanks, and agricultural waste. The water should be treated by reverse osmosis to reduce dissolved solids and total hardness to the required rate

11.4.4 Soil Environment

The limited quantity of top soil generated will be dumped along 7.5m inner boundary of the lease area. The top soil will be used to develop greenbelt within the lease area. Part of top soil will be spread over the non-active dumps along the slope and edges to plant tree saplings to form vegetal cover over the dumps. No chemical or toxic elements will be used during mining activity. So, the health of soil in and around the quarry will not be affected.

11.4.5 Waste Dump

The proposed rate of production of rough stone for five years is about 26430m³ at the rate of 100% recovery up to permissible depth.

11.4.6 Biological Environment

There are no notified endangered species in the area, which may be affected due to the mining activities; therefore, the biological environment will not have significant impact due to mining activity. The impact on the biological environment due to amount of dust generation is minimized by well-developed green belt in and around mining lease area.

11.4.7 Land Environment

The Rough stone quarry will result in disturbance of the land use pattern of the mine lease area. The land degradation is unavoidable during mining activities like excavation, overburden dumping, soil extraction etc. So, reclamation of mined out land and proper formation of benches will be given due importance. The land use analyses show that the area is of predominantly Agriculture followed by buffer zones of the study area, which clearly indicates that the development of agriculture land increases over a period of time. At the end of the project, the quarried pit will be act as water storage pond. The stored water will be used for developing agricultural activity around the mining lease area. It is generally agreed that as the total volume of production from year to year may increases. Some fallow land also

increases due to seasonal crop production, which shows a positive impact due to mining activity.

11.4.8 Socio Economic Environment

The mining activity will definitely increase the employment opportunity (directly as well as indirectly) in the project area. Some of these impacts would be beneficial. The expectation of the people of the area is concerned towards employment, education, and health facilities.

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Table 11.3 Environmental Management Plan

S.No	Parameters	Mining Activity	Mitigation measures
1	Air Environment	Drilling	○ Dust extractor or wet drilling to be followed to control dust at source of emission ○ Use of Sharp drill bits for drilling holes and charging the holes by using optimum charge and using time delay detonator
		Blasting	○ Regular water sprinkling on blasted heaps at regular intervals will help in reducing considerable dust pollution
		Loading	○ Water sprinkling be done before loading by making it moist
		Transportation	○ Water sprinklers along the sides of haul road shall be fixed to control fly of dust while transporting minerals and waste ○ Overloading will be prevented ○ Trucks/Dumpers covered by tarpaulin covers
		DG Sets	○ DG sets will be used only during power failure ○ Adequate stack height for DG sets will be provided as per CPCB norms
		General measures	○ Avenue trees along roads around ML boundary shall be planted as per the norms of MoEF to control fly of dust. ○ Labours engaged in such dust prone areas should be provided with safety devices like ear muff, mask, goggles as per the MMR, 1961 amendments and circulars of DGMS. ○ Regular health check-up of workers and nearby villagers in the impacted area should be carried out and also regular occupational health assessment of employees should be carried out as per the Factories Act ○ Ambient Air Quality Monitoring will be conducted on regular basis to assess the quality of ambient air.
2	Water Environment	Surface water	○ Wastewater discharge from mine will be treated in settling tanks before using for dust suppression and tree plantation purposes.

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		Ground water	○ The mining activity will not intersect the ground water table ○ Desilting will be carried out before and immediately after the monsoon season
		Storm water	○ Pit will be used for Storage of rainwater ○ Rain water will be collected in sump in the mining pit and will be allowed to store and pumped out to surface setting tank of 15 m x 10m x 3m to remove suspended solids if any. This collected water will be judiciously used for dust suppression onwards and such sites where dust likely to be generated and for developing green belt. ○ The proponent will collect and judiciously utilize the rainwater as part of rain water harvesting
		General measures	○ Regular monitoring and analyzing the quality of water
3	Noise Environment	Drilling	○ Limiting time exposure of workers to excessive noise
		Blasting	○ Carrying out blasting only during day time and not on cloudy days ○ Noise levels will be controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes. ○ Providing proper noise proof enclosure for the workers separated from the noise source and noise prone equipment
		Transportation	○ Proper and regular maintenance of vehicles, machinery and other equipments. ○ The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments. ○ Speed of trucks entering or leaving the mine will be limited to moderate speed to prevent undue noise from empty vehicles. ○ Adequate silencers will be provided in all the diesel engines of vehicles. ○ Minimum use of horns and speed limit of 10 km/hr in the village area.

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			○ It will be ensured that all transportation vehicles carry a valid PUC Certificates
		General measures	○ Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas ○ Provision of Quiet areas, where employees can get relief from workplace noise. ○ The development of green belts around the periphery of the mine to attenuate noise. ○ Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects.
4	Vibration	Blasting	○ Specific charge pattern has to be designed by proper trial vibration studies with varying charge ratios. ○ Milli second detonators shall be used preferably 25–50ms per delay to control vibrations ○ If the vibration still exceeds the limit a long Trench to a depth of 6m may cut in the direction of wave's movement to break longitudinal waves which travel close to surface, preferably near mine buffer zone ○ In spite of all measures periodical testing of vibration and noise using approved seismograph by DGMS has to be followed as a part of Environmental monitoring
5	Soil Environment	Topsoil	○ Humus top soil shall be preserved for reuse in afforestation and agriculture ○ Top soil should not be mixed with other waste or reject materials. It should be conserved by judicious utilization in the mine premises ○ Garland drains will be provided around the mine and dumps to arrest any soil from the mine area being carried away by the rain water. This will also avoid the soil erosion and siltation in the mining pits and maintaining the stability of the benches

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6	Waste Dump	Stabilization of Dumps	○ The rejects\ waste dump shall be properly terraced in to 1.5m benches with proper repose angle and then the top soil shall be spread over the dumps and slope to make them humus for some time, after the soil suitable for water retention trees will be planted at the top, slope and toe of the stabilized dumps to form vegetation ○ Garland drainage around dump shall prevent under wash of dump by hydrostatic pressure to be developed by surface water and control wash outs and collapse
7	Plantation	Mine lease boundary and waste dump	○ Provision of green belt all along the periphery of the lease area for control of dust and to attenuate noise ○ Stabilization of Dump with plantation ○ It is strongly recommended that the loss of plant in each year will be counted and again planted in subsequent plantation. ○ The plant should be planted taken from nursery, where the survival rate is high.
8	Land Environment		○ The restoration of the degraded land would cover backfilling and terracing with the overburden / wastes and surfacing the same with top soil. ○ Provision of Garland drainage around the dumps ○ Fast growing trees and other native shrubs would be planted to stabilize the reclaimed land ○ Appropriate measures will be taken for Green belt development. ○ The rain water will be stored in the pit which will recharge the ground water as a part of rain water harvesting scheme for irrigating the nearby agricultural lands.
9	Socio Economic		○ Good maintenance practices will be adopted for machinery and equipment, which will help to avert potential noise problems. ○ Green belt will be developed in and around the project site as per Central

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			Pollution Control Board (CPCB) guidelines. ○ Drilling, blasting etc at specified location will be followed with proper schedule. ○ Appropriate air pollution control measure will be taken so as to minimize the environmental impact within the core zone. ○ An emergency preparedness plan will be prepared in advance, to deal with firefighting, evacuation and local communication. ○ For the safety of workers, personal protective appliances like hand gloves, helmets, safety shoes, goggles, aprons, nose masks and ear protecting devices has been provided which meet 'BIS' (Bureau of Indian Standards). ○ As a part of CSR activities community welfare measures will be taken by Proponent through local Panchayat
10	Occupational Health		○ First-aid facilities as per provisions under Rule (44) of Mines Rules 1955 ○ Initial and Periodical medical examination shall be conducted for the employees under Rule 29B & 45 (A). ○ Insurance will be taken in the name of the labourers working in the mines ○ Workers involved in mining work shall be provided protective equipments such as Thick Gloves, Goggles, ear plugs, safety boot wears, etc...

11.5 Analysis of Alternatives

The mining site is dependent on the geology and mineral deposition of the area. Hence, this project is mineral and site specific and no alternative site considered for this project.

11.6 Environmental Monitoring Program

Environmental Monitoring program will be conducted for various environmental components as per conditions stipulated in Environmental Clearance Letter issued by SEIAA & Consent to Operate issued by TNPCB.

Table No: 11.4 Post Project Environmental Monitoring Program

S. No.	Environment Attributes	Location	Monitoring		Remarks
			Duration	Frequency	
1	Meteorology and Air Quality	Continuous monitoring weather station in core zone/ nearest IMD station	24 hours	Monthly Once	Wind speed, direction, Temperature, Relative humidity and Rainfall.
2	Air Pollution Monitoring – PM _{2.5} , PM ₁₀ , SO ₂ and NO _x	5 locations (One station in the core zone and at least one in nearby residential, area, one in the upwind, two station on the downwind direction and one in cross wind direction).	8 hours	Once in six months	Fine Dust Sampler and Respirable Dust Sampler
3	Water Pollution Monitoring	Mine effluents, Set of grab samples during pre and post monsoon for ground and surface water in the vicinity.	–	Once in six months	Phyiso–chemical, microbiological characteristics
4	Hydrogeology	Water level in open wells in buffer zone around 1km at specific wells	-	Once in six months	Water level monitoring devices may be used.
5	Noise	Mine Boundary, high noise generating areas within the lease and at the	24 hours	Monthly Once	Sound level meter

		nearest residential area			
6	Vibration	At the nearest habitation (in case of reporting)	–	During blasting operation	Digital Seismograph
7	Soil	Core zone and Buffer zone (Grab samples)	–	Once in six months	Physical and Chemical characteristics

11.7 Project Benefits

The proponent is very much conscious of their obligations to society at large. Under plantation program, it is suggested to develop green belt further all along the boundary of mining lease area. Apart from the green belts and aesthetic plantation for eliminating fugitive emission and noise control, all other massive plantation efforts will be executed with the assistance of experts and cooperation of the local community.

The mining activity will create rural employment. In addition, there will be indirect employment to many more people in the form of contractual jobs like construction of infrastructural facilities, transportation to destinations, sanitation, supply of goods and services to the mine and other community services, etc., The local population will have preference to get an employment. Part of the royalty is given to local bodies by the State Govt. for the welfare and development of the village. The proponent helps in socio economic development of the village by providing education facilities to children's, procuring sports equipments, welfare amenities like drinking water to school, road facilities to villages and employment opportunities to nearby villagers. CSR budget is allocated as 2.5% of the profit.

11.8 Conclusion

As discussed, it is safe to say that the project is not likely to cause significant impact on the ecology and environment of the area, as adequate preventive measures will be adopted to contain the pollutants within permissible limits. The total operation shall be carried out with ease & minimum risk of the workers. The proposed Environmental Management Plan will keep the area in a safe environment with negligible impact on the environment. Plantation will substantiate the impact due to the mining activity. Mining activity will help in improving the socio-economic benefits in areas like employment, communication and infrastructure development etc.

CHAPTER - 12: DISCLOSURE OF CONSULTANTS ENGAGED

AADHI BOOMI MINING AND ENVIRO TECH (P) LTD, a QCI/NABET Accredited EIA Consultant Organization having its Registered Office at Salem and Branch at Porur, Chennai was promoted by a team of professional Geologists\ Mining\ Environment\ Civil\ Mechanical\ Chemical Engineers\ Scientists. The company has vast experience in various disciplines including Exploration and mining of minerals and was incorporated in 2002 in the name of Suriya Mining Services providing expert advice and solutions for clients' requirement in the field of Mineral prospecting, Exploration, Mining, Geo-technical, Techno economic Feasibility reports\evaluation, Mineral Engineering, Environment Impact Assessment (EIA), Environment Management Plan (EMP), Environment Monitoring and related liaison jobs like Environment Clearance, Wild life and Forest clearance from EAC/SEIAA/NBWL/CRZ, MoEF & CC etc., of all accredited sectors.

12.1 SCOPE

- EIA & EMP for all accredited sectors and monitoring as per SPCB/CPCB/MoEF & CC
- Environment/ Wild life/ CRZ/ Forest Clearance
- Social Impact Analysis (SIA) and Eco-Biodiversity studies for Mine Closure Plan
- Remote Sensing & GIS including Satellite data processing, ASTER, DEM etc for application in Forest, Agriculture, Disaster, Mineral Exploration, Environment Modelling, Town planning etc.,
- Geological Surveying, Mapping, Exploration and Project Management
- Geophysical, Geochemical & Geotechnical studies to locate concealed deposit\ formation including structural studies
- Noise and Vibration studies as per DGMS\MoEF & CC to design controlled blasting where inhabitations are located within 300m
- Mine Design and costing, selection of Machineries and Project Evaluation
- Statutory Mine Plans & Sections, Mining Plan and other mandatory projects
- Design and development of Mineral Beneficiation Plant including mineral separation studies.

12.2 INFRASTRUCTURE

- Our Human resources are well expertise in all functional areas as per Ver. 3 of NABET\QCI. Our Hi-Tech ISO certified Office and Lab are accredited by NABL and MoEF&CC.
- And have latest field Investigation devices like Respirable and Fine Dust Samplers, Digital Seismograph, DDR3 Resistivity Meter, Echo sounder, DGPS, Total Station, Water level monitoring meters, GPS 62S, Sound Level Meter etc.

12.3 DISCLOSURE OF CONSULTANT FOR EIA STUDY

Thiru P.Viswanathan, appointed Aadhi Boomi Mining and Enviro Tech Private Ltd, having its office at 3/216, K.S.V Nagar, Narasothipatti, Alagapuram, Salem – 636 004, Tamil Nadu, for preparation of EIA/EMP report for obtaining Environment Clearance from SEIAA/SEAC, Tamil Nadu.

Aadhi Boomi Mining and Enviro Tech Private Ltd has MoU with Ekdant Enviro Services (P) Ltd laboratory at Chennai and has own Laboratory named ABM Enviro Lab, accredited by NABL for sampling and testing of air, water, noise and soil samples. Ekdant Enviro Services are recognized by the Ministry of Environment and Forests, Government of India under the relevant provision of Environment (Protection) Act 1986 and Accredited by NABL and NABET, Quality Council of India, New Delhi.

S. No.	Study	Consultants/LAB
1	Generation of Base Line Data	Aadhi Boomi Mining & Enviro Tech P Ltd, Salem and ABM Enviro Lab
2	Remote Sensing and Land use/Land cover Studies	Aadhi Boomi Mining & Enviro Tech P Ltd, Salem
3	Preparation of EIA and EMP Report	Aadhi Boomi Mining & Enviro Tech P Ltd, Salem

12.4 DECLARATION OF EXPERTS INVOLVED IN THE EIA REPORT PREPARATION

Names of the EIA coordinator, Functional Area Experts and other Team Members engaged and nature of consultancy rendered is provided in NABET Annexure –VII of EIA report. The multidisciplinary team comprises of Environmental Engineers, Geologists and Geographers who involved in preparation of Environmental Impact Assessment Report and Environment Management Plan for various functions like Air quality, Water quality, Noise levels, Soil Conservation, Hydro geology, Ecology and bio-diversity, Land use and Socio–Economics.

Declaration by Experts Contributing to the EIA/EMP

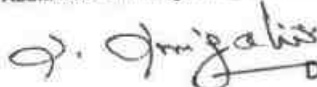
Declaration by experts contributing to the EIA/EMP for Rough Stone and Gravel Quarry of P.Viswanathan over an Extent of 0.91.0 Ha in Velampalayam Village, Palladam Taluk, Tiruppur District of Tamil Nadu. It is also certified that information furnished in the above EIA study are true and correct to the best of our knowledge. I, hereby, certify that I was a part of the EIA team in the following capacity that developed the EIA/EMP Report.

Name : Dr.S.Suriyakumar

Designation : EIA Coordinator

Signature :

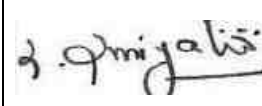
For Aadhi Boomi Mining And Enviro Tech (P) Ltd.,


Director



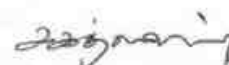
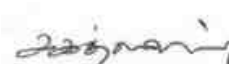
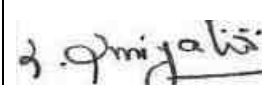
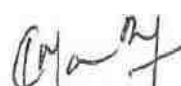
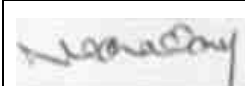
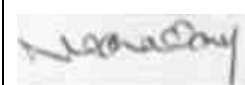
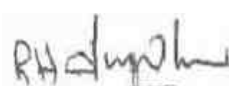
Period of Involvement : January, 2025 to till date

Functional Area Experts Engaged in this Project

S. No	Name of the Expert	Cat.	Functional Areas	Involvement	Signature
1	Dr.S.Suriyakumar	A	SC	- Study of soil profile. - Assessing the impact on soil environment and proposed mitigation measures for soil conservation.	
			SHW	- Waste disposal method evaluation - Providing dump management plan	
			RH	Management plan for safety	
2	Mrs. S. Santhi	B	LU	- Collection of Remote sensing satellite data to study the land use pattern. - Construction of Land use Map. - Impact of project on surrounding land use.	
			SE	- Identification of villages in the study area and finalization of demographic profile of the villages within the study area - Revision in secondary data as per Census of India, 2011.	

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

3	R.R Prakash Babu	B	AP	• Identification of different sources of air pollution due to the proposed mine activity. • Identification of Impacts & suggestion of mitigation measures.	
4	S. Sagath Srikrishnan	B	WP	• Study of the monitored data with respect to the applicable standards. • Identification of Water requirement & Source. • Preparation of water balance diagram. • Impact of the project on the water quality, both surface and groundwater. • Suggestion of Mitigation measures to control water pollution.	
5	S. Sagath Srikrishnan	B	AQ	• Identifying different source of emissions and propose predictions of incremental GLC using AERMOD. • Recommending mitigations measures for EMP.	
6	Dr.S.Suriyakumar	B	NV	• 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.	
	R.R Prakash Babu				
7	Mr. K. Manuraj	A	HG	• Interpretation of ground water table and predict impact and propose mitigation measures. • Analysis and description of aquifer Characteristics. • Study about impact on the hydrology due to mining operation	
	Dr. Nallathambi Varadarajan				
8	Mr. K. Velmurugan	B	Geo	• Field Survey for assessing the regional and local geology of the area. • Study of geology of the ML area and the surrounding areas. • Provide details about Mineral composition	
	Dr. Nallathambi Varadarajan				
9	Gyaneswar Bhuyan	B	EB	• Collection the primary data from project site and compare the secondary data from local DFO office.	

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT
Proponent: P. Viswanathan, Rough Stone and Gravel Quarry, Tiruppur District

List of FAA/Team Members Engaged in this Project

S. No	Name of the Expert	Cat.	Functional Areas	Involvement	Signature
1	Mrs.S. Sri Vidhya	B	WP, AQ	• Site Visit with FAE. • Analyse & provide inputs and assist FAE with meteorological data, emission estimation, AERMOD modelling and suggesting control measures	
2	Dr.M.Selvakumar	B	AP, AQ	• Site Visit with FAE. • Assisting FAE on sources of Air pollution, its impacts and suggest control measures.	
3	Mrs.V.Kalaivani	B	WP	• Site Visit with FAE. • Assisting FAE on sources of water pollution, its impacts and suggest control measures	
4	Mr.A. Jagadeesh Kumar	B	AQ, NV	• Site Visit with FAE. • Assist FAE with prediction modelling. • Assist FAE and provide inputs on impacts due to proposed mine activity and suggest mitigation measures.	



File No: 11559
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA),
TAMIL NADU)



Dated 12/01/2025



To,

Thiru. P. Viswanathan
 No. 275/A3, Neelakadu, 63 Velampalayam, Palladam, Tiruppur District, Tiruppur, TIRUPPUR,
 TAMIL NADU, 641663
 viswanathan9994956661@gmail.com

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

Sir/Madam,

Sub: SEIAA, Tamil Nadu – Proposed Rough stone and Gravel quarry over an Extent of 0.91.0 Ha at S.F. No. 153/2A of Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu by Thiru. P. Viswanathan - 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/511310/2024, Dated: 02/12/2024.

2. Your application submitted for Terms of Reference dated: 06.12.2024.

3. Minutes of the 523rd Meeting of SEAC held on 27.12.2024.

4. Minutes of the 787th authority meeting held on 08.01.2025.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO24B0108TN5985133N
(ii) File No.	11559
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals P. Viswanathan, Rough Stone and Gravel Quarry, Extent: 0.91.0ha, S.F.No. 153/2A of Velampalayam Village, Palladam Taluk, Tiruppur District
(vii) Name of Project	viswanathan
(viii) Name of Company/Organization	TIRUPPUR, TAMIL NADU
(ix) Location of Project (District, State)	SEIAA
(x) Issuing Authority	

(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

1. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1 (Part A and B) were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.

2. The above-mentioned proposal has been considered by (SEIAA) Appraisal Committee of SEIAA in the meeting held on 08.01.2025. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B,)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.

3. The State Expert Appraisal Committee (SEAC), based on the information & clarifications provided by the project proponent and after detailed deliberations on all technical aspects recommended the proposal for grant of Terms of Reference with Public Hearing under the provision of EIA Notification, 2006 and as amended thereof subject to the stipulation of specific and general conditions as detailed in Annexure (2).

4. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the SEAC hereby decided to issue the following Terms of Reference with Public Hearing for instant proposal of Thiru. P. Viswanathan under the provisions of EIA Notification, 2006 and as amended thereof.

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

6. The Terms of Reference with Public Hearing to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/Regulations or Statutes, as applicable, to the project.

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

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, Tiruppur District
7. The Commissioner of Geology and Mines, Guindy, Chennai-32
8. The Assistant Director, Department of Geology & Mining, Tiruppur District
9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Integrated Regional office of MoEF&CC, Sastri Bhawan, Nungambakkam, Chennai
11. File Copy

Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

1. Seac Conditions - Site Specific

S. No	Terms of Reference
1.1	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

S. No	Terms of Reference
	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 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. 3. The project proponent shall submit a Certified Compliance Report obtained from the office of the concerned DEE/TNPCB (or) IRO, MoEF & CC, Chennai as per the MoEF&CC O.M dated.08.06.2022 for the previous EC dated. 08.03.2018 and appropriate mitigating measures for the non-compliance items, if any 4. Since the TNEB substation is located within 300m radius from the lease area, 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. 5. The PP shall install the earmarked boundary pillars along the wire fencing. 6. The PP shall install CCTV cameras in the mines and mine entrance. 7. 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. 8. The Proponent shall carry out Bio diversity study as a part of EIA study and the same shall be included in the Report. 9. 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. 10. 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. 11. The PP shall furnish the Compliance Certificate Report for the EC obtained earlier from the DEIAA, duly audited by the RO, MoEF & CC, Chennai with the percentage of non-compliances, reasons for non-compliances, status on half-yearly compliance report submitted during the mine operation, actions taken on the non-compliances, etc during the EIA appraisal without fail.

2. Seac Standard Conditions

S. No	Terms of Reference
2.1	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.

S. No	Terms of Reference
	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 waterbodies 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 operation 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.,

S. No	Terms of Reference
	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 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. 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.

S. No	Terms of Reference
	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 detailed. 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.

Standard Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994

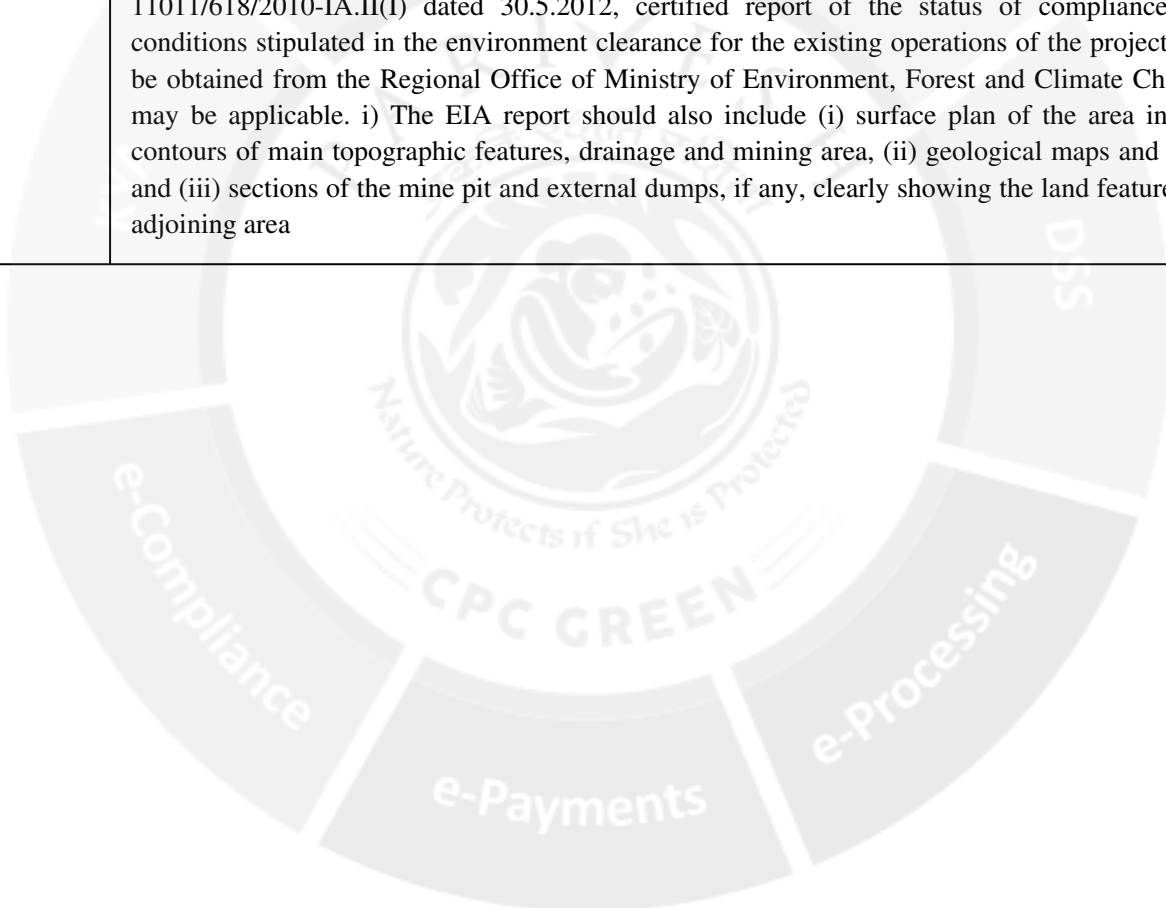
S. No	Terms of Reference
1.2	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given
1.3	All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee
1.4	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone)
1.5	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics
1.6	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority
1.7	It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report
1.8	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided
1.9	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period
1.10	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given
1.11	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given
1.12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it

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	would be desirable for representative of the State Forest Department to assist the State Expert Appraisal Committees
1.13	Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished
1.14	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given
1.16	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted
1.17	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished
1.18	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost
1.19	Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered
1.20	Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)
1.21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in

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	the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report
1.22	One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given
1.23	Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map
1.24	The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated
1.25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided
1.26	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided
1.27	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided
1.28	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished
1.29	Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out
1.30	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same
1.31	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating

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	the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution
1.32	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report
1.34	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report
1.35	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed
1.36	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations
1.37	Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation
1.38	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project
1.39	Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project
1.40	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given
1.41	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out
1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report
1.43	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc

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1.44	Besides the above, the below mentioned general points are also to be followed:- a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project. d) Where the documents provided are in a language other than English, an English translation should be provided. e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted. f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed. g) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation. h) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable. i) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area



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.

STANDARD CONDITIONS

A. STANDARD TERMS OF REFERENCE

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ topo sheet, topographic sheet, geomorphology and geology of the area should

be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).

- 5) Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the

site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and

furnished to the effect that the proposed mining activities could be considered.

- 20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.
- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project

should be indicated.

- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government)

should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
 - a) Executive Summary of the EIA/EMP Report

- b) All documents to be properly referenced with index and continuous page numbering.
- c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
- d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
- e) Where the documents provided are in a language other than English, an English translation should be provided.
- f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
- g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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

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

1. Project name and location (Village, District, State, Industrial Estate (if applicable)).
2. Process description in brief, specifically indicating the gaseous emission, liquid effluent

and solid and hazardous wastes.

3. Measures for mitigating the impact on the environment and mode of discharge or disposal.
4. Capital cost of the project, estimated time of completion.
5. The proponent shall furnish the contour map of the water table detailing the number of wells located around the site and impacts on the wells due to mining activity.
6. A detailed study of the lithology of the mining lease area shall be furnished.
7. Details of village map, “A” register and FMB sketch shall be furnished.
8. Detailed mining closure plan for the proposed project approved by the Geology of Mining department shall be submitted along with EIA report.
9. Obtain a letter /certificate from the Assistant Director of Geology and Mining standing that there is no other Minerals/resources like sand in the quarrying area within the approved depth of mining and below depth of mining and the same shall be furnished in the EIA report.
10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual for Mining of Minerals published February 2010.
11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
12. The EIA study report shall include the surrounding mining activity, if any.
13. Modeling study for Air, Water and noise shall be carried out in this field and incremental increase in the above study shall be substantiated with mitigation measures.
14. A study on the geological resources available shall be carried out and reported.
15. A specific study on agriculture & livelihood shall be carried out and reported.
16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
20. Likely impact of the project on air, water, land, flora-fauna and nearby population

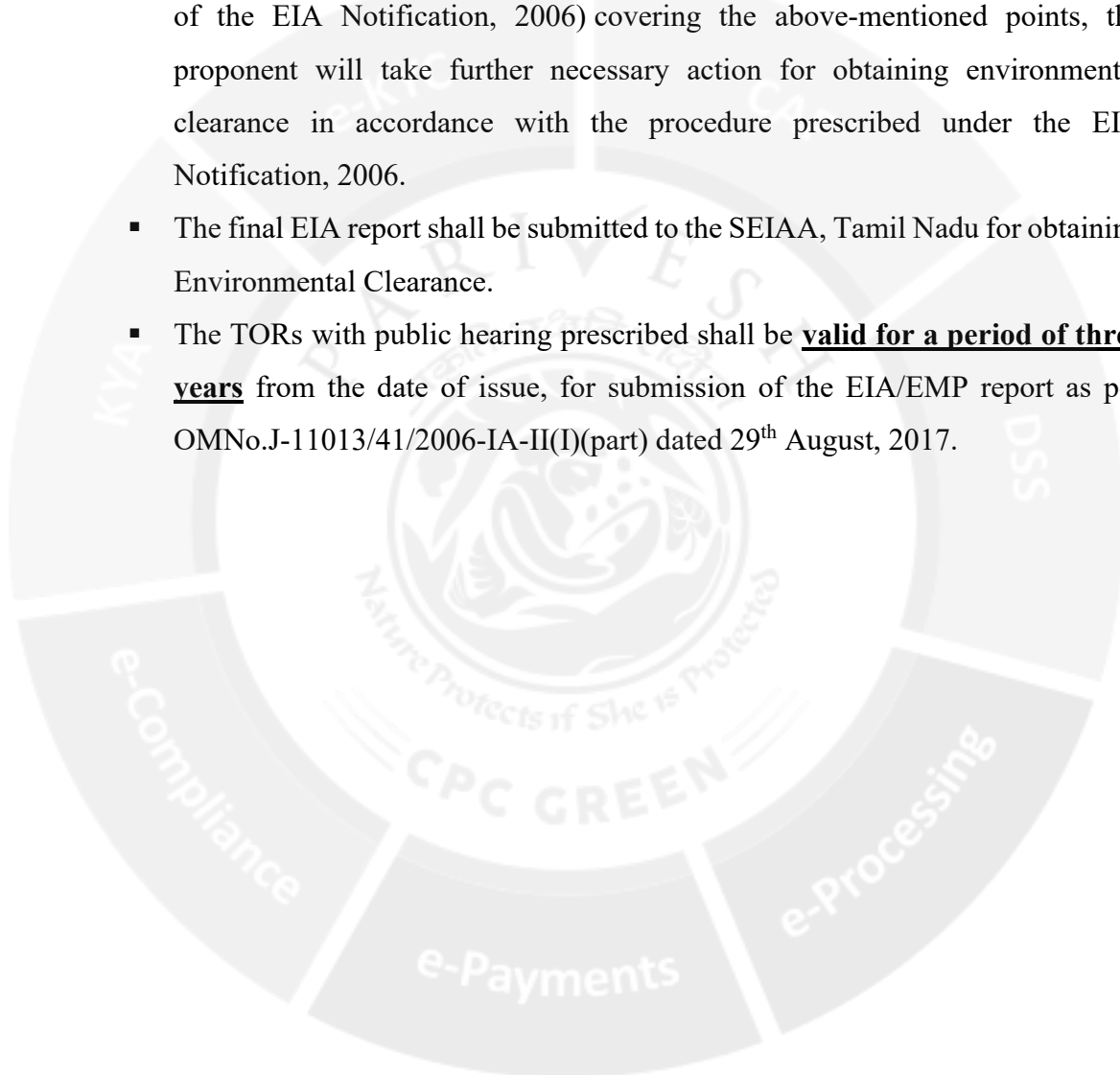
21. Emergency preparedness plan in case of natural or in plant emergencies
22. Issues raised during public hearing (if applicable) and response given
23. CER plan with proposed expenditure.
24. Occupational Health Measures
25. Post project monitoring plan
26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
30. Reserve funds should be earmarked for proper closure plan.
31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

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

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and

Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -11013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website <http://www.moef.nic.in/> may be referred.

- After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above-mentioned points, the proponent will take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
- The final EIA report shall be submitted to the SEIAA, Tamil Nadu for obtaining Environmental Clearance.
- The TORs with public hearing prescribed shall be **valid for a period of three years** from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.



துணை இயக்குநர் அலுவலகம்,
புவியியல் மற்றும் சுரங்கத்துறை,
திருப்பூர்

ந.க. 80/கனிமம்/2023

நாள்: 09.01.2024.

குறிப்பாணை

பொருள் : கனிமங்களும் சுரங்கங்களும் - சிறுகனிமம் - சாதாரண கற்கள் - திருப்பூர் மாவட்டம் - பல்லடம் வட்டம் - வேலம்பாளையம் கிராமம் - புல எண். 153/2Aல் 0.91.0ஹெக்டர் பட்டா நிலப்பரப்பில் சாதாரண கற்கள் / கிராவல் மண் வெட்டி எடுக்க 5 வருடங்களுக்கு குவாரி குத்தகை உரிமம் கோரி திரு.பி.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் விண்ணப்பம் அளித்தது - அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் மற்றும் சுற்றுச் சூழல் ஒப்புதல் பெற்று அளிக்க கோருதல் - தொடர்பாக

பார்வை : 1. திரு.பி.விஸ்வநாதன், த/பெ.பழனிச்சாமி, 275/ஏ, நீலக்காடு, 63 வேலம்பாளையம், பல்லடம் என்பவரின் மனு நாள்: 08.02.2023.
2. இவ்வலுவலக கடிதம் இதே எண்.நாள்.07.03.2023
3. வட்டார வளர்ச்சி அலுவலர் (கி.ஊ), பல்லடம் கடிதம் ந.க.எண்.மூ.மு.816/2023/ஆ2 நாள்.20.03.2023.
4. வருவாய் வட்டாட்சியர், பல்லடம் கடிதம் ந.க.5559/2023/ஆ4 நாள்.11.09.2023.
5. சார் ஆட்சியர் (பொ) மற்றும் உதவி ஆணையர் (கலால்) கடிதம் ந.க.எண். 1413/2023/ஆ3 நாள்.08.12.2023.
6. உதவி இயக்குநர் மற்றும் தனி வருவாய் ஆய்வாளர், புவியியல் மற்றும் சுரங்கத்துறை, திருப்பூர் தணிக்கை குறிப்பு நாள்.02-01.2024.
7. அரசு அணை எண் 169 தொழில் (எம்எம்சி1) துறை நாள் 04.08.2020.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், புல எண் 153/2ஏ-ல் 0.91.0 ஹெக்டர் பரப்புள்ள பட்டா பூமியிலிருந்து 5 வருடங்களுக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திரு.பி.விஸ்வநாதன், த/பெ.பழனிச்சாமி, 275/ஏ, நீலக்காடு, 63 வேலம்பாளையம், பல்லடம் என்பவர் பார்வை 1 ல் கண்டவாறு விண்ணப்பம் அளித்துள்ளார்.

2) மேற்படி விண்ணப்பங்கள் தொடர்பாக, வட்டார வளர்ச்சி அலுவலர், பல்லடம், வட்டாட்சியர், பல்லடம், சார் ஆட்சியர் (பொ) / உதவி ஆணையர் (கலால்), திருப்பூர், மற்றும் உதவி இயக்குநர் (கனிமம்) மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்) ஆகியோர் புலத்தணிக்கை மேற்கொண்டு திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், பட்டா புல எண். 153/2ஏ-ல் 0.91.0ஹெக்டர் பரப்பில் திரு.பி.விஸ்வநாதன், த/பெ.பழனிச்சாமி என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் குவாரி உரிமம் வழங்க கீழ்க்கண்ட நிபந்தனைகளுக்குட்பட்டு அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளனர்.

நிபந்தனைகள்:

- திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், புல எண் 153/2ஏ ல் 0.91.0 ஹெக்டர் பரப்பளவுள்ள பூமியிலிருந்து சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க குவாரி குத்தகை உரிமம் வழங்குவது தொடர்பாக ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டம் மற்றும் சுற்றுச் சூழல் ஒப்புதல் ஆகியன உரிய காலத்திற்குள் பெற்றளிக்கப்பட வேண்டும்.
- புலத்தை சுற்றி அமைந்துள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர் பாதுகாப்பு இடைவெளி விட்டு குவாரி பணிபுரிய வேண்டும்.

3) எனவே, வட்டார வளர்ச்சி அலுவலர், பல்லடம், வட்டாட்சியர், பல்லடம், சார் ஆட்சியர்(பொ) / உதவி ஆணையர் (கலால்), திருப்பூர் மற்றும் உதவி இயக்குநர் (கனிமம்) மற்றும் தனி வருவாய் ஆய்வாளர் (கனிமம்), திருப்பூர் ஆகியோரின் பரிந்துரை மற்றும் நிபந்தனைகளின் அடிப்படையில், திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், பட்டா புல எண். 153/2ஏ-ல் 0.91.0 ஹெக்டர் பரப்பில் மட்டும் 1959ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண்.19-ன் படி மேற்கண்ட நிபந்தனைகளுக்குட்பட்டு 5 (ஐந்து) வருட காலத்திற்கு திரு.பி.விஸ்வநாதன், த/பெ.பழனிச்சாமி என்பவருக்கு சாதாரண கற்கள் மற்றும் கிராவல் மண் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

4. மேலும், தமிழ்நாடு சிறு கனிம சலுகை விதிகள்-1959 விதி எண். 41-ன்படி குவாரிப்பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்குமாறு மனுதாரரைக் கேட்டுக்கொள்ளப்படுகிறது. மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகள், விதி எண்.42-ன் படி சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் இசைவினைப் பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
திருப்பூர்

பெறுநர்

திரு.பி.விஸ்வநாதன்,
த/பெ.பழனிச்சாமி,
275/ஏ, நீலக்காடு,
63 வேலம்பாளையம்,
பல்லடம்.

From

Thiru. A.Perumal, M.Sc., M.Phil.,
Deputy Director,
Geology and Mining,
Tiruppur

To

Thiru.P.Viswanathan,
S/o.Palanisamy,
No.275/A3, Neelakadu,
63 Velampalayam,
Palladam,
Tiruppur District.

R.c. No. 80/ Mines / 2023 dated: 16.02.2024

Sub: Mines and Minerals – Minor Mineral – Rough Stone and Gravel- Tiruppur District – Palladam Taluk - Velampalayam Village- S.F.Nos. 153/2A - Over an Extent of 0.91.0 Hectares of patta land- Quarry lease for Rough Stone and Gravel - Application preferred by Thiru.P.Viswanathan - Precise area communicated for the proposed grant of quarry lease - Mining Plan Submitted for approval - Approved - regarding.

- Ref: 1. Application for grant of Rough Stone and Gravel quarry lease preferred by Thiru.P.Viswanathan dated: 08.02.2023.
2. G.O. Ms. No. 79 / Industries (MMC 1) Department dated 06.04.2015.
3. The Deputy Director, Geology and Mining, Tiruppur letter R.C. No. 80/Mines/2023 dated 09.01.2024.
4. Thiru.P.Viswanathan letter dated:nil received on ..16.02.2024.

Thiru.P.Viswanathan preferred an application for the grant of Rough Stone and Gravel quarry lease over an extent of 0.91.0 Hectares of Patta land in S.F.No.153/2A of Velampalayam Village, Palladam Taluk, Tiruppur District vide the reference 1st cited and the precise area was communicated to the applicant vide the reference 3rd cited with a direction to submit the approved mining plan and Environmental Clearance.

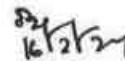
As directed, the applicant submitted three copies of mining plan for approval vide the reference 4th cited. The Mining Plan has been verified in detail and found that it was prepared in accordance with the guidelines / instructions issued by the Commissioner of Geology and Mining in letter RC. No. 3868 / LC / 2012 dated 19.11.2012.

Therefore in exercise of the powers conferred under Rule 41(2) of Tamil Nadu Minor Mineral Concession Rules, 1959, read with G.O. (Ms). No.79 / Industries (MMC 1) Department dated 06.04.2015, the mining plan is hereby approved, subject to the following conditions:

- (i) 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 convey the approval of the Government in terms or 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, Explosives Act, 1884 (Central Act IV of 1884) Minor Mineral Concession and Development Rules, 2010 and the Rules made there under and the Tamil Nadu Minor Mineral Concession Rules, 1959.
- (iii) The mining plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
- (iv) The validity of the mining plan is co-terminus with the lease period.
- (v) Quarrying shall be done in accordance with the approved Mining Plan and 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.
- (vi) If anything is found to be concealed as required by the Mines Act in the contents of the Mining Plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
- (vii) A safety distance of 7.5 meters shall be provided for the patta lands situated adjacent to the applied area.

Encl.: Approved Mining Plan.


Deputy Director,
Geology and Mining,
Tiruppur



From

Thiru.A.Perumal, M.Sc., M.Phil
Deputy Director,
Geology and Mining,
Tiruppur

To

Thiru.P.Viswanathan,
S/o.Palanisamy,
No.275/A3, Neelakadu,
63 Velampalayam,
Palladam,
Tiruppur District.

R.c. No.80/ Mines / 2023 dated: 16.02.2024

Sub: Mines and Minerals – Minor Mineral – Rough Stone and Gravel- Tiruppur District – Palladam Taluk - Velampalayam Village- S.F.Nos. 153/2A - Over an Extent of 0.91.0 Hectares of patta land- Quarry lease for Rough Stone and Gravel - Application preferred by Thiru.P.Viswanathan - Precise area communicated for the proposed grant of quarry lease - Mining Plan Submitted for approval - Approved - further details requested - furnished regarding.

- Ref: 1. Application for grant of Rough Stone and Gravel quarry lease preferred by Thiru.P.Viswanathan dated: 08.02.2023.
2. G.O. Ms. No. 79 / Industries (MMC 1) Department dated 06.04.2015.
3. The Deputy Director, Geology and Mining, Tiruppur letter R.C. No. 80/Mines/2023 dated 09.01.2024.
4. Thiru.P.Viswanathan letter dated:nil received on 16.02.2024.
5. This office letter even no. dated. 16.02.2024 (Mining Plan approved)

In the reference 5th cited above, the applicant Thiru.P.Viswanathan has requested to furnish details of other quarry leases of expired, existing and proposed within 500mtr radius from the proposed rough stone and gravel lease over an extent of 0.91.0 Hect in S.F.No.153/2A, Velampalayam Village of Palladam Taluk, Tiruppur District.

As requested by the applicant, the details of existing, proposed and expired quarries situated within the radius of 500 meters from the subject area are furnished as follows:-

1. Existing quarries:

SNo	Name of the Applicant	S.F.Nos	Extent(Hect)	Lease Period
1.	Tmt.P.Sumathi	2	3.00.5	06.03.2020 to 05.03.2025

2. Proposed quarries :

Sl.No	Name of the Applicant	S.F.Nos	Extent (Hect)	Remarks
1.	P.Viswanthan	153/2A	0.91.0	A quarry lease was already granted in S.F.No.153/2A, 153/2C, 156/1B over an extent of 1.77.0 hectares for the period from 27.03.2018 to 26.03.2023. After the expiry of the above lease, again a quarry lease application was preferred for quarrying Rough stone in S.F.No.153/2A and the same is under process.
2.	M.Kanagarathinam	153/1A1	0.84.0	Quarry lease application is under process
3.	R.Loganathan	1/4 (Part)	0.64.74	Quarry lease application is under process

3. Lease expired and abandoned quarries:

SNo	Name of the Applicant	S.F.Nos	Extent (Hect)	Lease Period	Remarks
1	P.Viswanthan	153/2A, 153/2C, 156/1B	1.77.0 (Once again applied for 0.91.0 hect)	27.03.2018 to 26.03.2023	The applicant has applied for quarry lease in S.F.No.153/2A, over an extent of 0.91.0 hectares


 Deputy Director
 Geology and Mining,
 Tiruppur

Copy to : State Level Environment Impact Assessment Authority-Tamil Nadu, 3rd Floor, Panagal Maaligai, No.1 Jeenis Road, Saidapet. Chennai-15

ANNEXURE IV

TP 42180/1



தமிழ்நாடு தமில்நாடு TAMILNADU ரூ. 25,000/-

D 446214

13526

22.03.2018

P. விஸ்வநாதன்
63 வேலாம்பலையம்.

S. Viswanathan, S/o. Palanisamy, residing at 275/A3, Neelakkadu, Velampalayam village, Palladam Taluk, Tiruppur District - 641 667 (hereinafter referred to as 'the Registered Holder / Lessee' which term shall include in these presents where the context so admits include also his heirs, executors administrators, legal representatives and assigns) of the one part and the Governor of Tamil Nadu (hereinafter called "the Government" which term shall where the context so admits, include also his successors in office and assigns) of the other part.

APPENDIX - IV

(See Rule 19 (1) and 22)

**FORM OF AGREEMENT FOR QUARRYING AND CARRYING AWAY
MINOR MINERALS FROM RYOTWARI LANDS IN WHICH THE
MINERALS BELONG TO GOVERNMENT**

(Collector Proceedings No. 820 / Mines / 2016 dated 27.03.2018)

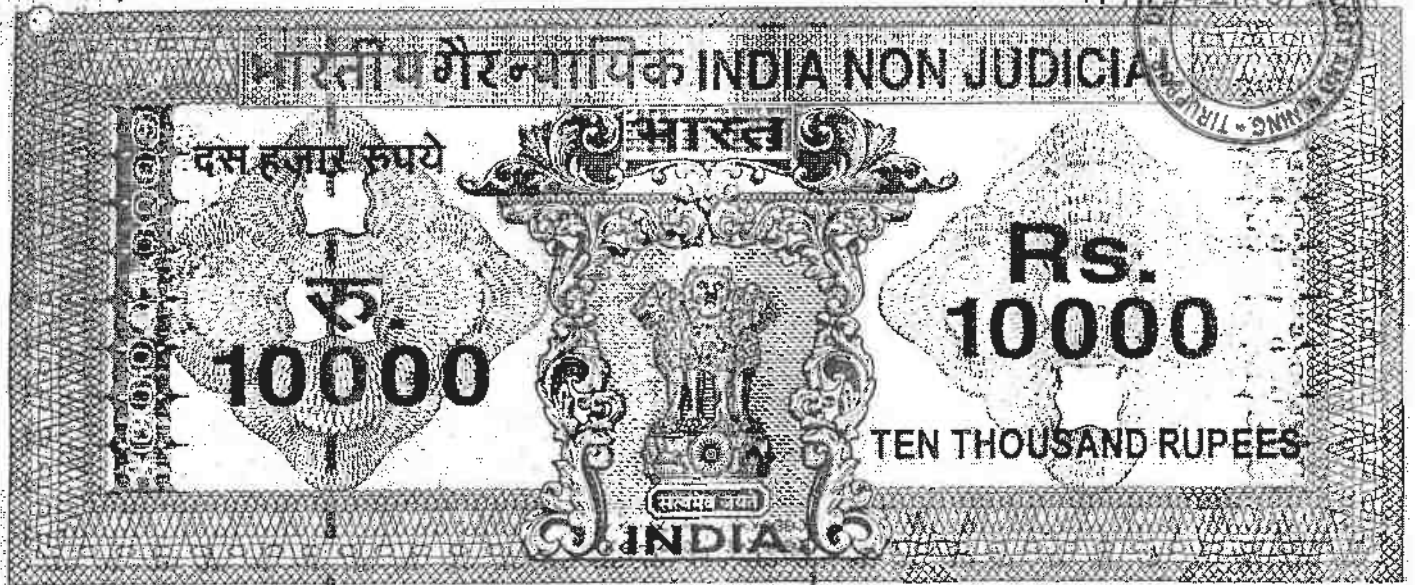
AGREEMENT MADE THIS 27th day of MARCH 2018 between
C Aadhaar No. 5965 8670 2849
Thiru. P. Viswanathan, S/o. Palanisamy, residing at 275/A3, Neelakkadu, Velampalayam
village, Palladam Taluk, Tiruppur District - 641 667 (hereinafter referred to as 'the
Registered Holder / Lessee' which term shall include in these presents where the context
so admits include also his heirs, executors administrators, legal representatives and
assigns) of the one part and the Governor of Tamil Nadu (hereinafter called "the
Government" which term shall where the context so admits, include also his successors
in office and assigns) of the other part.

P. Viswanathan
REGISTERED HOLDER / LESSEE

[Signature]
DISTRICT COLLECTOR
TIRUPPUR

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Registering officer





தமிழ்நாடு தமிழ்நாடு TAMILNADU ரூ. 10000/-

C 039344

13527
28.03.2018

S. ரகுநாதன் எம்.பி.சி.ஸ்டீ.
உண் : 5 / TRP / 2008
தொடர்பாளரையும், திருப்பூர்
தமிழ்நாடு

P. சிவசுந்தரன்
63. கோமகிபாளையம்

-2-

WHEREAS, the Registered Holder holds the lands described in the schedule hereunder written (hereinafter referred to as the said lands);

AND WHEREAS, the Registered Holder / Lessee has made application to the Collector of the District of Tiruppur (hereinafter referred to as "the District Collector") seeking grant of quarrying lease for quarrying Rough Stone and Gravel in the said lands and to deposit mining waste thereon for a term of 5 years and has lodged with the Collector an accurate map or sketch of the said lands;

AND WHEREAS, the District Collector, acting for and on behalf of the Government, has granted a quarrying lease to the Registered Holder / Lessee and allowed him to commence quarrying operations for Rough Stone and Gravel in the said lands and to deposit mining waste thereon by the Registered Holder / Lessee for a term of Five years from 27.03.2018 to 26.03.2023.

P. V. S.
REGISTERED HOLDER / LESSEE

[Signature]
DISTRICT COLLECTOR
TIRUPPUR

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தமிழ்நாடு தமில்நாடு TAMILNADU

13538

22.02.2018

P. அனந்தசுந்தரன்

63 கோவிலுமணலாறு

T 789382

ச.ந.குமாரன்
உள்ள : 6/TRP/2008
தொடர்புமையம், திருப்பூர்.
தமிழ்நாடு

-3-

AND WHEREAS, the Registered Holder / Lessee has deposited with the District Collector the sum of Rs. 10,000/- remitted at State Bank of India, Tiruppur, the challan No. 22, dated 21.3.2018 as security against loss or damage which may be incurred by the Government by reason by any of the said lands being rendered and unfit for cultivation by any mining operations therein of the Registered Holder / lessee or by deposit of mining waste thereon by the Registered Holder / Lessee.

NOW THESE PRESENTS WITNESS and the Registered Holder / Lessee doth hereby agree with the Government in the manner following, that is to say:-

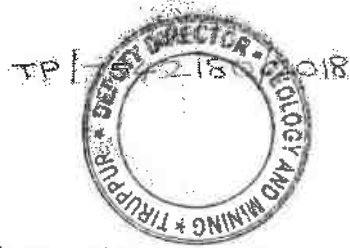
1. The Registered Holder / Lessee shall be at liberty at all times during the period of the lease to carry on mining operations for Rough Stone and Gravel in the lands in a proper and workman like manner and to deposit mining waste on the lands and shall at all times be answerable and accountable to the Government for all acts and defaults by any of his nominees, servants or agents in carrying on such operations or in making such deposit.

P. [Signature]
REGISTERED HOLDER / LESSEE

[Signature]
DISTRICT COLLECTOR
TIRUPPUR

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4. The Registered Holder / Lessee shall and will at all times, allow any officer authorized by the Director of Geology and Mining, Tamil Nadu in that behalf to enter upon any part of the said lands where any mining operations may be carried on for the purpose of inspecting the same.
5. The Registered Holder / Lessee shall forthwith send to the District Collector a report of any accident, which may occur at or in the said lands and also of the discovery of any mineral other than Rough stone and Gravel.
6. It shall be lawful for the Registered Holder / Lessee at any time to cease mining operations under these presents provided he shall pay to the Collector for and on behalf of the Government Land assessment, cess and Seigniorage due to the Government and shall restore the said lands or fence, or fill in abandoned pits and excavations therein if required by the Collector and upon his so doing these presents shall cease and determine.
7. In case the Registered Holder / Lessee shall relinquish the whole or any part of the said lands or in case of the expiry or sooner determination of this agreement then and in any such case, he shall restore the lands so relinquished or so much thereof as the District Collector shall require to be restored to a state fit for cultivation or shall securely and permanently fence or fill in all such abandoned pits and excavations therein as the District Collector shall require to be so fenced or filled in, and in case the Registered Holder / Lessee shall fail or neglect to restore any such land which he shall be required to restore to a state fit for cultivation or to so fence, or fill in any such abandoned pit or excavation which he shall be required to so fence or fill in them in any such case, it shall be lawful for the Collector to so restore any such land, or as the case may be, to so fence or fill any such pits or excavation at the expense of the Registered Holder / Lessee and to apply the said sum of Rs.10,000/- so deposited in or towards the cost of so doing and to deduct from the amount of the said deposit and retain on behalf of the Government a sum equal to thirty times the assessment of the said lands which shall have been rendered unfit for cultivation. If however, the amount of deposit is not sufficient to cover the cost of such restoration or fencing or filling in or to meet thirty times the assessment on the area rendered and uncultivable, it shall be lawful for the Government to recover the balance by resort to civil court.
8. The Registered Holder / Lessee shall not be entitled to any remission of assessment in respect of any of the said lands which shall be rendered unfit for surface cultivation by the carrying on of any mining operation or by the deposit of mining waste, unless thirty times the assessment thereon has already been deducted under the preceding clause.
9. The Registered Holder / Lessee shall not assign, lease or part with the possession of the said lands or any part thereof for the whole or any part of the said term without previous intimation in writing to the Collector.
10. All land assessments, cess and Seigniorage payable under these presents shall be recoverable under the provisions of the Tamil Nadu Revenue Recovery Act 1864, as if they were arrears of land revenue.
11. In the event of any breach by the Registered Holder / Lessee by any of the conditions of this agreement, it shall be lawful for the Government to levy enhanced Seigniorage or for the Collector to give notice in writing to the Registered Holder / Lessee of his intention to cancel these presents where upon the same shall stand cancelled but without prejudice to any rights which the Government may have against the Pattadar in respect of any antecedent claim or breach of covenant or condition.

P. VISWANATHAN

REGISTERED HOLDER / LESSEE

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DISTRICT COLLECTOR
TIRUPPUR

12. Any notice to be given to the Registered Holder / Lessee may be addressed to his last known place of abode and where a notice has been so addressed, it shall be deemed to have been duly served for the purpose of these presents.
13. Should any question or dispute arise regarding the agreement executed in pursuance of these rules or any matter or thing connected therewith or the powers of the Registered Holder / Lessee thereunder, the amount or payment of the Seigniorage fee or area assessment made payable thereby, the matter in issue shall be decided by the Director of Geology and Mining. In case the Registered Holder / Lessee is not satisfied with the decision of the Director of Geology and Mining, the matter shall be referred to the State Government for decision.
14. The Registered Holder / Lessee shall abide by the conditions laid down in the Payment of Wages Act 1936, (Central Act IV of 1936), the Mines Act, 1952 (Central Act XXXV of 1952) and the Explosives Act 1884 (Central Act IV of 1884).
15. Quarrying operations should be carried out in accordance with the Approved Mining Plan. If the mining operations are not carried out in accordance with the Approved Mining Plan, the District Collector may order suspension of all quarrying operations, by way of rectification to restore the conditions as may be necessary in the quarry as envisaged under the said mining plan, or may take further action as per the rules & Acts in force.

நிபந்தனைகள்:-

1. குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றப்படும் நாள் குவாரி பணி தொடங்கப்படும் முதல் நாளாக கருதப்பட்டு அன்றைய தினத்திலிருந்து 5 ஆண்டுகளுக்கு மட்டுமே திருப்பூர் மாவட்ட அளவிலான சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையம் (DEIAA) வழங்கிய சுற்றுச்சூழல் ஒப்புதல் சான்று செல்லத்தக்கது.
2. குத்தகை புலத்தினை அடுத்துள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர் இடைவெளி அளித்து குவாரிப்பணி புரிய வேண்டும்.
3. பொதுமக்களுக்கோ, பொது சொத்துக்களுக்கோ யாதொரு சேதமும் இன்றி பாதுகாப்பான முறையில் குவாரிப்பணி செய்ய வேண்டும்.
4. பொதுமக்களின் நலன் கருதி பாதுகாப்பான முறையில் குறைந்த அழுத்தமுள்ள வெடிபொருட்கள் பயன்படுத்தியும், கைத்துளைப்பான் கருவி கொண்டு துளையிடும், தொழிலாளர்களின் பாதுகாப்பினை உறுதி செய்ய பாதுகாப்பானதும், அகலமான Benches அமைத்து குவாரிப்பணி செய்ய வேண்டும்.
5. மாவட்ட அளவிலான சுற்றுச்சூழல் செயல் விளைவு மதிப்பீட்டு ஆணையம், திருப்பூர் (DEIAA-Tiruppur) சுற்றுச்சூழல் ஒப்புதல் கடிதத்தில் தெரிவிக்கப்பட்டுள்ள பொது மற்றும் சிறப்பு நிபந்தனைகளை முறையாக கடைபிடித்து குவாரிப்பணி செய்வதுடன், குவாரிப் பணி ஆரம்பிப்பதற்கு முன்பாக தமிழ்நாடு மாகாணக் கட்டுப்பாட்டு வாரியத்தின் தடையின்மை சான்று பெற்று மாவட்ட நிர்வாகத்திற்கு சமர்ப்பித்து அதன் பின்னரே குவாரிப்பணி துவங்க வேண்டும்.
6. குத்தகைதாரர் தனக்கு அளிக்கப்பட்ட குத்தகை பகுதியின் எல்லைகளை தெளிவாக காட்டும் வகையில் கல் நட்டு வண்ணம் இட்டு குத்தகை காலம் முழுமைக்கும் பராமரிக்க வேண்டும்.

[Signature]
REGISTERED HOLDER / LESSEE

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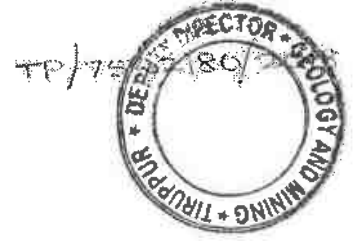


7. குத்தகைதாரர் குவாரியின் அருகே குத்தகைதாரர் பெயர், கிராமத்தின் பெயர், வட்டத்தின் பெயர், புல எண், பரப்பு, குத்தகை ஆணை எண், குத்தகை காலம், கனிமத்தின் பெயர், போன்ற விபரங்கள் குறிக்கப்பட்ட தகவல் பலகையை தமது சொந்த செலவில் வைத்து நன்கு பராமரிக்க வேண்டும்.
8. குவாரிக்கு சென்றுவரும் பாதை வசதிகள் குத்தகைதாரர்கள் அவர் தம் சொந்த பொறுப்பிலேயே அமைத்துக் கொள்ள வேண்டும்.
9. குத்தகை வழங்கப்பட்ட பாறையில் குண்டுக்கல், ஐல்லி, அரவை கல், வேலிக்கற்கள், போன்ற சிறுகனிமங்கள் உடைத்தெடுக்க மட்டுமே அனுமதியுண்டு. வெளிநாடுகளுக்கு ஏற்றுமதியாகும் மெருகூட்டும் கனவடிவ கற்கள் வெட்டி எடுக்கக் கூடாது.
10. குவாரியிலிருந்து கொண்டு செல்லப்படும் மேற்கண்ட வகை கற்களுக்கு 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் பின் இணைப்பு 11-ல் கண்டுள்ளவாறு உரிமவாரி (சீனியரேஜ் தொகை) செலுத்த வேண்டும். அரசு அவ்வப்போது அறிவிக்கும் உரிமவாரி மாற்றங்களுக்கு ஏற்ப எவ்வித ஆட்சேபணை இன்றி செலுத்துதல் வேண்டும்.
11. திருப்பூர் மாவட்ட கனிம கட்டமைப்பு அறக்கட்டளை (District Mineral Foundation Trust) நிதிக்காக சாதாரண கற்கள் எடுத்துச் செல்ல செலுத்தப்படும் சீனியரேஜ் தொகைக்கு 10% சதவீத தொகை மற்றும் அரசு அவ்வப்போது அறிவிக்கும் மாற்றங்களுக்கு ஏற்ப அறக்கட்டளை நிதி செலுத்தப்பட வேண்டும்.
12. குத்தகை அனுமதி வழங்கப்பட்ட நிலத்திலிருந்து கொண்டு செல்லப்பட்ட கனிமத்திற்கு முறையான கணக்குகளும், குழிவாயில் பதிவேடும் முறையாக பராமரித்தல் வேண்டும். அவற்றை சம்பந்தப்பட்ட அலுவலர்கள் தணிக்கைக்கு ஆஜர்படுத்த கோரினால் தவறாது சமர்ப்பிக்க வேண்டும்.
13. துணை / உதவி இயக்குநர் (புவியியல் மற்றும் சுரங்கத்துறை)-ன் அலுவலக முத்திரை, கையொப்ப முத்திரையுடன் கூடிய உரிய அனுப்புகைச் சீட்டை வாகனங்களுக்கு கொடுக்கப்படும் போது அனுப்புகைச் சீட்டில் வாகன எண், தேதி, புறப்படும் நேரம், செல்லும் இடம் ஆகியவற்றை முறையாகக் குறிப்பிட்டு கையொப்பம் இட்ட பின்னரே, குத்தகைதாரரோ அல்லது அவரது அனுமதி பெற்ற நபரோ கொடுக்க வேண்டும். மேற்கண்டவாறு குறிப்பிடுவதில் ஏதேனும் தவறுகள் இருந்தாலோ, கலங்கள் பூர்த்தி செய்யப்படாமல் இருந்தாலோ முறையற்ற வகையில் கனிமம் எடுத்துச் செல்வதாகக் கருதப்பட்டு வாகனத்தை கைப்பற்றி அபராதம் விதிப்பதோடு, அதற்கு குத்தகைதாரரை பொறுப்பாக்கி கனிம விதிகளின் படி மேல் நடவடிக்கை எடுக்கப்படும்.
14. குத்தகை அனுமதி வழங்கப்பட்ட புலத்தை முழுமையாகவோ, பகுதியாகவோ எவருக்கும் உள் குத்தகைக்கு விடுவதோ அல்லது விரையம் செய்வதோ கூடாது.
15. குத்தகைதாரர் ஒவ்வொரு நாளும் குவாரியில் இருந்து எவ்வளவு சாதாரண கற்கள் எடுக்கப்பட்டது என்பதையும் எந்த அளவு சாதாரண கற்கள் லாரி/ வாகனங்கள் மூலம் வெளியே அனுப்பப்பட்டது என்ற விபரத்தையும் கார்டும் பதிவேட்டினைப் பராமரித்து வரவேண்டும்.
16. குத்தகைதாரர், தமக்கு குத்தகை வழங்கப்பட்ட பகுதிக்கு அருகில் உள்ள புட்டா நிலத்திற்கு எவ்வித இடையூறும் இல்லாமல் குவாரிப் பணி செய்யப்பட வேண்டும்.
17. வண்டிப்பாதை மற்றும் நடைபாதைகளில் இருந்து 10 மீட்டர் தூரம் தள்ளி குவாரி செய்ய வேண்டும். ரோடுகள், புகைவண்டிப்பாதை, பொதுப்பணித்துறை, வாய்க்கால், பொதுமக்கள் உபயோகத்திற்கான பகுதிகள், மின்சாரம் மற்றும் தொலைபேசி கம்பி செல்லும் பகுதிகள், வழிபாட்டு இடங்கள் மற்றும் பழங்கால சின்னங்கள் உள்ள பகுதிகள் ஆகியவற்றில் இருந்து 50 மீட்டர் பாதுகாப்பு தூரம் விட்டு குவாரி செய்ய வேண்டும்.

P. VIS
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18. குத்தகைக்கு விடப்பட்டுள்ள விஸ்தீரணத்தில் மட்டுமே குத்தகைதாரர் குவாரி செய்ய வேண்டும். அதற்கான கூடுதலான விஸ்தீரணத்தில் குவாரி செய்வது தெரியவந்தால் அபராத நடவடிக்கை மேற்கொள்வதுடன் குவாரி குத்தகை உரிமம் இரத்து செய்ய நடவடிக்கை எடுக்கப்படும்.
19. குத்தகை நிபந்தனை மீறப்பட்டால் குத்தகை இரத்து செய்யவோ, செய்யப்பட்ட தவறுதலுக்கு அபராத நடவடிக்கை எடுத்து தண்டம் விதிக்கவோ அல்லது கிரிமினல் வழக்குத் தொடுக்க மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு. குத்தகை ரத்து செய்யப்பட்டால் காப்புத் தொகை உட்பட அனைத்து தொகைகளும் அரசுக்கு ஆதாயமாக்கப்படும்.
20. குத்தகைதாரர் தமிழ்நாடு சிறுவலகக்கனிம சலுகை விதிகள் 1959ல் கண்டுள்ள விதிகளுக்கும் மற்றும் அரசு அவ்வப்போது அறிவிக்கும் சட்டதிட்டங்களுக்கும் உட்பட்டு குவாரிப்பணிகள் செய்ய வேண்டும்.
21. குவாரி குத்தகை உரிமம் காலாவதியான பின்பு எக்காரணத்தை முன்னிட்டும் மீண்டும் புதுப்பிக்கவோ அல்லது கால நீட்டிப்போ செய்து தரப்பட மாட்டாது.
22. வெடிபொருள் சட்டம் 1884ல் தெரிவிக்கப்பட்ட சரத்துக்கள்படி குறைந்த அளவு வெடிபொருளை உபயோகித்து கற்கள் வெளியே சிதறாமலும், சத்தம் அதிகம் ஏற்படாமலும், பொதுமக்களுக்கும், கால்நடைகளுக்கும், எவ்வித பாதிப்பும் இன்றியும் கல்குவாரி பணி செய்யப்பட வேண்டும்.
23. வெடிபொருள்கள் அரசு உரிமம் பெற்ற விற்பனைதாரரிடம் மட்டுமே பெற்று வெடிப்பதற்கு உரிய உரிமம் / ஆங்கீகாரம் பெற்ற வெடிப்பாளர்களை (Blasters / Mines mate) கொண்டு கல் குவாரியில் வெடி வைத்து பாறைகளை உடைக்க வேண்டும்.
24. குவாரிப்பணி ஆரம்பிப்பதற்கு முன்னதாக குவாரி பணி செய்யப்பட இருக்கும் புலங்களின் எல்லையைச் சுற்றிலும் முள் கம்பி வேலி (Barbed wire fencing) அமைக்கப்பட வேண்டும்.
25. குழந்தை தொழிலாளர்கள் எவரையும் வேலைக்கு அமர்த்துதல் கூடாது.

மேற்கூறப்பட்ட நிபந்தனைகள் மற்றும் கனிம சட்டம் விதிகளை மீறியுள்ளது உறுதிபடும் தருணத்தில் விதிமுறைகளுக்கு உட்பட்டு குத்தகை இரத்து செய்ய நடவடிக்கை எடுக்கப்படும். மேற்கண்ட நிபந்தனைகள் ஒப்பந்தப் பத்திரத்தில் கண்டுள்ள நிபந்தனைகள், திருப்பூர் மாவட்ட சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் நிபந்தனைகள் மற்றும் தமிழ்நாடு சிறுவலக சலுகை விதிகள் 1959, கனிமம் மற்றும் சுரங்கம் (ஒழுங்குமுறை மற்றும் மேம்பாடு)-1957, மெட்டாலி-பெரல் மைன்ஸ் ரெகுலேசன் -1961 மற்றும் கனிம சட்டம் 1952 ஆகியவற்றின் அடிப்படையில் குத்தகைதாரர் குவாரிப் பணி புரிய வேண்டும்.

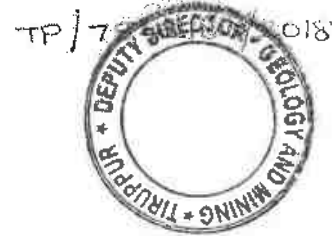
As per Approved Mining Plan the total production of Rough stone and Gravel for the five years lease period is 63441 CBM and 9738 CBM respectively. Hence for the purpose of calculating stamp duty the anticipated Seigniorage fee is Rs. 40,64,373/- (Rupees Forty lakhs sixty four thousand three hundred and seventy three only) for the entire lease period of Five years.

P. Vis...
REGISTERED HOLDER / LESSEE

DISTRICT COLLECTOR
TIRUPPUR

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THE SCHEDULE

Name of the District : Tiruppur
 Name of the Taluk : Palladam
 Name of the Village : Velampalayam
 Name of the Sub-Registration District : Palladam
 Period : Five years (27.03.2018 to 26.03.2023)

S.F. No.	Extent (in hec)	Area Assessment	North	South	East	West
153/2A	0.91.0	Rs. 1328/-	155	153/1A	153/2B	153/1A
153/2C	0.20.5		156	153/1A	150 and 156	153/2B
156/1B	0.65.5		156/1A	150	150 and 156/3	153
Total	1.77.0					

IN WITNESS WHEREOF Thiru. P. Viswanathan, S/o. Palanisamy, residing at 275/A3, Neelakkadu, Velampalayam village, Palladam Taluk, Tiruppur District - 641 667 "the Registered Holder / Lessee" and Dr. K.S. Palanisamy, I.A.S., District Collector, Tiruppur acting for and on behalf of and by the order and direction of the Governor of Tamil Nadu have hereunto set their hands.

P. Viswanathan
 REGISTERED HOLDER / LESSEE

(Signed by the above named the Permit holder in the presence of)

1. *K. Lakshminarayana*
S/O P. Viswanathan
63 Chinnarayan
Tiruppur
2. *M. Lakshminarayana*
S/o P. Viswanathan
3/113 A Chinnarayan
Tiruppur (P.O), Tiruppur (T.D)

[Signature]
 DISTRICT COLLECTOR
 TIRUPPUR

(Signed by the above named the Lessor in the presence of)

1. *[Signature]*
தலைவர் இயக்குநர்
புவியியல் & சுரங்கத்துறை
திருப்பூர்
2. *[Signature]*
தலைவர் இயக்குநர்
புவியியல் மற்றும் சுரங்கத்துறை
திருப்பூர் மாவட்டம்

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 Registering officer



A. Janaki
 JANAKI, D.A.,
 Document Writer
 No: E 322 / TRP / 93
 3/6, Pulliappampalayam
 Palladam - 641 664.



வட்டாட்சியர் அலுவலக இணைய சேவை - நில உரி...

http://eservices.tn.gov.in/eservicesnew/land/chittaExtract_ta.html

TP/7542180/21



தமிழக அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : திருப்பூர்

வட்டம் : பல்லடம்

வருவாய் கிராமம் : வேலம்பாளையம்

பட்டா எண் : 624

உரிமையாளர்கள் பெயர்

1.	பழனிசாமிக்கவுண்டர்				மகன்		விஸ்வநாதன்	
		நன்செய்		புன்செய்		மற்றவை		
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
புல.எண்	உட்பிரிவு	ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	
153	2A	--	--	0 - 91.00	1.82	--	--	
				0 - 91.00	1.82			

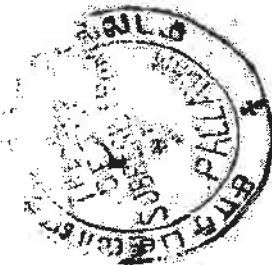
குறிப்பு 2 :



- மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <http://eservices.tn.gov.in> என்ற இணைய தளத்தில் 32/03/004/00624/80472 என்ற குறிப்பு எண்ணை உள்ளிடு செய்து உறுதி செய்துகொள்ளவும்.
- இத் தகவல்கள் 09-04-2018 அன்று 04:07:53 PM நேரத்தில் அச்சடிக்கப்பட்டது.
- கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்.

P. V. S. S. S.

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Registering officer



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வட்டாட்சியர் அலுவலக இன்னைச் சேவை - அ-பதிவேடு விவரங்களைப் பற்றி
அ-பதிவேடு விவரங்கள்



மாவட்டம் : திருப்பூர்

வட்டம் : பல்லடம்

கிராமம் : வேலம்பாளையம்

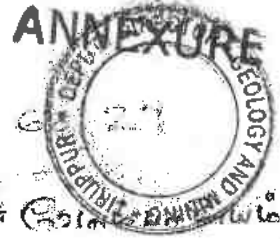
1. புல எண்	153	9. மண் வயனும் ரகமும்	8-3
2. உட்பிரிவு எண்	2A	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	153-2	11. தீர்வை (ரூ - ஹெ)	2.00
4. பகுதி	P	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 91.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.82
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	624
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இலாபகரம்	-	16. பெயர்	1.விஸ்வநாதன்

குறிப்பு 1:



1.

மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <http://eservices.tn.gov.in> என்ற இணைய தளத்தில் 30472 என்ற குறிப்பு எண்ணை உள்ளிடு செய்து உறுதி செய்துகொள்ளவும்.



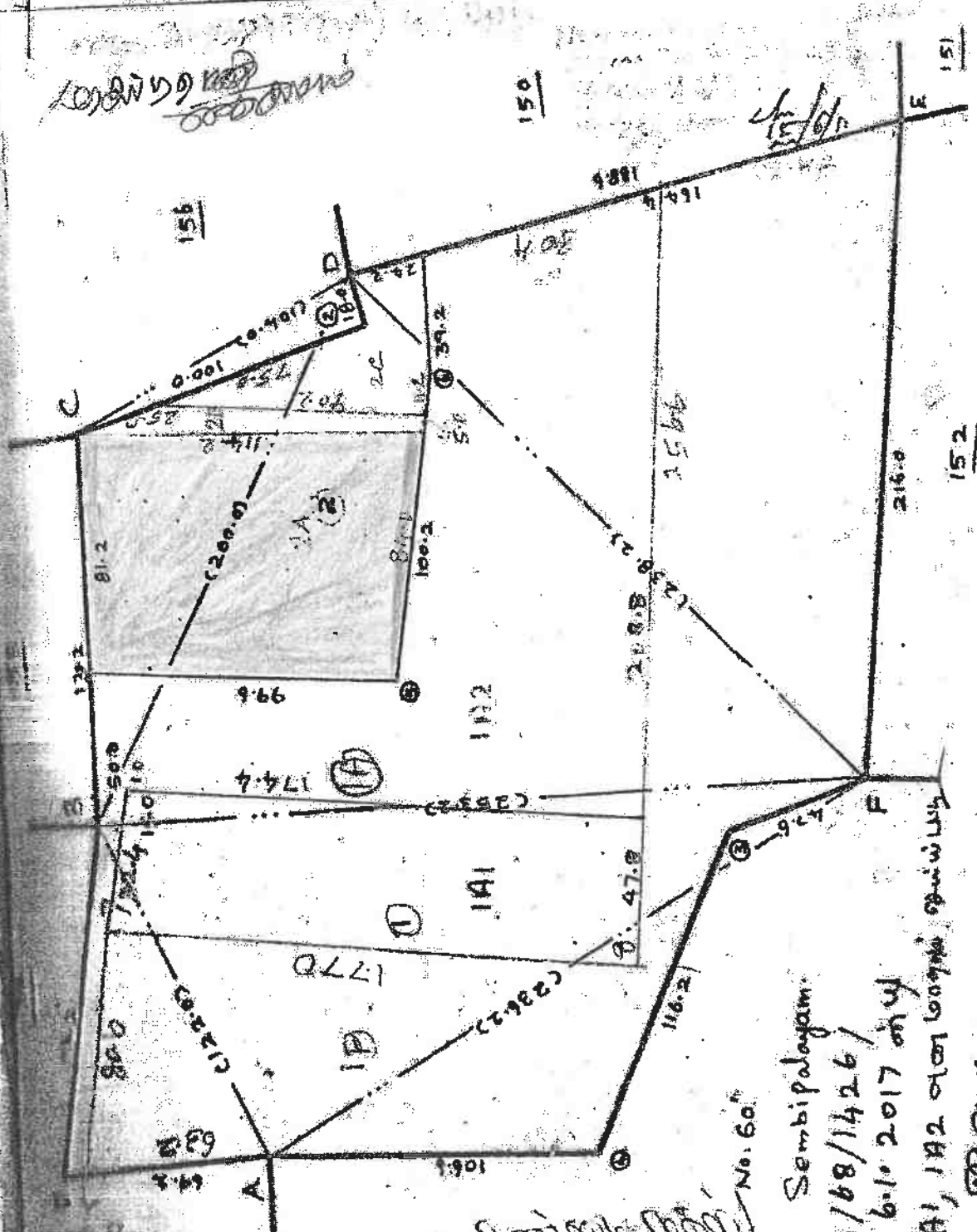
பெரிய கிராமம்

பெரிய கிராமம்

பெரிய கிராமம்

பெரிய கிராமம்

பெரிய கிராமம்



Lease Applied Area-



கிராம நிர்வாக அலுவலர் முறையில்
பிறப்பு இறப்பு பதிவாளர்

Sembipalayam

68/1426/

6.1.2017

153/141, 142 முதல் 153/141

செம்பிபாளையம்

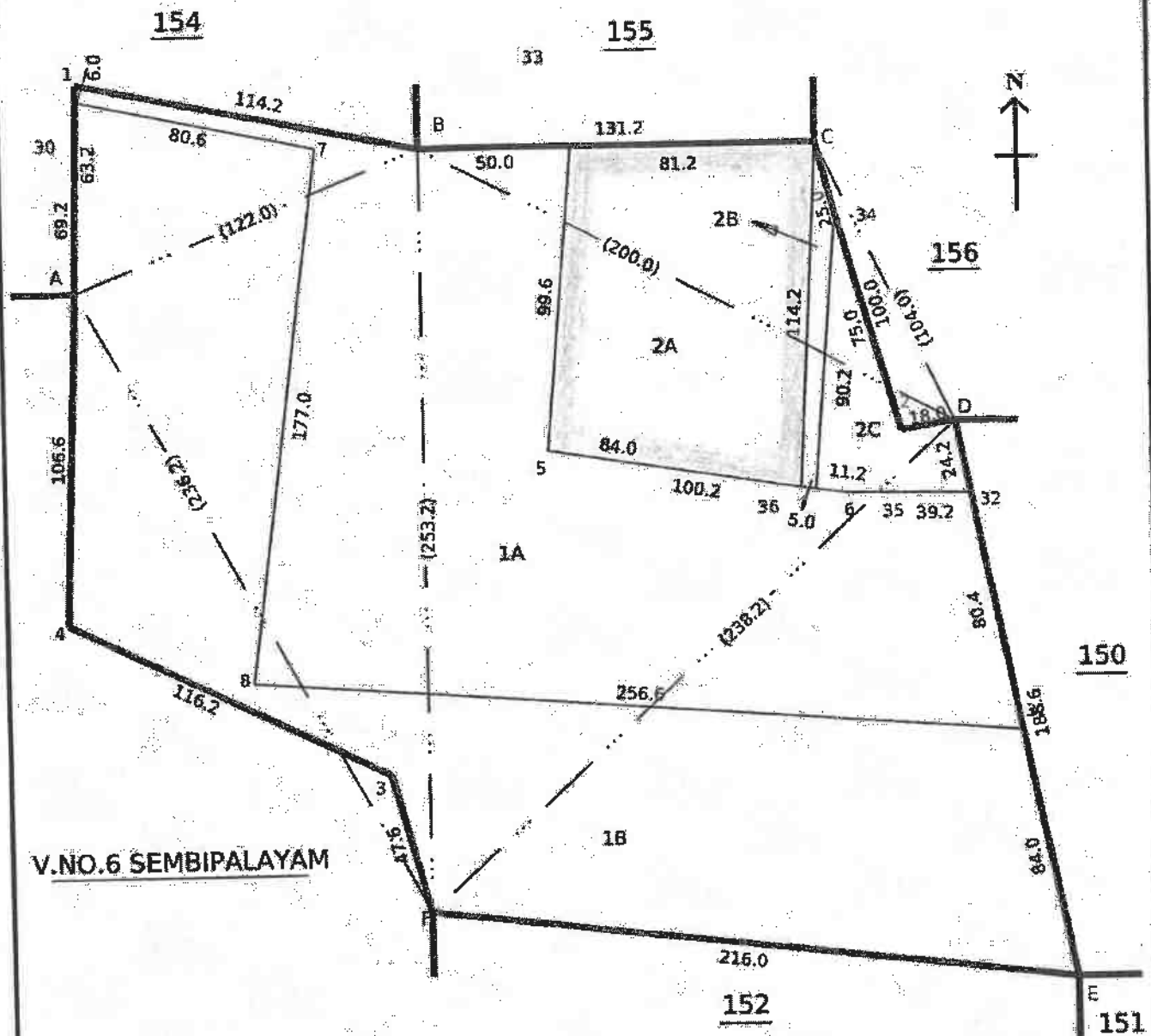
அளவு: 1:2000
4. வெவ்வேறான கிராமம்
பெரிய கிராமம்

Survey No : 153

Area : Hect 06 Ares 91.50

[4]

Scale : 1 : 2000



☐ - 4வது எண் : 153/2A - 0.91.00 நிறைவேற்றப் பதப்பிட்டு சாதாரண கமிட்டி மன்றம்
கிராமிய மன்றப் பொதுமன்றக் கூலித் தொகை நிதியம் கீழ்க் பகுதி.

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 11/17/2001 BY 1042

ANNEXURE III



சிறீமதி திருவாங்கு அனல்செய்து
பிறப்பு இறப்பு பதிவாளர்
14 மேலையாக்கம், சிறீமதி

12-11-1954

Sukampalayam
2.4 Kilometres

Karupparayan Kovil

Lease Applied Area-

60
ALAYAM

திருப்பூர் மாவட்டம், மல்லம்.
வட்டம், 63, வேலம்பாளையம் கிராமம்.
கோக்காடு கட்டா எண் 215/113 என்ற
பெயரில் வாங்கும் திரு(வேல) பணித்தொடர்
என்பதற்கு மகன் திரு. P. அனந்தசுந்தரன் என்பவர்
திவாரி திருத்த உரிமத்தினை புதுப்படுத்து
மாறுகி உதானை மாறும் புலத்தினை
கொடுக்கின்றி கொடு இரத்த கொடு
கொடுக்கின்றான்.

திருப்பூர் மாவட்டம், மல்லம்.
வட்டம், 63, வேலம்பாளையம் கிராமம்,
க.க. 153/2A எ.ந. காவலில் புதுப்ப
0.9/1.0 ஏக்கர் பூங்காவை மல்லம் கிர
பதிவாளர் அலுவலக காவலில் காவல்
புத்திர எண் 609/2011-ன் புது கொடுப்பு
பக்கி உரிமையுடைய அன்பு கிரண்
தேவ் தொழுவாவை. மண்பு மகன்
அரசாங்கி கொடுத்த வேலம்புல திவாரிகள்
தேவ் திவாரிகள் கிரண், காவலர்கள் து
நிதியால் கிரண் மண்பு திவாரி திருத்த
உரிமம் கொடு புல எண் 153/2A கிரண்
121.01 தொலைவு புல எண் 150-ல் அங்கு
மண்பு புது வட்டம் என்ற நிதியுதவி
அலுவலகம், 115.15 தொலைவு மகன்
அதையும், கொடு 145.15 தொலைவு
காவலம்பாளையம் கிராமம், புல எண் 2-ல்
திரு. சி.மதி என்பவருக்கு அங்குள்ள
அதன்பால் திவாரியும் காவலர்கள் அங்கு
காவலர்கள் திவாரியும் வட்டமே 137.88
தொலைவு AVP திரை பள்ளிக்கு எண் கொடு
286.21 தொலைவு காவல கிரண் திரை
அதன்பால் திவாரி திருத்த உரிமம்
கொடு புலத்தினை அங்கு 300 15.
காவலர்கள் அங்கு கொடுக்கப்பட்ட (ப.க.)

கிராமநாயகன் ஆலயத்தை எதிர்த்து
 400 க்கு மேல் பேர் கலந்துகொண்டது.
 மேலும் இவ்விதத்தில் உரிமை வலுவாக
 கோரம் புரட்சிக்கு 500 ரூபாய்க்குள்
 ரூபாயில் தீவிர கட்டுப்பாட்டின்
 புரட்சித் தீர்மானம், புரட்சிக் காலத்தின்
 தீர்மானம், தீர்மானம் தீர்மானம் பரந்த
 தீர்மானம் உரிமைவாதிகள் மற்றும் தீர்மானம்
 தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம்
 தீர்மானம் தீர்மானம் தீர்மானம் தீர்மானம்

21. தீர்மானம்

2024.02.24.

கிராம நிர்வாக அலுவலர் மற்றும்

பிறப்பு இறப்பு பதிவாளர்

4, வேலம்பாளையம் கிராமம்,

பண்டம் வட்டம், திருப்பூர் மாவட்டம்

அ1 விளம்பரம்

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம் கஸ்பா வசிக்கும் திரு. விஸ்வநாதன் த/பெ.பழனிசாமி என்பவர் வேலம்பாளையம் கிராமம், புல எண் 153/2A. பு.ஹெக் 0.91.0 பரப்பளவுள்ள பூமியில் கிராவல் மணர் வெட்டி எடுக்க குவாரி குத்தகை உரிமம் கோரி விண்ணப்பித்துள்ளனர். மேற்படி குவாரி குத்தகை உரிமம் வழங்குவது தொடர்பாக ஆட்சேபனை ஏதுமிருப்பின் இவ்விளம்பரம் செய்யப்பட்டு 15 தினங்களுக்குள் பல்லடம் வட்டாட்சியர் அவர்களிடமோ அல்லது சாமளாபுரம் உள்வட்ட நில வருவாய் ஆய்வாளரிடமோ நேரிலோ அல்லது எழுத்து பூர்வமாகவோ தெரிவிக்குமாறும், 15 தினங்களுக்குள் ஆட்சேபனை ஏதும் வரப் பெறவிட்டால் ஆட்சேபனை ஏதுமில்லை எனக் கருதி நில ஒப்படை வழங்குவது தொடர்பான மேல் நடவடிக்கை மேற்கொள்ளப்படும் என்பது இதன் மூலம் வேலம்பாளையம் கிராம பொதுமக்களுக்கு தெரிவிக்கப்படுகிறது

104-கோவை-3/5/23
நில வருவாய் ஆய்வாளர்,
சாமளாபுரம் உள்வட்டம்,
பல்லடம் வட்டம்.

பெறுநர்:
கிராம நிர்வாக அலுவலர்
வேலம்பாளையம்

மேற்படி விளம்பரத்தினை வேலம்பாளையம் கிராம பொதுமக்களிடம் பிரசித்தம் செய்து குடிகள் ஒப்பம் பெற்று வேலம்பாளையம் கிராம நிர்வாக அலுவலர் மீன சமர்ப்பிக்க வேண்டியது.

தகவல் தெரிந்து கொண்டோம்.

வ.எண்	பெயர் மற்றும் முகவரி	கையொப்பம்
1	M. பழனி S/O K. மோகன் 63, ஜெனம் மாளையம்.	M. R. 
2.	சிந்தி ச/O பரமசிவன் 63 - ஜெனம் மாளையம்	

3	S. Gnanini w/o Sankar 63, Velampalayam	S. Gnanini
4	M. Gnanapavan 63 Velampalayam	M. Gnanapavan
5	S. Gnanapavan s/o Gnanapavan 63 - Velampalayam	S. Gnanapavan
6	V. Sankar S/o. Sankar & Sankar 63. Velampalayam	V. Sankar
7	K. Sankar S/o K. Sankar 63. Velampalayam	K. Sankar
8	T. Sankar S/o. T. Sankar 63 Velampalayam	T. Sankar
9	P. Sankar S/o Sankar 63 Velampalayam	P. Sankar
10	R. Sankar S/o Sankar 63 Velampalayam	R. Sankar
11	M. Sankar, D/o Sankar 63. Velampalayam	M. Sankar
12	Sankar S/o Sankar 63 Sankar	M. Sankar

U. S.

சென்னை மாநகராட்சி கலெக்டரேட் கீழ்க் குடிசை 63-ம்
பகுதியில் குடிசை கட்டிடம் கட்டி குடிசை 63-ம் பகுதியில்

6.65/1000
சென்னை மாநகராட்சி கலெக்டரேட்
சென்னை மாநகராட்சி கலெக்டரேட்
சென்னை மாநகராட்சி கலெக்டரேட்

பொதுமக்கள் வாக்குமூலம்

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம் கஸ்பா வசிக்கும் திரு. விஸ்வநாதன் த/பெயழனிசாமி என்பவர் வேலம்பாளையம் கிராமம், புல எண் 153/2A. ப.ஹெக் 0.91.0 பரப்பளவுள்ள பூமியில் கிராவல் மண் வெட்டி எடுக்க குவாரி குத்தகை உரிமம் கோரி விண்ணப்பித்துள்ளனர். மேற்படி குவாரி குத்தகை உரிமம் வழங்குவது தொடர்பாக வேலம்பாளையம் கிராம ஊர் பொதுக்கள் ஆகிய எங்களுக்கு எவ்வித ஆட்சேபனையும் இல்லை என்பதை இதன் மூலம் தெரிவித்துக் கொள்கிறோம்.

/படித்துப்பார்த்தோம் சரி/

/படிக்க கேட்டோம் சரி/

வ.எண்	பெயர் மற்றும் முகவரி	கையொப்பம்
1.	U. சிவசுந்தரம் S/o-2 கிருஷ்ணசாமி. 63- வேலம்பாளையம்.	U. சிவசுந்தரம்
2.	K. சண்முகம் S/o கிருஷ்ணசாமி 63- வேலம்பாளையம்	K. சண்முகம்
3.	T. சண்முகம் சிவசுந்தரம், 63 வேலம்பாளையம்	T. சண்முகம்
4.	சிவசுந்தரம் அரண்மனை 63 வேலம்பாளையம்	சி. சிவசுந்தரம்

5	M. SUDH. S/o. R. Sankar 63. Baniyapuram	M. R. 1
6	P. Panganathan s/o palanisamy 63 velampalayam	P. P. 1
7	R. Boopathirajan S/o Ramasamy 63 velampalayam	R. B. 1
8	M. Sathy. D/o, Manokaran, 63. velampalayam.	M. S. 1
9	குந்தமணி S/o குமாரன் 63 காரைக்கால்	M. G. 1
10	R. சோமசுந்தரன் S/o ரமேசுந்தரன் 63 காரைக்கால்	R. S. 1
11	J. Dinesh Kumar D/o Joseph 63 V. 1/1	J. D. 1
12	L. Komaraswamy S/o V. Lakshmanan 63 velampalayam	L. K. 1
13	சுந்தர் S/o ரமேசு 63 காரைக்கால்	S. S. 1

13. 11

சென்னை உயர்நீதிமன்ற காரைக்கால் துறைமுகப் பகுதியில்
சுருட்டியுள்ள கிராம சபை வாரியகம் துறைமுகப் பகுதியில்
பகுதிவாரியகம்

கிராம நிர்வாக அலுவலர்
பிறப்பு: 19/11/1952
4, வேலையாழைமங்குடி கிராமம்,
புல்லம் வட்டம், திருப்பூர் மாவட்டம்

கிராம நிர்வாக அலுவலர் அலுவலகம்
63வேலம்பாளையம் கிராமம்.

பணிநிதனுப்பப்படுகிறது:

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63வேலம்பாளையம் கிராமம், நீலாக்காடு, கதவு எண்.275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் 63வேலம்பாளையம் கிராமம், புலஎண்.153/2Aல் பு.ஹெ.0.91.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க 5 வருடங்களுக்கு வழங்கப்பட்ட குவாரி குத்தகை உரிமத்தினை புதுப்பித்து வழங்கக்கோரியதன்பேரில் விசாரணை மற்றும் புலத்தணிக்கை மேற்கொண்டு எனதுறிக்கையினை பின்வருமாறு தெரிவித்துக் கொள்கிறேன்.

நிலம்:

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், சாமளாபுரம் உள்வட்டம், 63வேலம்பாளையம், புலஎண்.153/2 காலையில் பு.ஹெ.0.92.0 (பு.ஏ.2.27) பரப்பளவுள்ள பூமியானது பல்லடம் சார்பதிவாளர் அலுவலக கிரையப் பத்திர எண். 609/2011- நாள்:19.01.2011ன்படி திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு பாத்தியப்பட்டுள்ளது. மேலும் மேற்படி புலஎண். 153/2 காலையில் உள்ள தடம் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி மற்றும் திரு.சுப்பிரமணியம் ஆகிய இருவருக்கும் பாத்தியப்பட்டுள்ளது. மேற்படி கிராமம் கணினி பட்டா எண்.624ல் புலஎண். 153/2 காலையானது புலஎண்.153/2A காலையாக உட்பிரிவு செய்யப்பட்டு அதில் பழனிச்சாமிகவுண்டர் மகன் விஸ்வநாதன் என்பவரது பெயர் தனியாக தாக்கலாகியுள்ளது. கிராம அடங்கலில் புலஎண்.153/2A ஆனது பாறைக்குழி என பதிவாகியுள்ளது.

உரிமம்:

மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A ல் பு.ஹெ.0.91.0 பரப்பளவு, 153/2Cல் பு.ஹெ.0.20.5 மற்றும் 156/1Bல் பு.ஹெ.0.65.5 பரப்பளவு என மொத்தம் பு.ஹெ.1.77.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறை ஆணை ந.க.820/கனிமம்/2016 நாள்:27.03.2018-ன்படி 27.03.2018 முதல் 26.03.2023 வரை ஐந்து ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் வழங்கி உத்தரவிடப்பட்டுள்ளது. மேற்படி குவாரி உரிமம் முடிவற்ற நிலையில் தற்போது புலஎண். 153/2யுல் உள்ள பு.ஹெ.0.91.0 பரப்பளவுள்ள பூமியினில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க குவாரி குத்தகை உரிமம் வழங்குமாறுகோரி மனுதாரர் விண்ணப்பித்துள்ளார்.

ஆவணங்கள்:

மனுதாரர் சமர்ப்பித்துள்ள ஆவணங்களை பரிசீலனை மேற்கொண்டதில் கீழ்க்கண்டவாறு தெரிய வருகிறது.

- மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் அரசுக்கு செலுத்த வேண்டிய நிலவரிகள் ஏதும் நிலுவையில் இல்லை.
- கனிமவரிகள் ஏதும் நிலுவையில் இல்லை.
- மேற்படி மனுதாரர் தமிழ்நாட்டில் வேறெங்கும் குவாரி குத்தகை உரிமம் கோரி விண்ணப்பங்கள் அளிக்கவில்லை என்பது மனுதாரர் சமர்ப்பித்துள்ள உறுதிமொழி பிராமணபத்திரம் மூலம் தெரியவருகிறது.
- மேற்படி குவாரி உரிமத்தினை புதுப்பிக்கும் பொருட்டு ரூ.1,500/-ஐ பாரத மாநில வங்கி, திருப்பூர் கிளையில் சலான் எண். 20230228010277 நாள்: 28.02.2023-ன்படி மனுதாரர் செலுத்தியுள்ளார்.

அமைவிடம்:

குவாரி குத்தகை உரிமம் கோரும் புலஎண்.153/2A கிழக்கில் 121.0மீ தொலைவில் புலஎண்.150ல் தி/வா.அங்காளம்மன் புளூ மெட்டல்ஸ் என்ற நிறுவனத்தின் அலுவலகமும், 115மீ தொலைவில் பாதுகாப்பு அறையும், மேற்கில் 145மீ தொலைவில் சுக்கம்பாளையம் கிராமம், புலஎண்.2ல் திருமதி.சுமதி என்பவருக்கு சொந்தமான (செயல்படும்) கல்குவாரியும் திரு.லோகநாதன் என்பவருக்கு சொந்தமான கைவிடப்பட்ட குவாரியும், வடமேற்கில் 137.8மீ தொலைவில் தி/வா.AVP தார் ப்ளான்ட்டும், தென்மேற்கில் 286.2மீ தொலைவில் கோவை சான்ட் கிரஷ்ரம் அமைந்துள்ளது. குவாரி குத்தகை உரிமம் கோரும் புலத்தினை சுற்றி 300 மீ சுற்றளவில் அங்கீகரிக்கப்பட்ட குடியிருப்புகள் ஏதுமில்லை.

ஆட்சேபனை

மேற்படி மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் குவாரி குத்தகை வழங்குவது தொடர்பாக வேலம்பாளையம் கிராமத்தில் கடந்த 18.05.2023 தேதியன்று "அ1" விளம்பரம் செய்யப்பட்டதில் கிராம நிர்வாக அலுவலர் அலுவலகத்திலோ, நிலவருவாய் ஆய்வாளர் அலுவலகத்திலோ, பல்லடம் வட்டாட்சியர் அலுவலகத்திலோ எவ்வித ஆட்சேபனையும் எழுத்து பூர்வமாகவே, வாய்மொழியாகவோ பெறப்படவில்லை.

பொது:

- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் நிலத்தின் மீது கனிம மற்றும் மேற்பரப்பு உரிமைகள் ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்கள் அரசுபுறம்போக்கு நிலமோ, அரசினால் நிலமெடுப்பு செய்யப்பட்டுள்ள நிலமோ ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக் கற்கள் நடப்பட்டுள்ளது.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திலிருந்து 500 மீ சுற்றளவில் தொல்லியல் துறைக் கட்டுப்பாட்டிலுள்ள புராதானச் சின்னங்கள், பள்ளிகள், மயானங்கள், நீர்நிலைகள், சாலைகள், இரயில்வே பாதைகள், வனங்கள், வனவிலங்கு மற்றும் சரணாலயங்கள் ஏதுமில்லை.
- மேற்படி குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திற்கு வழித்தடங்கள் உள்ளன.
- மேற்படி புலம் தொடர்பாக நீதிமன்ற வழக்குகள் ஏதும் நிலுவையிலில்லை.
- மேலும் மேற்படி புலமானது பாதுகாக்கப்பட்ட மலைப்பகுதி ஆணையத்தின் கட்டுப்பாட்டில் இல்லை.

எனவே, திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், நீலக்காடு, கதவு எண். 275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்வருக்கு புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க மேலும் 5 வருடங்களுக்கு குவாரி குத்தகை உரிமம் புதுப்பித்து வழங்க பரிந்துரை செய்து உரிய ஆவணங்களை இத்துடன் இணைத்தனுப்பியுள்ளேன் என்பதை பணிவுடன் தெரிவித்துக் கொள்கிறேன்.

பெறுநர்

வருவாய் வட்டாட்சியர்
(உரிய வழிமுறையாக)
நிலவருவாய் ஆய்வாளர்
சாமளாபுரம்

6.85/153/2A
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பி.பி.பி. அலுவலர்
4, வேலம்பாளையம் கிராமம்,
பல்லடம் வட்டம், திருப்பூர் மாவட்டம்

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வட்டார வளர்ச்சி அலுவலர்,
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பல்லடம் 641 664,
திருப்பூர் மாவட்டம்.

பெறுநர்

துணை இயக்குநர்,
புவியியல் மற்றும் சுரங்கத்துறை,
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மூ.மு.எண்: 0816 /2023/அ3,

நாள்: 20.03.2023.

ஐயா,

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திருப்பூர் மாவட்டம் - பல்லடம் வட்டம் - வேலம்பாளையம் கிராமம் - புல
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கற்கள்/ கிராவல் மண் வெட்டி எடுக்க 5 வருடங்களுக்கு குவாரி
குத்தகை உரிமம் கோரி திரு.பி.விஸ்வநாதன், த/பெ.பழனிச்சாமி,
275/ஏ3, நீலக்காடு, 63.வேலம்பாளையம் கிராமம், பல்லடம் வட்டம்
என்பவர் மனு செய்துள்ளது - விசாரணை அறிக்கை சமர்ப்பித்தல் -
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- பார்வை: 1. திரு.பி.விஸ்வநாதன், த/பெ.பழனிச்சாமி, 275/ஏ3, நீலக்காடு,
63.வேலம்பாளையம் கிராமம், பல்லடம் வட்டம் என்பவரின் மனு
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ந.க.எண்: 80/2023/கனிமம் நாள்: 07.03.2023.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம் புல எண்கள்
153/2A-ல் 0.91.0 ஹெக்டர் பரப்புள்ள பட்டா பூமியிலிருந்து 5 வருடங்களுக்கு சாதாரண
கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திரு.பி.விஸ்வநாதன், த/பெ.பழனிச்சாமி,
275/ஏ3, நீலக்காடு, 63.வேலம்பாளையம் கிராமம், பல்லடம் வட்டம் என்பவர் பார்வை 1-ன் படி
விண்ணப்பம் செய்துள்ளார் என்றும், மேற்படி பிரஸ்தாப புலங்களிலிருந்து 300 மீட்டர்
சுற்றளவிற்குள் அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் (Layout) மற்றும் அங்கீகரிக்கப்பட்ட
கட்டுமானங்கள் ஏதும் உள்ள தா? என்ற விபரத்தினை தெரிவிக்குமாறு பார்வை 2-ல் காணும்
கடிதத்தில் கேட்டுக்கொள்ளப்பட்டுள்ளது.

மேற்படி மனு தொடர்பாக, ஆய்வு செய்ததில், பிரஸ்தாப புலங்களிலிருந்து 300 மீட்டர்
சுற்றளவிற்குள் அங்கீகரிக்கப்பட்ட குடியிருப்பு மனைகள் (Layout) மற்றும் அங்கீகரிக்கப்பட்ட
கட்டுமானங்கள் ஏதும் இல்லை என்பதை தெரிவித்துக் கொள்கிறேன்.



தங்கள் நம்பிக்கையுள்ள,

வட்டார வளர்ச்சி அலுவலர்
(வட்டார ஊராட்சி),
பல்லடம்.

சி.சி.
20/3/2023



நிலைநிலுவையுடைய ஆய்வாளர் அலுவலகம்
சாமளாபுரம் உள்வட்டம்

பணிநிதனுப்பப்படுகிறது:

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63வேலம்பாளையம் கிராமம், நீலாக்காடு, கதவு எண்.275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் 63வேலம்பாளையம் கிராமம், புலஎண்.153/2Aல் பு.ஹெ.0.91.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க 5 வருடங்களுக்கு வழங்கப்பட்ட குவாரி குத்தகை உரிமத்தினை புதுப்பித்து வழங்கக்கோரியதன்பேரில் விசாரணை மற்றும் புலத்தணிக்கை மேற்கொண்டும், பார்வையில் காணும் அறிக்கையினை பரிசீலனை செய்தும் எனதறிக்கையினை பின்வருமாறு தெரிவித்துக் கொள்கிறேன்.

நிலம்:

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், சாமளாபுரம் உள்வட்டம், 63வேலம்பாளையம், புலஎண்.153/2 காலையில் பு.ஹெ.0.92.0 (பு.ஏ.2.27) பரப்பளவுள்ள பூமியானது பல்லடம் சார்பதிவாளர் அலுவலக கிரையப் பத்திர எண். 609/2011- நாள்:19.01.2011ன்படி திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு பாத்தியப்பட்டுள்ளது. மேலும் மேற்படி புலஎண். 153/2 காலையில் உள்ள தடம் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி மற்றும் திரு.சுப்பிரமணியம் ஆகிய இருவருக்கும் பாத்தியப்பட்டுள்ளது. மேற்படி கிராமம் கணினி பட்டா எண்.624ல் புலஎண். 153/2 காலையானது புலஎண்.153/2A காலையாக உட்பிரிவு செய்யப்பட்டு அதில் பழனிச்சாமிகவுண்டர் மகன் விஸ்வநாதன் என்பவரது பெயர் தனியாக தாக்கலாகியுள்ளது. கிராம அடங்கலில் புலஎண்.153/2A ஆனது பாறைக்குழி என பதிவாகியுள்ளது.

உரிமம்:

மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A ல் பு.ஹெ.0.91.0 பரப்பளவு, 153/2Cல் பு.ஹெ.0.20.5 மற்றும் 156/1Bல் பு.ஹெ.0.65.5 பரப்பளவு என மொத்தம் பு.ஹெ.1.77.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறை

ஆணை ந.க.820/கனிமம்/2016 நாள்:27.03.2018-ன்படி 27.03.2018 முதல் 26.03.2023 வரையில் ஐந்து ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் வழங்கி உத்தரவிடப்பட்டுள்ளது. மேற்படி குவாரி உரிமம் முடிவற்ற நிலையில் தற்போது புலஎண். 153/2யில் உள்ள பு.ஹெ.0.91.0 பரப்பளவுள்ள பூமியினில் சாதாரண கற்கள் மற்றும் கிராவல் மண் ஷெட்டியெடுக்க குவாரி குத்தகை உரிமம் வழங்குமாறு கோரி மனுதாரர் விண்ணப்பித்துள்ளார்.

ஆவணங்கள்:

மனுதாரர் சமர்ப்பித்துள்ள ஆவணங்களை பரிசீலனை மேற்கொண்டதில் கீழ்க்கண்டவாறு தெரிய வருகிறது.

- மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் அரசுக்கு செலுத்த வேண்டிய நிலவரிகள் ஏதும் நிலுவையில் இல்லை.
- கனிமவரிகள் ஏதும் நிலுவையில் இல்லை.
- மேற்படி மனுதாரர் தமிழ்நாட்டில் வேறெங்கும் குவாரி குத்தகை உரிமம் கோரி விண்ணப்பங்கள் அளிக்கவில்லை என்பது மனுதாரர் சமர்ப்பித்துள்ள உறுதிமொழி பிராமணபத்திரம் மூலம் தெரியவருகிறது.
- மேற்படி குவாரி உரிமத்தினை புதுப்பிக்கும் பொருட்டு ரூ.1,500/-ஐ பாரத மாநில வங்கி, திருப்பூர் கிளையில் சலான் எண். 20230228010277 நாள்: 28.02.2023-ன்படி மனுதாரர் செலுத்தியுள்ளார்.

அமைவிடம்:

குவாரி குத்தகை உரிமம் கோரும் புலஎண்.153/2A கிழக்கில் 121.0மீ தொலைவில் புலஎண்.150ல் தி/வா.அங்காளம்மன் புளூ மெட்டல்ஸ் என்ற நிறுவனத்தின் அலுவலகமும், 115மீ தொலைவில் பாதுகாப்பு அறையும், மேற்கில் 145மீ தொலைவில் சுக்கம்பாளையம் கிராமம், புலஎண்.2ல் திருமதி.சுமதி என்பவருக்கு சொந்தமான (செயல்படும்) கல்குவாரியும் திரு.லோகநாதன் என்பவருக்கு சொந்தமான கைவிடப்பட்ட குவாரியும், வடமேற்கில் 137.8மீ தொலைவில் தி/வா.AVP தார் ப்ளான்ட்டும், தென்மேற்கில் 286.2மீ தொலைவில் கோவை சான்ட் கிரவுடும் அமைந்துள்ளது. குவாரி குத்தகை உரிமம் கோரும் புலத்தினை சுற்றி 300 மீ சுற்றளவில் அங்கீகரிக்கப்பட்ட குடியிருப்புகள் ஏதுமில்லை.

ஆட்சேபனை

மேற்படி மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் குவாரி குத்தகை வழங்குவது தொடர்பாக வேலம்பாளையம் கிராமத்தில் கடந்த 18.05.2023 தேதியன்று "அ1"

விளம்பரம் செய்யப்பட்டதில் கிராம நிர்வாக அலுவலர் அலுவலகத்திலோ, நிலவருவாய் ஆய்வாளர் அலுவலகத்திலோ, பல்லடம் வட்டாட்சியர் அலுவலகத்திலோ எவ்வித ஆட்சேபனையும் எழுத்து பூர்வமாகவே, வாய்மொழியாகவோ பெறப்படவில்லை.

பொது:

- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் நிலத்தின் மீது கனிம மற்றும் மேற்பரப்பு உரிமைகள் ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்கள் அரசுபுறம்போக்கு நிலமோ, அரசினால் நிலமெடுப்பு செய்யப்பட்டுள்ள நிலமோ ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக் கற்கள் நடப்பட்டுள்ளது.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திலிருந்து 500 மீ சுற்றளவில் தொல்லியல் துறைக் கட்டுப்பாட்டிலுள்ள புராதானச் சின்னங்கள், பள்ளிகள், மயானங்கள், நீர்நிலைகள், சாலைகள், இரயில்வே பாதைகள், வனங்கள், வனவிலங்கு மற்றும் சரணாலயங்கள் ஏதுமில்லை.
- மேற்படி குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திற்கு வழித்தடங்கள் உள்ளன.
- மேற்படி புலம் தொடர்பாக நீதிமன்ற வழக்குகள் ஏதும் நிலுவையிலில்லை.
- மேலும் மேற்படி புலமானது பாதுகாக்கப்பட்ட மலைப்பகுதி ஆணையத்தின் கட்டுப்பாட்டில் இல்லை.

எனவே, திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், நீலக்காடு, கதவு எண். 275/A3 என்ற முகவரியில் வசிக்கும் திரு. P. விஸ்வநாதன் த/பெ.பழனிச்சாமி என்வருக்கு புலஎண். 153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க மேலும் 5 வருடங்களுக்கு குவாரி குத்தகை உரிமம் புதுப்பித்து வழங்க பரிந்துரை செய்து உரிய ஆவணங்களை இத்துடன் இணைத்துனுப்பியுள்ளேன் என்பதை பணிபுடன் தெரிவித்துக் கொள்கிறேன்.

பெறுநர்

வருவாய் வட்டாட்சியர்
பல்லடம்.

வருவாய் ஆய்வாளர்,
சாமளாபுரம் உள்வட்டம்.
பல்லடம் வட்டம்.

அனுப்புநர்

பெறுநர்

திரு.பெ.ஜெய்சிங் சிவக்குமார், M.Sc.,
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சார் ஆட்சியர்
திருப்பூர்.

ந.க.5559/2023/அ4

நாள்: 11.09.2023.

அய்யா,

பொருள்: கனிமங்கள் குவாரிகள் - பல்லடம் வட்டம் - 63வேலம்பாளையம் கிராமம் - புலஎண். 153/2A - பு.ஹெ.0.91.0 பரப்பளவு - குவாரி குத்தகை உரிமத்தினை புதுப்பித்து தரக்கோரி திரு.விஸ்வநாதன் என்பவர் மனு அளித்துள்ளது - தொடர்பாக.

பார்வை: 1. திருப்பூர் சார் ஆட்சியர் அலுவலக ந.க.1413/2023/அ3 நாள்:08.04.2023.
2. 63வேலம்பாளையம் கிராம நிர்வாக அலுவலர் அறிக்கை நாள்: 18.07.2023.
3. சாமளாபுரம் உள்வட்ட நிலவருவாய் ஆய்வாளர் அறிக்கை நாள்: 20.07.2023.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63வேலம்பாளையம் கிராமம், நீலாக்காடு, கதவு எண்.275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் 63வேலம்பாளையம் கிராமம், புலஎண்.153/2Aல் பு.ஹெ.0.91.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க 5 வருடங்களுக்கு வழங்கப்பட்ட குவாரி குத்தகை உரிமத்தினை புதுப்பித்து வழங்கக்கோரியதன் பேரில் விசாரணை மற்றும் புலத்தணிக்கை மேற்கொண்டு எனதறிக்கையினை பின்வருமாறு தெரிவித்துக் கொள்கிறேன்.

நிலம்:

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், சாமளாபுரம் உள்வட்டம், 63வேலம்பாளையம், புலஎண்.153/2 காலையில் பு.ஹெ.0.92.0 (பு.ஏ.2.27) பரப்பளவுள்ள பூமியானது பல்லடம் சார்பதிவாளர் அலுவலக கிரையப் பத்திர எண். 609/2011 நாள்:19.01.2011ன்படி திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு பாத்தியப்பட்டுள்ளது. மேற்படி புலஎண்.153/2 காலையில் உள்ள தடம் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி மற்றும் திரு.சுப்பிரமணியம் ஆகிய இருவருக்கும் பாத்தியப்பட்டு கணினி பட்டா எண்.624ல் புலஎண்.153/2 காலையானது புலஎண்.153/2A காலையாக உட்பிரிவு செய்யப்பட்டு அதில்

பழனிச்சாமிசுவண்டர் மகன் விஸ்வநாதன் என்பவரது பெயர் தனியாக தாக்கலாகியுள்ளது. கிராம அடங்கலில் புலஎண்.153/2A ஆனது பாறைக்குழி என பதிவாகியுள்ளது.

உரிமம்:

திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A ல் பு.ஹெ.0.91.0 பரப்பளவு, 153/2Cல் பு.ஹெ.0.20.5 மற்றும் 156/1Bல் பு.ஹெ.0.65.5 பரப்பளவு என மொத்தம் பு.ஹெ.1.77.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறை ஆணை ந.க.820/கனிமம்/2016 நாள்:27.03.2018-ன்படி 27.03.2018 முதல் 26.03.2023 வரை ஐந்து ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் வழங்கி உத்தரவிடப்பட்டுள்ளது. மேற்படி குவாரி உரிமம் முடிவற்ற நிலையில் தற்போது புலஎண். 153/2Aல் உள்ள பு.ஹெ.0.91.0 பரப்பளவுள்ள பூமியினில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க குவாரி குத்தகை உரிமம் வழங்குமாறு கோரி மனுதாரர் விண்ணப்பித்துள்ளார்.

ஆவணங்கள்:

மனுதாரர் சமர்ப்பித்துள்ள ஆவணங்களை பரிசீலனை மேற்கொண்டதில் கீழ்க்கண்டவாறு தெரிய வருகிறது.

- மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் அரசுக்கு செலுத்த வேண்டிய நிலவரிகள் ஏதும் நிலுவையில் இல்லை.
- கனிமவரிகள் ஏதும் நிலுவையில் இல்லை.
- மேற்படி மனுதாரர் தமிழ்நாட்டில் வேறெங்கும் குவாரி குத்தகை உரிமம் கோரி விண்ணப்பங்கள் அளிக்கவில்லை என்பது மனுதாரர் சமர்ப்பித்துள்ள உறுதிமொழி பிராமணபத்திரம் மூலம் தெரியவருகிறது.
- மேற்படி குவாரி உரிமத்தினை புதுப்பிக்கும் பொருட்டு ரூ.1,500/-ஐ பாரத மாநில வங்கி, திருப்பூர் கிளையில் சலான் எண். 20230228010277 நாள்: 28.02.2023-ன்படி மனுதாரர் செலுத்தியுள்ளார்.

அமைவிடம்:

குவாரி குத்தகை உரிமம் கோரும் புலஎண்.153/2A கிழக்கில் 121.0மீ தொலைவில் புலஎண்.150ல் தி/வா.அங்காளம்மன் புளூ மெட்டல்ஸ் என்ற நிறுவனத்தின் அலுவலகமும்,

115மீ தொலைவில் பாதுகாப்பு அறையும், மேற்கில் 145மீ தொலைவில் சுக்கம்பாளையம் கிராமம், புலஎண்.2ல் திருமதி.சுமதி என்பவருக்கு சொந்தமான (செயல்படும்) கல்குவாரியும் திரு.லோகநாதன் என்பவருக்கு சொந்தமான கைவிடப்பட்ட குவாரியும், வடமேற்கில் 137.8மீ தொலைவில் தி/வா.AVP தார் ப்ளான்ட்டும், தென்மேற்கில் 286.2மீ தொலைவில் கோவை சான்ட் கிரவுரம் அமைந்துள்ளது. குவாரி குத்தகை உரிமம் கோரும் புலத்தினை சுற்றி 300 மீ சுற்றளவில் அங்கீகரிக்கப்பட்ட குடியிருப்புகள் ஏதுமில்லை.

ஆட்சேபனை

திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் குவாரி குத்தகை வழங்குவது தொடர்பாக வேலம்பாளையம் கிராமத்தில் கடந்த 18.05.2023 தேதியன்று "அ1" விளம்பரம் செய்யப்பட்டதில் கிராம நிர்வாக அலுவலர் அலுவலகத்திலோ, நிலவருவாய் ஆய்வாளர் அலுவலகத்திலோ, பல்லடம் வட்டாட்சியர் அலுவலகத்திலோ எவ்வித ஆட்சேபனையும் எழுத்து பூர்வமாகவோ, வாய்மொழியாகவோ பெறப்படவில்லை.

பொது:

- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் நிலத்தின் மீது கனிம மற்றும் மேற்பரப்பு உரிமைகள் ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்கள் அரசுபுறம்போக்கு நிலமோ, அரசினால் நிலமெடுப்பு செய்யப்பட்டுள்ள நிலமோ ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக் கற்கள் நடப்பட்டுள்ளது.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திலிருந்து 500 மீ சுற்றளவில் தொல்லியல் துறைக் கட்டுப்பாட்டிலுள்ள புராதானச் சின்னங்கள், பள்ளிகள், மயானங்கள், நீர்நிலைகள், சாலைகள், இரயில்வே பாதைகள், வனங்கள், வனவிலங்கு மற்றும் சரணாலயங்கள் ஏதுமில்லை.
- மேற்படி குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திற்கு வழித்தடங்கள் உள்ளன.
- மேற்படி புலம் தொடர்பாக நீதிமன்ற வழக்குகள் ஏதும் நிலுவையிலில்லை.
- மேலும் மேற்படி புலமானது பாதுகாக்கப்பட்ட மலைப்பகுதி ஆணையத்தின் கட்டுப்பாட்டில் இல்லை.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், நீலக்காடு, கதவு எண். 275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க மேலும் 5 வருடங்களுக்கு குவாரி குத்தகை உரிமம் புதுப்பித்து வழங்க பரிந்துரை செய்து உரிய ஆவணங்களை இத்துடன் இணைத்தனுப்பியுள்ளேன் என்பதை பணிவுடன் தெரிவித்துக் கொள்கிறேன்.

இணைப்பு:மேற்கண்டவாறு

தங்கள் உண்மையுள்ள

சு. சசிபென்
வட்டாட்சியர்
பல்லடம் 11/04/23

3
11/04/23

புலத்தணிக்கை

வட்டம்	பல்லடம்
கிராமம்	63வேலம்பாளையம் கிராமம்
புலஎண்கள்	153/2A
தணிக்கைநாள்	08.09.2023
நோக்கம்	மேற்படி காலையில் கிராவல் மட்டும் வெட்டியெடுக்க குத்தகை உரிமம் புதுப்பித்து வழங்குவது தொடர்பாக.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63வேலம்பாளையம் கிராமம், நீலாக்காடு, கதவு எண்.275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் 63வேலம்பாளையம் கிராமம், புலஎண்.153/2Aல் பு.ஹெ.0.91.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க 5 வருடங்களுக்கு வழங்கப்பட்ட குவாரி குத்தகை உரிமத்தினை புதுப்பித்து வழங்கக் கோரியது தொடர்பாக இன்று (08.09.2023) புலத்தணிக்கை மேற்கொள்ளப்பட்டது. மேற்படி புலத்தணிக்கையில் சாமளாபுரம் உள்வட்ட நிலவருவாய் ஆய்வாளர், 63வேலம்பாளையம் கிராம நிர்வாக அலுவலர் மற்றும் கிராம உதவியாளர் ஆகியோர் உடனிருந்தனர்.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், சாமளாபுரம் உள்வட்டம், 63வேலம்பாளையம், புலஎண்.153/2 காலையில் பு.ஹெ.0.92.0 (பு.ஏ.2.27) பரப்பளவுள்ள பூமியானது பல்லடம் சார்பதிவாளர் அலுவலக கிரையப் பத்திர எண். 609/2011 நாள்:19.01.2011ன்படி திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு பாத்தியப்பட்டுள்ளது. மேலும் மேற்படி புலஎண்.153/2 காலையில் உள்ள தடம் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி மற்றும் திரு.சுப்பிரமணியம் ஆகிய இருவருக்கும் பாத்தியப்பட்டுள்ளது. மேற்படி கிராமம் கணினி பட்டா எண்.624ல் புலஎண். 153/2 காலையானது புலஎண்.153/2A காலையாக உட்பிரிவு செய்யப்பட்டு அதில் பழனிச்சாமிகவுண்டர் மகன் விஸ்வநாதன் என்பவரது பெயர் தனியாக தாக்கலாகியுள்ளது. கிராம அடங்கலில் புலஎண்.153/2A ஆனது பாறைக்குழி என பதிவாகியுள்ளது.

மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A ல் பு.ஹெ.0.91.0 பரப்பளவு, 153/2Cல் பு.ஹெ.0.20.5 மற்றும் 156/18ல் பு.ஹெ.0.65.5 பரப்பளவு என மொத்தம் பு.ஹெ.1.77.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறை ஆணை

ந.க.820/கனிமம்/2016 நாள்:27.03.2018-ன்படி 27.03.2018 முதல் 26.03.2023 வரை ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் வழங்கி உத்தரவிடப்பட்டுள்ளது.

குவாரி குத்தகை உரிமம் கோரும் புலஎண்.153/2A கிழக்கில் 121.0மீ தொலைவில் புலஎண்.150ல் தி/வா.அங்காளம்மன் புளூ மெட்டல்ஸ் என்ற நிறுவனத்தின் அலுவலகமும், 115மீ தொலைவில் பாதுகாப்பு அறையும், மேற்கில் 145மீ தொலைவில் சுக்கம்பாளையம் கிராமம், புலஎண்.2ல் திருமதி.சுமதி என்பவருக்கு சொந்தமான (செயல்படும்) கல்குவாரியும் திரு.லோகநாதன் என்பவருக்கு சொந்தமான கைவிடப்பட்ட குவாரியும், வடமேற்கில் 137.8மீ தொலைவில் தி/வா.AVP தார் ப்ளான்ட்டும், தென்மேற்கில் 286.2மீ தொலைவில் கோவை சான்ட் கிரவுரும் அமைந்துள்ளது. குவாரி குத்தகை உரிமம் கோரும் புலத்தினை சுற்றி 300 மீ சுற்றளவில் அங்கீகரிக்கப்பட்ட குடியிருப்புகள் ஏதுமில்லை.

இந்நேர்வில், மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் குவாரி குத்தகை வழங்குவது தொடர்பாக வேலம்பாளையம் கிராமத்தில் கடந்த 18.05.2023 தேதியன்று "அ1" விளம்பரம் செய்யப்பட்டதில் கிராம நிர்வாக அலுவலர் அலுவலகத்திலோ, நிலவருவாய் ஆய்வாளர் அலுவலகத்திலோ, பல்லடம் வட்டாட்சியர் அலுவலகத்திலோ எவ்வித ஆட்சேபனையும் எழுத்து பூர்வமாகவே, வாய்மொழியாகவோ பெறப்படவில்லை. குவாரி குத்தகை உரிமம் வழங்கக் கோரும் நிலத்தின் மீது கனிம மற்றும் மேற்பரப்பு உரிமைகள் ஏதுமில்லை. குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்கள் அரசுபுறம்போக்கு நிலமோ, அரசினால் நிலமெடுப்பு செய்யப்பட்டுள்ள நிலமோ ஏதுமில்லை. குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக் கற்கள் நடப்பட்டுள்ளது. குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திலிருந்து 500 மீ சுற்றளவில் தொல்லியல் துறைக் கட்டுப்பாட்டிலுள்ள புராதானச் சின்னங்கள், பள்ளிகள், மயானங்கள், நீர்நிலைகள், சாலைகள், இரயில்வே பாதைகள், வனங்கள், வனவிலங்கு மற்றும் சரணாலயங்கள் ஏதுமில்லை. மேற்படி குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திற்கு வழித்தடங்கள் உள்ளன. மேலும் மேற்படி புலமானது பாதுகாக்கப்பட்ட மலைப்பகுதி ஆணையத்தின் கட்டுப்பாட்டில் இல்லை.

எனவே, திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், நீலக்காடு, கதவு எண். 275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க மேலும் 5 வருடங்களுக்கு குவாரி குத்தகை உரிமம் புதுப்பித்து வழங்க முன்மொழிவுகள் தயார் செய்யவும்.

வட்டாட்சியர்
பல்லடம்
08

அனுப்புநர்
திரு.ச.ராம்குமார்,
சார் ஆட்சியர்(பொ) மற்றும்
உதவி ஆணையர்(கலால்),
திருப்பூர்.

பெறுநர்
மாவட்ட ஆட்சியர்,
திருப்பூர்.

ந.க.எண்:1413/2023/அ3, நாள்: 08.12.2023.

அய்யா,

பொருள்: கனிமங்கள் குவாரிகள் - திருப்பூர் மாவட்டம்- பல்லடம் வட்டம் - 63-வேலம்பாளையம் கிராமம் - புலஎண். 153/2A - பு.ஹெ.0.91.0 பரப்பளவு - குவாரி குத்தகை உரிமத்தினை புதுப்பித்து தரக்கோரி திரு.விஸ்வநாதன் என்பவர் மனு அளித்துள்ளது - தொடர்பாக.

பார்வை: பல்லடம் வட்டாட்சியரின் ந.க.எண்: 5287/2023/அ4, நாள்: 11.09.2023.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63-வேலம்பாளையம் கிராமம், நீலாக்காடு, கதவு எண்.275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் 63-வேலம்பாளையம் கிராமம், புலஎண்.153/2Aல் பு.ஹெ.0.91.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க 5 வருடங்களுக்கு வழங்கப்பட்ட குவாரி குத்தகை உரிமத்தினை புதுப்பித்து வழங்கக்கோரியதன் பேரில் பார்வையில் கண்டுள்ள பல்லடம் வட்டாட்சியரின் அறிக்கையின் பேரில் புலத்தணிக்கை மேற்கொள்ளப்பட்டது.

நிலம்:-

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், சாமளாபுரம் உள்வட்டம், 63வேலம்பாளையம், புலஎண்.153/2 காலையில் பு.ஹெ.0.92.0 (பு.ஏ.2.27) பரப்பளவுள்ள பூமியானது பல்லடம் சார்பதிவாளர் அலுவலக கிரையப் பத்திர எண். 609/2011 நாள்:19.01.2011ன்படி திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு பாத்தியப்பட்டுள்ளது. மேற்படி புலஎண்.153/2 காலையில் உள்ள தடம் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி மற்றும் திரு.சுப்பிரமணியம் ஆகிய இருவருக்கும் பாத்தியப்பட்டு கணினி பட்டா எண்.624ல் புலஎண்.153/2 காலையானது புலஎண்.153/2A காலையாக உட்பிரிவு செய்யப்பட்டு அதில் பழனிச்சாமிகவுண்டர் மகன் விஸ்வநாதன் என்பவரது பெயர் தனியாக தாக்கலாகியுள்ளது. கிராம அடங்கலில் புலஎண்.153/2A ஆனது பாறைக்குழி என பதிவாகியுள்ளது.

உரிமம்:-

திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A ல் பு.ஹெ.0.91.0 பரப்பளவு, 153/2Cல் பு.ஹெ.0.20.5 மற்றும் 156/18ல் பு.ஹெ.0.65.5 பரப்பளவு என மொத்தம் பு.ஹெ.1.77.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள்

மற்றும் கிராவல் மண் வெட்டியெடுக்க திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறை ஆணை ந.க.820/கனிமம்/2016 நாள்:27.03.2018-ன்படி 27.03.2018 முதல் 26.03.2023 வரை ஐந்து ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் வழங்கி உத்தரவிடப்பட்டுள்ளது. மேற்படி குவாரி உரிமம் முடிவற்ற நிலையில் தற்போது புலஎண். 153/2Aல் உள்ள பு.ஹெ.0.91.0 பரப்பளவுள்ள பூமியினில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க குவாரி குத்தகை உரிமம் வழங்குமாறு கோரி மனுதாரர் விண்ணப்பித்துள்ளார்.

ஆவணங்கள்:-

மனுதாரர் சமர்ப்பித்துள்ள ஆவணங்களை பரிசீலனை மேற்கொண்டதில் கீழ்க்கண்டவாறு தெரிய வருகிறது.

- மனுதாரர் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் அரசுக்கு செலுத்த வேண்டிய நிலவரிகள் ஏதும் நிலுவையில் இல்லை.
- கனிமவரிகள் ஏதும் நிலுவையில் இல்லை.
- மேற்படி மனுதாரர் தமிழ்நாட்டில் வேறெங்கும் குவாரி குத்தகை உரிமம் கோரி விண்ணப்பங்கள் அளிக்கவில்லை என்பது மனுதாரர் சமர்ப்பித்துள்ள உறுதிமொழி பிராமணபத்திரம் மூலம் தெரியவருகிறது.
- மேற்படி குவாரி உரிமத்தினை புதுப்பிக்கும் பொருட்டு ரூ.1,500/-ஐ பாரத மாநில வங்கி, திருப்பூர் கிளையில் சலான் எண். 20230228010277 நாள்: 28.02.2023-ன்படி மனுதாரர் செலுத்தியுள்ளார்.

அமைவிடம்:-

குவாரி குத்தகை உரிமம் கோரும் புலஎண்.153/2A கிழக்கில் 121.0மீ தொலைவில் புலஎண்.150ல் தி/வா.அங்காளம்மன் புளூ மெட்டல்ஸ் என்ற நிறுவனத்தின் அலுவலகமும், 115மீ தொலைவில் பாதுகாப்பு அறையும், மேற்கில் 145மீ தொலைவில் சுக்கம்பாளையம் கிராமம், புலஎண்.2ல் திருமதி.சுமதி என்பவருக்கு சொந்தமான (செயல்படும்) கல்குவாரியும் திரு.லோகநாதன் என்பவருக்கு சொந்தமான கைவிடப்பட்ட குவாரியும், வடமேற்கில் 137.8மீ தொலைவில் தி/வா.AVP தார் ப்ளான்ட்டும், தென்மேற்கில் 286.2மீ தொலைவில் கோவை சான்ட் கிரஷரும் அமைந்துள்ளது. குவாரி குத்தகை உரிமம் கோரும் புலத்தினை சுற்றி 300 மீ சுற்றளவில் அங்கீகரிக்கப்பட்ட குடியிருப்புகள் ஏதுமில்லை.

ஆட்சேபனை:-

திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு வேலம்பாளையம் கிராமம், புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் குவாரி குத்தகை வழங்குவது தொடர்பாக வேலம்பாளையம் கிராமத்தில் கடந்த 18.05.2023 தேதியன்று "அ1" விளம்பரம் செய்யப்பட்டதில் கிராம நிர்வாக அலுவலர் அலுவலகத்திலோ, நிலவருவாய் ஆய்வாளர் அலுவலகத்திலோ, பல்லடம் வட்டாட்சியர் அலுவலகத்திலோ எவ்வித ஆட்சேபனையும் எழுத்து பூர்வமாகவே, வாய்மொழியாகவோ பெறப்படவில்லை.

பொது:

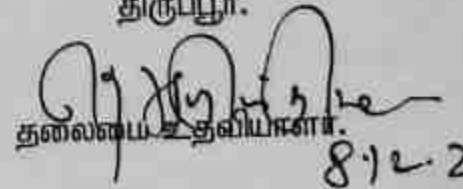
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் நிலத்தின் மீது கனிம மற்றும் மேற்பரப்பு உரிமைகள் ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்கள் அரசுபுறம்போக்கு நிலமோ, அரசினால் நிலமெடுப்பு செய்யப்பட்டுள்ள நிலமோ ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக் கற்கள் நடப்பட்டுள்ளது.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திலிருந்து 500 மீ சுற்றளவில் தொல்லியல் துறைக் கட்டுப்பாட்டிலுள்ள புராதானச் சின்னங்கள், பள்ளிகள், மயானங்கள், நீர்நிலைகள், சாலைகள், இரயில்வே பாதைகள், வனங்கள், வனவிலங்கு மற்றும் சரணாலயங்கள் ஏதுமில்லை.
- மேற்படி குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திற்கு வழித்தடங்கள் உள்ளன.
- மேற்படி புலம் தொடர்பாக நீதிமன்ற வழக்குகள் ஏதும் நிலுவையிலில்லை.
- மேலும் மேற்படி புலமானது பாதுகாக்கப்பட்ட மலைப்பகுதி ஆணையத்தின் கட்டுப்பாட்டில் இல்லை.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், நீலக்காடு, கதவு எண். 275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு புலஎண்.153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க மேலும் 5 வருடங்களுக்கு குவாரி குத்தகை உரிமம் புதுப்பித்து வழங்கலாம் என்பதை பணிவுடன் தெரிவித்துக் கொள்கிறேன்.

இணைப்பு: தொடர்புடைய ஆவணங்கள்

//உண்மை நகல்/உத்தரவுப்படி//

ஓம்/-ச.ராம்குமார்.,
சார் ஆட்சியர்(பொ),
திருப்பூர்.


தலைமை உதவியாளர்.
8/12/23

8/12/23

புலத்தணிக்கை குறிப்பு

தணிக்கை அலுவலர்	சார் ஆட்சியர்(பொ),திருப்பூர்.
வட்டம்/கிராமம்	பல்லடம்/ வேலம்பாளையம்
புல எண்:	153/2A
தணிக்கை நாள்:	06 .12.2023
நோக்கம்	குவாரி குத்தகை உரிமம் வழங்க கோரியது.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், 63-வேலம்பாளையம் கிராமம், நீலாக்காடு, கதவு எண்.275/A3 என்ற முகவரியில் வசிக்கும் திரு.P.விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவர் 63-வேலம்பாளையம் கிராமம், புலஎண்.153/2Aல் பு.ஹெ.0.91.0 பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க 5 வருடங்களுக்கு வழங்கப்பட்ட குவாரி குத்தகை உரிமத்தினை புதுப்பித்து வழங்கக்கோரியதன் பேரில் பார்வையில் கண்டுள்ள பல்லடம் வட்டாட்சியரின் அறிக்கையின் பேரில் புலத்தணிக்கை மேற்கொள்ளப்பட்டது. புலத்தணிக்கையின் போது பல்லடம் வட்டாட்சியர், சாமளாபுரம் நில வருவாய் ஆய்வாளர், உள்வட்ட அளவர் மற்றும் **வேலம்பாளையம்** கிராம நிர்வாக அலுவலர் ஆகியோர் உடனிருந்தனர்.

- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் நிலத்தின் மீது கனிம மற்றும் மேற்பரப்பு உரிமைகள் ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்கள் அரசுபுறம்போக்கு நிலமோ, அரசினால் நிலமெடுப்பு செய்யப்பட்டுள்ள நிலமோ ஏதுமில்லை.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலங்களின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக் கற்கள் நடப்பட்டுள்ளது.
- குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திலிருந்து 500 மீ சுற்றளவில் தொல்லியல் துறைக் கட்டுப்பாட்டிலுள்ள புராதானச் சின்னங்கள், பள்ளிகள், மயானங்கள், நீர்நிலைகள், சாலைகள், இரயில்வே பாதைகள், வனங்கள், வனவிலங்கு மற்றும் சரணாலயங்கள் ஏதுமில்லை.
- மேற்படி குவாரி குத்தகை உரிமம் வழங்கக் கோரும் புலத்திற்கு வழித்தடங்கள் உள்ளன.
- மேற்படி புலம் தொடர்பாக நீதிமன்ற வழக்குகள் ஏதும் நிலுவையிலில்லை.
- மேலும் மேற்படி புலமானது பாதுகாக்கப்பட்ட மலைப்பகுதி ஆணையத்தின் கட்டுப்பாட்டில் இல்லை.

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், நீலக்காடு, கதவு
எண். 275/A3 என்ற முகவரியில் வசிக்கும் திரு. P. விஸ்வநாதன் த/பெ.பழனிச்சாமி என்பவருக்கு
புலஎண். 153/2A காலையில் பு.ஹெ.0.91.0 பரப்பளவில் சாதாரண கற்கள் மற்றும் கிராவல் மண்
வெட்டியெடுக்க மேலும் 5 வருடங்களுக்கு குவாரி குத்தகை உரிமம் புதுப்பித்து வழங்குவது
தொடர்பாக திருப்பூர் மாவட்ட ஆட்சியர் அவர்களுக்கு முன்மொழிவு தயார் செய்து வைக்கவும்.

திரு. ரமேஷ்
சார் ஆட்சியர்(பொ),
திருப்பூர்.

ANNEXURE 1B

1

DR. K.S. PALANISAMY, I.A.S.,
CHAIRMAN

DISTRICT LEVEL ENVIRONMENTAL IMPACT
ASSESSMENT AUTHORITY
Collectorate,
Master Plan Complex,
Palladam Road,
Tiruppur- 641 604.



ENVIRONMENTAL CLEARANCE

Lr. No. DEIAA – TPR / F. No. 601 / 3 (I) / 2017 dated: 08.03.2018.

To

Thiru. P.Viswanathan,
S/o.Palanisamy,
275/A3, Neelakkadu,
Velampalayam Village,
Palladam Taluk,
Tiruppur District -641 667.

Sir,

Sub: DEIAA- Tiruppur – Proposed Rough Stone and Gravelquarry located at S.F. No. 153/2A, 153/2C and 156/1B over an extent of 1.77.0 Hectares. -Velampalayam Village, -Palladam Taluk – Tiruppur District – grant of Environmental Clearance – Reg.

- Ref: 1. Your application For Environmental Clearance dated 29.03.2017.
2. Minutes of the 2nd meeting of DEAC, Tiruppur, held on 21.12.2017.
3. Minutes of the 2nd meeting of DEIAA, Tiruppur, held on 22.2.2018.

Details of Minor Mineral Activity:-

This has reference to your application first cited. The proposal is for obtaining Environmental Clearance for quarrying of Rough Stone and Gravel (Minor minerals) under "B2" Category, based on the particulars furnished in your application as shown below.

1.	Name of Project Proponent and Address	Thiru. P.Viswanathan, S/o.Palanisamy, 275/A3, Neelakkadu, Velampalayam Village, Palladam Taluk, Tiruppur District -641 667.
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[Signature]
CHAIRMAN,
DEIAA, TIRUPPUR.



2.	Location of the Proposed Activity	
	Survey Number	S.F.Nos.153/2A, 153/2C and 156/1B
	Latitude and Longitude	11°02' 22.28" N to 11°02' 26.26" N 77°15' 27.33" E to 77°15' 34.54" E
	Village	Velampalayam
	Taluk	Palladam
	District	Tiruppur
3.	Proposed Activity	
	i. Minor Mineral	Rough stone and Gravel
	ii. Quarry Lease Area	1.77.0 Hectares
	iii. Approved Quantity	63,441M ³ of Rough Stone and 9,738 M ³ of Gravel
	iv. Depth of Mining	The quarry operation proposed upto a depth of 32 Meters below ground level.
	v. Type of quarrying	Opencast Semi Mechanized Quarrying
	vi. category	B2
	vii. Precise area Communication	District Collector, Tiruppur, letter in Na.Ka. 820 / Mines / 2016, dated 09.03.2017.
	viii. Mining Plan Approved	Deputy Director, Geology and Mining, Tiruppur, letter in R.C. No.820 / Mines / 2016, dated 24.03.2017.
	ix. Mining Lease period	5 Years
4.	Whether project area attracts any General condition Specified in the EIA notification, 2006 as amended:-	Not attracted.
5	Man Power requirement per day:	11 Employees
6	Utilities	
	i. Source of Water	Water Vendors
	ii. Quantity of Water Requirement in KLD	
	a. Drinking and Domestic	0.3 KLD
	b. Dust Suppression	0.3 KLD
	c. Green Belt	0.4 KLD
		1.0 KLD
	iii. Power Requirement:	
	a. Domestic Purpose	
	b. Industrial Purpose	Not required.
7.	Cost	
	i. Project Cost	Rs.55,49,000/- (Inclusive of EMP Cost)
	ii. EMP Cost	Rs.3,80,000/-
8	Public Consultation:-	Not required.
9.	Date of Appraisal by DEAC:- Agenda No.	21.12.2017 Item No.1

21/12/18
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10.	Date of Review / Discussion by DEIAA and the Remarks:- The proposal was placed before the DEIAA, Tiruppur in its 2 nd Meeting held on 22.2.2018 as Agenda Item No.16 and the Authority after careful examination has approved the proposal for the grant of Environmental Clearance to the said project for quarrying of Roughstone and Gravel subject to the terms and conditions stipulated under the provisions of Environment Impact Assessment Notification, 2006 as amended.
11.	Validity:- 1) This Environmental Clearance is granted for quarrying of 63,441 Cubic Meters of Rough Stone and 9,738 Cubic Meters of Gravel for a period of five years from the date of execution of the quarry lease agreement. 2) The Environment Clearance is co-terminus with the quarry lease period.

Conditions to be Complied before commencing quarrying operation:-

1. The Project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
 - i. The project has been accorded Environmental Clearance.
 - ii. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
 - iii. Environmental Clearance may also be seen on the website of the DEIAA, Tiruppur.
 - iv. The advertisement should be made within 7 days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the DEIAA, Tiruppur.
2. No Objection Certificate from the Standing Committee of the National Board of Wild Life shall be obtained, if protected areas are located within 10 Kilo meters from the proposed project site.
3. The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Mineral Concession Rules, 1959.
4. A copy of the Environmental Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayat / Panchayat Union, Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.
5. Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.
6. The proponent shall ensure that First Aid Box is available at site.
7. The excavation activity shall not alter the natural drainage pattern of the area.
8. The excavated pit shall be restored by the project proponent for useful purposes.
9. The proponent shall quarry and remove only in the permitted areas as per the Approved Mining Plan.
10. The quarrying operation shall be restricted between 7 AM and 6 PM.
11. The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation on the nearby human habitations, by way of pollution to the environment.

[Signature]
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12. A minimum distance of 50 meters from any Public/Civil structure shall be kept from the periphery of the quarry permitted area.
13. Depth of quarrying shall be 2 meters above the ground water table or upto the approved depth of mining whichever is lesser to be considered as a safe guard against Environmental Contamination and over exploitation of resources.
14. The mined out pits should be backfilled where warranted and the area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.
15. Wet drilling method is to be adopted to control dust emission. Delay detonator and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.
16. Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
17. The explosives shall not be stored at quarry site unless proper license should be obtained from the Petroleum Explosives and Safety Organization under Explosives Act.
18. Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.
19. A study has to be conducted to assess the optimum blast parameters and blast design to keep the vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and the records kept for inspection.
20. The proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF, Gol on 16.11.2009.
21. The following measures are to be implemented to reduce Air Pollution during transportation of mineral.
 - a. Roads shall be graded to mitigate the dust emission.
 - b. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust.
22. The following measures are to be implemented to reduce Noise Pollution
 - a. Proper and regular maintenance of vehicle and other equipment.
 - b. Limiting time exposure of workers to excessive noise.
 - c. The workers employed shall be provided with protection equipment and earmuffs etc.
 - d. Speed of trucks entering or leaving the mine is to be limited to moderate speed of 25 kmph to prevent undue noise from empty trucks.
23. Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dated: 11.1.2010 issued by the MoE&F, Gol to control noise to the prescribed level.
24. Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, CGWB. Suitable measures should be taken for rainwater harvesting.

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25. Permission from the competent authority should be obtained for drawl of ground water if any, required for this project.
26. The following measures are to be adopted to control erosion of dumps:-
 - a. Retention / toe walls shall be provided at the foot of the dumps.
 - b. Worked out slopes are to be stabilized by planting appropriate shrub / grass species on the slopes.
27. Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous Wastes (Management, Handling, and trans-boundary movement Rules, 2008 and its amendments thereof to the recyclers authorized by TNPCB.
28. Concealing the factual date or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
29. Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
30. Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be discharged into a silt trap on the surface within the lease area and only the over flow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.
31. The proponent shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. It at any stage, if it is observed that the ground water table is getting depleted due to the mining activity, necessary corrective measures shall be carried out. The PWD, Ground Water Division shall ensure this.
32. No tree-felling shall be done in the leased area, except only with the permission from competent authority.
33. To Take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air and flora / fauna environment, slurry water generated / disposed and method of disposal, involving a reputed academic institution.
34. It shall be ensured that the total extent of nearby quarries (existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 25 hectares within the quarry lease period of this application.
35. It shall be ensured that there is no habitation is located within 500 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 500 m radius from the periphery of the quarry site.

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36. Ground water quality monitoring should be conducted once in 6 months by the proponent and the records kept for inspection. The District Environment Engineer, TNPCB, shall ensure this.
37. Transportation of the quarries material shall not cause any hindrance to the village people / existing village road.
38. Free silica test should be conducted and reported to Tamil Nadu Pollution Control Board, Tiruppur, and Regional Director, MoEF, GOI.
39. Air sampling at intersection point should be conducted and reported to Tamil Nadu Pollution Control Board, Tiruppur and Regional Director, MoEF, GOI.
40. Bunds to be provided at the boundary of the project site.
41. The project proponent shall undertake plantation/ afforestation work by planting the native species on all side of the lease area at the rate of 400 / Hec. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.
42. At least 75Neem Trees and 50 Pungan Trees should be planted around the boundary of the quarry site.
43. Floor of excavated pits should be leveled as per the Approved Mining Plan (Conceptual Mining Plan).
44. The project proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR activity.
45. The project proponent shall comply with the Tamil Nadu Minor Mineral Concession Rules, 1959 and other relevant Mining Rules and Regulations where ever applicable.
46. Rainwater shall be pumped out via settling tank only.
47. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.
48. As per MoEF& CC, GoI, Office Memorandum dated 30.03.2015, prior clearance from Forestry & Wild life angle including clearance from obtaining committee of the National Board for Wild Life as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10 KM from National Park and Sanctuaries.
49. The quarrying activity shall be stopped if the entire quantity indicated in the Approved Mining Plan is quarried even before the expiry of the quarry lease period and the same shall be monitored by the Deputy Director/Assistant Director, Geology and Mining.
50. Safety equipments should be provided to all the employees.
51. Safety distance of 50 meters has to be provided in case of railway, reservoir, canal / odai.

[Signature]
 CHAIRMAN,
 DEIAA, TIRUPPUR.



52. The proponent shall collect the Baseline data covering the Air, Water, Noise and land environment quality for the quarry site for every 6 months. The District Environment Engineer, TNPCB, shall ensure this.
53. The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically.
54. The proponent shall furnish the data obtained from the Public Works Department regarding the details of Ground water table in the quarry site.
55. The proponent has to provide insurance protection to the workers.
56. The Proponent has to display the name board at the quarry site showing the details of proponent, lease period, extent, etc., with respect of the existing activity before the commencement of mining.
57. If any Heavy earth machinery and equipments, utilized, necessary approval shall be obtained from the competent authority as per Metaliferous Mining Regulations 1961.

General Conditions:-

1. Environmental Clearance is given only on the factual records, documents and details furnished by the Proponent.
2. The Proponent shall obtain the Consent for establishment and Consent to operate from the Tamil Nadu Pollution Control Board, Tiruppur before commencing the quarry activity.
3. No change in mining technology and scope of working should be made without prior approval of the DEIAA, Tiruppur.
4. Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particular matter such as loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
5. Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.
6. A 7.5 Meter berm shall be left from the boundary of adjoining field.
7. Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
8. Vehicular emission shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.

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9. Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
10. All personnel shall be provided with protective respiratory devices including safety shoes, masks, gloves, etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any constructions due to exposure to dust and take corrective measures, if needed.
11. Periodical medical examination of workers engaged in the project shall be carried out and records to be maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc. and a record should be maintained.
12. Workers / labours shall be provided with facilities for drinking water and sanitation facility for female and male separately.
13. The project proponent shall ensure that child labour is not employed / engaged in the quarrying activity.
14. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Officer located at Chennai.
15. The Environmental Clearance does not absolve the applicant / proponent of his obligation / requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
16. This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance.
17. The DEIAA, Tiruppur may alter / modify the above conditions or stipulate any further condition in the interest of environment protection.
18. The DEIAA, Tiruppur may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, if, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this DEIAA, Tiruppur that the project proponent has deliberately concealed and / or submitted false or misleading information or inadequate data for obtaining the environmental clearance.
19. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
20. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act,

[Signature]
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1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India / Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter.

21. Any other conditions stipulated by other statutory / Government authorities shall be complied.
22. Any appeal against this environmental clearance shall lie with the Tamil Nadu State Environment Impact Assessment Authority, Chennai, if preferred, within a period of 30 days.

[Signature]
CHAIRMAN,
DEIAA, TIRUPPUR.

Copy to

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi
2. The Principal Secretary, Environment and Forest Department, Government of Tamil Nadu, Secretariat, Fort. St. George, Chennai- 600 009.
3. The Additional Chief Secretary to Government, Industries Department, Government of Tamil Nadu, Secretariat, Fort. St. George, Chennai- 600 009.
4. The Chairman, State Level Environment Impact Assessment Authority, Panagal Maaligai, Saidapet, Chennai - 600 015.
5. The Additional Principal Chief Conservator of Forests, Regional Office (SZ), 34, HEPC Building 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai-34.
6. The Chairman, Central Pollution Control Board, Pariyesh Bhawan, CBD-Cum-Office Complex East Arjun Nagar, New Delhi 110 032.
7. The Director of Geology and Mining, Guindy, Chennai-32.
8. The District Environment Engineer, Tamil Nadu Pollution Control Board, Tiruppur (South).
9. The Assistant Director, Public Works Department, Ground Water Division, Coimbatore.
10. The District Forest Officer, Tiruppur.
11. Spare.



भारतसरकार
GOVERNMENT OF INDIA

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE



Regional Office/ क्षेत्रीय कार्यालय,
1st Floor, Additional Office Block for GPOA, Shastri Bhawan,
Haddows Road, Nungambakkam, Chennai – 600006

EP/12.1/2024-25/SEIAA/172/TN

/729

09.05.2025

To

The Member Secretary,

State Level Environment Impact Assessment Authority (SEIAA),
3rd Floor, Panagal Maaligai, No.1, Jeenai Road, Saidapet,
Chennai – 600 015.

Email- cmantnseiaa@yahoo.com

Subject: DEIAA – TPR- TN - Proposed – Rough stone and Gravel Quarry over an extent of 1.77.0 Ha at S.F.Nos. 153/2A, 153/2C and 156/1B, Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu – by Thiru. P. Viswanathan - Environmental Clearance – Reg.

EC Ref. No: Lr. No. DEIAA-TPR/F.No.601/3(I)/2017 dated 08.03.2018.

(ii) CCR request letter dated: 21.03.2025

(iii) ATR seeking letter dated: 08.05.2025

(iv) ATR reply E-mail dated: 09.05.2025

Sir,

With reference to the subject cited above, please find enclosed herewith a Certified Compliance Report along with action taken report submitted by Thiru. P. Viswanathan on non-compliances observed in the Report issued by Regional Office, MoEF&CC, Chennai vide ref. no. 3 above.

This issues with the approval of the Competent Authority.

Encl: As above.

Yours faithfully,

C. Palpandi
9/5/2025

(Dr. C. Palpandi)

Scientist 'D'

पेशानिक डी

Dr.C.Palpandi

Scientist 'D'

Government of India
Min. of Environment Forest and Climate Change,
Regional Office,
1st Floor, Addl. Office Block for GPOA,
Shastri Bhawan, Haddows Road,
Nungambakkam, Chennai - 600 006.

Copy to:

1. **Dr. Shruti Rai Bhardwaj, Scientist 'F'** Monitoring Cell, IA Division, Indira Paryavaran Bhawan, MoEF&CC, Jorbagh Road, Aliganj, New Delhi – 110 003.
Email- shruti.raai@nic.in
2. **The Member Secretary,** Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 600 032. Email - memsec@tnpcb.gov.in
3. **Thiru. P. Viswanathan,** S/o. Palanisamy, 275/A3, Neelakkadu, Velampalayam Village, Palladam Taluk, Tiruppur District – 641 667.
4. **The District Collector,** The District Collector, Collectorate, Tiruppur – 641 604:
E-mail: collrtup@nic.in

C. Palpandi 9/15/2025
(Dr. C. Palpandi)
Scientist 'D'

INSPECTION REPORT

Subject: DEIAA – TPR- TN - Proposed – Rough stone and Gravel Quarry over an extent of 1.77.0 Ha at S.F.Nos. 153/2A, 153/2C and 156/1B, Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu – by Thiru. P.Viswanathan - Environmental Clearance – Reg.

EC Ref. No: Lr. No. DEIAA-TPR/F.No.601/3(I)/2017 dated 08.03.2018.

Project Proponent:

Thiru. P.Viswanathan

S/o. Palanisamy

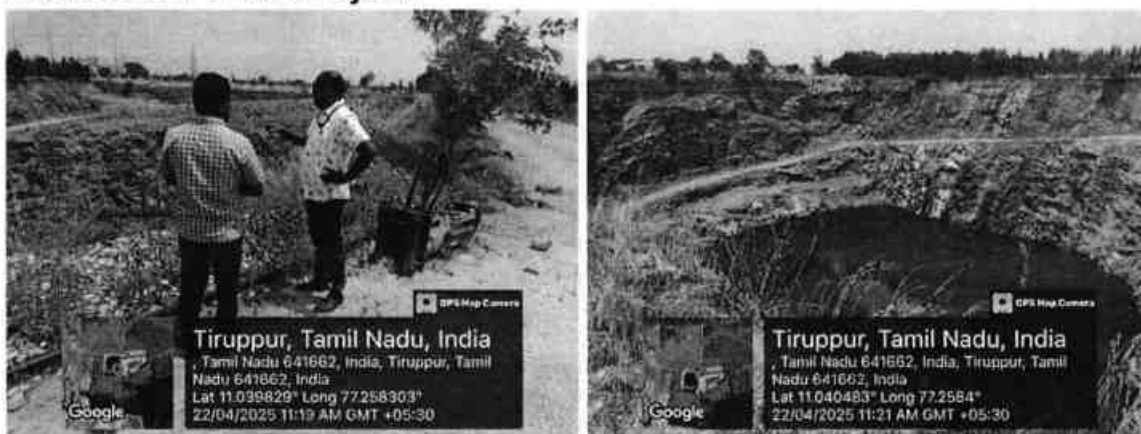
275/A3, Neelakkadu,

Velampalayam Village,

Palladam Taluk,

Tiruppur District – 641 667.

Present Status of the Project:



The District Level Environment Impact Assessment Authority (DEIAA), Tiruppur District – Tamil Nadu accorded Environmental Clearance (EC) on 08.03.2018 to the Rough Stone and Gravel Quarry of Thiru P. Viswanathan, Velampalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu. It is an Open Cast; Semi-mechanized mining with approved depth of mining is 32 meter Below Ground Level. During the site visit, the depth of mining could not be ascertained. However, as per Pit Dimension letter issued vide No: Rc.No.80/Mines/2023 dated 06.05.2025, by Assistant Director, Dept. of Geology and Mining, Tiruppur, stating that the depth of the Pit is 25 meters below ground level. The total Mine Lease (ML) area is 1.77.0 Hectare. Out of total ML area, the broken-up area is 1.02.8 Hectare. The project cost is Rs. 55,49,000/-. EMP cost is Rs.3,80,000/-.

During the site visit, it was observed that the quarry is not in operation. Environmental Clearance (EC) was issued by DEIAA, TPR – Lr. No. DEIAA-TPR/F.No. 601/3 (I) 2017 dated 08.03.2018 which is valid upto 07.03.2023. The quarry has been

granted lease for five years from 27.03.2018 to 26.03.2023. As informed by the Project proponent, quarry work was stopped on 26.03.2023. Now, they are applying to SEIAA – TN for Re-appraisal of their EC received from DEIAA, Tiruppur -TN, as per the O.M.F.No.IA3-22/11/2023-IA.III (E-208230) dated 28.04.2023.

The Project Proponent (PP) has obtained Consent to Operate (CTO) for Air vide proceedings No.F.0923TPS/RS/DEE/TNPCB/TPS/A/2018 dated 13.09.2018 and Water vide proceeding No.F. 0923TPS/RS/DEE/TNPCB/TPS/W/2018 dated 13.09.2018 from Tamil Nadu Pollution Control Board (TNPCB), Tiruppur South and is valid up to 26.03.2023.

The Nearest Railway station is Somanur- Mangalam Railway line located at a distance of 7.8km on the Northwest side of the quarry area. The National Highway (NH-81) Coimbatore - Trichy road is located at a distance of 4.2km on South side of the quarry area. The State highway (SH-166) Mangalam road is located at a distance of 2km on the Eastern side of the quarry lease area.

There is no Wildlife Sanctuary and Reserve Forest observed within 10 km radius of the quarry area. The Noyyal River is located at the distance of 7.4km on northern side of the quarry lease area. There is no habitation and approved layout situated within a radius of 300 meters from the quarry area. However, nearest habitation, Velambalayam Village is located at the distance of 2.1km on Northern side of quarry lease area.

In view of the above, Project Proponent had requested the Regional Office, Ministry of Environment, Forest & Climate Change (MoEF & CC), Chennai to provide Certified Compliance Report on Environmental Clearance towards re-appraisal of Environmental Clearance received from DEIAA -TN.

The above project was monitored on 22.04.2025 along with the Project Proponent. The status of compliance on the stipulated conditions contained in the EC cited above is given below in Part - III.

Date of Monitoring: **22.04.2025.**

Part – II

Environment Clearance Conditions:

Conditions to be Complied Before Commencing Mining Operations: -

S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
1.	The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that i. The project has been accorded Environmental Clearance. ii. Copies of clearance letters are available with the Tamil Nadu Pollution Control Board. iii. Environmental Clearance may also be seen on the website of the DEIAA, Tiruppur. iv. The advertisement should be made within 7 days from the	Complied. Advertisements were given in two local newspapers.	Complied. The Advertisement were given in two local newspapers namely '<i>Makkal Kural</i>' dated 15.03.2018 and '<i>Trinity Mirror</i>' dated 15.03.2018 regarding Environmental clearance was obtained. Newspaper copy is enclosed in Annexure – I.

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S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
	date of receipt of the clearance letter and a copy of the same shall be forwarded to the DEIAA, Tiruppur.		
2.	No Objection Certificate from the standing committee of the National Board of Wild life shall be obtained, if protected areas are located within 10 kilo meters from the proposed project site.	Complied. There is no Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves are available within 10 Km radius from the project site. Hence, NBWL Clearance is not required.	Complied. During the site visit, there is no Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves are available within 10 Km radius from the project site. Hence, NBWL Clearance is not required.
3.	The project proponent shall comply the conditions laid down in the Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959.	Complied. As per Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959, Drilling, Blasting, Loading (at mines) and Transport are carried out as stipulated.	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.
4.	A copy of the Environmental Clearance letter shall be sent by the proponent to the concerned Panchayat, Town Panchayath/Panchay	Complied. Copy of the EC was submitted to local Village Panchayat by hand. There was no suggestion	Complied. Copy of the EC letter was submitted to Vellampallayam Village Panchayat by hand. The Environmental

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S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
	ath union, Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the proponent and also kept at the site, for the general public to see.	/ representation received from public and local NGOs. EC copy is kept at the quarry site and also will be placed on the website for public viewing.	Clearance letter was made available at the quarry site for the general public view. The Environmental Clearance letter was placed on the Website of the proponent. Kindly Refer in Annexure – II.
5.	Quarry lease area should be demarcated on the ground with wire fencing to show the boundary of the lease area on all sides with red flags on every pillar shall be erected before commencement of quarrying.	Complied. Quarry lease area is demarcated on the ground with wire fencing to show the boundary of the lease area on all sides. The boundary pillar were erected on all sides of the lease area. Refer photos as Annexure – IV.	Complied. Quarry lease area is demarcated on the ground with wire fencing to show the boundary of the lease area. Boundary pillars were erected on all sides of the lease area. Refer Boundary pillars & wire fencing photos in Annexure – III.
6.	The proponent shall ensure that First Aid Box is available at site.	Complied. There was a First Aid box at the quarry office.	Complied. First Aid Box is kept at the quarry site. Refer in Annexure – IV.
7.	The excavation activity shall not alter the natural drainage pattern of the area.	Complied. There is no stream crossing the project area	Complied. During the site visit, it was observed that no

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S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
		and no drainage area in the mine lease area, therefore mining activities will not alter the natural drainage system.	streams in the mining lease are noticed and the same has been confirmed by the PP. Therefore, the excavation activity has not altered the natural drainage system of the area.
8.	The excavated pit shall be restored by the project proponent for useful purposes.	Agreed to comply. The excavated pit will be restored as per mine closure plan mentioned the approved Mining Plan.	Refer below. Not applicable at this stage.
9.	The proponent shall quarry and remove only in the permitted areas as per the approved Mining Plan.	Complied. Rough Stone was removed during the period only in the permitted area as per the approved mining plan.	Complied. As per the EC, the lease area is 1.77.0 Ha. Out of which the PP has mined out the area is 1.02.8 Hectare as per the Mining Plan. In view of this, the PP has removed rough stone only in the Permitted and approved areas.
10.	The quarrying operation shall be restricted between 7AM and 5 PM.	Complied. The Quarry was operated between 7 AM to 5 PM only.	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.
11.	The proponent shall take necessary measures to ensure that there shall not be any adverse impacts due to quarrying operation	Complied. There is no human habitation located within the radius of 300m from the quarry lease boundary.	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.

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	on the nearby human habitations, by way of pollution to the environment.	Sprinkler has been engaged to spray water along haul road and exposed areas to control dust emission. Moreover, while transportation of minerals, all the tippers has been covered with tarpaulin to prevent spillages and dust emission. Plantation around lease boundary has been done to arrest noise generation within the lease area. Since the mining activity are carried out with proper EMP, there were no adverse impact in nearby houses.	
12.	A minimum distance of 50meters from any Public/civil structure shall be kept from the periphery of the quarry permitted area.	Complied. There is no civil structure is located at 15m distance from periphery of quarry.	Complied. During the site visit, it was observed that there is no civil structure located within 15m distance from periphery of quarry.
13.	Depth of quarrying shall be 2 m above the ground water table / approved depth of mining whichever is lesser to be considered as a safe guard against Environmental Contamination and over exploitation of resources.	Complied. The approved depth of the quarry is 32meters below ground level. As per mining plan, Ground Water table Depth is 58meters – 62meters from the below ground level. At present, mining is carried out only to the approved depth and not exceeding the approved	Complied. The approved depth of the quarry is 32meters below ground level. As per the approved mining plan, the Ground water table in this area is 58m-62m in depth below ground level. At present, the depth of the quarry is 25meters below ground level.

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		quarry depth. Therefore, quarrying activity did not intersect the ground water table.	Refer Pit letter in Annexure – V. Therefore, the present depth of the quarry is not intersected the ground water table. Hence, the quarrying activity was not carried out below the ground water level.
14.	The mined out pits should be backfilled where warranted and area should be suitably landscaped to prevent environmental degradation. The mine closure plan as furnished in the proposal shall be strictly followed with back filling and tree plantation.	Agreed to comply. The mined out pit will be back filled and suitably landscaped to prevent environmental degradation. The plantation will be done around lease boundary as per mine closure plan.	Refer below. Not applicable at this stage.
15.	Wet drilling method is to be adopted to control dust emissions. Delay detonators and shock tube initiation system for blasting shall be used so as to reduce vibration and dust.	Complied. Wet drilling method is adopted to control dust emission. Delay detonators and shock tube initiation system is used for blasting to control vibration and dust.	Refer below. During the site visit, no mining activity was carried out. Because of this, drilling and blasting activities were not observed.
16.	Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required	Refer below. Drilling and blasting operation were done with a Mining MATE having a certificate of	Refer below. Drilling the site visit, no mining activity was carried out. Because of this, drilling and blasting

S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
	approvals from Competent Authorities.	Competency issued by DGMS, Dhanbad. They carry out Drilling and Blasting in a safe and scientific manner as per DGMS Guidelines.	activities were not observed. However, the PP informed that the Drilling and Blasting were done by engaging licensed explosive agent. They carry out Drilling and Blasting in a safe and scientific manner as per DGMS guidelines.
17.	The explosives shall not be stored at quarry site unless proper license should be obtained from the Petroleum explosives and Safety Organization Under Explosives Act.	Refer below. That the explosive material is not stored at the site and it is produce from licensed agent as and when it is required and used immediately. Agreement for blasting had been made <i>M/s.S.S.&CO Explosives Company</i> having PESO license No.E/SC/TN/22/648 (E88325). Refer as Annexure - V.	Refer below. The explosives were not stored at the project site. However, Agreement for blasting had been made <i>M/s.S.S.&CO Explosives Company</i> having PESO license No.E/SC/TN/22/648 (E88325). Refer as Annexure - VI.
18.	Blasting shall be carried out after announcing to the public adequate through public address system to avoid any accident.	Refer below. The blasting was carried out after announcing the public through public address system, and posting red flags to avoid any accident.	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.
19.	A study has to be conducted to assess the optimum blast parameters and blast design to keep the	Complied. The vibration levels are monitored during blasting. The observed	Complied. The vibration levels are monitored at specified location near to the

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	vibration limits less than prescribed levels and only such design and parameters should be implemented while blasting is done. Periodical monitoring of the vibration at specified location to be conducted and records kept for inspection.	value is within limits as per DGMS (Directorate General of Mines Safety) Prescribed limits of 5.0 mm/sec. Vibration Report in Annexure – VI (e).	project site. As per the results, the values are within the limits as per DGMS standards, i.e. 5.0 mm/sec. Refer report is enclosed in Annexure – VII.
20.	The Proponent shall take appropriate measures to ensure that the GLC shall comply with the revised NAAQ norms notified by MoEF, Govt on 16.11.2009.	Monitoring of AAQ was carried out through third party NABL accredited laboratory as per revised NAAQ Norms. AAQ is monitored every 6 months as stipulated in the EC. Monitoring report is enclosed as Annexure – VI (a).	Not complied. Monitoring of Ambient Air Quality was carried out only once in the quarry area through NABL accredited laboratory (Global Lab and Consultancy Services, Salem). As per the results, the values are within the limits. AAQ Monitoring Reports is enclosed in Annexure – VIII. In this regard, the PA has submitted ATR (Refer Annexure-B).
21.	The following measures are to be implemented to reduce Air Pollution during transportation of mineral i. Roads shall be	Complied. The haul roads and approach roads are graded with rejects and waste generated during quarrying activity to	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.

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	graded to mitigate the dust emission. ii. Water shall be sprinkled at regular interval on the main road and other service roads to suppress dust.	mitigate dust emission. Sprinklers were engaged to spray water over unpaved roads to suppress dust.	
22.	The following measures are to be implemented to reduce Noise Pollution. i. Proper and regular maintenance of vehicles and other equipment. ii. Limiting time exposure of workers to excessive noise. iii. The workers employed shall be provided with protection equipment and earmuffs etc. iv. Speed of trucks entering or leaving the mine is to be limited to	Complied. All the vehicles and mining equipments are maintained periodically. All the workers were allowed to work on rotational basis in the noise prone zone. The workers engaged were provided the PPE such as helmets, safety shoes and gloves, goggles etc. Speed of trucks entering or leaving the mine has been limited to speed of 25 km/hr	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.

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	moderate speed of 25 kmph to prevent undue noise from empty trucks.		
23.	Measures should be taken to comply with the provisions laid under Noise Pollution (Regulation and Control) (Amendment) Rules, 2010, dt: 11.01.2010 issued by the MoE&F, Govt to control noise to the prescribed levels.	There is an inbuilt cabin facility in JCB which arrests/control the Noise pollution & Ear plugs\muffs to the workers are provided. The ambient noise levels were monitored through third party NABL accredited laboratory and the values are within the limits. Noise monitoring reports is enclosed at Noise monitoring report is enclosed as Annexure – VI(b) .	Not complied. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically. Monitoring of Ambient noise levels in and around the quarry area was carried out only once through NABL accredited third party laboratory (Global lab and consultancy services, Salem) and the values are within the limits. Noise level monitoring reports is enclosed at Refer report as Annexure – IX. In this regard, the PA has submitted ATR (Refer Annexure-B).
24.	Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in	The rain water is collected in the quarry pit during rainy season and used for Green Belt and Dust Suppression. This is helping to augment the ground	Not complied. The PP has not consulted with "The Regional Director", CGWB for the groundwater augmentation measures.

S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
	consultation with Regional Director, CGWB, Suitable measures should be taken for rainwater harvesting.	water.	In this regard, the PA has submitted ATR (Refer Annexure-B).
25.	Permission from the competent authority should be obtained for drawl of ground water, if any, required for this project.	There was no bore well or open well at quarry site. Water is obtained from Water Supply vendors. So, no permission from the competent authority is required for this project.	Complied. There is no ground water required for this project. Hence, permission from the Competent Authority was not obtained for ground water withdrawal.
26.	The following measures are to be adopted to control erosion of dumps:- a) Retention/ toe walls shall be provided at the foot of the dumps. b) Worked out slopes are to be stabilized by planting appropriate shrub/grass species on the slopes.	There is no dump at the quarry site. Since 100% mineral is quarried and transported out.	Complied. There is no dump at the quarry site. Since 100% mineral is transported out.
27.	Waste oils, used oils generated from the EM machines, mining operations, if any, shall be disposed as per the Hazardous Wastes (Management, Handling, and trans	As informed that the waste oil is collected, stored and disposed to TNPCB authorized recyclers.	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.

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S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
	boundary movement) Rules, 2008 and its amendments thereof to the recyclers authorized by TNPCB.		
28.	Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	The above-mentioned major conditions are complied with from time to time.	Refer below. Informed to PP as stipulated and list of non-compliances are indicated
29.	Rain water harvesting to collect and utilize the entire water falling in land area should be provided.	The rain water is collected in the quarry pit during rainy season and allowed for percolation.	Refer below. During monsoon season, the rain water was collected at the bottom of quarry pit. The part of water was allowed for percolation and rest of the water was utilized for greenbelt development and dust suppression.
30.	Rain water getting accumulated in the quarry floor shall not be discharged directly to the nearby stream or water body. If it is to be let into the nearby water body, it has to be	The rain water is collected in the quarry pit and used for dust suppression as well as green belt development. No rain water is discharged directly to nearby stream or water body.	Refer below. No rain water is discharged directly to nearby stream or water body. Silt trap was not constructed.

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	discharged into a silt trap on the surface within the lease area and only the overflow after allowing settling of soil be let into the nearby waterways. The silt trap should be of sufficient dimensions to catch all the silt water being pumped out during one season. The silt trap should be cleaned of all the deposited silt at the end of the season and kept ready for taking care of the silt in the next season.		
31.	The Propoent shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area shall not be affected. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, if it is observed that the	Complied. Water Quality and Ground Water level was regularly monitored through third party NABL accredited laboratory and the report is attached as Annexure – VI © .	Refer below. The mining officer has not monitored the ground water level. The PP has not monitored the ground water level around the lease area during the mining operation. As per the approved mining plan, the Ground water table in this area is 58m-62m in depth below ground level. The mining activity couldn't deplete the

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	groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.		groundwater. Hydro-geological regime was not affected as the proponent quarried only 25meter below ground level. The PP has submitted only one Water quality report which was carried out through NABL accredited laboratory and as per the report there is no adverse impact was noticed. Water quality test report is enclosed at Annexure – X.
32.	No tree-felling shall be done in the leased area, except only with the permission from competent Authority.	Complied. No trees are cut in the mining lease area.	Refer below. The lease area was commenced in the year 2018. Hence, this EC condition could not be verified specifically during the site visit.
33.	To take up environmental monitoring of the proposed quarry site before, during and after the mining activities including vibration study data, water, air & flora/fauna environment, slurry water generated/disposed	Complied. Environmental monitoring is being carried out before, during and after the mining activities through a third party NABL accredited laboratory. The monitored data shows that the values are within the limits. Vibration study, Flora and Faunal study also	Not complied. The PP has not carried out environmental monitoring of proposed quarry site before and after the mining activities including vibration study data, water, air, flora / fauna by involving a reputed academic institution.

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	and method of disposal, involving a reputed academic Institution.	conducted.	In this regard, the PA has submitted ATR (Refer Annexure-B).
34.	It shall be ensured that the total extent of nearby quarries (existing, abandoned and proposed) located within 500 meter radius from the periphery of this quarry is not exceeding 25 hectares within the mining lease period of this application.	Refer below. There are one Existing quarry, one Abandoned quarry and 03 Proposed quarry is located within a 500 meters radius from the periphery of this quarry, and the total extent is 7.17 ha of the quarries is not exceeding 25 hectares. Refer in Annexure – VII.	Refer below. One Existing quarry, one Abandoned quarry and 03 Proposed quarries are located within 500m radius from the periphery of this quarry, the total extent of all the quarries is 7.17Ha, which does not exceed 25 hectares. Refer the Extent certificate issued by Deputy Director, Dept. Geology and Mining, Tiruppur. Refer 500m radius cluster in Annexure – XI.
35.	It shall be ensured that there is no habitation is located within 500 meter radius from the periphery of the quarry site and also ensure that no hindrance will be caused to the people of the habitation located within 500 m radius from the periphery of the quarry site.	Refer below. There is no approved human habitation present within 300m radius from the periphery of the quarry site. Therefore, there will be no disturbance to the habitats within 500 meters of the perimeter of the quarry site. Refer in Annexure – VIII.	Complied. During the site visit, it was observed that there is no habitation is located within the 500 m radius from the periphery of the quarry area. The PP has provided a letter from VAO stating that there are no dwellings within 300 meters of the quarry. PP provided the VAO

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			letter stating that there are no habitations within the 300-meter radius from the quarry lease area. VAO letter is attached as Annexure – XII.
36.	Ground water quality monitoring should be conducted once in 6 months by the proponent and the records kept for inspection. The District Environment Engineer, TNPCB, shall ensure this.	Complied. Monitoring of ground water quality was carried out at through a third party laboratory.	Not complied. Monitoring of ground Water Quality was not carried out once in 6 months. In this regard, the PA has submitted ATR (Refer Annexure-B).
37.	Transportation of the quarries materials shall not cause any hindrance to the Village people/Existing Village road.	The transportation of the quarried materials were reportedly carried out in the covered truck and there was no hindrance to the village people and road. Water was sprinkled on the roads to reduce dust.	Complied. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.
38.	Free Silica test should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF, GOI.	Monitoring of Free Silica test was carried out through NABL accredited laboratory and the report was given during the site visit, as per the report there is no adverse impact was noticed. Report is enclosed in Annexure – VI (d). The report is submitted to TNPCB and Department of Geology	Complied. The PP has submitted Free Silica test report which was carried out through NABL accredited laboratory and as per report there is no adverse impact was noticed. Free Silica report is enclosed in Annexure – XIII.

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S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
		and Mining and Regional Director, MoEF&CC, Chennai.	
39.	Air sampling at intersection point should be conducted and reported to TNPCB, Department of Geology and Mining and Regional Director, MoEF, GOI.	Complied. Ambient Air Quality (AAQ) Monitoring is being carried out at intersection point by the third-party laboratory as per NAAQS. Report indicates that the AAQ levels are within the permissible limits.	Complied. Air sampling at intersection point was monitored through the NABL accredited laboratory. Refer AAQ report at Annexure – VIII.
40.	Bunds should be provided at the boundary of the project site	Bunds are provided at the boundary of the project site.	Complied. The PP has provided bunds around the boundary of the project site. Refer in Annexure – XIV.
41.	The project proponent shall undertake plantation/afforestation work by planting the native species on all side of the lease area at the rate of 400/Ha. Suitable tall tree saplings should be planted on the bunds and other suitable areas in and around the work place.	Complied. Plantation are done by planting the native species such as Vaghai, neem, pungai tree etc., around the quarry lease area. Refer Annexure IX.	Complied. Plantation are done by planting the native species such as Teakwood – 50's, Black Jamun Tree – 50's, Asoka – 100 No's, Vaghai – 100 No's, Neem – 200No's, Pungai tree – 150 No's and all sides of the lease area. Refer plantation details at Annexure XV.
42.	At least 75 Neem trees and 50 Pungan should be planted around the boundary	We have planted more than 10 neem trees around the boundary of the quarry site.	Complied. During the visit, it was observed that they have

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	of the quarry site.		planted more than 10 neem trees around the boundary of the quarry area. Refer in Annexure – XVI.
43.	Floor of excavated pit should be leveled as per the Approved Mining plan (Conceptual Mining plan).	Agreed to level the excavated pit and make gentle slope of the pit as per the mine closure plan.	Refer below. Not applicable at this stage.
44.	The Project Proponent shall ensure a minimum of 2.5% of the annual turnover will be utilized for the CSR Activity	Complied. 2.5% of annual turnover is being spent on CSR activities.	Not complied CSR activity was not carried out. However, the Project Proponent has submitted a Commitment letter to the Government High School, Construct the Kitchen and Dining hall facilities at the cost of Rs. 5,00,000/- under CSR Activity. A Commitment letter as in Annexure – XVII. Justification given in the ATR is not satisfied/acceptable.
45.	The project proponent shall comply with the Tamil Nadu Minor Mineral Concession Rules, 1959 and	Agreed to comply. As per Section V, Rule 36 of Tamil Nadu Minor Minerals Concession Rules 1959, Drilling,	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.

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S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
	other relevant Mining Rules and Regulations where ever applicable.	Blasting, Loading (at mines) and Transport has been carried out.	
46.	Rainwater shall be pumped out Via Settling Tank only.	Complied. The rainwater is discharged through a settling tank to reduce sedimentation.	Not complied. During the site visit, it was observed that there is no settling tank in the quarry area. In this regard, the PA has submitted ATR (Refer Annexure-B).
47.	Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary shall be developed and maintained.	Agreed to comply. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary was developed and maintained.	Complied. Earthen bunds and barbed wire fencing around the pits with green belt all along the boundary were developed.
48.	As per MoEF&CC, Gol, Office Memorandum dated 30.03.2015, prior clearance from Forestry & Wild Life angle including clearance from obtaining committee of the National Board for Wild life as applicable shall be obtained before starting the quarrying operation, if the project site is located within 10 Km from National Park and Sanctuaries.	Clearance from forestry and wildlife angle is not applicable to them due to following: ➤ No forest land is involved in their lease area. ➤ No wildlife sanctuary/critically polluted area / ecologically sensitive zone within 10 km from the boundary of the ML area.	Complied. Clearance from forestry and wildlife angle is not applicable to them due to following: ▪ No forest land is involved in their lease area. ▪ No wildlife sanctuary/critically polluted area / ecologically sensitive zone within 10 km from the boundary of the Mining Lease area.

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S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
49.	The quarrying activity shall be stopped if the entire quantity indicated in the Approved Mining plan is quarried even before the expiry of the quarry lease period and the same shall be monitored by the District Director/Assistant Director, Geology and Mining.	Refer below. As per the approved mining plan as well as in EC, the approved quantity is 63,441 m ³ of Roughstone 9,738 m ³ of Gravel and up to a depth of 32meters below ground level.	Refer below. As per the approved mining plan as well as in EC, the approved quantity is 63,441 m ³ of Rough stone 9,738 m ³ of Gravel and up to a depth of 32meters below ground level. As informed by PP, PP has excavated only 50,440m ³ of rough stone and 9,738m ³ of Gravel during the lease period.
50. o	Safety equipment's should be provided to all the employees.	Complied. All the employees was provided with safety equipment's such as Safety Helmet, Goggles, Masks, Gloves and Safety Shoes as per mines act and rules.	Complied. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.
51.	Safety distance of 50m has to be provided in case of railway, reservoir, canal/odai.	Complied. There is no water body and railway line within 50m distance from the boundary of the lease area.	Complied. During the visit, it was observed that there is no water body and railway line, reservoir, canal / odai within 50m distance from the boundary of the lease area.
52.	The proponent shall collect the Baseline data covering the Air, Water, Noise and land environment quality for the quarry site for every 6	The baseline data covering air, water, noise and land environmental quality for the quarry site were done before execution of mining operation.	Not complied. The PP has not done a baseline study covering air, water, noise and land environment before starting the mining

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	months. The District Environment Engineer, TNPCB, shall ensure this.		operation. In this regard, the PA has submitted ATR (Refer Annexure-B).
53.	The proponent shall erect the pillars in accordance with the Rules for depicting GPS details in the earmarked boundary of the quarry site to monitor electronically.	Complied. The boundary pillars were erected in the quarry lease area as per GPS details.	Complied. During the site visit, it was observed that pillars were erected in the quarry area as per GPS details. Refer Annexure – III.
54.	The proponent shall furnish the data obtained from the Public Works Department regarding the details of Ground Water table in the quarry site.	Complied. The details of the ground water level at the quarry site will be obtained from the Public Works Department. However, Groundwater level in the quarry site were monitored by third party NABL accredited Laboratory.	Not complied. The PP has not obtained the details of the ground water level at the quarry site from the Public Works Department. In this regard, the PA has submitted ATR (Refer Annexure-B).
55.	The proponent has to provide insurance protection to the workers.	Complied. Provided insurance protection to the quarry workers engaged in the mining activity.	Complied. The PP has provided insurance protection to the quarry workers engaged in the mining activity. Refer insurance copy Annexure – XIX.
56.	The proponent has to display the name board at the quarry site showing the	Complied. The Name board showing the details of	Complied. The Name board showing the details of

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S. No.	EC CONDITIONS	STATUS AS PER SIX MONTHLY COMPLIANCE REPORT SUBMITTED BY THE PP	STATUS OF COMPLIANCE
	details of proponent, lease period, extent, etc., with respect to the existing activity before commencement of mining.	the project was displayed on the front of the quarry site. Refer in Annexure – X.	the project was displayed on the front of the quarry site. Refer photos as Annexure – XX.
57.	If any Heavy earth machinery equipment's utilized, necessary approval shall be obtained from the competent authority as per Metalliferous Mining Regulations 1961.	Agreed to obtain approval from Competent Authority if heavy earth equipment is used.	Not complied. The PP has not obtained approval from the Competent Authority for utilization of heavy earth equipment's. In this regard, the PA has submitted ATR (Refer Annexure-B).

GENERAL CONDITIONS:

S. No.	EC CONDITIONS	Status as per six monthly compliance report submitted by the PP	COMPLIANCE STATUS
1.	Environmental Clearance is given only on the factual records, documents and details furnished by the proponent.	Agreed to Comply.	Refer below. The PP has not submitted the photocopy of commitment given in non-judicial stamp paper.
2.	The Proponent shall obtain the Consent for Establishment and Consent to Operate from the Tamil Nadu	The has not obtained Consent to Establishment (CTE), But the PP has obtained Consent to Operate (CTO) for Air vide proceedings No.F.0923TPS/RS/DEE/TN	Not complied. The PP has not obtained Consent to Establishment from TNPCB. However, the PP has

C. Narayana

	Pollution Control Board, Tiruppur before commencing the quarry activity.	PCB/TPS/A/ 2018 dated 13.09.2018 and Water vide proceeding No.F.0923TPS/RS/DEE/TN PCB/TPS/W/ 2018 dated 13.09.2018 from Tamil Nadu Pollution Control Board(TNPCB), Tiruppur South and is valid up to 26.03.2023. Enclosed in Annexure – XI.	obtained Consent to Operate (CTO) for Air vide proceedings No.F.0923TPS/RS/DEE/TNP CB/TPS/A/ 2018 dated 13.09.2018 and Water vide proceeding No.F.0923TPS/RS/DEE/TNP CB/TPS/W/ 2018 dated 13.09.2018 from Tamil Nadu Pollution Control Board(TNPCB), Tiruppur South and is valid up to 26.03.2023. Enclosed in Annexure – XXI. Justification given in the ATR is not satisfied/acceptable.
3.	No change in mining technology and scope of working should be made without prior approval of the DEIAA, Tiruppur.	There is no change in mining technology and scope of working.	Complied. There is no change in mining technology and scope of working.
4.	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Extensive	There is no change in the calendar plan including excavation, quantum of mineral made.	Refer below. The quarry is not in operation. Hence, water sprinkling could not be verified. Ambient Air Quality (AAQ) monitoring is carried out on loading point, unloading point and all transfer points by a third party NABL accredited laboratory on half yearly basis and the monitoring Reports indicates that AAQ levels

C. P. Ramesh

	water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.		are within the permissible limits.
5.	Effective safeguards shall be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth.	The following pollution control measures are followed during quarrying: • Water sprinkling carried out on haul roads at regular intervals by water tankers to control dust generation. • Periodic Monitoring of Ambient Air Quality and Noise level are being performed by a third party NABL accredited laboratory on half yearly basis. Monitoring Reports indicates that AAQ and Noise level are within the permissible limits.	Complied. During the site visit, it was observed that no water is stagnant inside the mine pit. The traces of discharge and percolation pond observed. So, no water borne disease possible.
6.	A 7.5 meter berm shall be left from the boundary of adjoining field.	Complied. A berm have been left from the boundary of adjoining field.	Complied. A berm has been left from the boundary of adjoining field.
7.	Mineral handling area shall be provided with adequate number	Water sprinkling activities were carried out to control the dust levels in the project area.	Complied. No dust extraction system is provided in the mineral

C. Dainameli

	of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.		handling area. However, the PP is carrying out water sprinkling activities to control the dust levels in the project area.
8.	Vehicular emissions shall be kept under control and be regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	Complied Maintenance of vehicles and other equipment were undertaken at regular intervals by the authorized service center. Transportation of minerals was done only by covering the minerals with Tarpaulin and overloaded were not allowed.	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.
9.	Access and haul roads to the quarrying area should be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.	Agreed to comply.	Refer below. Access and haul roads to the quarry area will be restored in a mutually compatible manner after the extraction is completed.

C. Rainard

10.	All Personnel shall be provided with protective respiratory devices including safety shoes, Masks, gloves etc. Supervisory people should be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	All Personnel were provided with protective respiratory devices including safety shoes, Masks, gloves etc. Supervisory people has been provided with adequate training on safety and health aspects.	Refer below. During the Site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.
11.	Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn	Periodical medical examinations for the workers are carried out and provided personnel protective measures such as masks, gloves, boots etc.	Complied. The PP submitted the Regular medical examinations certificates of the workers. Refer in Annexure – XXII.

	and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc. and a record should be maintained.		
12.	Workers / labours shall be provided with facilities for drinking water and sanitation facility for Female and Male separately.	Complied. Workers were provided with safe drinking water and sanitation facilities during quarry operations. Refer as Annexure – XII.	Complied. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically. The PP provided safe drinking water and sanitation facility for Female and Male separately. Refer in Annexure – XXIII.
13.	The project proponent shall ensure that child labour is not employed / engaged in the quarrying activity.	Complied. There is no child labour is employed in the project site.	Refer below. During the site visit, no mining activity was carried out. Hence, this EC compliance could not be verified specifically.
14.	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure	Complied. Earmarked an amount of Rs.3,80,000/- is spent for Environmental management purposes and it has been used to monitor environmental pollution, maintain greenery around the quarry and control pollution.	Complied. The PP has earmarked Rs.3,80,000/- for Environmental management purposes and it has been used to monitor environmental pollution, maintain greenery around the quarry and control pollution.

	should be reported to ministry of Environment and Forest and its Regional Office located at Chennai.		The PP has not submitted the year wise EMP expenditure to the Regional Office, MoEF&CC, and Chennai.
15.	The Environmental Clearance does not absolve the applicant / proponent of his obligation / requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.	Agreed to Comply.	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.
16.	This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance.	Agreed to Comply.	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.

17.	The DEIAA, Tiruppur District may alter/modify the above conditions or stipulate any further conditions in the interest of environment protection.	Agreed to Comply.	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.
18.	The DEIAA, Tiruppur District may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this DEIAA, ERD, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the environmental clearance.	Agreed to Comply.	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.
19.	Failure to comply with any of the conditions mentioned above may result in	Agreed to Comply.	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.

C. Rainandy

	withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.		
20.	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules made there under and also any other orders passed by the	The amendment of laws applicable to the lease and the same followed from time to time.	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.

	Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter.		
21.	Any other conditions stipulated by other Statutory/Government authorities shall be complied.	Agreed to comply.	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.
22.	Any appeal against this Environmental Clearance shall lie with the Tamil Nadu State Environment Impact Assessment Authority, Chennai, if preferred, within a period of 30 days.	There is no appeal has been filled with the Tamil Nadu State Assessment Authority, Chennai against this Environmental Clearance as on date.	Agreed to comply. Refer Annexure – XVIII for undertaking by the PP.

Summary note:

(i) Implementation of Conditions

The PA has not complied following EC conditions:

12. Monitoring of ambient air quality was carried out only once during the mining operations **(Specific condition No. 20).**
13. Monitoring of ambient Noise level was carried out only once during the mining operations **(Specific condition No. 23).**
14. The PP has not consulted with "The Regional Director", CGWB for the groundwater augmentation measures **(Specific condition No. 24).**
15. Environmental monitoring of the proposed quarry site before and after the mining activities including vibration study data, water, air, flora/fauna by involving a reputed academic Institution **(Specific condition No. 33).**

C. Nainan

16. Monitoring of ground water quality was not conducted once in 6 months **(Specific condition No. 36).**
17. CSR activity was not carried out **(Specific condition No. 44).**
18. No Settling Tank in the quarry area **(Specific condition No. 46).**
19. Baseline study covering air, water, noise and land environment before starting the mining operation **(Specific condition No. 52).**
20. The PP has not furnished the data obtained from the Public Works department regarding the details of ground water table in the quarry site **(Specific condition No. 54).**
21. Approval from the Competent Authority for utilization of heavy earth equipment's has not obtained **(Specific condition No. 57).**
22. Consent to Establishment was not obtained **(General condition No. 2).**

(ii) Court cases and show cause/closure notices

At present there are no court cases and show cause / closure notices issued by the Competent Authority.

Vide email dated 08.05.2025, the Project Authority has submitted Action Taken Report for the Non-compliances/Partial compliances addressed. The Specific condition No. 44 (CSR activity) and General condition No. 2 (CTE) are major non-compliances and ATR submitted by the Project Authority is not satisfied/acceptable for the said non-compliances.

Site Photographs: -



C. Ramireddy



O. Palpandi 9/1/2025
Signature of the inspecting officer
डॉ. पालपांडी
वैज्ञानिक 'डी'
Dr.C.Palpandi
Scientist 'D'
Government of India
Min. of Environment Forest and Climate Change,
Regional Office,
1st Floor, Addl. Office Block for GPOA,
Shastri Bhawan, Haridwars Road,
Nungambakkam Chennai - 600 006.

TEST REPORT

Sample ID:ABMEL/2025-TR-16		Report Date:31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam,Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone	Sample Code	ABMEL/W/16(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	6.73
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	528
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.2
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	<2
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	292
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	130
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	35
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	10
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	26
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	104
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	104
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	18
15	Iron	IS 3025 (Part 53): 2024	mg/l	0.012

BDL = Below Detectable Limit; DL = Detection Limit

For ABM ENVIRO LAB

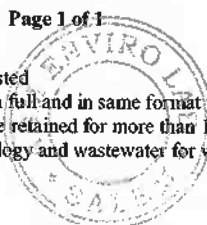
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S. Suriya Kumar
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Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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Mob: 9842729655, 9443290855

suriyakumarsemban@gmail.com / abmenvirotech@gmail.com



TEST REPORT

Sample ID:ABMEL/2025-TR-16		Report Date:31.05.2025	
Customer Name	P.Viswanathan,		
Address	Ichipatti, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-1	Sample Code	ABMEL/W/17(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	7.03
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	1190
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.2
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	8
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	716
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	348
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	94
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	27
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	62
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	184
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	184
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	32
15	Iron	IS 3025 (Part 53): 2024	mg/l	0.09

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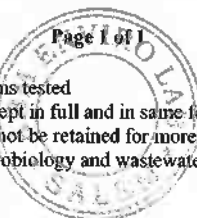
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TC-15822

TEST REPORT

Sample ID:ABMEL/2025-TR-16		Report Date:31.05.2025	
Customer Name	P.Viswanathan,		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/W/18(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	7.58
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	937
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.1
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	4
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	552
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	280
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	86
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	15
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	58
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	188
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	188
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	29
15	Iron	IS 3025 (Part 53): 2024	mg/l	0.07

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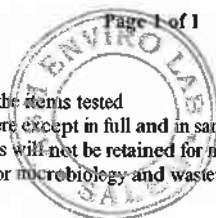
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TC-16822

TEST REPORT

Sample ID:ABMEL/2025-TR-16		Report Date:31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/W/19(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	6.86
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	2870
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.4
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	16
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	1736
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	488
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	111
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	51
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	190
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	114
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	114
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	54
15	Iron	IS 3025 (Part 53): 2024	mg/l	1.02

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TEST REPORT

Sample ID:ABMEL/2025-TR-16		Report Date:31.05.2025	
Customer Name	P.Viswanathan,		
Address	Naranapuram, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/W/20(a)
Date of Sampling	23.05.2025	Sample Description	Colourless liquid
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Liter

Discipline		Chemical Testing		
Product Name		Bore Water		
S.no	Parameters	Protocol	Unit	Result
1	pH	IS 3025 (Part 11): 2022	-	6.70
2	Electrical Conductivity (EC)	IS 3025(Part 14):2013	µs/cm	2940
3	Turbidity	IS 3025 (Part 10): 2023	NTU	BDL(DL:0.1)
4	Temperature	IS3025(Part9): 2023	°C	25.3
5	Total Suspended Solids (TSS)	IS 3025 (Part17):2022	mg/l	16
6	Total Dissolved Solids (TDS)	IS 3025 (Part16): 2023	mg/l	1792
7	Total Hardness as CaCO ₃	IS 3025 (Part21): 2009	mg/l	496
8	Calcium as Ca	IS 3025 (Part 40): 2024	mg/l	108
9	Magnesium as Mg	IS 3025 (Part 46):2023	mg/l	55
10	Chloride as Cl ⁻	IS 3025 (Part 32): 1988	mg/l	240
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):2023	mg/l	148
12	Carbonate	IS 3025 (Part 51): 2023	mg/l	BDL(DL:1.0)
13	Bicarbonate	IS 3025 (Part 51): 2023	mg/l	148
14	Sulfate	IS 3025 (Part 24): 1986	mg/l	60
15	Iron	IS 3025 (Part 53): 2024	mg/l	1.48

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Mob: 9842729655, 9443290855

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TC-18822

TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone-I	Sample Code	ABMEL/S/16(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	2.5
2	pH	IS 2720 (Part 26): 1987	----	6.95
3	Electrical Conductivity	IS 14767: 2000	µS/cm	221
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.49
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	56
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.8
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.3
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	5.1
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.2

BDL = Below Detectable Limit ; DL = Detection Limit

S. Santhi

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

----- End of the Report -----

Page 1 of 1



For ABM ENVIRO LAB

S. Suriya Kumar

Authorized Signatory

Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

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NIPBASS PLAZA
4/77-L, Indrani Nagar, Santhal Road
Narasothipatti, Salem - 636004, Tamil Nadu
Mob: 9842729655, 9443290855

suriyakumarsemban@gmail.com / abmenvirotech@gmail.com



TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Ichipatti, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-I	Sample Code	ABMEL/S/17(b)
Date of Sampling	23.05.2025	Sample Description	Red Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	2.8
2	pH	IS 2720 (Part 26): 1987	----	8.20
3	Electrical Conductivity	IS 14767: 2000	µS/cm	306
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.25
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	52
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.4
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.2
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	5
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.3

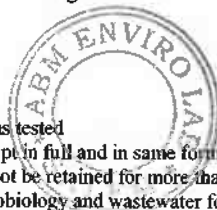
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S. Santhi

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ABM ENVIRO LAB

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Page 1 of 1



For ABM ENVIRO LAB

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**TEST REPORT**

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/S/18(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	2.1
2	pH	IS 2720 (Part 26): 1987	----	7.63
3	Electrical Conductivity	IS 14767: 2000	µS/cm	294
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.30
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	56
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	2.2
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	0.6
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.8
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.4

BDL = Below Detectable Limit ; DL = Detection Limit

S. Santhi

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TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar

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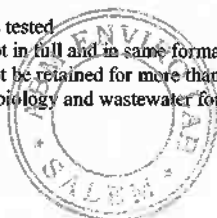
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**TEST REPORT**

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/S/19(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	1.8
2	pH	IS 2720 (Part 26): 1987	----	7.74
3	Electrical Conductivity	IS14767: 2000	μS/cm	174
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.22
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	64
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1.2
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	1
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	5.7
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.2

BDL = Below Detectable Limit ; DL = Detection Limit

S. Santhi

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar

Authorized Signatory

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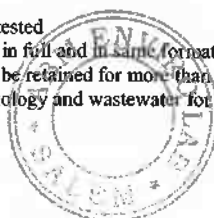
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**TEST REPORT**

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Naranapuram, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/S/20(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING		
PRODUCT NAME		SOIL		
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT
1	Water Content (Moisture)	IS 2720 (Part 2): 1973	%	2.6
2	pH	IS 2720 (Part 26): 1987	----	6.82
3	Electrical Conductivity	IS 14767: 2000	µS/cm	245
4	Bulk Density	ABMEL/CH/S/SOP/04: (Issue No: 01, Issue Date: 03.06.2024)	g/cc	1.30
5	Water Holding capacity	ABMEL/CH/S/SOP/05: (Issue No: 01, Issue Date: 03.06.2024)	%	48
6	Calcium	ABMEL/CH/S/SOP/07: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	2.4
7	Magnesium	ABMEL/CH/S/SOP/08: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	2
8	Chloride	ABMEL/CH/S/SOP/09: (Issue No: 01, Issue Date: 03.06.2024)	meq/l	5.3
9	Organic Matter	IS 2720 (Part 22): 1972	%	0.3

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ABM ENVIRO LAB

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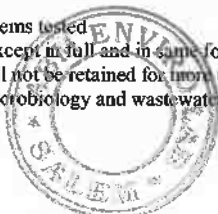
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TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone-I	Sample Code	ABMEL/S/16(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE			CHEMICAL TESTING		
PRODUCT NAME			SOIL		
S.NO	PARAMETERS		PROTOCOL	UNIT	RESULT
1	Texture	Sand	IS 10317: 2024	%	54
		Silt		%	24
		Clay		%	22
					Sandy Clay Loam
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S. Santhi

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TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar

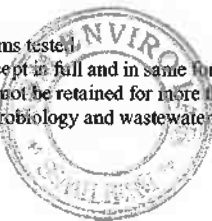
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Mob: 9842729655, 9443290855

suriyakumarsemban@gmail.com / abmenvirotech@gmail.com



TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Ichipatti, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-I	Sample Code	ABMEL/S/17(b)
Date of Sampling	23.05.2025	Sample Description	Red Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		SOIL			
S.NO	PARAMETERS	PROTOCOL	UNIT	RESULT	
1	Texture	IS 10317: 2024	%	48	
				24	
				28	
				Sandy Clay Loam	

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A. Santhi

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar

Authorized Signatory

Created & Authorized by
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**TEST REPORT**

Sample ID:ABMEL/2025/TR-16		Report Date:31.05.2025	
Customer Name	P.Viswanathan,		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/S/18(b)
Date of Sampling	23.05.2025	Sample Description	Red Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE			CHEMICAL TESTING		
PRODUCT NAME			SOIL		
S.NO	PARAMETERS		PROTOCOL	UNIT	RESULT
1	Texture	Sand	IS 10317: 2024	%	52
		Silt		%	28
		Clay		%	20
				Sandy Loam	
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Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

Authorized Signatory

Reviewed & Authorized by

Mr. S. SURIYA KUMAR

Quality Manager

Authorized Signatory

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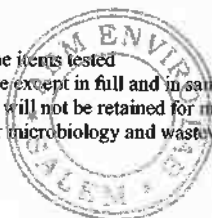
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**TEST REPORT**

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/S/19(b)
Date of Sampling	23.05.2025	Sample Description	Red Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE			CHEMICAL TESTING		
PRODUCT NAME			SOIL		
S.NO	PARAMETERS		PROTOCOL	UNIT	RESULT
1	Texture	Sand	IS 10317: 2024	%	48
		Silt		%	32
		Clay		%	20
				Sandy Loam	
BDL = Below Detectable Limit ; DL = Detection Limit					

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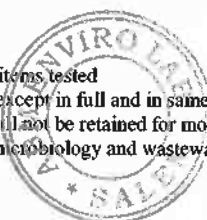
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TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Narayanapuram, Rough Stone and Gravel Quarry, Tiruppur District		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/S/20(b)
Date of Sampling	23.05.2025	Sample Description	Brown Colour
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	1Kg

DISCIPLINE			CHEMICAL TESTING		
PRODUCT NAME			SOIL		
S.NO	PARAMETERS		PROTOCOL	UNIT	RESULT
1	Texture	Sand	IS 10317: 2024	%	48
		Silt		%	28
		Clay		%	24
BDL = Below Detectable Limit ; DL = Detection Limit					
Sandy Loam					

S. Santhi

Verified BY

TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB

S. Suriya Kumar

Authorized Signatory

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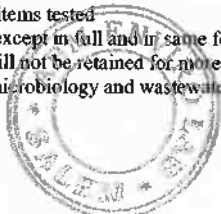
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Mob: 9842729655, 9443290855



suriyakumarsemban@gmail.com / abmenvirotech@gmail.com

TC-15822

TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone-I	Sample Code	ABMEL/A/16(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	25
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	46
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	14
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	20
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	29
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	24
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)

BDL = Below Detectable Limit; DL = Detection Limit

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For ABM ENVIRO LAB

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TC-15822

TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Ichipatti, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-I	Sample Code	ABMEL/A/17(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	29
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	50
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	15
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	24
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	32
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	26
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)
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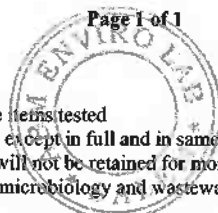
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For ABM ENVIRO LAB

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**TEST REPORT**

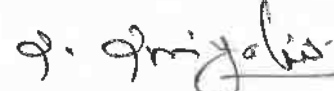
Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/A/18(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	27
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	53
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	13
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	21
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	26
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	22
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)

BDL = Below Detectable Limit; DL = Detection Limit


Verified BY
TECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB


Authorized Signatory
Reviewed & Authorized by
Mr. S. SURIYA KUMAR
Quality Manager
Authorized Signatory

----- End of the Report -----

Page 1 of 1

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ABM ENVIRO LAB

(A Unit of Aadhi Boomi Mining and Enviro Tech (P) Ltd.,)

NIPBASS PLAZA

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Mob: 9842729655, 9443290855

suriyakumarsemban@gmail.com / abmenvirotech@gmail.com



TC-16922

TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/A/19(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	26
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	49
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	15
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	27
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	29
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	25
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)
BDL = Below Detectable Limit; DL = Detection Limit				

For ABM ENVIRO LAB

Verified BY

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Authorized Signatory
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----- End of the Report -----
Quality Manager
Authorized Signatory

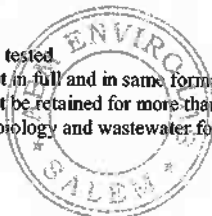
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TC-16822

TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P. Viswanathan,		
Address	Naranapuram, Rough Stone and Gravel Quarry, Tiruppur District		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/A/20(c)
Date of Sampling	23.05.2025	Sample Description	Ambient Air
Sample Received on	24.05.2025	Sampling Method	ABMEL/QSP/20
Test Commenced on	24.05.2025	Sample BY	Customer
Test Completed on	30.05.2025	Sample Quantity	Filter Paper, 25ml Absorbing Solution

Discipline		Chemical Testing		
Product Name		Atmospheric Pollution		
S.no	Parameters	Protocol	Unit	Result
1	Particulate Matter (less than 2.5-micron size particles as PM _{2.5})	IS 5182 (Part 24): 2019	µg/m ³	25
2	Respirable Particulate Matter (less than 10-micron size particles as PM ₁₀)	IS 5182 (Part 23): 2006	µg/m ³	51
3	Sulphur dioxide(SO ₂)	IS 5182 (Part 2): 2001	µg/m ³	13
4	Oxides of Nitrogen (NO ₂)	IS 5182 Part 6: 2006	µg/m ³	17
5	Ozone (O ₃)	IS 5182(Part 9): 1974	µg/m ³	25
6	Ammonia (NH ₃)	IS 5182 (Part 25): 2018	µg/m ³	23
7	Lead	IS 5182 (Part 22): 2004	µg/m ³	BDL(DL:0.1)
8	Nickel	IS 5182 (Part -26): 2020	ng/m ³	BDL(DL:0.1)

BDL = Below Detectable Limit; DL = Detection Limit

Verified BY

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Quality Manager

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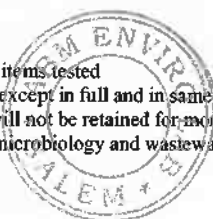
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**TEST REPORT**

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P. Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Core Zone-I	Sample Code	ABMEL/N/16(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/QSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	N	38.9
2				W	38.4
3				E	37.4
4				S	36.8
5				Core Zone	40.1
BDL = Below Detectable Limit; DL = Detection Limit					


Verified ByTECHNICAL MANAGER
ABM ENVIRO LAB

For ABM ENVIRO LAB


Authorized SignatoryReviewed & Authorized by
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suriyakumarsemban@gmail.com / abmenvirotech@gmail.com



TC-15022

TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P. Viswanathan,		
Address	Ichipatti, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-I	Sample Code	ABMEL/N/17(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/OSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	Buffer Zone-I	38.7
BDL = Below Detectable Limit; DL = Detection Limit					

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TECHNICAL MANAGER
ABM ENVIRO LAB

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TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Sedapalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-II	Sample Code	ABMEL/N/18(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/OSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	Buffer Zone-II	39.2
BDL = Below Detectable Limit; DL = Detection Limit					

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TECHNICAL MANAGER
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TC-15822

TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Velampalayam, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-III	Sample Code	ABMEL/N/19(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/QSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	Buffer Zone-III	36.4
BDL = Below Detectable Limit; DL = Detection Limit					

Verified By

TECHNICAL MANAGER
ABM ENVIRO LAB

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TC-15022

TEST REPORT

Sample ID:ABMEL/2025/TR-16		Report Date: 31.05.2025	
Customer Name	P.Viswanathan,		
Address	Naranapuram, Rough Stone and Gravel Quarry, Tiruppur District.		
Sample Mark	Buffer Zone-IV	Sample Code	ABMEL/N/20(d)
Date of Sampling	23.05.2025	Sample Description	Sound Level
Data Received on	24.05.2025	Sampling Method	ABMEL/QSP/20

DISCIPLINE		CHEMICAL TESTING			
PRODUCT NAME		NOISE			
S.NO	PARAMETERS	PROTOCOL	UNIT	LOCATION	RESULT
1	Sound Level	IS 9989: 2023	dB(A)	Buffer Zone-IV	38.5
BDL = Below Detectable Limit; DL = Detection Limit					

Verified By

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தமிழ்நாடு தமிழ்நாடு TAMILNADU

13.05.2025

Viswanathan

Palladam.

DL 647468

T.M. செந்தில்நாதன்

உரிமம் எண் - 13/2000

முத்திரைத்தாள் விற்பனையாளர்

திருப்பூர்.

உறுதிமொழி பத்திரம்

P.விஸ்வநாதன் (ஆதார் எண்: 9690 2449 4095) ஆகிய நான் வேலம்பாளையம் கிராமம், பல்லடம் வட்டம் திருப்பூர் மாவட்டத்தில் புல எண் 153/2A, 153/2C, 156/1B இல் 1.77.0 ஹெக்டர் பரப்பளவில் 2018 முதல் 2023 ஆண்டு வரை மாநில சுற்றுச்சூழல் அனுமதி கடித எண் (Lr.No. DEIAA-TPR/F.No.601/3(1)/ 2017/ Dated - 08.03.2018) பெற்று சாதாரண கல் மற்றும் கிராவல் குவாரி நடத்தி வந்தேன்.

P.Viswanathan



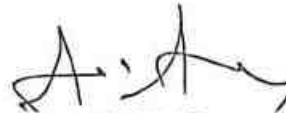
மேற்குறிப்பிட்ட சுற்றுச்சூழல் அனுமதி பெற்று குவாரி பணி செய்து வந்த காலத்தில் அனுமதி சான்றிதழில் குறிப்பிட்டிருந்த சில முக்கிய நிபந்தனைகளை நான் முழுமையாக நிறைவேற்ற வில்லை மற்றும் சில நிபந்தனைகளை சரியாக கடைபிடிக்க வில்லை என்பதை சுற்றுச்சூழல் இணக்க சான்றிதழ் (EP/12.1/2024-25/SEIAA/172/TN/729 தேதி : 09.05.2025) பெற்று அதில் சுட்டி காட்டியிருப்பதன் மூலம் அறிந்து கொண்டேன்

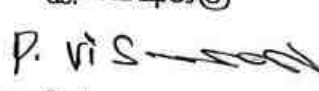
அவைகள் பின்வருமாறு:-

1. சுரங்க நடவடிக்கைகளின் போது சுற்றுப்புற காற்றின் தர கண்காணிப்பு ஒரு முறை மட்டுமே மேற்கொள்ளப்பட்டது.
2. சுரங்க நடவடிக்கைகளின் போது ஒரு முறை மட்டுமே சத்தம் தரம் கண்காணிக்கப்பட்டது
3. உரிமையாளர் நிலத்தடி நீர் பெருக்க நடவடிக்கைகளுக்காக "பிராந்திய இயக்குநர்" மத்திய நிலத்தடி நீர் வாரியம் அவர்களுடன் கலந்தாலோசிக்கவில்லை.
4. முன்மொழியப்பட்ட குவாரி பகுதியின் சுற்றுச்சூழல் கண்காணிப்பு, சுரங்க நடவடிக்கைகளுக்கு முன்னும் பின்னும், நிலஅதிர்வு ஆய்வு, நீர், காற்று, தாவரங்கள்/விலங்குகள் ஆகியவற்றை ஒரு புகழ்பெற்ற கல்வி மூலம் கண்காணிப்பு மேற்கொள்ளப்படவில்லை
5. ஆறு மாதங்களுக்கு ஒருமுறை நிலத்தடி நீரின் தரம் குறித்த ஆய்வு எதுவும் நடத்தப்படவில்லை
6. குவாரி பகுதியின் நிலத்தடி நீர் மட்ட விவரங்கள் குறித்து பொதுப்பணித் துறையிடமிருந்து பெறப்பட்ட விவரங்களை உரிமையாளர் வழங்கவில்லை.

மேலும் என் அறியாமையில் செய்த தவறிற்காக வருந்துகிறேன். பின் வரும் காலங்களில் இனி நான் சுற்றுச்சூழல் அனுமதி பெற்று சுரங்க பணி செய்யும் பட்சத்தில் அனுமதி சான்றிதழில் குறிப்பிடப்படும் நிபந்தனைகளை முழுமையாக நிறைவேற்றுவேன் என்றும் ஏற்கனவே சுற்றுச்சூழல் அனுமதி பெற்றதில் நிறைவேற்றாத நிபந்தனைகளையும் சேர்த்து இனி வரும் காலங்களில் நிறைவேற்றுவேன் என்றும் நான் உளமார உறுதி அளிக்கிறேன்.




A. ARUNKUMAR M.Com., B.L.,
 ADVOCATE & NOTARY
 (Government of India)
 Reg.No : 22078/2020
 No.12 Arun Complex, ABT Road,
 Karuvampalayam, Tirupur - 641 604.
 Mob : 99949 95882

இப்படிக்கு

P.விஸ்வநாதன்

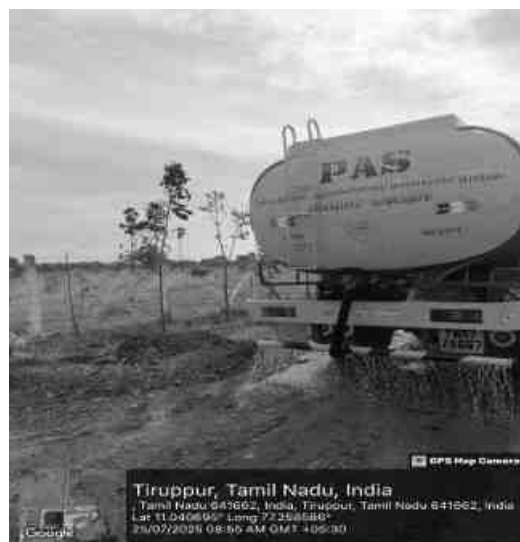
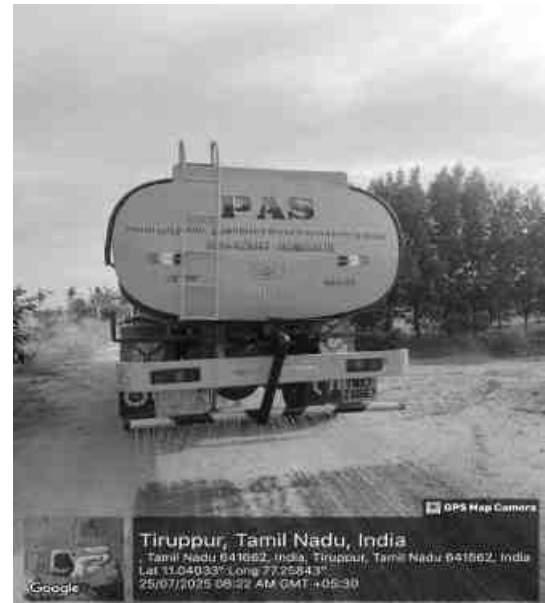
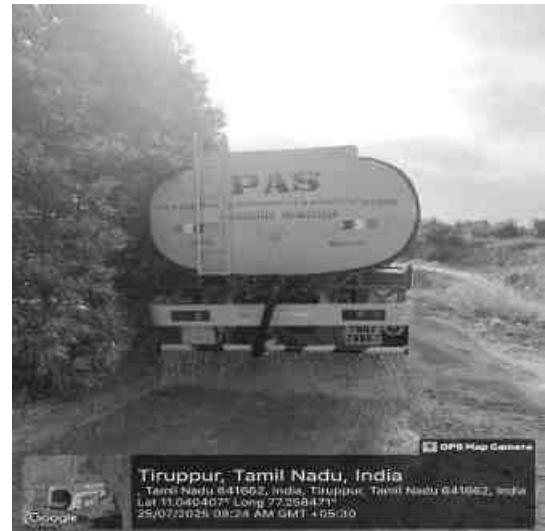
Greenbelt Development of Lease Area



Fencing Photo of Lease Boundary



Water Sprinkler Photos of Lease Haul Road



திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறை ஆணை

முன்னிலை:- டாக்டர். கே.எஸ். பழனிசாமி, இ.ஆ.ப.,

ந.க. 820 / கனிமம் / 2016

நாள்: 27.03.2018.

பொருள்: கனிமங்களும் குவாரிகளும் - திருப்பூர் மாவட்டம் - பல்லடம் வட்டம் - வேலம்பாளையம் கிராமம் - புல எண். 153/2A (0.91.0), 153/2C (0.20.5) மற்றும் 156/1B (0.65.5) ஆகியவற்றில் மொத்தம் 1.77.0 ஹெக்டர் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டி எடுக்க திரு. பி. விஸ்வநாதன், த/பெ. பழனிச்சாமி என்பவருக்கு ஐந்து ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் உத்தரவிடப்படுகிறது.

- பார்வை:
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 2. திருப்பூர் உதவி ஆட்சியர் கடிதம் ந.க. 4215 / 2017 / அ3 நாள்: 28.2.2017.
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 4. இவ்வலுவலக இதே எண்ணிட்ட கடிதம் நாள்: 09.03.2017 (Precise area communication letter).
 5. திருப்பூர் மாவட்ட சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மைச் சான்று DELAA -TN / F: NO. 601 / 3 (I) / 2017 dated 8.3.2018.
 6. மனுதாரர் திரு. பி. விஸ்வநாதன், த/பெ. பழனிச்சாமி என்பவர் கடிதம் நாள்: 16.3.2018 மற்றும் 22.3.2018.

உத்தரவு:-

திருப்பூர் மாவட்டம், பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், 275/ஏ3, நீலக்காடு என்ற முகவரியில் வசிக்கும் பழனிச்சாமி மகன் பி. விஸ்வநாதன் என்பவர் பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், புல எண். 153/2A (0.91.0), 153/2C (0.20.5) மற்றும் 156/1B (0.65.5) ஆகியவற்றில் மொத்தம் 1.77.0 ஹெக்டர் பட்டா நிலப்பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுக்க குவாரி குத்தகை உரிமம் வழங்கக் கோரி பார்வை 1-ல் காணும் விண்ணப்பத்தினை சமர்ப்பித்துள்ளார். இவ்விண்ணப்பத்தின் மீது உரிய நில இருப்பு அறிக்கை வழங்கக் கோரி இவ்வலுவலக கடிதத்தின் வாயிலாக திருப்பூர் உதவி ஆட்சியர் கேட்டுக் கொள்ளப்பட்டார்.

2. திருப்பூர் உதவி ஆட்சியர் அவர்கள் சம்பந்தப்பட்ட புலத்தினை தணிக்கை செய்து, பார்வை 2-ல் கண்டவாறு தனது நில இருப்பு அறிக்கையினை சமர்ப்பித்துள்ளார். அவர் தனது அறிக்கையில்,

“பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், க.ச. 153/2A-ல் 0.91.0 ஹெக்டர், க.ச. 153/2C-ல் 0.20.5 ஹெக்டர் மற்றும் க.ச. 156/1B-ல் 0.65.5 ஹெக்டர் ஆக மொத்தம் 1.77.0 ஹெக்டர் பரப்புள்ள பூமியானது பல்லடம் சார் பதிவாளர் அலுவலக கிரையப் பத்திர எண். 609/2011, 11820/2016 மற்றும் 11821/2016ன்படி பாத்தியப்பட்டு உள்ளது எனவும், மனுதாரர் அரசுக்கு செலுத்த வேண்டிய வரியினங்களை நிலுவையின்றி செலுத்தியுள்ளதாக உறுதிமொழி ஆவணம் சமர்ப்பித்துள்ளார் எனவும் தெரிவித்துள்ளார்.

மேலும், பிரஸ்தாப புலங்களானது நில அளவை செய்யப்பட்டுள்ளது எனவும், குவாரி உரிமம் வழங்கப்படவுள்ள இடத்திலிருந்து 300 மீ சுற்றளவிற்குள் ஊர் நத்தமோ, இதர குடியிருப்புகளோ, அங்கீகரிக்கப்பட்ட அரசு கட்டிடங்களோ ஏதுமில்லை எனவும், பிரஸ்தாப புலத்தின் எல்லைகள் வரையறுக்கப்பட்டு எல்லைக் கற்கள் நடப்பட்டுள்ளன எனவும், உரிமம் வழங்குவது தொடர்பாக ஆட்சேபணைகள் ஏதும் வரப்பெறவில்லை” எனவும் தெரிவித்து, மனுதாரருக்கு பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், புல எண். 153/2A (0.91.0), 153/2C (0.20.5) மற்றும் 156/1B (0.65.5) ஆகியவற்றில் மொத்தம் 1.77.0 ஹெக்டர் பரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க குவாரி குத்தகை உரிமம் வழங்கலாம் என பரிந்துரை அறிக்கை சமர்ப்பித்துள்ளார்.

3. இதனைத் தொடர்ந்து, இப்புலத்தினை தணிக்கை செய்துள்ள துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, திருப்பூர் பார்வை 3-ல் காணும் கடிதத்தில் தனது அறிக்கையினை சமர்ப்பித்துள்ளார். அவர் தனது அறிக்கையில்,

குத்தகை உரிமம் கோரும் புல எண். 153/2A-ல் 0.91.0 ஹெக்டர் ஆனது பட்டா எண். 624-ன்படியும், புல எண். 153/2C மற்றும் 156/1B ஆகியவற்றில் மொத்தம் 0.86.0 ஹெக்டர் ஆனது பட்டா எண். 729-ன்படி மனுதாரர் திரு. விஸ்வநாதன் என்பவர் பெயரில் தனிப்பட்டவாக தாக்கலாகியுள்ளது எனவும், இதன் மூலம் விண்ணப்பதாரருக்கு கல்குவாரி குத்தகை கோர விண்ணப்பப் புலத்தில் உரிமை உள்ளது எனவும், திருப்பூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறை ஆணை ந.க. 287 / கனிமம் / 2011 நாள்: 20.10.2011-ன்படி 20.10.2011 முதல் 19.10.2016 வரை புல எண். 153/2ஏ-ல் குத்தகை உரிமம் வழங்கப்பட்டு, குத்தகை உரிமம் முடிவுற்றுள்ளது எனவும் தெரிவித்துள்ளார். மேலும், புல எண். 153/2C மற்றும் 156/1B ஆகியவற்றில் பரப்பு 0.86.0 ஹெக்டரில் மாவட்ட ஆட்சியரின் செயல்முறை ஆணை ந.க. 286 / கனிமம் / 2011 நாள்: 20.10.2011ன்படி 20.10.2011 முதல்

19.10.2016 வரை ஐந்தாண்டுகளுக்கு திரு. சுப்பிரமணி என்பவர் பெயரில் உரிமம் வழங்கப்பட்டு, குத்தகை காலம் முடிவடைந்து விட்டது எனவும் தெரிவித்துள்ளார்.

விண்ணப்பப் புலத்தில் பூமியின் மேல்மட்டத்திலிருந்து 3 மீ வரை கிராவல் மண் படிவுகளும், அதனைத் தொடர்ந்து 6 மீ ஆழம் வரை சிதைவுப் பாறைகளும், அதனை அடுத்து சார்னோகைட் வகையைச் சார்ந்த பாறை அமைவுகளும் காணப்படுகின்றன எனவும், மேற்படி பாறைகளில் அமையப்பெற்ற குறுக்கு நெடுக்கான பாறைப் பிளவுகளினால் மேற்படி பாறையை மெருகூட்டி பளிங்குகற்களாக தயாரித்து ஏற்றுமதி செய்ய தரமானதாக இல்லை எனவும், இதற்கு மாறாக மேற்படி கற்களானது கட்டிடம் மற்றும் சாலைப்பணிக்கு பயன்படும் கட்டுக்கற்கள், ஜல்லிக்கற்கள் மற்றும் வேலிக்கற்கள் செய்ய ஏற்றதாக உள்ளது எனவும் தெரிவித்துள்ளார்.

மேலும், தனது அறிக்கையில், குத்தகை உரிமம் வழங்கக் கோரும் புலத்திலிருந்து 300 மீட்டர் சுற்றளவிற்குள் அரசால் அங்கீகரிக்கப்பட்ட வீட்டு மனைகளோ, கட்டிடங்களோ இல்லை எனவும், மேலும், 50 மீட்டர் சுற்றளவில் நீர்நிலைகள், மயானங்கள், கோவில் போன்ற புரதான சின்னங்கள் ஏதும் இல்லை எனவும், குவாரி உரிமம் வழங்குவது தொடர்பாக பொதுமக்களிடமிருந்து ஆட்சேபணை ஏதும் தணிக்கையின் போது பெறப்படவில்லை எனவும், குத்தகை கோரும் புலத்தில் ஏற்கனவே மாவட்ட ஆட்சியரின் அனுமதி பெற்று குவாரி செய்த பள்ளங்கள் காணப்படுகின்றன எனவும், மேற்படி பள்ளங்களில் பரப்பு மற்றும் வெட்டியெடுக்கப்பட்ட கனிமங்களின் கனபரிமாணம் ஆகியவற்றை துணை இயக்குநர் (சுரங்கம்) அவர்களால் ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டத்திலிருந்து எடுத்துக் கொள்ளலாம் எனவும் தெரிவித்து, சில சிறப்பு நிபந்தனைகளின் பேரில், மனுதாரர் திரு. பி. விஸ்வநாதன், த/பெ. பழனிச்சாமி என்பவருக்கு பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், புல எண். 153/2A (0.91.0), 153/2C (0.20.5) மற்றும் 156/1B (0.65.5) ஆகியவற்றில் மொத்தம் 1.77.0 ஹெக்டர் பரப்பிற்கு சாதாரண கற்கள் மற்றும் கிராவல் வெட்டியெடுத்துக் கொள்ள தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959ன் விதி 19 (1) மற்றும் 20-ன்படி 5 (ஐந்து) ஆண்டுகளுக்கு குவாரி குத்தகை உரிமம் வழங்கலாம் என பரிந்துரை செய்து துணை இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை அறிக்கை சமர்ப்பித்துள்ளார்.

4. மேற்கண்ட தணிக்கை அலுவலர்களின் பரிந்துரை அறிக்கைகளை ஏற்று, பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், புல எண். 153/2A (0.91.0), 153/2C (0.20.5) மற்றும் 156/1B (0.65.5) ஆகியவற்றில் மொத்தம் 1.77.0 ஹெக்டர் பட்டா நிலப்பரப்பு குவாரி குத்தகை உரிமம் வழங்க முடிவு செய்யப்பட்ட பகுதி (Precise Area) என அறிவிக்கப்பட்டு விண்ணப்பத்தாரர் திரு. பி. விஸ்வநாதன், த/பெ. பழனிச்சாமி என்பவருக்கு ஏற்பளிக்கப்பட்ட சுரங்க திட்டம் மற்றும் சுற்றுச்சூழல் பெற்று சமர்ப்பிக்கும்படி பார்வை 4-ல் காணும் கடிதத்தின்படி கேட்டுக் கொள்ளப்பட்டது.

5. அதன்படி, மனுதாரர் திரு. பி. விஸ்வநாதன், த/பெ. பழனிச்சாமி என்பவர் துணை இயக்குநர் (கனிமம்), திருப்பூர் அவர்களால் ஏற்பளிக்கப்பட்ட சுரங்கத் திட்டத்தினையும், மாவட்ட அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், திருப்பூர் (District Level Environment Impact Assessment Authority, Tiruppur) (DEIAA)-யிடமிருந்து சுற்றுச்சூழல் ஒப்புதலையும் பெற்று இவ்வலுவலகத்தில் பார்வை 5-ல் கண்டவாறு சமர்ப்பித்துள்ளார்.

6. மேலும், மனுதாரர் திரு. பி. விஸ்வநாதன், த/பெ. பழனிச்சாமி என்பவர் திருப்பூர் மாவட்ட அளவிலான சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்திடமிருந்து பெறப்பட்ட சுற்றுச்சூழல் ஒப்புதலில் தெரிவிக்கப்பட்டுள்ள நிபந்தனைகளின்படி, தமிழ் மற்றும் ஆங்கில நாளிதழ்களில் அறிவிப்பு வெளியீடு செய்து, அதன் விபரத்தினை பார்வை 6-ல் காணும் கடிதத்தின்படி தெரிவித்துள்ளார். மேலும், மேற்கண்ட அலுவலர்களின் பரிந்துரை மற்றும் சிறுகனிம சலுகை விதிகளின் பேரில், மனுதாரருக்கு குவாரி குத்தகை உரிமம் வழங்க ஒப்புதல் தெரிவிக்கப்பட்டதன் பேரில், மனுதாரர் விதிகளின்படி காப்புத் தொகையாக ரூ. 10000/-ஐ பாரத மாநில வங்கி, திருப்பூர், சலான் எண். 22, நாள்: 19.3.2018-ன்படி செலுத்தி அசல் சலானையும், 1959-ம் தமிழ்நாடு சிறுகனிம சலுகை விதிகளின் பின் இணைப்பு IV கண்டுள்ள படிவத்தில் உரிய முத்திரைத்தாளில் குத்தகை ஒப்பந்தப் பத்திரம் தயார் செய்து அளித்துள்ளார்.

எனவே, திருப்பூர் உதவி ஆட்சியர் மற்றும் துணை இயக்குநர் (கனிமம்), திருப்பூர் ஆகியோரின் பரிந்துரை அறிக்கைகளின்படியும் திருப்பூர் மாவட்ட சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் (District level Environment Impact Assessment Authority) (DEIAA) சுற்றுச்சூழல் ஒப்புதல்படியும் திரு. பி. விஸ்வநாதன், த/பெ. பழனிச்சாமி என்பவருக்கு பல்லடம் வட்டம், வேலம்பாளையம் கிராமம், புல எண். 153/2A (0.91.0), 153/2C (0.20.5) மற்றும் 156/1B (0.65.5) ஆகியவற்றில் மொத்தம் 1.77.0 ஹெக்டர் நிலபரப்பில் சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுத்துச் செல்ல தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959-ன் விதி 19(1), 20 மற்றும் 22-ன்படி குத்தகை ஒப்பந்தப் பத்திரம் நிறைவேற்றிய நாளான 27.03.2018 முதல் 26.03.2023 வரை ஐந்து ஆண்டுகளுக்கு கீழ்க்கண்ட நிபந்தனைகளுக்கு உட்பட்டு குவாரி உரிமம் வழங்கி உத்தரவிடப்படுகிறது.

நிபந்தனைகள்:-

1. குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றப்படும் நாள் குவாரி பணி தொடங்கப்படும் முதல் நாளாக கருதப்பட்டு அன்றைய தினத்திலிருந்து 5 ஆண்டுகளுக்கு மட்டுமே திருப்பூர் மாவட்ட அளவிலான சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையம் (DEIAA) வழங்கிய சுற்றுச்சூழல் ஒப்புதல் சான்று செல்லத்தக்கது.
2. குத்தகை புலத்தினை அடுத்துள்ள பட்டா நிலங்களுக்கு 7.5 மீட்டர் இடைவெளி அளித்து குவாரிப்பணி புரிய வேண்டும்.

3. பொதுமக்களுக்கோ, பொது சொத்துக்களுக்கோ யாதொரு சேதமும் இன்றி பாதுகாப்பான முறையில் குவாரிப்பணி செய்ய வேண்டும்.
4. பொதுமக்களின் நலன் கருதி பாதுகாப்பான முறையில் குறைந்த அழுத்தமுள்ள வெடிபொருட்கள் பயன்படுத்தியும், கைத்துளைப்பான் கருவி கொண்டு துளையிட்டும், தொழிலாளர்களின் பாதுகாப்பினை உறுதி செய்ய பாதுகாப்பானதும், அகலமான Benches அமைத்து குவாரிப்பணி செய்ய வேண்டும்.
5. மாவட்ட அளவிலான சுற்றுச்சூழல் செயல் விளைவு மதிப்பீட்டு ஆணையம், திருப்பூர் (DEIAA-Tiruppur) சுற்றுச்சூழல் ஒப்புதல் கடிதத்தில் தெரிவிக்கப்பட்டுள்ள பொது மற்றும் சிறப்பு நிபந்தனைகளை முறையாக கடைபிடித்து குவாரிப்பணி செய்வதுடன், குவாரிப் பணி ஆரம்பிப்பதற்கு முன்பாக தமிழ்நாடு மாசுக்கட்டுப்பாட்டு வாரியத்தின் தடையின்மை சான்று பெற்று மாவட்ட நிர்வாகத்திற்கு சமர்ப்பித்து அதன் பின்னரே குவாரிப்பணி துவங்க வேண்டும்.
6. குத்தகைதாரர் தனக்கு அளிக்கப்பட்ட குத்தகை பகுதியின் எல்லைகளை தெளிவாக காட்டும் வகையில் கல் நட்டு வண்ணம் இட்டு குத்தகை காலம் முழுமைக்கும் பராமரிக்க வேண்டும்.
7. குத்தகைதாரர் குவாரியின் அருகே குத்தகைதாரர் பெயர், கிராமத்தின் பெயர், வட்டத்தின் பெயர், புல எண். பரப்பு, குத்தகை ஆணை எண். குத்தகை காலம், கனிமத்தின் பெயர், போன்ற விபரங்கள் குறிக்கப்பட்ட தகவல் பலகையை தமது சொந்த செலவில் வைத்து நன்கு பராமரிக்க வேண்டும்.
8. குவாரிக்கு சென்றுவரும் பாதை வசதிகள் குத்தகைதாரர்கள் அவர் தம் சொந்த பொறுப்பிலேயே அமைத்துக் கொள்ள வேண்டும்.
9. குத்தகை வழங்கப்பட்ட பாதையில் குண்டுக்கல், ஜல்லி, அரவை கல், வேலிக்கற்கள், போன்ற சிறுகனிமங்கள் உடைத்தெடுக்க மட்டுமே அனுமதியுண்டு. வெளிநாடுகளுக்கு ஏற்றுமதியாகும் மெருகூட்டும் கனவடிவ கற்கள் வெட்டி எடுக்கக் கூடாது.
10. குவாரியிலிருந்து கொண்டு செல்லப்படும் மேற்கண்ட வகை கற்களுக்கு 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் பின் இணைப்பு II-ல் கண்டுள்ளவாறு உரிமவரி (சீனியரேஜ் தொகை) செலுத்த வேண்டும். அரசு அவ்வப்போது அறிவிக்கும் உரிமவரி மாற்றங்களுக்கு ஏற்ப எவ்வித ஆட்சேபணை இன்றி செலுத்துதல் வேண்டும்.
11. திருப்பூர் மாவட்ட கனிம கட்டமைப்பு அறக்கட்டளை (District Mineral Foundation Trust) நிதிக்காக சாதாரண கற்கள் மற்றும் கிராவல் மண் எடுத்துச் செல்ல செலுத்தப்படும் சீனியரேஜ் தொகைக்கு 10% சதவீத தொகை மற்றும் அரசு அவ்வப்போது அறிவிக்கும் மாற்றங்களுக்கு ஏற்ப அறக்கட்டளை நிதி செலுத்தப்பட வேண்டும்.
12. குத்தகை அனுமதி வழங்கப்பட்ட நிலத்திலிருந்து கொண்டு செல்லப்பட்ட கனிமத்திற்கு முறையான கணக்குகளும், குழிவாயில் பதிவேடம் முறையாக பராமரித்தல் வேண்டும். அவற்றை சம்பந்தப்பட்ட அலுவலர்கள் தணிக்கைக்கு ஆஜர்படுத்த கோரினால் தவறாது சமர்ப்பிக்க வேண்டும்.
13. துணை / உதவி இயக்குநர் (புவியியல் மற்றும் சுரங்கத்துறை)-ன் அலுவலக முத்திரை, கையொப்ப முத்திரையுடன் கூடிய உரிய அனுப்புகைச் சீட்டை

வாகனங்களுக்கு கொடுக்கப்படும் போது அனுப்புகைச் சீட்டில் வாகன எண், தேதி, புறப்படும் நேரம், செல்லும் இடம் ஆகியவற்றை முறையாகக் குறிப்பிட்டு கையொப்பம் இட்ட பின்னரே, குத்தகைதாரரோ அல்லது அவரது அனுமதி பெற்ற நபரோ கொடுக்க வேண்டும். மேற்கண்டவாறு குறிப்பிடுவதில் ஏதேனும் தவறுகள் இருந்தாலோ, கலங்கள் பூர்த்தி செய்யப்படாமல் இருந்தாலோ முறையற்ற வகையில் கனிமம் எடுத்துச் செல்வதாகக் கருதப்பட்டு வாகனத்தை கைப்பற்றி அபராதம் விதிப்பதோடு, அதற்கு குத்தகைதாரரை பொறுப்பாக்கி கனிம விதிகளின் படி மேல் நடவடிக்கை எடுக்கப்படும்.

14. குத்தகை அனுமதி வழங்கப்பட்ட புலத்ததை முழுமையாகவோ, பகுதியாகவோ எவருக்கும் உள் குத்தகைக்கு விடுவதோ அல்லது கிரையம் செய்வதோ கூடாது.
15. குத்தகைதாரர் ஒவ்வொரு நாளும் குவாரியில் இருந்து எவ்வளவு சாதாரண கற்கள் / கிராவல் எடுக்கப்பட்டது என்பதையும் எந்த அளவு சாதாரண கற்கள் லாரி/ வாகனங்கள் மூலம் வெளியே அனுப்பப்பட்டது என்ற விபரத்தையும் காட்டும் பதிவேட்டினைப் பராமரித்து வரவேண்டும்.
16. குத்தகைதாரர், தமக்கு குத்தகை வழங்கப்பட்ட பகுதிக்கு அருகில் உள்ள பட்டா நிலத்திற்கு எவ்வித இடையூறும் இல்லாமல் குவாரிப் பணி செய்யப்பட வேண்டும்.
17. வண்டிப்பாதை மற்றும் நடைபாதைகளில் இருந்து 10 மீட்டர் தூரம் தள்ளி குவாரி செய்ய வேண்டும். ரோடுகள், புகைவண்டிப்பாதை, பொதுப்பணித்துறை, வாய்க்கால், பொதுமக்கள் உபயோகத்திற்கான பகுதிகள், மின்சாரம் மற்றும் தொலைபேசி கம்பி செல்லும் பகுதிகள், வழிபாட்டு இடங்கள் மற்றும் பழங்கால சின்னங்கள் உள்ள பகுதிகள் ஆகியவற்றில் இருந்து 50 மீட்டர் பாதுகாப்பு தூரம் விட்டு குவாரி செய்ய வேண்டும்.
18. குத்தகைக்கு விடப்பட்டுள்ள விஸ்தீரணத்தில் மட்டுமே குத்தகைதாரர் குவாரி செய்ய வேண்டும். அதற்கான கூடுதலான விஸ்தீரணத்தில் குவாரி செய்வது தெரியவந்தால் அபராத நடவடிக்கை மேற்கொள்வதுடன் குவாரி குத்தகை உரிமம் இரத்து செய்ய நடவடிக்கை எடுக்கப்படும்.
19. குத்தகை நிபந்தனை மீறப்பட்டால் குத்தகை இரத்து செய்யவோ, செய்யப்பட்ட தவறுதலுக்கு அபராத நடவடிக்கை எடுத்து தண்டம் விதிக்கவோ அல்லது கிரிமினல் வழக்குத் தொடுக்க மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு. குத்தகை ரத்து செய்யப்பட்டால் காப்புத் தொகை உட்பட அனைத்து தொகைகளும் அரசுக்கு ஆதாயமாக்கப்படும்.
20. குத்தகைதாரர் தமிழ்நாடு சிறுவகைக்கனிம சலுகை விதிகள் 1959ல் கண்டுள்ள விதிகளுக்கும் மற்றும் அரசு அவ்வப்போது அறிவிக்கும் சட்டதிட்டங்களுக்கும் உட்பட்டு குவாரிப்பணிகள் செய்ய வேண்டும்.
21. குவாரி குத்தகை உரிமம் காலாவதியான பின்பு எக்காரணத்தை முன்னிட்டும் மீண்டும் புதுப்பிக்கவோ அல்லது கால நீட்டிப்போ செய்து தரப்பட மாட்டாது.
22. வெடிபொருள் சட்டம் 1884ல் தெரிவிக்கப்பட்ட சரத்துக்கள்படி குறைந்த அளவு வெடிபொருளை உபயோகித்து கற்கள் வெளியே சிதறாமலும், சத்தம் அதிகம் ஏற்படாமலும், பொதுமக்களுக்கும், கால்நடைகளுக்கும், எவ்வித பாதிப்பும் இன்றியும் கல்குவாரி பணி செய்யப்பட வேண்டும்.

- மேற்கூறிப்பிட்ட நிபந்தனைகள் மற்றும் கனிம சட்டம் விதிகளை மீறியுள்ளது உறுதிபடும் தருணத்தில் விதிமுறைகளுக்கு உட்பட்டு குத்தகை இரத்து செய்ய நடவடிக்கை எடுக்கப்படும். மேற்கண்ட நிபந்தனைகள் ஒப்பந்தப் பத்திரத்தில் கண்டுள்ள நிபந்தனைகள், திருப்பூர் மாவட்ட சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் நிபந்தனைகள் மற்றும் தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959, கனிமம் மற்றும் சுரங்கம் (ஒழுங்குமுறை மற்றும் மேம்பாடு)-1957, மெட்டாலிபெரஸ் மைன்ஸ் ரெகுலேசன் -1961 மற்றும் கனிம சட்டம் 1952 ஆகியவற்றின் அடிப்படையில் குத்தகைதாரர் குவாரிப் பணி புரிய வேண்டும்.

১৭/১১/১৮

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1. சார் ஆட்சியர், திருப்பூர்
2. வட்டாட்சியர், பல்லடம்.
3. கிராம நிர்வாக அலுவலர் - வேலம்பாளையம்.
(வட்டாட்சியர் மூலமாக)