

DRAFT EIA & EMP FOR PROPOSED ROUGH STONE AND GRAVEL QUARRY CATEGORY – B1

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

ToR Identification No. TO25B0108TN5642622N (F.No. 12479), dated 25.09.2025

PROPOSED QUARRY LEASE DETAILS	
SURVEY NOS	95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 & 95/10
VILLAGE	PALLI
TALUK	CHEYAR
DISTRICT	TIRUVANNAMALAI
EXTENT	3.45.0Ha
CLUSTER EXTENT	11.03.5 Ha
PROPOSED PRODUCTION QUANTITY FOR FIRST FIVE YEARS	ROUGH STONE: 4,26,225m³ GRAVEL: 55,252m³
PROPOSED PRODUCTION QUANTITY FOR SECOND FIVE YEARS	ROUGH STONE: 1,09,620m³
LAND	PATTA LAND

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

Category of the Project: B1 Cluster Mining, Total Cluster Area – 11.03.5 Ha

Baseline Monitoring Period – March 2025 to May 2025

APPLICANT

**Thiru.S.Gokulraj,
S/o.Saravanaraj,
No.14, Kamaraj Nagar,
Pammal Post, Kanchipuram District.**

ENVIRONMENTAL CONSULTANT	LABORATORY
M/s. GLOBAL MINING SOLUTIONS <i>(NABET Accredited & ISO 9001 Certified Consultant)</i> Plot No. 6, S.F.No. 13/2, A2, VS City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455. NABET Accreditation No: NABET/EIA/23-26/SA 0241 <i>Valid up to: 04.01.2026</i> Contact: 97502 23535 & 94446 54520 Email: infoglobalmining@gmail.com, globalminingsolutionssalem@gmail.com	M/s. SHRIENT ANALYTICAL & RESEARCH LABS PRIVATE LIMITED <i>(NABL Accredited Testing Laboratory)</i> #416/15, Dhargas Road, Perungalathur, West Tambaram, Chennai, Tamil Nadu, India.



NOVEMBER - 2025



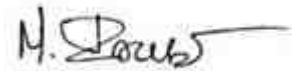
AMENDMENT PAGE

S.NO	Page No.	Section / Clause / Para / Line (as Applicable)	Date of Amendment	Amendment Made	Reasons of amendment	Signature of Person Authorizing Amendment
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ACKNOWLEDGEMENT

M/s. Global Mining Solutions, Salem is very much thankful to Thiru.S.Gokulraj, Lessee for the confidence and trust placed on the organization for carrying out Environmental Impact Assessment (EIA) study for the proposed Rough Stone and Gravel quarry over a lease extent of 3.45.0 Ha., & Cluster extent of 11.03.5 Ha., located at Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State and formulating the Environmental Management Plan (EMP). We also gratefully acknowledge the cooperation and assistance provided by concerned government authorities for collection of secondary information for the preparation of Draft EIA/EMP report. Our sincere thanks to the local people of Palli Village and the nearby villages for their whole hearted cooperation and constant involvement during the entire field study without which the study would not have been possible.

For: M/s. Global Mining Solutions



(M. Prabu)

Managing Director

UNDERTAKING

In line with MoEF OM No. J – 11013/41/2006-IA. II (I) dated 5th October 2011, we hereby give our undertaking for owning the content and information in the EIA/EMP report submitted for EC of the proposed Rough Stone and Gravel quarry over a lease extent of 3.45.0 Ha., & Cluster extent of 11.03.5 Ha located at Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.

For: M/s. Global Mining Solutions

M. MANIKANDAN
EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

UNDERTAKING

In Line with OM no. J-11013/41/2006-IA.II (1) dated 4th Aug 2009 and its Amendments, we hereby confirm that all Terms of Reference issued by Ministry of Environment, Forest and Climate Change vide ToR Identification No. TO25B0108TN5642622N (F.No. 12479), dated 25.09.2025 of Draft EIA/EMP report for the proposed Rough Stone and Gravel Quarry over a lease extent of 3.45.0 Ha., & Cluster extent of 11.03.5 Ha., located at Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State for the production of 5,35,845 m³ (10 years) of Rough Stone and 55,252m³ of Gravel from the proposed lease area and the details has been complied in the EIA/EMP report is factually correct.

The EIA/EMP report has been prepared by M/s. Global Mining Solutions (GMS), Salem. GMS is a NABET accredited consultant for preparation of EIA/EMP report of Mining of Minerals (Opencast & Under Ground Mining) vide certificate No. NABET/EIA/23-26/SA 0241, valid till 04.01.2026.

For: M/s. Global Mining Solutions

M. MANIKANDAN

EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM




QUALITY COUNCIL OF INDIA
Creating an Association for Quality

NABET

National Accreditation Board for Education and Training

Certificate of Accreditation

Global Mining Solutions

Plot No - 6 SF No 13/2 A2, VS City, RC Chettypatty, Kottamettupatty, Omalur,
Salem, Tamil Nadu-636455

The organization is accredited as **Category-A** under the **QCI-NABET Scheme for Accreditation of EIA Consultant Organization, Version 3** for preparing EIA/EMP reports in the following Sectors:

S. No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1	Mining of minerals including opencast/ underground mining	1	1 (a) (i)	A
3	Thermal power plants	4	1 (d)	B
5	Metallurgical industries (ferrous)	8	3 (a)	A
6	Cement Plants	9	3 (b)	A
26	Building and construction projects	38	8 (a)	B
27	Townships and Area development projects	39	8 (b)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in SAAE minutes dated May 20, 2021, posted on QCI-NABET website.

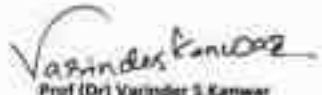
The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/SAE/ACCQCI/3628 dated May 20, 2021. The accreditation needs to be renewed before the expiry date Eco-Check Policy and Services, Tamil following due process of assessment.

Valid up to
January 4, 2026



Certificate No.
NABET/EIA/23-26/SA 0243

Issue Date
May 30, 2025


Prof (Dr) Varinder S Kanwar
CEO - NABET

For the updated list of Accredited EIA Consultant Organizations with approved Sectors, please refer to QCI-NABET website.

DECLARATION BY EXPERTS

Declaration by Experts contributing to the proposed Rough Stone and Gravel Quarry over a lease extent of 3.45.0 Ha. & Cluster extent of 11.03.5 Ha located at Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.

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

EIA Coordinator Name: Manikandan Manickam

M. MANIKANDAN
EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

Period of involvement: March 2025 to May 2025.

Contact information:

M/s Global Mining Solutions

Plot No.6, SF No. 13/2, A2, VS City, RC Chettypatty,

Kottamettupatty, Omalur,

Salem, Tamil Nadu – 636 455.

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

S.NO.	Functional areas	Name of the expert/s	Involvement (period and task**)	Signature and Date
1	AP	Dhanalakshmi Ramanathan	Assessment of existing air quality, Impact of the project on ambient air and suggested mitigation measures for air pollution. <u>Period: March 2025 to May 2025.</u>	
2	WP	Abirami Kaliaperumal	Assessment of existing water quality, impact of the project on surface and ground water quality, suggested mitigation measures for minimizing the impact. <u>Period: March 2025 to May 2025.</u>	
3	SHW	Ramados N	Assessment of waste generated from the project, suggested waste management practices. <u>Period: March 2025 to May 2025.</u>	
4	SE	Sarasvathy K	Baseline SE studies. Data compilation and assessment. Impact of the project on SE status of the area. Formulation of CER plan. <u>Period: March 2025 to May 2025.</u>	
5	EB	Saravanan S	Baseline data collection of related to ecology of the area. <u>Period: March 2025 to May 2025.</u>	
6	HG	Ravinthiran N	Hydrogeological feature of the area. Ground water depth and impact of project on ground water of the area. <u>Period: March 2025 to May 2025.</u>	
7	AQ	Srilatha Thiruveedhula	Air quality modeling utilizing the area source model.	

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

			Predication of the ground level concentration of the dust. Suggesting suitable mitigation measures. <u>Period: March 2025 to May 2025.</u>	
8	NV	Dhanalakshmi Ramanathan	Ambient noise study of the area. Incremental noise generation due to quarry operation and impact of the noise due to the project. <u>Period: March 2025 to May 2025.</u>	R. Dhanu
9	LU	Srilatha Thiruveedhula	Preparation of land use map based on satellite imagery. Land use classification and analysis. Impact prediction of the project on the surrounding land environment. <u>Period: March 2025 to May 2025.</u>	T. Srilatha
10	RH	S.V. Prashant	Identification of the Risk related to the mining activities. Preparation of emergency disaster management plan. Plan for supply of safety equipment for the worker. <u>Period: March 2025 to May 2025.</u>	S. Prashant
11	SC	Shisupal Sing	Soil monitoring, secondary data collection on soil type, soil management practices, utilization of topsoil. <u>Period: March 2025 to May 2025.</u>	Shisupal Sing
12	GEO	Valliappan Meyyappan	Geological map, stability of quarry and dump, management plan for mine stability, after use of mining quarry and geological feature of the area. <u>Period: March 2025 to May 2025.</u>	V. Meyyappan

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COMPLIANCE TO

TERMS OF REFERENCE

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

S.No	ToR Points	Reply	Pg. No
1.Seiaa Specific Conditions			
1.1	The Authority noted that the subject was placed in the 609th meeting of SEAC-I held on 26.08.2025. After detailed discussions, the Authority accepts the recommendation of SEAC-I and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 5,35,845 m ³ of rough stone and 55,252m ³ of Gravel up to the depth of 42m (Below Ground Level) as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-I & normal conditions & the SEIAA Standard conditions.	Agreed	-
2. Seac Conditions - Site Specific			
2.1	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 required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal: (i) Copy of the agreement forming CMC. (ii) The Organisation chart of the Committee with defining the role of the members	A cluster management committee including all the proponents of the Rough Stone and Gravel quarrying projects within the cluster of 500 m radius will be constituted for the effective implementation of appropriate environmental management plan. Affidavit in this regard will be submitted during final EIA/EMP Report. The PP will install CCTV at the proposed mine lease area and submit proof in the Final EIA/EMP report.	

	(iii) The 'Standard Operating Procedures' (SoP) executing the planned activities. 2. The PP shall ensure the installation of CCTV at the proposed quarry site and ensure its inclusion during the EIA presentation.		
3. SEAC Standard Condition			
1	In the case of existing/operation 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 lining lease area (viii) Condition of Safety zone/benches (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6m height and ultimate depth of not exceeding 50m.	The applied lease is fresh project. No mining has been carried out in this lease area so far.	-
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 VAO certificate is enclosed as Annexure -5.	Enclosed as Annexure 5
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,	A Site survey has been conducted to identify and list structures located within a 300 m radius from the proposed Quarry and structures located within 300 m radius are given in section 3.3 of Chapter 3.	

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	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.	As per the field study, there are 4 structures within 300m radius which include 1 Crusher Unit Office Room, a Crusher Unit and its Office Room, Shed and a Crusher Unit. No habitation within 300m.	
4	The PP shall submit a detailed hydrogeological 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.	A detailed hydro-geological report will be included in the Final EIA Report.	-
5	The Project Proponent shall carry out Bio-diversity study through reputed institution and the same shall be included in the EIA report.	The bio diversity study has been carried out by our FAE is given in section 3.3.6 of Chapter 3.	119
6	The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries. Tiger reserve etc. upto a radius of 25 km from the proposed site.	The DFO letter stating that the proximity distance of RF & PF to be incorporated at the time of final EIA submission.	-
7	In 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, Suratkal 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	Not Applicable It is fresh quarry lease applied area.	-

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	during the time of appraisal for obtaining the EC.		
8	However, in case of the fresh/virgin quarries, the project 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 30m below ground level.	The ultimate depth for this proposal (Ten years) is 42 m BGL. The slope stability study will be carried through reputed Institute once the depth reaches 25 m BGL.	-
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	Affidavit will be incorporated in the Final EIA Report	-
10	The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site	Controlled blasting techniques using delay detonators and optimum charge per delay will be implemented in this quarry. The details on blasting parameters are given in section 2.8.2 of Chapter 2.	-
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 PP has not carried out any quarrying operation before this project.	-
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	The applied lease is fresh project.	-
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 applied lease is fresh project.	-

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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	The applied lease is fresh project.	-
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).	Project coordinates superimposed in satellite imagery and given as Figure No – 2.2 in Chapter – 2. The geomorphology and geology map are provided in Figure No.3.23, 3.24 Chapter 3. The Soil map is provided under Figure No. 3.25, Chapter-3. The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 & Figure 3.5 in Chapter – 3.	61 137 & 138 139 89 84
16	The PP shall carry out Drone video survey covering the cluster, green belt, fencing etc.,	The applied lease is fresh project. It will be complied after commencement of the mining operation	-
17	The proponent shall furnish photographs of adequate fencing, greenbelt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan	There are no trees within ML area. Fencing and plantations are under process and photo proof of the same will be incorporated in the Final EIA report. There are no permanent structures within a 50-meter radius of the proposed project site, and a safety distance of 7.5m all along the boundary and 10 m has been provided to the Edayan Kulam in the S.F.No.96. There is a Kulam situated in S.F.No.96 and is 10m safety	-

		distance maintained. There are tank situated on north side of the area and is 410m away from the lease applied area. There is canal passing on west side of the area and is 440m away from the lease applied area.	
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 total geological reserves of Rough Stone - 13, 78,520 m³. Gravel - 68,926 m³ The mineable reserves of Rough Stone - 5,35,845m³ (42.20 %) and Gravel - 55,252m³ The need and justification of the project is given in chapter 2. The anticipated impact and its mitigation measures are detailed 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 Mines Act'1952 and the MMR" 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.	Complied. Please refer Fig. 10.1	199
20	The Project Proponent shall conduct the 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) 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 monitoring data, it may clearly be	The hydrogeological study from a reputed institute is in progress and it will be incorporated in the final EIA report.	-

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	shown whether working all intersect ground water. Necessary data and documentation in this regard may be provided.		
21	The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.	The baseline data were collected (March 2025 to May 2025) for the environmental components including land, soil, water, air, noise, biology, socio-economy, and the results have been discussed in Chapter 3. Traffic density survey is detailed in section 2.10.6 of Chapter 2.	84
22	The Proponent shall carry out the cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of air pollution, water pollution, & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.	Detailed cumulative impact study has been carried and the same is incorporated in the Chapter 4 & 7. Accordingly, a detailed Environment Management Plan is prepared considering air, water, noise and soil environment and the details are given in Chapter 10.	195
23	Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.	Rain water harvesting Plan is given in chapter 4.	-
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.	Satellite imagery has been used to study the lease area and the details of land use is given in Chapter 3.	87

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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. There is no generation of the OB & waste.	-
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.	No proximity to Critically polluted areas.	-
27	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	The rain water falling in the quarry will be harvested in the sump at the lowest level of the quarry. This sump will act as a settling pond to prevent solids escaping along with discharge, before outlet. etc. Towards surface runoff management, a garland drain will be constructed around the quarry and will be connected to a settling pond with silt traps. The supernatant clear water from the settling pond will be flow to the downstream users. Rain water harvesting plan is given in section 4.2.3 of Chapter 4.	-
28	Impact on local transport infrastructure due to the Project should be indicated	A traffic density study was carried out and are detailed in section 2.10.6 of Chapter 2.	-
29	A tree survey shall be carried out (Nos. name of species, age, diameter, etc) both within the mining lease applied area & 300m buffer zone and its management during mining activity	The details on tree survey covering 300 m radius is given in section 3.7.7 of chapter 3.	-

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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 details are given in section 2.9 of Chapter 2 and section 7.6 of Chapter 7.	190
31	As 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, where ever possible	Accepted. It will be done.	-
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 and local school/college authorities. 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.	Green belt is proposed in an area of 0.83.0 ha. A detailed green belt development plan has been provided in Table 4.2.3 of Chapter 4.	157
33	Taller/one year old saplings raised in appropriate size of bags; preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/horticulturist with regard to site-specific choices. The proponent shall earmark the green belt area with GPS coordinates all along the boundary of the project site with at least 3 m wide and in between blocks in an organized manner	The FAE of ecology and biodiversity has advised the project proponent that saplings of one year old raised in the ecofriendly bags should be purchased and planted with the spacing of 3 m between each plant around the proposed project area as per the advice of local forest authorities/botanist.	-
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.	A disaster management plan is prepared and the details are given in Chapter 7.	181

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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 its management is given in Chapter 7.	182
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.	Occupational Health Impacts of the project and preventive measures are detailed under Chapter 4.	143
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.	No major impact on public health will be there since the villages are located more than 1km from the lease area. Details of CER and CSR are discussed under Chapter No. 8	-
38	The Socio-economic studies should be carried out within a 5km 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.	Socio economic study is conducted both by visits and secondary data collection. Details are given in Chapter 3	127
39	Details of litigation pending against the project, if any, with direction /order passed by any Court of law against the Project should be given.	No litigation is pending	-
40	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.	Benefits of the project is given in Chapter 8	191

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41	If any quarrying operations were carried out in the proposed quarrying site for which now 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.	Not applicable. The applied lease area is fresh quarry.	-
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 is planned for the entire life of the mine. The affidavit for the same will be included in the Final EIA/EMP Report.	-
43	Concealing any factual information or submission of false/fabricated data and failure to comply with any of the condition mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986	Agreed	-
4. SEIAA Standard Conditions			
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.	There are two existing and two proposed quarries including this proposal within a 500-metre radius. The proponent will take the initiative to form a cluster management committee once environmental clearance is obtained for this quarry as well as the other 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.,	Agreed. Will be complied.	-
3	The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the	Agreed. The list of members of the committee formed will be submitted to AD/mines after obtaining Environmental Clearance.	-

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	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.	Agreed. Details of the Operation plan for cluster mining operations will be submitted once we get environmental clearance for all quarries proposed in the cluster area.	-
5	The committee shall deliberate on risk management plan pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.	Risk management plan for the individual quarry is given in this report. As far as cluster working condition is concerned, once the committee is formed, risk management as a cluster including inundation of clusters and the evacuation plan will be elaborated and the same will be submitted to the EIA.	-
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.	Environmental policy for the cluster will be framed by the cluster management committee and the policy will be in accordance with EPA Act, 1986 and its amendments, guidelines by MoEF&CC/SEIAA and other regulatory bodies. This policy will be displayed in the quarry.	-
7	The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.	Agreed. It will be complied as mentioned in the Point No.4	-
8	The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity.	Agreed. It will be complied as mentioned in the Point No.4.	-

Agriculture & Agro-Biodiversity

9	Impact on surrounding agricultural fields around the proposed mining Area.	There are no Agriculture, forest area and traditional practices within the project area. However, there are some agricultural land around the project site. It may be affected due to the quarry operation as such dust particles sedimentation in the agricultural land. It will be controlled at the source level by proper dust suppression as such wet drilling, controlled blasting and water sprinkling on the project roads and project surrounding roads. As per Air Quality Modelling, the impact of the air quality limited to 400m radius. So, there is no impact for the Agriculture, Forestry & Traditional practices located within 10km radius.	-
10	Impact on soil flora & vegetation around the project site.	The chemical and physical characteristics of the soil is given in Table 3.11 of Chapter 3. The anticipated impact and its mitigation measures for soil environment and biological environment are detailed in section 4.2.2 & 4.2.3 of Chapter 4 respectively.	148 & 191
11	Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetations all along the boundary of the proposed mining area shall committed mentioned in EMP.	There is no standing trees or vegetation within the mine lease area.	-
12	The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.	The ecological details have been provided in Section 3.3.6 under Chapter 3 and measures have been provided in Section 4.2.4 under Chapter 4.	119
13	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.	All the essential environmental protective measures will be followed by the proponent to manage the surrounding	143

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		environment and restore the ecosystem, as discussed in Chapter 4.	
14	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	The impact of project on the land environment has been discussed in Section 4.2.1 under Chapter 4.	148
Forests			
15	The project proponent shall detailed study on impact of mining on Reserve Forests free ranging wildlife.	There are no R.F within 10 km radius from the project site. The anticipated impact on ecological environment is given in section 4.2.4 of Chapter 4.	-
16	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	Nil within 10Km radius. The anticipated impact on ecological environment is given in section 4.2.4 of Chapter 4.	-
17	The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.	There are no standing trees within lease area.	-
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, environmentally sensitive areas 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.	The hydrogeological study from a reputed institute is in progress and it will be incorporated in the Final EIA report.	

20	Erosion Control measures.	There is no waste generation (OB) in this quarry has been envisaged. However, there may be erosion due to rainy season and that is limited within quarry area. The control measures are explained in Chapter 4.	
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.	Complied. The study details are incorporated in Chapter 3. Anticipated impacts and its mitigation measures are detailed in Chapter 4.	
22	The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.	There is no wastewater generation from this Quarry, so this is not applicable.	-
23	The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.	Fragmentation impact on environment may be due to drilling and blasting. The anticipated impacts and mitigation measures are discussed 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 Flora and Fauna study covering 10 km radius are detailed in section 3.3.6 of chapter 3. The impacts anticipated with respect to the environment of the project area is very negligible and it will be minimized within the project area. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area.	119
25	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	The impact of mining on soil environment has been discussed in Section 4.2.2 under Chapter 4.	-
26	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.	The anticipated impact and its mitigation measures for Water Environment are detailed in section 4.2.3 of Chapter 4.	119

27	The EIA shall include the impact of mining activity on the following: a) Hydrothermal/Geothermal effect due to destruction in the Environment. b) Bio-geochemical processes and its foot prints including Environmental stress. c) Sediment geochemistry in the surface streams.	The proposed quarry operation is Opencast Mechanized operation with drilling, blasting, excavation, loading and transportation. So, the effect of Hydrothermal/Geothermal is not envisaged. This is a simple mining operation, so bio-geochemical processes are not envisaged. Cheyyar river- 5.6Km (SE). Due to mining operation, there may be minimum impact to the nearby water bodies due to dust sedimentation. It will be controlled by wet drilling, water sprinkling and plantation.	92
Energy			
28	The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.	The measures taken to control noise, air, water, and dust have been given under Chapter 4.	141
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 and the measures to mitigate carbon emission have been discussed in Section 4.2.3 under Chapter. Only the best equipment will be used, and it will be properly and regularly maintained. Regular vehicular emission tests will be conducted on the transport vehicles to ensure minimal carbon emissions. To further reduce carbon emissions, a good greenbelt plan has been planned.	157
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.		157
31	Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.		157
Mine Closure Plan			
32	Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.	Complied. Mine Closure Plan has been incorporated in the approved Mining Plan and the	190

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		same is incorporated in the Chapter 7.	
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.	Complied. The details are described in Chapter 10.	195
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.	Total EMP Cost for 10 years is 47.62 lakhs i.e., Rs.15.03Lakhs of Capital + Recurring cost Rs. 32.59lakhs for Ten year, which is including the cost of Rs. 0.83 Lakhs (capital) and Rs. 0.17 (Recurring) for Greenbelt development.	-
Risk Assessment			
35	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.	The risk assessment and management plan for this project has been provided in Section 7.2 under Chapter 7.	182
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.	Disaster Management plan are detailed in section 7.3, Chapter 7.	184
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.	There are no historical places, schools, cemeteries, temples, bird sanctuaries, and wildlife sanctuaries within 300 meters of the proposed project area. In this regard, the project proponent has received an official letter from the Village Administrative Officer, The letter copy enclosed as Annexure - 4.	-

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38	As per the MoEF& CC office memorandum F.NO.22-65/2017-1A.11I 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.	The concerns raised during the public consultation and all the activities proposed will be updated in the 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.	Complied. The PP has framed detail solid waste management system for the project are and the same will be executed by proper awareness and sign boards. The sign boards will be in two language i.e., Vernacular language (Tamil) and common language (English). The plastic waste generation is very negligible and it will be collected from the source level in specific dustbin and disposed through the municipal bins.	-
Standard Terms of Reference for (Mining of minerals)			
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	This is a new project. No mining has been carried out in this lease area so far by the proponent.	-
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	It is patta land registered in the name of Thiru.Saravanaraj vide patta no. 1466, The applicant has obtained consent from pattadhar.	-
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	Noted & agreed. All documents including approved mine plan, EIA and Public Hearing are compatible with one another in terms of the mine lease area, production levels, waste generation and its management,	-

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		mining technology etc. and is 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)	Project coordinates superimposed in satellite imagery and given as Figure No – 2.2 in Chapter – 3. The geology and geomorphology map are provided in Figure No.3.23, 3.24 Chapter 3. The Soil map is provided under Figure No. 3.25, Chapter-3. The 10km Radius Index plan showing buffer zone is given in Figure No.3.1 & Figure 3.5 in Chapter – 3.	61 137 & 138 139 89 84
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	The following map in 1:50,000 Scale: Geology map of the project area covering 10km radius – Figure No. 3.23. Geomorphology Map of the Study Area covering 10 km radius – Figure No. 3.24. Drainage map – 3.22	119
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	a.) Precise Area Communication: The Project Proponent has obtained Precise area communication letter received from the Deputy Director, Department of Geology and Mining, Tiruvannamalai, vide Rc.No.397/Kanimam/2024, dated 28.05.2025. The letter copy enclosed as Annexure – 2. b.) Mining Plan approval: The project proponent has prepared a Mining Plan under rule 19 (1), 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Deputy Director, Department of Geology and Mining, Tiruvannamalai vide Rc.No.397/Kanimam/2024, Dated: 16.06.2025. The approval letter along with approved plan is enclosed as Annexure – 3.	-

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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 noncompliances / 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.	Environmental policy for the cluster will be framed by the cluster management committee and the policy will be in accordance with EPA Act, 1986 and its amendments, guidelines by MoEF&CC/SEIAA and other regulatory bodies. This policy will be displayed in the quarry.	-
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	Risks are identified and the management plan is given in Chapter 7.	182
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.	Noted & Agreed The study area considered for this study is 10 km radius and all data contained in the EIA report such as waste generation etc., is 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	The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.3.7 of Chapter-3. The land use pattern at present and at the end of the quarrying period has been provided in Table 2.4, Chapter-2. The Conceptual plan of mine lease area is shown in Figure No- 2.11.	81

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	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	The entire material quarried out will be sold. No waste generation from this quarrying operation.	-
1.12	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the State Expert Appraisal Committees	There is no Forest Land involved in the proposed project area. The proposed project area is a Patta Land, registered in the name of the Applicant vide patta no. 1466. Please refer annexure no.VI.	-
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	Not Applicable. The proposed project area does not involve any Forest Land.	-
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	Not Applicable. The project doesn't attract Recognition of Forest Rights Act, 2006.	-
1.15	The vegetation in the RF / PF areas in the study area, with necessary details, should be given	There are no R.F within 10Km radius from the project site.	-

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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	The mining lease area and the 10 km buffer zone from the periphery of the core zone is devoid of declared ecologically sensitive features like national parks, biospheres, sanctuaries, etc.	-
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.	Not Applicable. There are No National Parks, Biosphere Reserves, Wildlife Corridors, and Tiger/Elephant Reserves within 10 km Radius from the periphery of the project area.	-
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 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	Flora and fauna composition in the core and buffer zone of the project has been studied through primary field surveys. The details are furnished in Chapter 3.	119

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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	Not Applicable	-
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)	Not Applicable	-
1.21	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report	Not applicable. No habitation within 300 meter of the radius.	

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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. Sitespecific 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.	Baseline Data were collected for One Season (March 2025 to May 2025) as per CPCB Notification and MoEF & CC Guidelines and Detailed in Chapter -. 3.	-
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.	Air Quality Modelling for prediction of incremental GLC's of pollutant was carried out using AERMOD view and Detailed in Section 4.3.	158
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	The total water requirement for the project is 5.0 KLD. The required water will be procured from outside agencies initially and later rainwater harvested in the mine pit shall be used other than drinking purpose. Water	146

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		Balance diagram is presented in Figure No – 4.1.	
1.25	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided	Not Applicable Water for dust suppression, greenbelt development and domestic use will be sourced from accumulated rainwater/seepage water in mine pits and purchased from local water vendors through water tankers on daily requirement basis.	-
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	Rain water will be diverted into working area by constructing drains to store and use for dust suppression and greenbelt development. Details are presented in section 4.2.3 The total water requirement for the project will be 5.0 KLD comprising Drinking and domestic 1.0 KLD, Dust suppression 2.0 KLD, Greenbelt 2.0 KLD. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose. The water balance diagram for the same is shown in Figure No 4.1.	150
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	Impact Studies and Mitigation Measures of Water Environment including Surface Water and Ground Water are discussed in Section 4.2.3 of Chapter 4.	152

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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	The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 42m bgl and water table is found at a depth of 72 m BGL.		-
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	Not applicable. There is no stream, seasonal or otherwise, passing through the lease area.		-
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	Site Elevation above MSL	102m from MSL	-
		Ultimate Depth	42m bgl	
		Ground water	69 - 72 m BGL.	
1.31	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local	Greenbelt Development Plan & Recommended Species proposed for Greenbelt Development are detailed in Section 4.2.4. 0.83.0 hectares (7.5 m safety zone) of land are allotted for greenbelt development.		-

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	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	The traffic density study was carried out and the same is given in section 2.10.6 of Chapter 2.	-
1.33	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report	Temporary Infrastructure & other facilities will be provided to the Mine Workers after the grant of quarry lease and the same has been discussed in Section 2.10 of Chapter 2.	-
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	At the conceptual stage the quarried-out land will be fenced and lower benches will be allowed to collect rain water to act as a temporary reservoir and Greenbelt development will be carried out on the top bench, unutilized areas and haul roads. Mine closure plan is detailed in Section 2.9 of Chapter 2.	-
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	Details of occupational health and safety aspects are given under the Section 4.5.4 & Section 10.4.	173

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	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	No major impact on public health will be there since the villages are located more than 1km from the lease area.	-
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	This project provides employment to 30 people directly & indirectly. Local people will be hired for unskilled labour. Through CSR, nearby schools, villages will be benefitted. For CER, INR 3, 00,000 is allocated. Based on the demand of the people during public hearing, further funds will be allocated, if necessary.	-
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	Environmental Management plan details are given in Chapter 10.	195
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	During public hearing process, the opinions and demands of the people will be noted. The replies and commitment made by the proponent along with time bound action plan wherever applicable will be provided in Final EIA/EMP report.	-
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	There is no litigation pending against the project.	-
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	Project Cost is Rs. 156.39Lakhs (including EMP & CER cost) CER Cost is Rs.3.0/- lakhs EMP Cost for 10 years is 47.62Lakhs i.e. Capital Cost of Rs. 15.03Lakhs and Recurring	-

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		Cost of Rs. 32.59Lakhs for ten years.	
1.42	A Disaster management Plan shall be prepared and included in the EIA/EMP Report	The disaster and its management plan is given in Chapter-7.	184
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	This project will contribute financially through payment of taxes like royalty, GST, etc. The project will also contribute via CSR. The demands of people during public hearing will also be considered by the project proponent. This project provides employment to 30 people directly. Local people will be hired for unskilled labour. Through CSR, nearby schools, hospitals will be benefitted. For CSR, INR 3.0 Lakhs has been allocated.	-
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.	Yes, Complied.	

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	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 surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area		

CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THE REPORT

Environmental Impact Assessment (EIA) is the management tool to ensure the sustainable development and it is a process, used to identify the environmental, social and economic impacts of a project prior to decision making. It is a decision-making tool, which guides the decision makers in taking appropriate decisions for any project.

EIA systematically examines both beneficial and adverse consequences of the project and ensures that these impacts are taken into account during the project designing. It also reduces conflicts by promoting community participation, information, decision makers, and helps in developing the base for environmentally sound project.

Rough Stone and Gravel are the major requirements for construction industry. This EIA report is prepared by considering Cumulative load of all proposed & existing quarries located within 500 m radius of the project area.

Thiru.S.Gokulraj proposes to operate Rough Stone and Gravel Quarry over an extent of 3.45.0 Ha Patta Land in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 & 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State and ToR obtained vide ToR Identification No. TO25B0108TN5642622N, Dated: 25.09.2025.

This proposed project is categorized under category "B1" Activity 1(a) (mining lease area in cluster situation). This cluster includes two existing and two proposed quarries including this proposal. The existing and proposed quarries located within 500m radius are detailed in below Table.

Table 1.1 – Details of Quarries within 500m Radius

S.No.	Name of the Quarry Owner	Village, Taluk & S.F.Nos.	Lease Period	Area in Ha
a. Existing Quarry				
1.	S.Nirmal	Palli, Cheyyar 115/1, 115/2, 115/3, 115/4 & 116 (P)	29.08.2023 to 28.08.2028	2.00.0
2.	Shri Vinayaga Mine	Palli, Cheyyar, 65/1,2A,2B & 3	02.12.2021 to 01.12.2031	1.67.5
b. Abandoned Quarry / Expired Quarry				
2.	R.Venkatachalam	Palli, Cheyyar 66/3A & 66/3B	21.07.2016 to 20.07.2021	2.90.0

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4.	M.Marimuthu	Palli, Cheyyar 74/3 & 74/4	16.11.2018 to 15.11.2023	0.98.5
c. Present Proposed Quarry				
1.	Thiru.S.Gokulraj	Palli, Cheyyar 95/1, 95/10, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8 & 95/9	Presently Proposed	3.45.0
2.	Tmt.T.Poornima	Palli, Cheyyar 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B	Presently Proposed	3.91.0
Total Area of Cluster		11.03.5 Ha		

Cluster area calculated as per MoEF & CC Notification S.O. 2269(E) Dated 1st July 2016. Satellite image of Quarries in Cluster is shown in Fig 1.1.

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/544976/2025, Dated: 16/07/2025. The ToR proposal was placed in 609th SEAC meeting, dt 26.08.2025 and 888th SEIAA meeting, dated 13.08.2025. Then ToR has been issued by the SEIAA vide ToR Identification No. TO25B0108TN5642622N, dated: 25.09.2025 to prepare the draft EIA report as per the recommended ToR for conducting public hearing and obtaining Environmental Clearance from the SEIAA.

Figure.1.1 Satellite Image showing cluster quarries



1.2 IDENTIFICATION OF PROJECT AND PROJECT PROPONENT

1.2.1 IDENTIFICATION OF PROJECT

Table -1.2 Project Identification

Name of the Project	Rough Stone and Gravel Quarry of Thiru.S.Gokulraj
S.No.	95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 & 95/10
Location of the Project	Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
Extent	3.45.0 Ha
Type of Land	Patta Land

1.2.2 IDENTIFICATION OF PROJECT PROPONENT

Table -1.3- Details of Project PropONENT

Name of the Project PropONENT	Thiru.S.Gokulraj
Communication address	S/o.Saravanaraj, residing at No.14, Kamaraj Nagar, Pammal Post, Kanchipuram District.
E-Mail Address	gokulrajask@gmail.com
Mobile No.	72999 16161

1.3 BRIEF DESCRIPTION OF THE PROJECT

1.3.1 NATURE AND SIZE OF THE PROJECT

The quarrying operation is proposed to be carried out by Opencast Mechanized Mining Method by jack hammer drilling, slurry blasting by forming 5.0 m bench height and 5.0 m bench width. Excavator and tippers are proposed for Loading and transportation.

Table – 1.4 Brief Descriptions of the Project

Name of the Quarry	Rough Stone and Gravel Quarry of Thiru.S.Gokulraj
Toposheet No	57 P/10
Latitude	12°42'58.80" N to 12°43'06.06" N
Longitude	79°35'54.09" E to 79°36'06.71" E
The altitude of the area	102m (MSL)

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Proposed Depth of Mining	42m BGL			
Geological Resources	13,78,520m ³ of Rough Stone 68,926m ³ of Gravel			
Mineable Reserves	5,35,845m ³ of Rough Stone 55,252m ³ of Gravel			
Proposed Production	Total Production for 10 years - 5,35,845m ³ of Rough Stone & 55,252m ³ of Gravel First Five years - 4,26,225m ³ of Rough Stone & 55,252m ³ of Gravel Second five years – 1,09,620 m ³ of Rough Stone			
Ultimate pit Dimension	342 m (L) X 76 m (W) X 42m BGL (D)			
Water Level in the area	72 m BGL			
Method of Mining	Opencast Mechanized Mining Method involving drilling and blasting			
Topography	The area applied for quarry lease is exhibits almost plain covered by Gravel formation. The massive Charnockite formation is noticed below 2m (Avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 102m (maximum) from MSL.			
Machinery Proposed	Jack Hammer		5 Nos	
	Compressor		2 Nos	
	Excavator with bucket and rock breaker		2 Nos	
	Tipper (10/20 T)		4 Nos	
Environmental Setting within 500m Radius	Water Bodies: There is a Kulam situated in S.F.No.96 and is 10m safety distance maintained. There is tank situated on north side of the area and is 410m away from the lease applied area. There is canal passing on west side of the area and is 440m away from the lease applied area. Nearest Habitation - Palli – 0.51km (S) Nearest RF - Nil within 500m radius			
Details of Habitation	S.No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population
	1.	Chithathur	2.5Km - NE	1000

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	2.	Vadapoondipattu	1.2km - NW	800
	3.	Palli	0.6km - S	500
	4.	Mangalam	1.1km - SW	200
Proposed Manpower Development	30 Nos			
Water Requirement	5.0 KLD			
Greenbelt Development	The safety zone of 0.83.0Ha will be developed with about 830 Nos. of plantation.			
Fuel Requirement	4,37,885 Litres of HSD (Entire Project Life)			
Project Cost	Rs.156.39Lakhs (Including operational + Fixed Asset + EMP cost + CER cost).			
EMP Cost	Total EMP Cost for 10 years is 47.62 lakhs (This amount will be subjected to change after public hearing) i.e., 15.03 Lakhs of Capital Cost + 32.59 Lakhs of Recurring cost (For 10 Years)			
CER Cost	Rs.3.0 Lakhs			
Applicability of CRZ Clearance	Not Applicable			

1.3.2 NATURE OF THE PROJECT

Sector	1(a) Non-Coal Mining
Type	Fresh Project
Category	B1 (Cluster Situation)
Mineral	Minor mineral of Rough Stone and Gravel

LOCATION OF PROJECT

The proposed Quarry lease area is situated at S.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 & 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State. The area lies in the north latitude of 12°42'58.80" N to 12°43'06.06" N and eastern longitude of 79°35'54.09" E to 79°36'06.71" E. Location of the proposed project is shown in Figure 2.1 and the satellite imagery of the project site is shown in Fig 2.2.

1.4 IMPORTANCE OF THE PROJECT TO THE REGION

Rough Stone and Gravel will continue to be a staple in construction, decoration and industry for years to come. As recycling picks up, mining and quarries may slow down, but we will always need Rough Stone and Gravel in general construction and industry.

1.5 REGULATORY COMPLIANCES

Understanding of the applicable environmental legislative framework is crucial for understanding the scope of the EIA study. With respect to prevention and control of environmental pollution, the following Acts and Rules of MoEF&CC (Ministry of Environment Forests and Climate Change), GoI (Government of India) govern the proposed project. The applicable environmental legislation for the proposed mining project is detailed below,

- Environment protection Act, 1986
- EIA Notification, 2006 & Subsequent amendments
- Water Pollution (Prevention & Control) Act, 1974
- Air Pollution (Prevention & Control) Act, 1981
- Noise Pollution (Regulation & Control) Rules, 2000
- Mines Act, 1952
- Tamil Nadu Minor Mineral Concession Rules, 1959
- Mines and Minerals (development and regulation) Act, 1957
- Minor Minerals Conservation and Development Amendment Rules 2018
- State Minor Mineral Concession Rules (GMMCR), 2017
- Explosive Act, 1884
- Explosive Rules, 2008
- Hazardous and other Wastes (management and Transboundary Movement) Rules, 2016
- Batteries (Management and Handling) Rules 2010
- Solid Waste Management Rule 2016

1.5.1 PRESENT LEGAL STATUS

Table 1.5 – Present Legal Status

Description	Issuing Authority	Status	Letter number	Date	Reference
Precise Area Communication	Deputy Director, Department of Geology and Mining, Tiruvannamalai	Received	Rc.No.397/Kanimam/2024	28.05.2025	Annexure - 2
Mine Plan Approval Letter	Deputy Director, Department of Geology and Mining, Tiruvannamalai	Approved	Rc.No.397/Kanimam/2024	16.06.2025	Annexure - 3
500m radius Cluster Letter	Deputy Director, Department of Geology and Mining, Tiruvannamalai	Obtained	Rc.No.397/Kanimam/2024	16.06.2025	Annexure - 4
VAO NOC for features within 300m radius	VAO, Palli Village	Obtained	-	-	Annexure - 5

1.5.2 SCREENING

As per the Environmental Impact Assessment (EIA) Notification dated 14th September 2006 and its subsequent amendments the proposed quarry mining project falls under 'Category B1 (Cluster Situation)', which requires Environmental Clearance from the State Environmental Impact Assessment Authority (SEIAA). The project proponent has appointed M/s. Global Mining Solutions, Salem, who are accredited by the National Accreditation Board for Education and Training (NABET), Quality Council of India (QCI), New Delhi, under the registration number NABET/EIA/23-26/SA 0241. Their role is to carry out an Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) study in compliance with the Ministry of Environment, Forest and Climate Change (MoEF & CC) requirements.

1.5.3 SCOPING

The proposal was placed in the 609th meeting of SEAC on 26.08.2025. Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Terms of Reference (ToR) to SEIAA and SEIAA recommended ToR in its 888th meeting dated 13.08.2025.

1.5.4 SCOPE OF THE STUDY

In line with the prescribed Terms of Reference (ToR), the area comprising 10 km radius around the proposed mine lease boundary is considered as the study area. The EIA/EMP report has been prepared following the generic structure specified in the EIA Notification 2006. The detailed studies have been conducted as per prescribed Standard ToR issued by SEIAA, TamilNadu vide ToR Identification No. TO25B0108TN5642622N, Dated: 25.09.2025. The point wise compliance for the ToR has been incorporated in this EIA/EMP report.

The main scope of the EIA study is to quantify the cumulative impact in the study area due to cluster quarries and formulate the effective mitigation measures for this applied project area. A detailed account of the emission sources, emissions control equipment, background Air quality levels, Meteorological measurements, Dispersion model and all other aspects of pollution like effluent discharge, Dust generation etc., have been discussed in this report. The baseline monitoring study has been carried out during the Period of March 2025 – May 2025 for various environmental components so as to assess the anticipated impacts due the cluster quarry projects on the environment and suggest suitable mitigation measures for likely adverse impacts due to this proposed project.

The scope of study broadly covered as below,

- ◆ Literature review and collection of secondary data relevant to the study area.
- ◆ Establish the baseline environmental aspects in and around the proposed project covering 10 km radius.
- ◆ Identify various existing pollution loads due to various mining activities.
- ◆ Predict incremental levels of pollutants in the study area due to the proposed operations.
- ◆ Establishing and analyzing demographic profile including sex ratio, literacy rate, SC/ST, workers classification, land use categorization, etc in the project influenced area
- ◆ Evaluate the predicted impacts on various environmental attributes in the study area by using scientifically developed and widely accepted environmental impact assessment methodologies.
- ◆ Prepare an Environment Management Plan (EMP) outlining the measures for improving the environmental quality and identify critical environmental attributes that are required to be monitored in the post-project scenario.
- ◆ To assess the impacts on human settlement in the project influence area Socio-Economic Assessment
- ◆ Cumulative impact assessment for the quarries in cluster.

1.6 NEED AND JUSTIFICATION OF THE PROJECT

- Proposed mining project will fulfill the local market requirement for real estate and infrastructure industry. This project will also provide employment to local people helping them earn livelihood.
- Employment generated consequent to the mining activity in the project will be benefit local and rural population and will have multiplier effects on local economy.
- The Project will give tremendous boosts to the local and regional economy benefiting the population.
- The social benefits arising out of this proposal can be expressed in terms of increase in the standards of living of local population, educational opportunities, training and development of skills etc.

1.7 STRUCTURE OF THE REPORT

As per the new guidelines of the MoEF & CC the report has been divided into the following chapters and presented as follows:

1. Introduction

This chapter describes the profile of the project proponent, name and contact address with email, project consultants, the purpose of the project, brief description of the project, applicable environmental regulations, objectives and methodology for EIA studies etc.

2. Project Description

This chapter gives a brief description of the project such as the type of project, need for the project, its location, approachability, layout, etc of the proposed project, the project implementation schedule, estimated cost of development etc.

3. Description of the Environment

This chapter presents details of the baseline environmental status for microclimate, air quality, noise, water quality (surface and ground), soil quality, flora, fauna and socioeconomic status etc.

4. Anticipated Environmental Impacts & Mitigation Measures

This chapter discusses the possible sources of pollution and environmental impacts due to the project during operation phases and suggests the mitigation measures.

5. Analysis of Alternatives (Site And Technology)

This chapter discusses the analysis of the various alternatives for the technology as well as the site and gives the selection of the most feasible alternative.

6. Environmental Monitoring Program

This chapter discusses the details about the environmental monitoring program during operation phases. The technical aspects of monitoring the effectiveness of mitigation measures are covered in this chapter.

7. Additional Studies

This chapter covers information about the additional studies conducted for this project such as the Risk Analysis, Emergency Response and Disaster Management Plan.

8. Project Benefits

This chapter presents the benefits from this project.

9. Environmental Management Plan

This chapter deals with the EM for the proposed sand mining projects and indicates the measures proposed to minimize the likely impacts on the environment during and operation phases and budgetary allocation for the same.

10. Summary and Conclusion

This chapter deals with the overall justification for implementation of the project and explanation of how, adverse effects have been mitigated.

11. Disclosure of Consultant

This chapter deals with the details of consultants engaged and the NABET accreditation details of environmental consultants.

CHAPTER 2

PROJECT DESCRIPTION

2.5 TYPE OF THE PROJECT

The proposed activity is the extraction of Rough Stone and Gravel quarry by open cast mechanized mining method.

This project proposed to produce 5,35,845 m³ of Rough Stone and 55,252m³ of Gravel for 10 years with ultimate depth up to 42m BGL.

2.6 NEED FOR THE PROJECT

Rough Stone and Gravel 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.

2.7 LOCATION OF THE PROJECT

This is a Rough Stone and Gravel Quarry located in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State. The area lies in the north latitude of 12°42'58.80" N to 12°43'06.06" N and eastern longitude of 79°35'54.09" E to 79°36'06.71" E and toposheet number 57 P/10. Location of the proposed project is shown in Figure 2.1 and the satellite imagery of the project site is shown in Figure 2.2.

This proposed project area is classified as Patta Land & does not fall within 10 km radius of any Eco – sensitive zone, Wild life Sanctuary, National Park, Tiger Reserve, Elephant Corridor and Biosphere Reserves. The M.L area details are presented in below Table.

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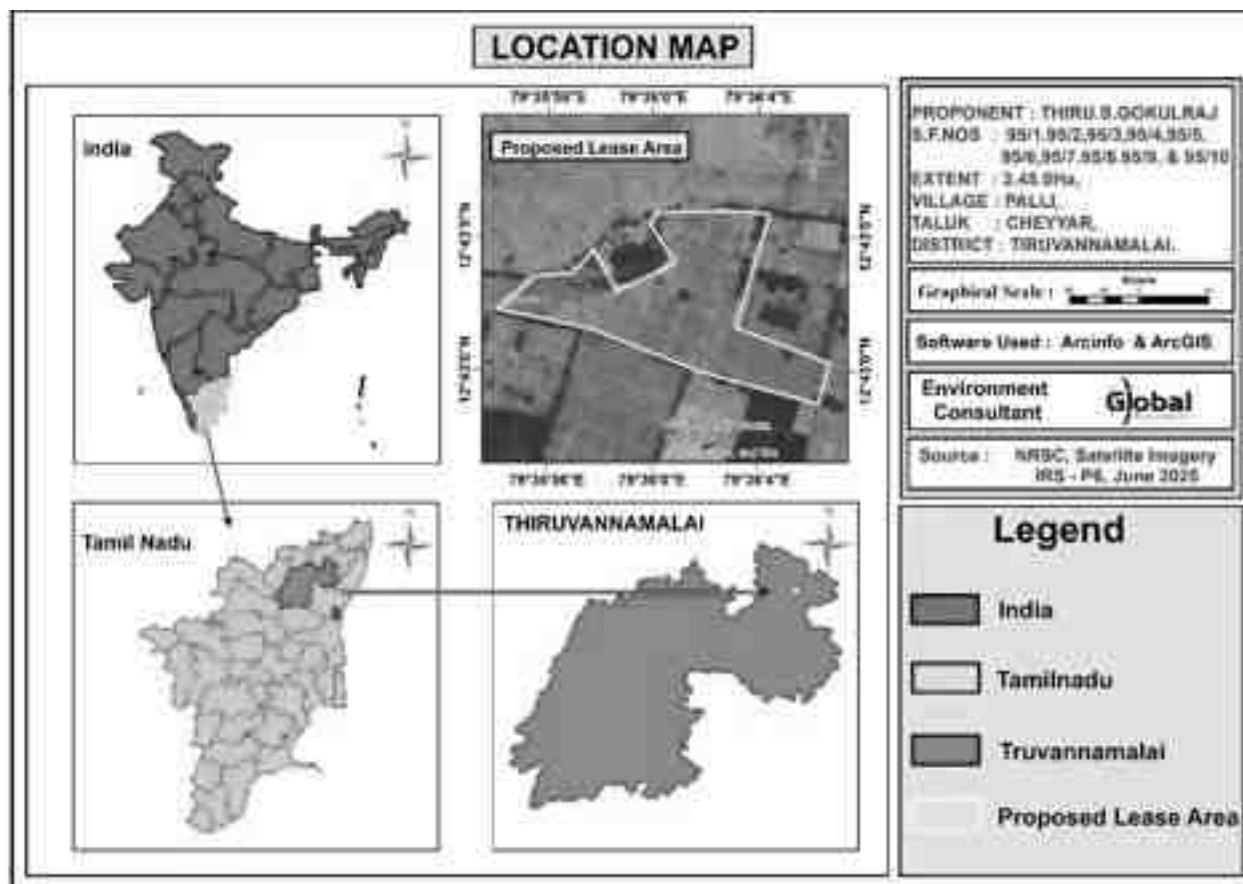


Figure 2.1 Location Map

Table 2.1 Boundary Coordinates of the Project Site

Corners	Co- ordinates		Distance between the corners
	Latitude	Longitude	
1	12° 43' 02.29"N	79° 35' 54.09"E	1-2 = 57.4m
2	12° 43' 03.54"N	79° 35' 55.46"E	2-3 = 42.8m
3	12° 43' 03.68"N	79° 35' 56.88"E	3-4 = 35.8m
4	12° 43' 04.51"N	79° 35' 57.70"E	4-5 = 54.0m
5	12° 43' 02.99"N	79° 35' 58.60"E	5-6 = 76.4m
6	12° 43' 04.07"N	79° 36' 00.81"E	6-7 = 53.6m
7	12° 43' 05.53"N	79° 35' 59.85"E	7-8 = 15.0m
8	12° 43' 05.93"N	79° 36' 00.14"E	8-9 = 76.0m

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9	12° 43' 06.06"N	79° 36' 02.66"E	9-10 = 53.0m
10	12° 43' 05.90"N	79° 36' 04.41"E	10-11 = 136.2m
11	12° 43' 01.65"N	79° 36' 03.12"E	11-12 = 115.6m
12	12° 43' 00.33"N	79° 36' 06.71"E	12-13 = 48.4m
13	12° 42' 58.80"N	79° 36' 06.34"E	13-14 = 142.4m
14	12° 43' 00.00"N	79° 36' 01.78"E	14-15 = 134.0m
15	12° 43' 01.56"N	79° 35' 57.63"E	15-1 = 109.2m



Figure 2.2 Google Image of the project site with Boundary Coordinates

Table 2.2 Mine Lease Area and its Ownership

Location	S.F.Nos	Area in Ha	Remarks
Palli Village, Cheyyar Taluk, Tiruvannamalai District	95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 & 95/10	3.45.0	It is patta land registered in the name of Thiru.Saravanaraj vide patta no. 1466, The applicant has obtained consent from pattadhar

Table 2.3 Site Connectivity

S.No.	Description	Details	Distance & Direction
1	Village	Palli	512m (S)
2	Highway	(NH-132B) Kanchipuram –Chengalpattu Road (SH-116) Kanchipuram – Vandavasi Road	16.8km (NE) 7.0 km (E)
3	Railway Station	Kanchipuram East	18.1km (NE)
4	Airport	Puducherry Airport	85.7 km (SE)



Figure 2.3 Site Connectivity Map

Table 2.4 Salient features of the Project

S.NO.	Particulars	Details
1.	Proponent Name	Thiru.S.Gokulraj
2.	Proposed project	Rough Stone and Gravel Quarry of Thiru.S.Gokulraj
3.	Extent	3.45.0 Ha and the cluster area within 500 m radius including this proposed mine is 11.03.5 Ha > 5 Ha
4.	Location	S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 & 95/10 in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.
5.	Co-ordinates of the project site	Latitude: 12°42'58.80" N to 12°43'06.06" N Longitude: 79°35'54.09" E to 79°36'06.71" E
6.	Topography	Plain topography
7.	Site Elevation above MSL	102 m from MSL
8.	Topo Sheet No.	57 P/10
9.	Minerals of Mine	Rough Stone and Gravel
10.	Proposed production in m ³	Total Production for 10 years - 5,35,845m ³ of Rough Stone & 55,252m ³ of Gravel First Five years - 4,26,225m ³ of Rough Stone & 55,252m ³ of Gravel Second five years - 1,09,620 m ³ of Rough Stone
11.	Ultimate Depth of mining	42m BGL
12.	Method of Mining	Opencast Mining with a bench height of 5m and bench width of 5 m is proposed
13.	Drilling/Blasting	Drilling and controlled Blasting is proposed
14.	No. of Working days	300 Days
15.	Water requirement & Source	5.0 KLD and will be sourced from local vendors
16.	Manpower	30 Nos.
17.	Project Cost	Rs. 156.39 lakhs
18.	Mining Plan Approval	Deputy Director, Department of Geology and Mining, Tiruvannamalai vide Rc.No.Rc.No.397/Kanimam/2024, Dated: 16.06.2025.
19.	Safety Zone	0.83.0Ha will be maintained as safety zone and 830 tree saplings will be planted in this area
20.	Ground water level	72 m in summer and 69 m in rainy seasons

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21.	Distance of Stone Crusher	Adjacent
22.	Previous History & CCR	This is a Fresh Lease. Hence CCR is not applicable

Table 2.5 Environmental Settings of the project site

S.NO.	Particulars	Details
1.	Nearest Highway	(NH-132B) Kanchipuram – Chengalpattu – 16.8.0km (NE) (SH-116) Kanchipuram – Vandavasi – 7.0Km (E)
2.	Interstate Boundary	Not Applicable
3.	Nearest Railway Station	Kanchipuram Railway Station – 18.10 km – NE
4.	Nearest Airport	Puducherry Airport – 85.70 km - SE
5.	Nearest Village	Palli – 512m (S)
6.	Water bodies	Edayan Kulam - Adjoining the Lease (W), Tank – 422m (N), Canal – 432m (W), Palli Tank – 633m (S), Ermalnangal Tank – 1.0km (SE), Chittathur Tank – 1.1km (N), Mariyanallur Tank – 2.2km (NW), Kaganam Tank – 2.8km (NW), Karanai Tank – 2.8km (SE), Dusi Mamandur Tank – 3.4km (NE), Karandai Tank – 4.2km (NW) Kilnelli Tank – 4.5km (N), Thiruvidarirayapuram Tank – 4.7km (NE), Maharajanapakkam Tank – 4.9km (SE), Cheyyar River – 5.9km (S), Mangai Eri – 7.5km (SE)
7.	Reserved Forest	Nil within 10Km radius.
8.	Eco Sensitive Zone and Wildlife Sanctuary (Notified)	Nil within 10 km radius Karikilli Birds Sanctuary – 28.4 km (SE)
9.	Archaeological important places	Nil within 10 km radius
10.	Defense Installations	Nil within 10 km radius
11.	Nearest Port	Nil within 10 km radius
12.	Seismic Zone	Zone – II (Least Active)

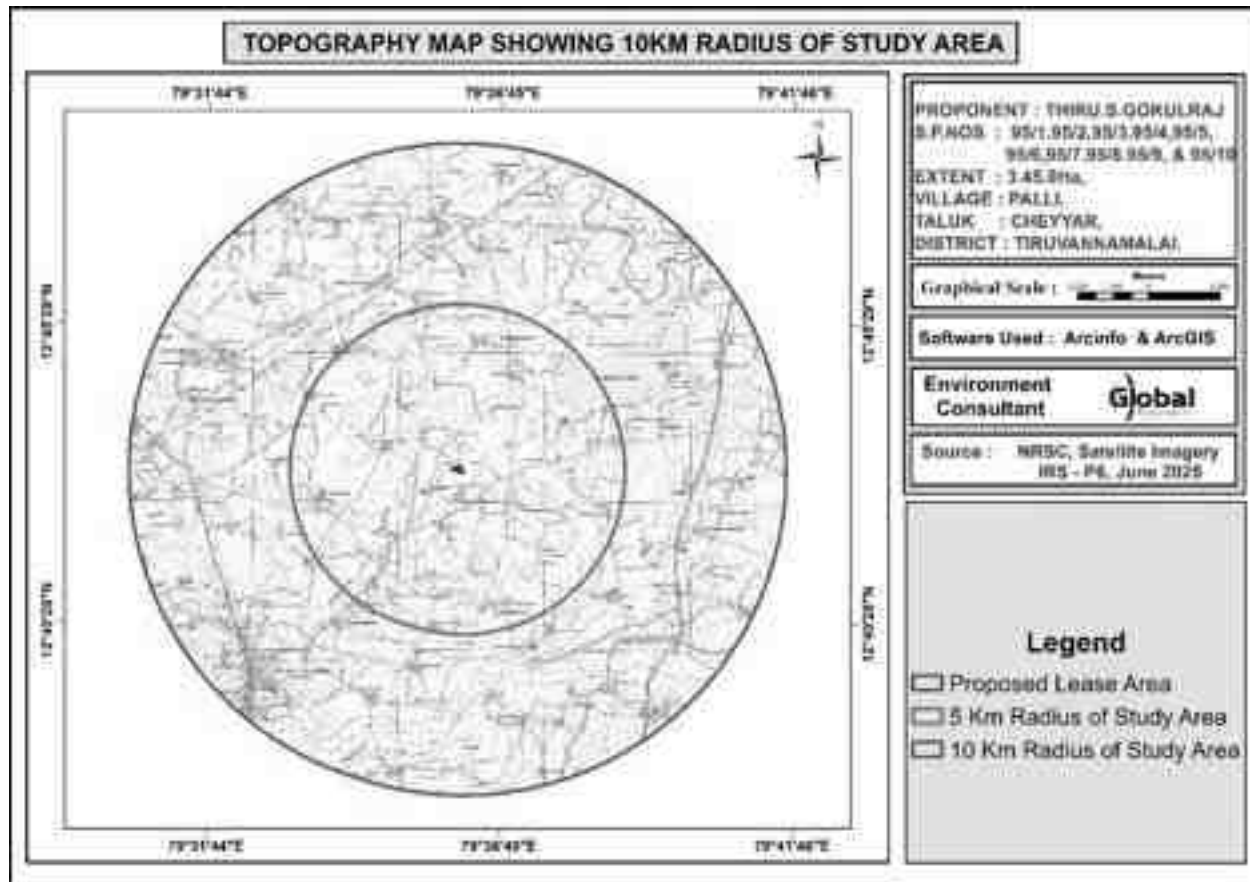


Figure 2.4 10km Radius TOPO Map

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Figure 2.6 Village Map



Figure 2.7 Site Photographs

LAND USE PATTERN OF THE PROJECT AREA

It is patta land registered in the name of Thiru.Saravanaraj vide patta no. 1466, The applicant has obtained consent from pattadhar. The land use pattern of the mine lease area as of today and conceptual stage given in Table No. 2.6.

Table 2.6 Land use pattern of the Project area

Description	Present Area in Ha.	Area at the end of life of Quarry in Ha.
Quarrying Pit	Nil	2.60.0
Infrastructure	Nil	0.01.0
Roads	Nil	0.01.0
Safety Zone / Green Belt	Nil	0.83.0
Unutilized	3.45.0	Nil
Total	3.45.0	3.45.0

2.4 SIZE AND MAGNITUDE OF THE OPERATION

The proposed activity is the extraction of Rough Stone and Gravel by open cast mechanized mining method over an extent of 3.45.0 Ha and to produce 5,35,845 m³ of Rough Stone and 55,252m³ of Gravel for 10 years with ultimate depth up to 42m BGL. The details of geological

and mineable reserves in the lease area have been provided below in the subsequent sub section.

2.5 TOPOGRAPHY AND DRAINAGE

The area applied for quarry lease is exhibits almost plain topography covered by Gravel formation. The massive Charnockite formation is noticed below 2m (avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 102m (maximum) from MSL.

2.6 GEOLOGY

2.6.1 REGIONAL GEOLOGY

Geologically Tiruvannamalai District mainly comprises of rocks of Archaeon age. The type of rocks found in the district are Charnockite, Granitic gneiss, Epidote Hornblende Gneiss, Amphibolite, Pyroxenite, Dunite, Migmatites, Banded Magnetite Quartzite, Shale and Clay. Dolerite dykes (Black Granite) are also noticed cutting across the country rocks. The Regional Geology map for the 10 Km radius of the proposed project site is given as Figure 2.8.

2.6.2 GEOLOGY OF THE PROJECT AREA:

The area is underlain by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the district are Archaean rocks like Gneisses, Granites, Charnockites basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite. The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high grade metamorphic rock.

The strike of the Charnockite formation is N45°E –S45°W with dipping towards SE60°. The general geological succession of the area is given as under.

<u>AGE</u>		<u>ROCK TYPE</u>
Recent	-	Gravelly soil
	Unconformity	
Archaean	-	Dolerite dyke
		Charnockite.
		Peninsular
		Gneissic complex and Calc Gneiss

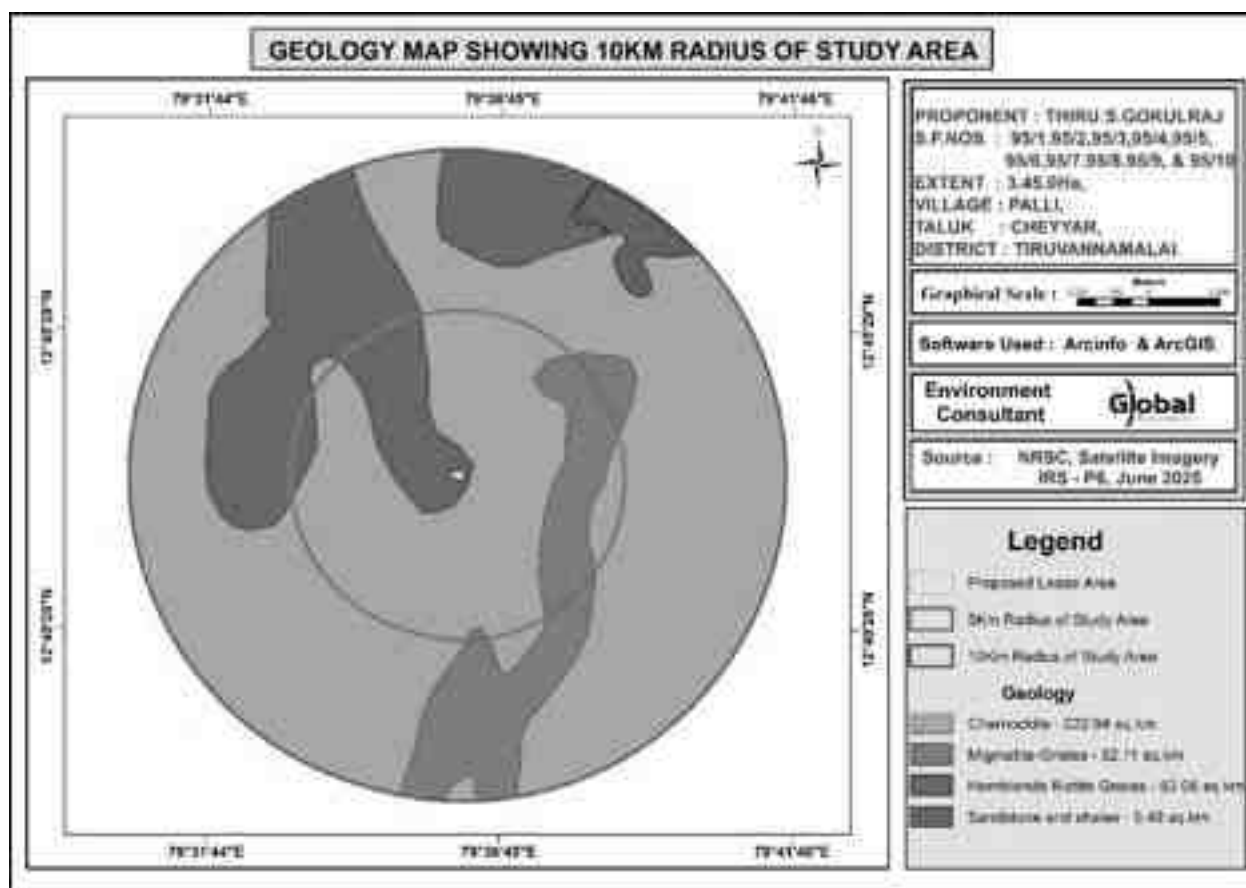


Figure 2.8 Geology Map – 10km Radius from the Project Site

2.7 RESOURCES AND RESERVES

The Resources and Reserves of Rough Stone and Gravel were calculated based on Cross-Section Method to cover the maximum lease area.

Table 2.7 Available Geological Resources

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m3	Geological Resources in m3	Bulk Density	Gravel in Ts	Geological Resources of Rough stone in Ts
XY-AB	I	126	71	2	17892	-	2.00	35784	-
	II	126	71	5	-	44730	2.75	-	123007.50
	III	126	71	5	-	44730	2.75	-	123007.50
	IV	126	71	5	-	44730	2.75	-	123007.50
	V	126	71	5	-	44730	2.75	-	123007.50
	VI	126	71	5	-	44730	2.75	-	123007.50
	VII	126	71	5	-	44730	2.75	-	123007.50
	VIII	126	71	5	-	44730	2.75	-	123007.50
	IX	126	71	5	-	44730	2.75	-	123007.50
Total					17892	357840	-	35784	984060.00
X1Y1- AB	I	110	59	2	12980	-	2.00	25960	-
	II	110	59	5	-	32450	2.75	-	89237.50
	III	110	59	5	-	32450	2.75	-	89237.50
	IV	110	59	5	-	32450	2.75	-	89237.50
	V	110	59	5	-	32450	2.75	-	89237.50
	VI	110	59	5	-	32450	2.75	-	89237.50
	VII	110	59	5	-	32450	2.75	-	89237.50
	VIII	110	59	5	-	32450	2.75	-	89237.50
	IX	110	59	5	-	32450	2.75	-	89237.50
Total					12980	259600	-	25960	713900.00
X2Y2- AB	I	359	53	2	38054	-	2.00	76108	-
	II	359	53	5	-	95135	2.75	-	261621.25
	III	359	53	5	-	95135	2.75	-	261621.25
	IV	359	53	5	-	95135	2.75	-	261621.25
	V	359	53	5	-	95135	2.75	-	261621.25
	VI	359	53	5	-	95135	2.75	-	261621.25
	VII	359	53	5	-	95135	2.75	-	261621.25
	VIII	359	53	5	-	95135	2.75	-	261621.25
	IX	359	53	5	-	95135	2.75	-	261621.25
Total					38054	761080	-	76108	2092970.00
Grand Total					68926	1378520	-	137852	3790930.00

The Geological Resources of Rough Stone : 13,78,520m³ (37,90,930Ts)

The Geological Resources of Gravel : 68,926m³ (1,37,852Ts)

2.7.1 MINEABLE RESERVES

The mineable reserves are calculated by deducting 7.5m, 10m safety distance and bench loss.

Table 2.8 – Available Mineable Reserves

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m ³	Mineable Reserves in m ³	Bulk Density	Gravel in (Ts)	Mineable Reserves Rough stone in (Ts)
XY-AB	I	109	63	2	13734	-	2.00	27468	-
	II	103	60	5	-	30900	2.75	-	84975.00
	III	93	55	5	-	25575	2.75	-	70331.25
	IV	83	50	5	-	20750	2.75	-	57062.50
	V	73	45	5	-	16425	2.75	-	45168.75
	VI	63	40	5	-	12600	2.75	-	34650.00
	VII	53	35	5	-	9275	2.75	-	25506.25
	VIII	43	30	5	-	6450	2.75	-	17737.50
	IX	33	25	5	-	4125	2.75	-	11343.75
Total					13734	126100	-	27468	346775.00
X1Y1-AB	I	91	59	2	10738	-	2.00	21476	-
	II	85	59	5	-	25075	2.75	-	68956.25
	III	75	59	5	-	22125	2.75	-	60843.75
	IV	65	59	5	-	19175	2.75	-	52731.25
	V	55	59	5	-	16225	2.75	-	44618.75
	VI	45	59	5	-	13275	2.75	-	36506.25
	VII	35	59	5	-	10325	2.75	-	28393.75
	VIII	25	59	5	-	7375	2.75	-	20281.25
Total					10738	113575	-	21476	312331.25
X2Y2-AB	I	342	45	2	30780	-	2.00	61560	-
	II	336	42	5	-	70560	2.75	-	194040.00
	III	326	37	5	-	60310	2.75	-	165852.50
	IV	316	32	5	-	50560	2.75	-	139040.00
	V	306	27	5	-	41310	2.75	-	113602.50
	VI	296	22	5	-	32560	2.75	-	89540.00
	VII	286	17	5	-	24310	2.75	-	66852.50
	VIII	276	12	5	-	16560	2.75	-	45540.00
Total					30780	296170	-	61560	814467.50
Grand Total					55252	535845	-	110504	1473573.75

The mineable reserve is computed as 5,35,845m³(14,73,573.75Ts) of Rough Stone and 55,252m³ (1,10,504Ts) of Gravel formation up to a depth 42m BGL only.

2.8 PROCESS DESCRIPTION AND TECHNOLOGY

2.8.1 PROCESS DESCRIPTION

The quarry operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough Stone to the needy buyers. The production of Rough Stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining.

- Splitting of rock mass of considerable volume from the parent rock mass by jackhammer drilling and blasting, hydraulic excavators are used for loading the Rough Stone from pithead to the needy buyers.
- Occasionally hydraulic excavators are attached with rock breakers for fragmentation to avoid secondary blasting.
- The primary boulders thus splitted are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators.

The process diagram is provided in Figure 2.9. The production plan and cross section and conceptual plan and conceptual cross section is given in Figure No. 2.10 - Figure No. 2.12.

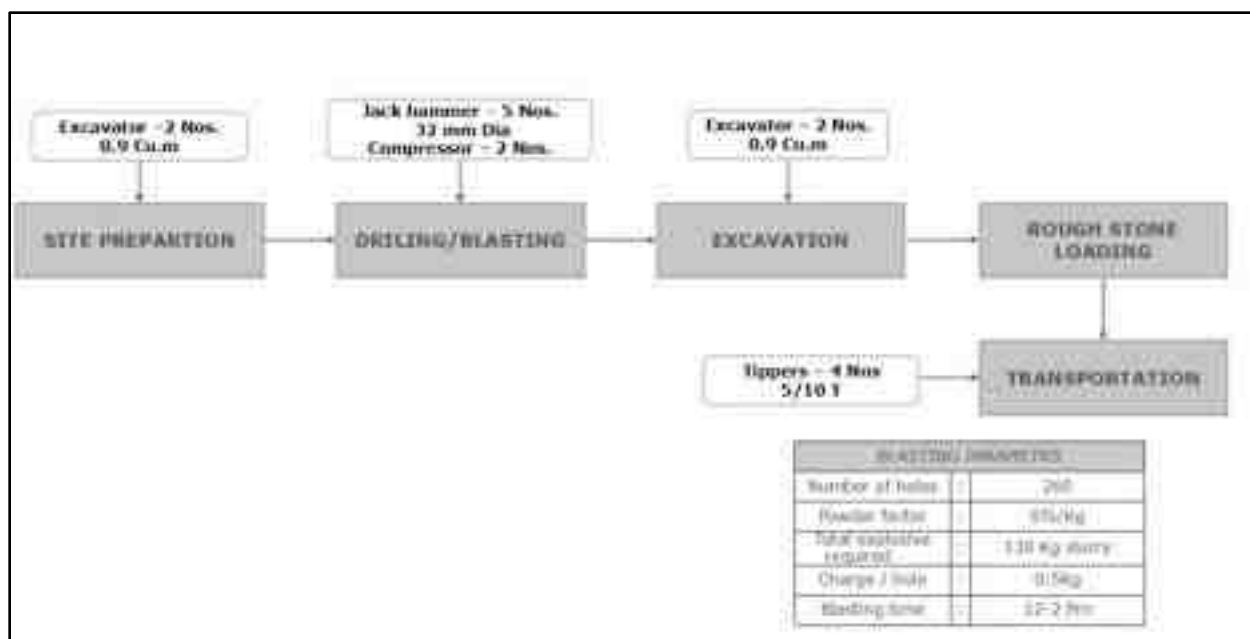


Figure 2.9 Process Flow Diagram

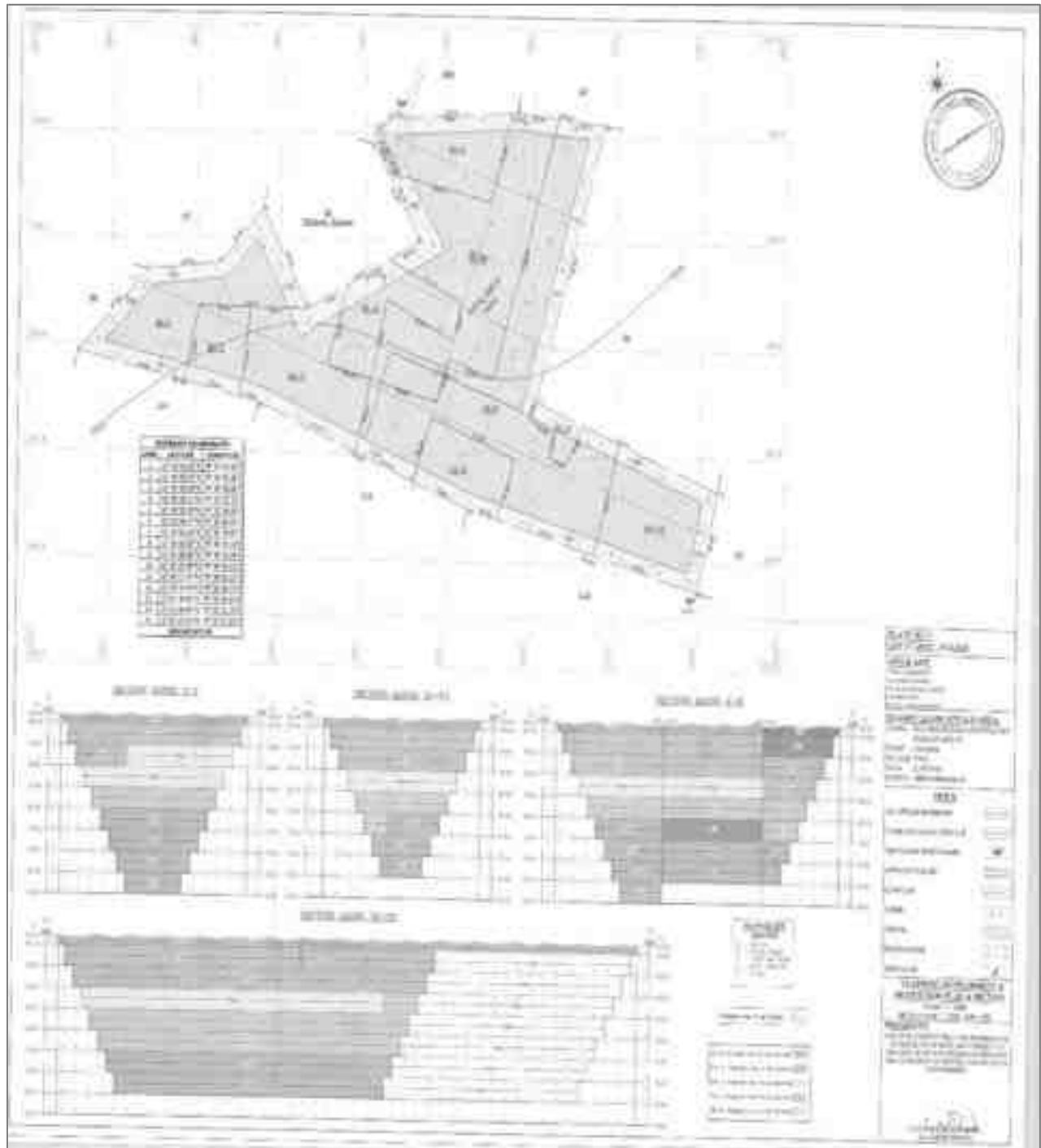


Figure 2.10 Year wise Development and Production Plan & Sections

Table 2.9 – Machinery Details

S.No.	Name of the Equipment	Capacity	Requirement
1	Excavator with Rock breaker attachment	0.90 m ³	2
2	Compressor	400 psi	2
3	Jack hammer	32 mm Dia	5
4	Tipper	10/20 T	4

2.8.2 DRILLING AND BLASTING PARAMETERS

Drilling and Blasting will be carried out as per parameters given below,

Table 2.10 – Details of Blasting

Diameter of the hole	32-36 mm
Spacing	0.6m
Depth	1 to 1.5 m
Burden of hole	0.6m
Pattern of hole	Zig zag
Inclination of hole	70° from horizontal
Number of holes	260
Powder factor	6Ts/Kg of Explosives
Total explosive required	130 Kg slurry Explosives
Charge / hole	0.5Kg
Blasting time	12-2 Pm

2.8.3 TYPE OF EXPLOSIVE

Slurry explosive is proposed for shattering and heaving effect for removal of Rough Stone. No deep hole drilling or primary blasting is proposed. The Project Proponent have agreement with M/s. Udayam Explosives to carry out the blasting operation for the proposed quarry. The Blasting Agreement is enclosed.

STORAGE OF EXPLOSIVES

No proposal for storage of explosives within the project area, the applicant will engage authorized explosive agency to carry out the blasting and it will be supervised by competent and statutory foreman / mines manager as per DGMS guidelines.

2.8.4 PRODUCTION SCHEDULE

The year wise production schedule upto lease period of 10 years is given below, the year wise production plan is given in Figure 2.10.

Table 2.11 Year wise Production Plan for 1st five years

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m³	Mineable Reserves in m³	Bulk Density	Gravel in (Ts)	Mineable Reserves Rough stone in (Ts)
I	XY-AB	I	109	63	2	13734	-	2.00	27468	-
		II	103	60	5	-	30900	2.75	-	84975.00
	X1Y1- AB	I	91	59	2	10738	-	2.00	21476	-
		II	85	59	5	-	25075	2.75	-	68956.25
	X2Y2- AB	I	143	45	2	12870	-	2.00	25740	-
		II	140	42	5	-	29400	2.75	-	80850.00
Total						37342	85375	-	74684	234781.25
II	X2Y2- AB	I	199	45	2	17910	-	2.00	35820	-
		II	80	42	5	-	16800	2.75	-	46200.00
		III	210	37	5	-	38850	2.75	-	106837.50
	X1Y1- AB	III	75	59	5	-	22125	2.75	-	60843.75
	XY-AB	III	30	55	5	-	8250	2.75	-	22687.50
Total						17910	86025	-	35820	236568.75
III	XY-AB	III	63	55	5	-	17325	2.75	-	47643.75
		IV	83	50	5	-	20750	2.75	-	57062.50
	X1Y1- AB	IV	65	59	5	-	19175	2.75	-	52731.25
	X2Y2- AB	IV	180	32	5	-	28800	2.75	-	79200.00
Total						-	86050	-	-	236637.50
IV	X2Y2- AB	IV	20	32	5	-	3200	2.75	-	8800.00
		V	190	27	5	-	25650	2.75	-	70537.50
		VI	180	22	5	-	19800	2.75	-	54450.00
		V	55	59	5	-	16225	2.75	-	44618.75

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	X1Y1-AB	VI	15	59	5	-	4425	2.75	-	12168.75
	XY-AB	V	73	45	5	-	16425	2.75	-	45168.75
Total						-	85725	-	-	235743.75
V	X1Y1-AB	VI	30	59	5	-	8850	2.75	-	24337.50
		VII	35	59	5	-	10325	2.75	-	28393.75
		VIII	25	59	5	-	7375	2.75	-	20281.25
	XY-AB	VI	63	40	5	-	12600	2.75	-	34650.00
		VII	53	35	5	-	9275	2.75	-	25506.25
		VIII	43	30	5	-	6450	2.75	-	17737.50
		IX	33	25	5	-	4125	2.75	-	11343.75
	X2Y2-AB	VII	170	17	5	-	14450	2.75	-	39737.50
		VIII	160	12	5	-	9600	2.75	-	26400.00
Total						-	83050	-	-	228387.50
Grand Total						55252	426225	-	110504	1172118.75

Table 2.12 The proposed tentative yearwise production for 6th to 10th year

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Mineable Reserves in m³	Bulk Density	Mineable Reserves in (Ts)
VI	X2Y2-AB	II	104	42	5	21840	2.75	60060.00
Total						21840	-	60060.00
VII	X2Y2-AB	II	12	42	5	2520	2.75	6930.00
		III	105	37	5	19425	2.75	53418.75
Total						21945	-	60348.75
VIII	X2Y2-AB	III	11	37	5	2035	2.75	5596.25
		IV	116	32	5	18560	2.75	51040.00
		V	10	27	5	1350	2.75	3712.50
Total						21945	-	60348.75
IX	X2Y2-AB	V	106	27	5	14310	2.75	39352.50
		VI	70	22	5	7700	2.75	21175.00
Total						22010	-	60527.50

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X	X2Y2-AB	VI	46	22	5	5060	2.75	13915.00
		VII	116	17	5	9860	2.75	27115.00
		VIII	116	12	5	6960	2.75	19140.00
Total						21880	-	60170.00
Grand Total						109620	-	301455.00

The Annual Peak production quantity of Rough Stone – 86050m³ (3rd year)

Total production for first five years – 4, 26,225 m³ of Rough Stone and 55,252m³ of Gravel

2.8.5 DISPOSAL OF WASTE

There is no waste anticipated in this Rough Stone Quarry. The entire quarried minerals will be utilized. After the excavation Rough Stone will be directly loaded into tipper to the needy buyers for road project and construction works for filling and leveling of low-lying areas.

2.9 CONCEPTUAL MINING PLAN / FINAL MINE CLOSURE PLAN

Conceptual mining plan is prepared with an object of ten years of systematic development of bench layouts, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, 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. Conceptual cross section and conceptual plan is given in Figure 2.12.

Table 2.13 - Ultimate Pit Dimension at the end of Lease period

Pit	Length in m (Max)	Width in m (Max.)	Depth in m (Max.), bgl
I	342	76	42m BGL

Table 2.14 - Land use pattern of the Project site

Description	Present Area in Ha.	Area at the end of life of Quarry in Ha.
Quarrying pit	Nil	2.60.0
Infrastructure	Nil	0.01.0
Roads	Nil	0.01.0
Greenbelt	Nil	0.83.0
Unutilized	3.45.0	Nil
Total	3.45.0	3.45.0

- At the end of life of mine, the excavated mine pit / void of 2.60.0 Ha will act as artificial reservoir for collecting rain water and helps to meet out the demand or crises during drought season.
- After mine closure the greenbelt (0.83.0Ha.) will be developed along the safety barrier and top benches and 0.02 Ha are approach road and Infrastructure.

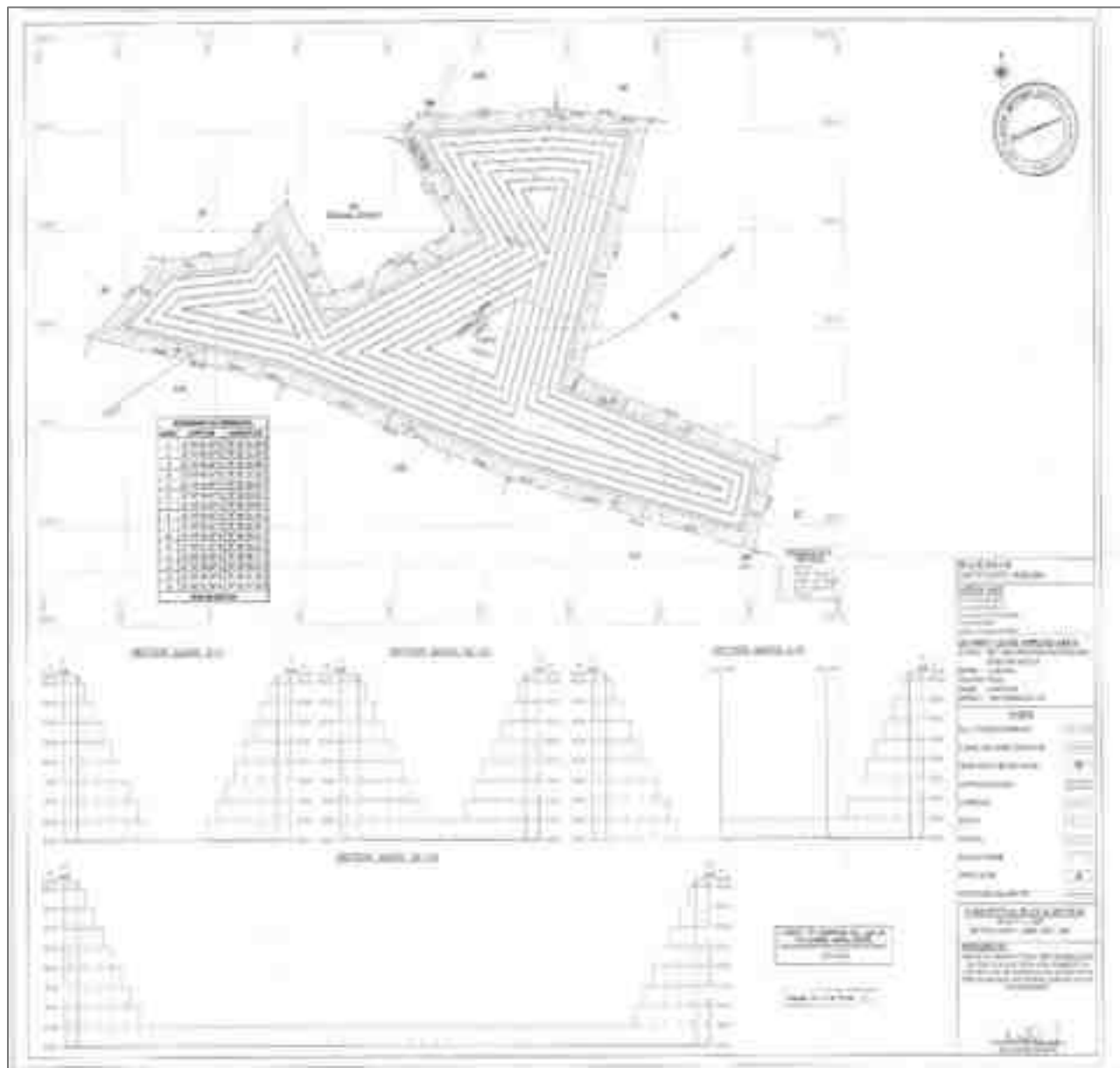


Figure 2.11 Conceptual Plan and Sections

2.10 PROJECT REQUIREMENT

2.10.1 WATER REQUIREMENT AND SOURCE

The total water requirement estimated for the quarry is 5.0 KLD. The required water will be procured from outside agencies initially and later rainwater harvested in the mine pit shall be used other than drinking purpose.

Table 2.15 Details of Water requirement

Activity	Water Requirement in KLD
Drinking & Domestic	1.0
Dust Suppression	2.0
Greenbelt Development	2.0
Total	5.0

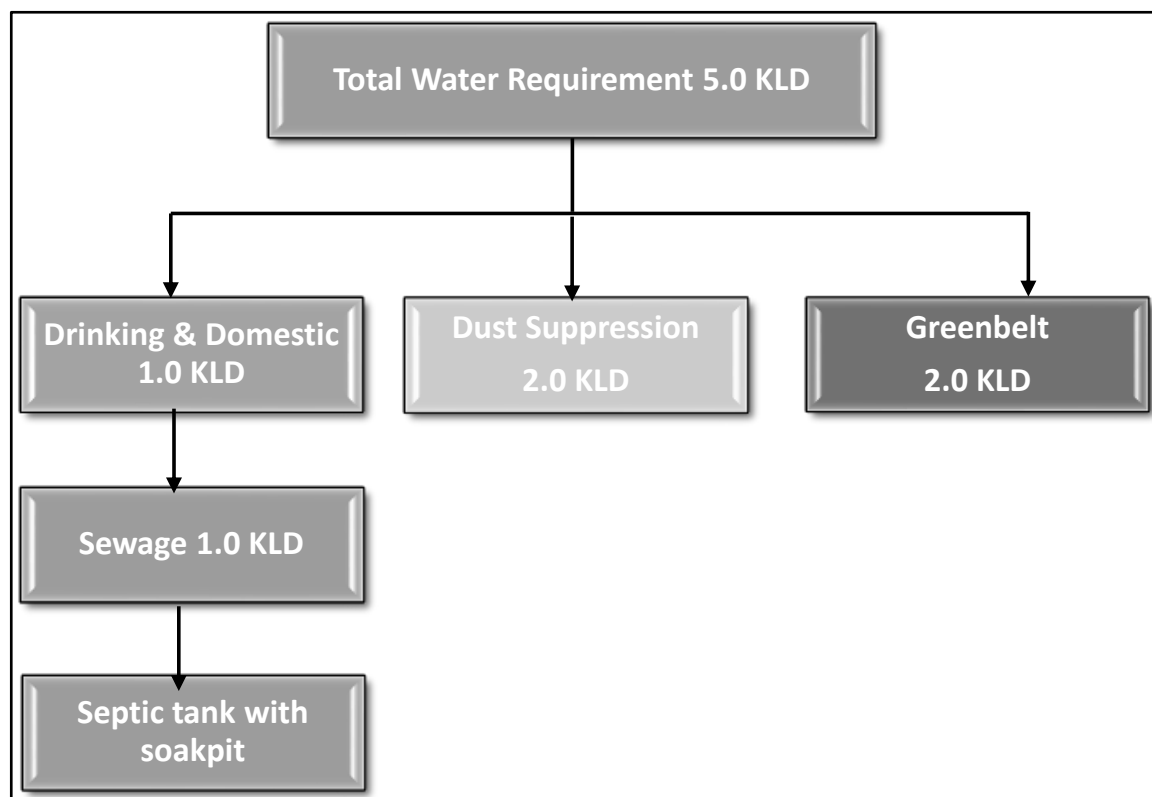


Figure 2.12 Water Balance Chart

2.10.2 POWER REQUIREMENT

All the equipment will be diesel operated. No electricity is needed for mining operation. The minimum power requirement for office, etc will be met from state grid.

2.10.3 FUEL REQUIREMENT

High speed Diesel (HSD) will be used for mining machineries.

Table 2.16 Details of Fuel (HSD) Requirement

i) For Gravel

Per hour excavator will consume	10 liters /hr
Per hour excavator will excavate	60 m ³ of Gravel
For 55,252m ³	55,252/60 = 920.86
So, Diesel consumption	= 920.86 x 10 litres
	=9,208.6 litres of HSD

ii) For Rough Stone

Per hour excavator will consume	16 liters /hr
Per hour excavator will excavate	20 m ³ of Rough Stone
For 5,35,845m ³	5,35,845/20 = 26,792.25
So, Diesel consumption	= 26,792.25 x 16 litres
	=4,28,676 litres of HSD

The Total fuel consumption is around 437.885 KL of HSD for the entire period of life (10 years).

2.10.4 EMPLOYMENT GENERATION

The project will provide employment opportunities totally to 18 persons directly and 12 indirectly.

Table 2.17 Details of Manpower requirement

1.	Skilled	Mines Manager	1 No.
		Foreman / Mate	2 No.
		Operator	10 No.
		Mechanic	1 No.
2.	Semi-skilled	Driver	4 No.
3.	Unskilled	Labours	12 Nos
Total			30 Nos

2.10.5 GREEN BELT REQUIREMENT

The safety zone, covering an area of 0.83.0 Hectares, will be maintained as a green belt and planted with 830 Nos. of local species.

2.10.6 VEHICULAR TRAFFIC DENSITY

The proposed quarry is located in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State. The final product from the quarry will be transported through Cheyyar – Kancheepuram road situated 1.21 km in eastern side of the project. The details of transport route from the quarry shown below:



Figure 2.13 Mineral Transportation Map

The vehicular traffic survey will be carried out in the route through which mined out minerals are transported. Within 500 m radius, there are two existing and two proposed quarries including this proposal. The final product from this quarry will be transported through Cheyyar – Kancheepuram road situated 1.21 km in eastern side of the project.

Methodology

Vehicle Count

The vehicles passing through the road (in both ways) were counted separately for 24 hours at the one selected location from 06.00 hrs to 06.00 hrs next day continuously. Category wise vehicle counting has been done continuously and recorded in the traffic volume count on hourly basis under respective categories.

Categorization of Traffic

The engine driven vehicles were categorized into various heads viz. two wheelers, three wheelers, four wheelers and trucks/bus. The level of service is given below. **(Source: Recommended Design Service Volumes (PCUs per hour), IRC)**

Level of Service	General Operating conditions	Range of V/C
A	Free flow (traffic flows at or above speed limit and motorists have complete mobility between lanes)	<0.30
B	Reasonable flow (slightly more congested, with some maneuverability)	0.3 – 0.47
C	Stable flow (more congested than B, loads close to capacity)	0.48 – 0.68
D	Approaching unstable flow (speeds are somewhat reduced, example: busy corridor during middle of a weekday, or a functional urban highway during rush hour)	0.69 – 0.88
E	Unstable flow (flow becomes irregular, speed varies widely and rarely reaches speed limit)	0.88 - 1.00
F	Forced or breakdown flow (a constant traffic jam)	>1.00

Mineral Transportation

Table 2.18 Mineral Transportation			
Production Per day in tons			
Quarry	Quarry Name	Total Mineral in tons per day	No. of Lorry Load per day
P1 (Proposed)	Thiru.S.Gokulraj	1038	52 (20 Ts Lorry)

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P2 (Existing)	S.Nirmal	538	54 (10 Ts Lorry)
P3 (Existing)	Shri Vinayaga Mine	187	19 (10 Ts Lorry)
P7 (Proposed)	Tmt.T.Poornima	1626	81(20 Ts Lorry)
Total		3389	206

Table 2.19 Summary on Traffic Volume

Route	Existing Traffic Survey in PCU	Incremental Traffic Survey due to project (cluster)	Total traffic survey volume	Hourly capacity in PCU as per IRC -1960 guidelines
Cheyar – Kancheepuram Road	253	77	330	1500

Table 2.20 Modified Level of Service

Route	Existing Volume PCU/hr	Existing V/C Ratio	Additional Volume PCU/hr	Modified Volume PCU/hr	Modified V/C ratio	Modified LOS
Cheyar – Kancheepuram Road	253	0.16	77	0.05	0.21	A*(Free Flow)

2.10.7 INFRASTRUCTURE REQUIREMENT

This is a proposed project. Site services like mine office, first aid room, toilets etc. will be provided as semi-permanent structures.

2.10.8 PROJECT COST

The total project cost of this Rough Stone and Gravel Quarry is Rs. 156.39 lakhs

2.10.9 PROJECT IMPLEMENTATION SCHEDULE

The proponent proposes to implement the production immediately after obtaining all the statutory approvals. The commercial operation will commence after the grant of Environmental Clearance. CTO and CTE will be obtained from the Tamil Nadu State Pollution Control Board. The conditions imposed during the Environmental Clearance will be compiled before the start of mining operation.

CHAPTER 3

DESCRIPTION OF THE ENVIRONMENT

3.1. STUDY AREA, PERIOD COMPONENTS AND METHODOLOGY

The project area is located in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State over an extent of 3.45.0 Ha., The project area is considered as Core zone and the area in the surrounding 10km radius is considered as Buffer Zone. The baseline environmental monitoring was conducted by Shrient Analytical & Research Labs Private Limited, Chennai it is an NABL and MOEF recognized laboratory for various components of environment, viz. Air, Noise, Water, Land was carried out during Summer Season i.e. March 2025 to May 2025 in the study area covering 10 km radial distance from the Rough Stone and Gravel mine. Other environmental data on flora and fauna, land-use pattern, forest etc. were also generated through field surveys and secondary information collected from different State Govt. departments. Sampling methods and analysis. Socio-economic survey was conducted, through interaction with the people, sarpanch and medical officers by floating questionnaires and collection of information are supported by census data for demographic structures, amenities, and infrastructure availability within the study area. Baseline values for various environmental components are discussed in this Chapter.

ENVIRONMENTAL SETTING OF THE STUDY AREA

Table 3.1 Description of the lease area		
S.No.	Areas	Distance from project site
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil within 15km radius
2	Areas which are important or sensitive for ecological reasons	
A	Wetlands, water courses or other water bodies,	Edayan Kulam - Adjoining the Lease (W), Tank - 422m (N), Canal - 432m (W), Palli Tank - 633m (S), Ermalnangal Tank - 1.0km (SE), Chittathur Tank - 1.1km (N), Mariyanallur Tank - 2.2km (NW), Kaganam Tank - 2.8km (NW), Karanai Tank - 2.8km (SE), Dusi Mamandur Tank - 3.4km (NE),

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		Karandai Tank – 4.2km (NW) Kilnelli Tank – 4.5km (N), Thiruvadarirayapuram Tank – 4.7km (NE), Maharajanapakkam Tank – 4.9km (SE), Cheyyar River – 5.9km (S), Mangai Eri – 7.5km (SE)
B	Coastal zone, biospheres,	Nil within 10km radius
C	Mountains, forests	Nil within 10Km radius.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil within 10 km radius
4	Inland, coastal, marine or underground waters	Nil within 10 km radius
5	State, National boundaries	Nil within 10 km radius
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil within 10 km radius
7	Defense installations	Nil within 10 km radius
8	Densely populated or built-up area	Chithathur – 2.3 km- NE
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Cheyyar – 7.40 km - SW
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Nil
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	Nil
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earth quakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No. The area is not prone to earthquakes, floods, etc.

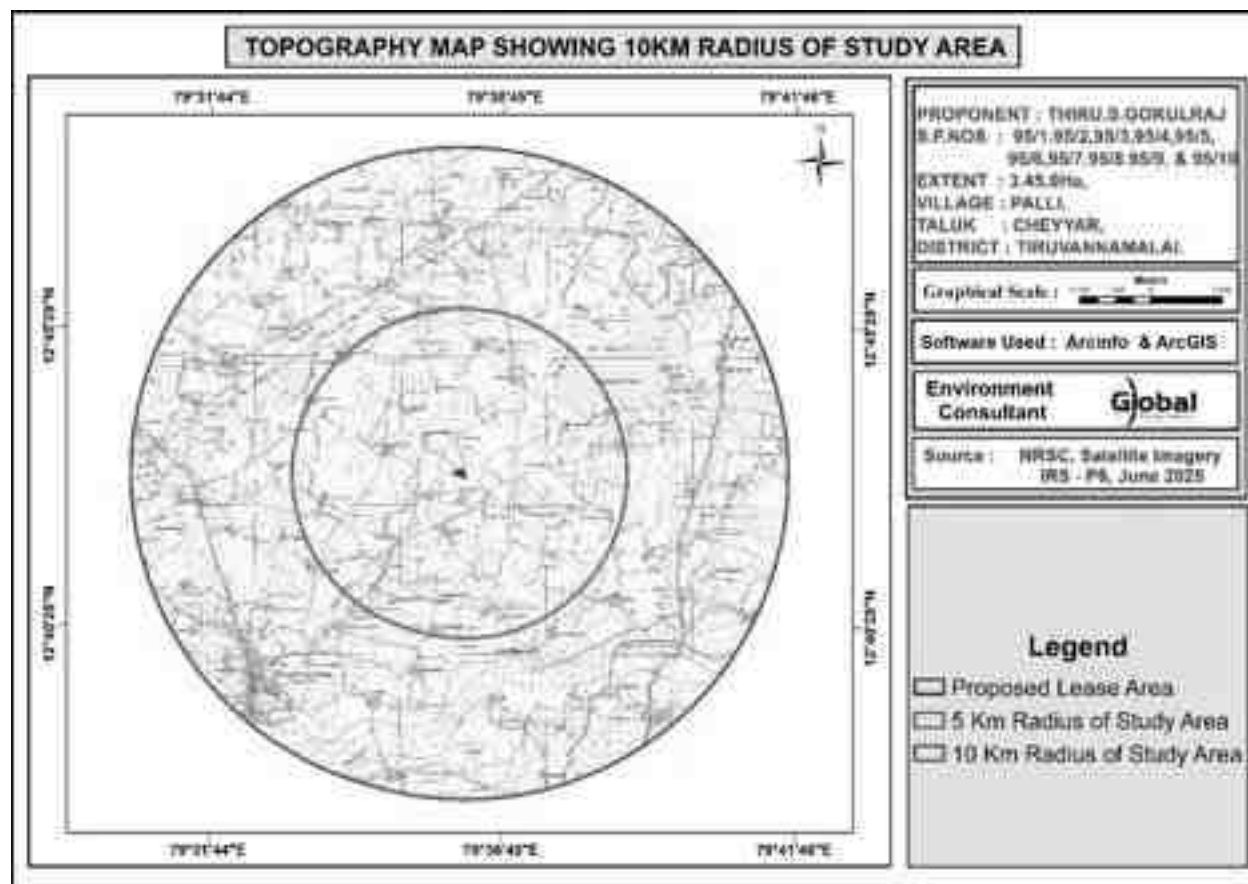


FIG 3.1 ENVIRONMENTAL SETTING OF THE STUDY AREA

STUDY PERIOD

The relevant information and data (both primary and secondary) were collected in core as well as buffer zone (10 km distance from the mine boundary) during Summer Season (March., to May., 2025) in accordance with the guidelines for preparation of EIA studies in order to assess the impact of the mine site within the 10 Km study area on existing physical, biological and social environment.

3.2 ESTABLISHMENT OF BASELINE FOR VALUED ENVIRONMENTAL COMPONENTS:

Information on the following components/parameters were collected to understand the existing scenario of the core and buffer area:

- ☛ Meteorological environment

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

- ✚ Air environment
- ✚ Water environment
- ✚ Noise environment
- ✚ Soil environment
- ✚ Biological environment
- ✚ Land use & Land cover
- ✚ Socio economic environment
- ✚ Hydrogeology

BASELINE DATA COLLECTION

Baseline environment data on various components of the environment in the study area were collected during Summer Season (March., to May., 2025) to assess the present scenario of the area. Details are given in the table given below.

Baseline data collection During Post Monsoon Season (March., to May., 2025)

S.No	Environmen tal Component	Primary data		
		Parameters	Frequency	Monitori ng/Samp ling locations
1	Land	Agriculture, Habitation, Industry, Stony waste/ Quarries, Forest area, Plantation/ Vegetation, Open scrub, Water bodies etc.	Once in a Season	10 km radius study area
2	Meteorology	Temperature, Relative Humidity, Wind Speed, Wind Direction.	Hourly	1
3	Air	PM10, PM2.5, SO2, NO2, CO & PAH	twice a week (24 hourly)	7
4	Noise	Equivalent noise levels in Leq in dB (A)	Once in a season (day & night time)	7
5	Water	Parameters as per IS 10500 - 2012	Once in a season	
A	Surface Water	Parameters as per IS 10500 - 2012	Once in a season	2
B	Ground Water	Parameters As per IS 2720/USDA	Once in a season	7
6	Soil	Parameters As per IS 2720/USDA	Once in a season	7
7	Biological Environment	Flora and Fauna	Once in a season	Study Area
8	Socio-Economic Environment	Socio-Economic Environment	Once in a season	Study Area

INSTRUMENTS USED FOR ENVIRONMENTAL BASELINE DATA COLLECTION

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

- Respirable Dust Sampler with attachment for gaseous Pollutants, Envirotech APM 460.
- Fine Particulate Matter (FPS) Sampler APM 550
- Sound Level Meter Model Envirotech SLM - 100
- Digital D.O. Meter Model - 831 E (CPCB Kit)
- Weather Monitoring Station Model Enviro WM 271
- Water Level Indicator and
- Global Positioning System (GPS) Apart from collecting samples of air, water, noise and soil from representative sampling points given in proceeding sections, the data on land use, vegetation and agricultural crops were also collected by the field team through interaction with a large number of local inhabitants of the study area and different Government departments/agencies. This provided an excellent opportunity to the members of the field team for obtaining clear scenario of the existing environment of the study area.

3.3. BASE MAP OF ALL ENVIRONMENTAL COMPONENTS

(ENUMERATION OF THE STRUCTURES LOCATED WITHIN 300 M RADIUS FROM THE PROPOSED QUARRY SITE)

A site survey has been conducted to identify and list structures located within a 300 m radius from the proposed Quarry and are detailed below. There are no permanent approved structures within a 300 m radius from the project site. The PP has obtained a letter from Village Administrative Office (VAO), Palli Village stating that there are no structures situated within 300m radius. As per the field study, there are 4 structures within 300m radius which include 1 Crusher Unit Office Room, a Crusher Unit and its Office Room, Shed and a Crusher Unit . No habitation within 300m.

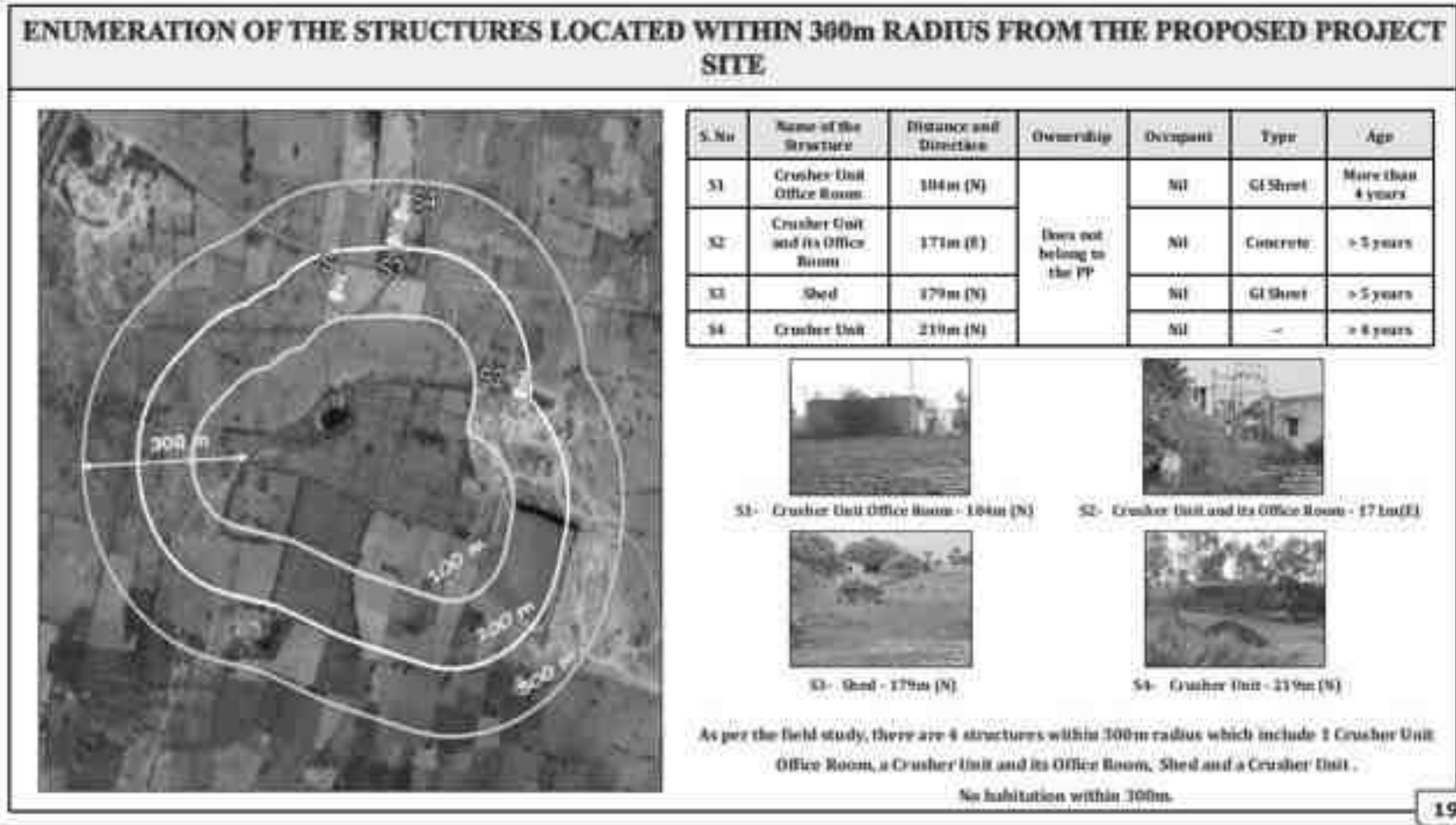


FIG 3.2 Enumeration of Structures located within 300 m radius from the Project Site

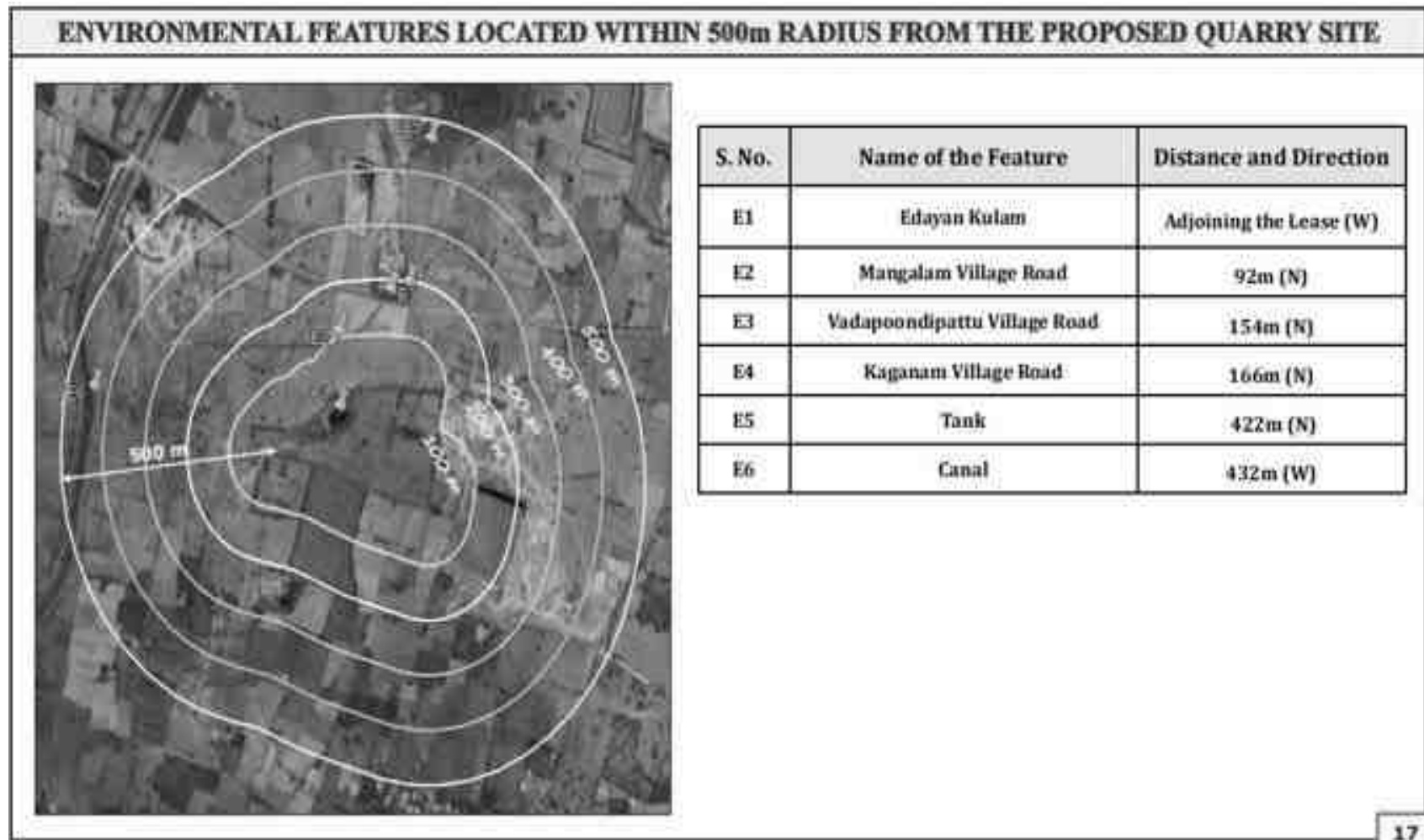


FIGURE 3.3 - Environmental Features Located Within 500m Radius from The Proposed Quarry Site

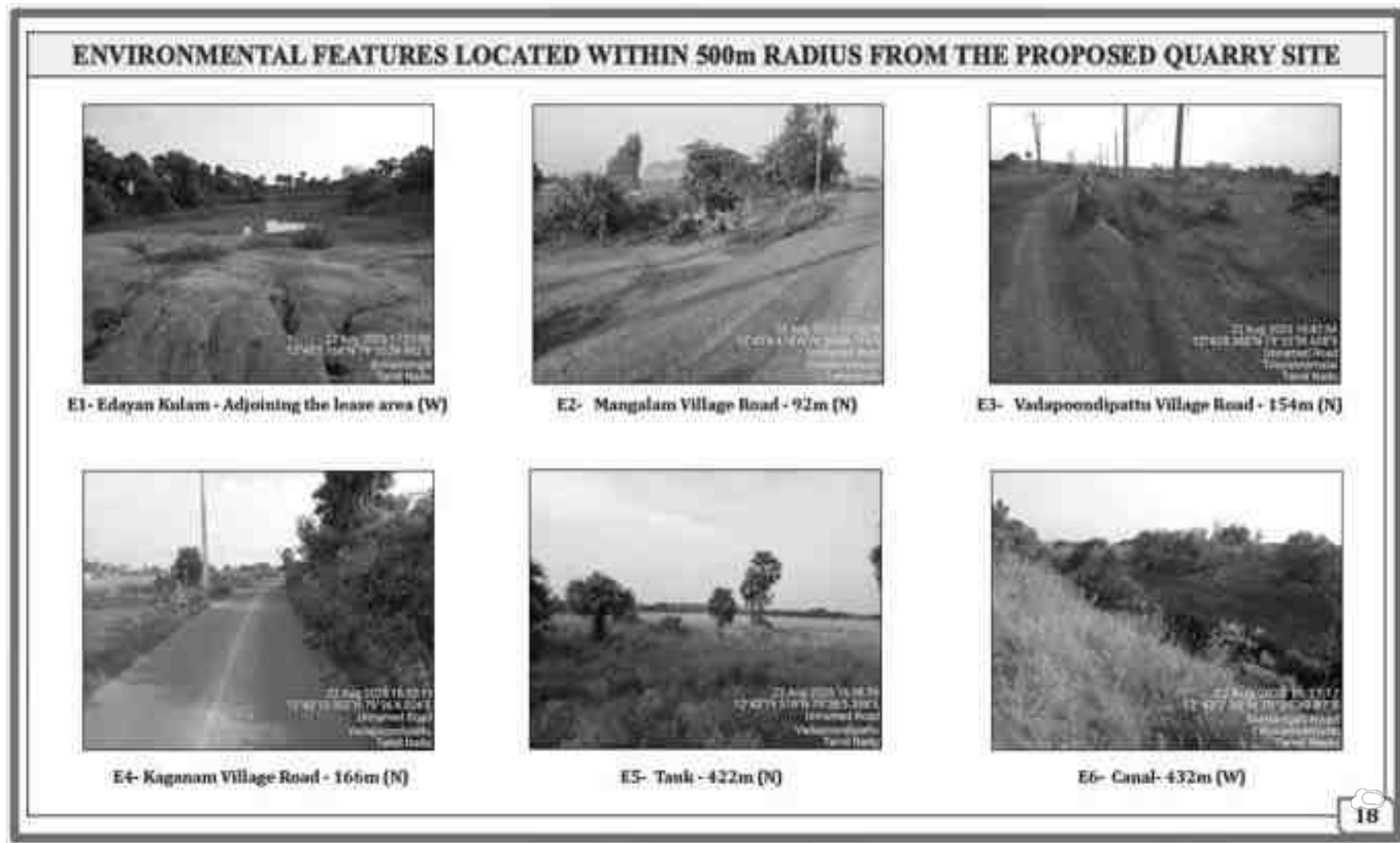
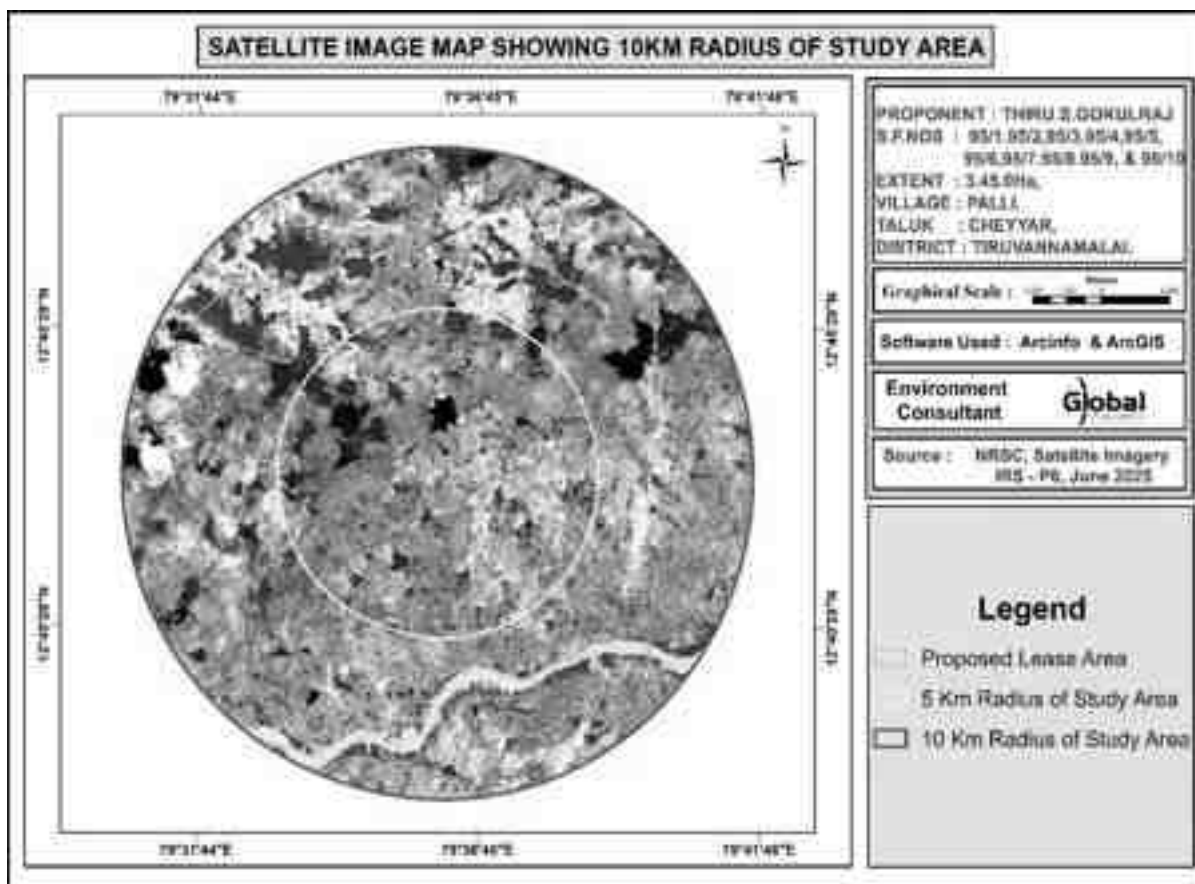


FIGURE 3.4 – Photographs on Environmental Features Within 500 m radius from the Project Site

FIGURE - 3.5 SATELLITE MAP OF THE PROJECT AREA (10 KM RADIUS)



3.3.1 METEOROLOGICAL ENVIRONMENT

Meteorological conditions prevailing in the buffer zone is given below

Climate

The average annual rainfall of the study area is 1019.7 mm, out of which 80 percent is received during monsoon. Tiruvannamalai District comes under the Eastern Ghats (TN uplands) and Deccan plateau, hot semiarid region with red loamy soil with cropping period of 90 to 150 days. Excepting hills, the district falls in the North Eastern agro climatic zone of Tamil Nadu. The average annual rainfall of the study area is 1019.7 mm, out of which 80 percent is received during monsoon. The soils of the study area have an Ustic moisture regime and Hyperthermic temperature regime.

Rainfall

The average annual rainfall and the 5 years rainfall collected from IMD, Chennai is as follows:

Table 3.2 - Annual Rainfall Variation

Years	2019	2020	2021	2022	2023	2024 (as on 30.09.24)	Normal Rainfall in mm
Rainfall in mm	1071.9	432.9	1592.5	1174.4	1161.4	684.1	1019.7

Relative Humidity

The month with the most relative humidity is November (76.77). The month with the least relative humidity is March (48.05). The wettest month is October (19.97 days), while the driest is February.

Seismic information

The study area falls in Zone II, which comes under the least active zone. The seismic map of India is given as Fig 3.6.

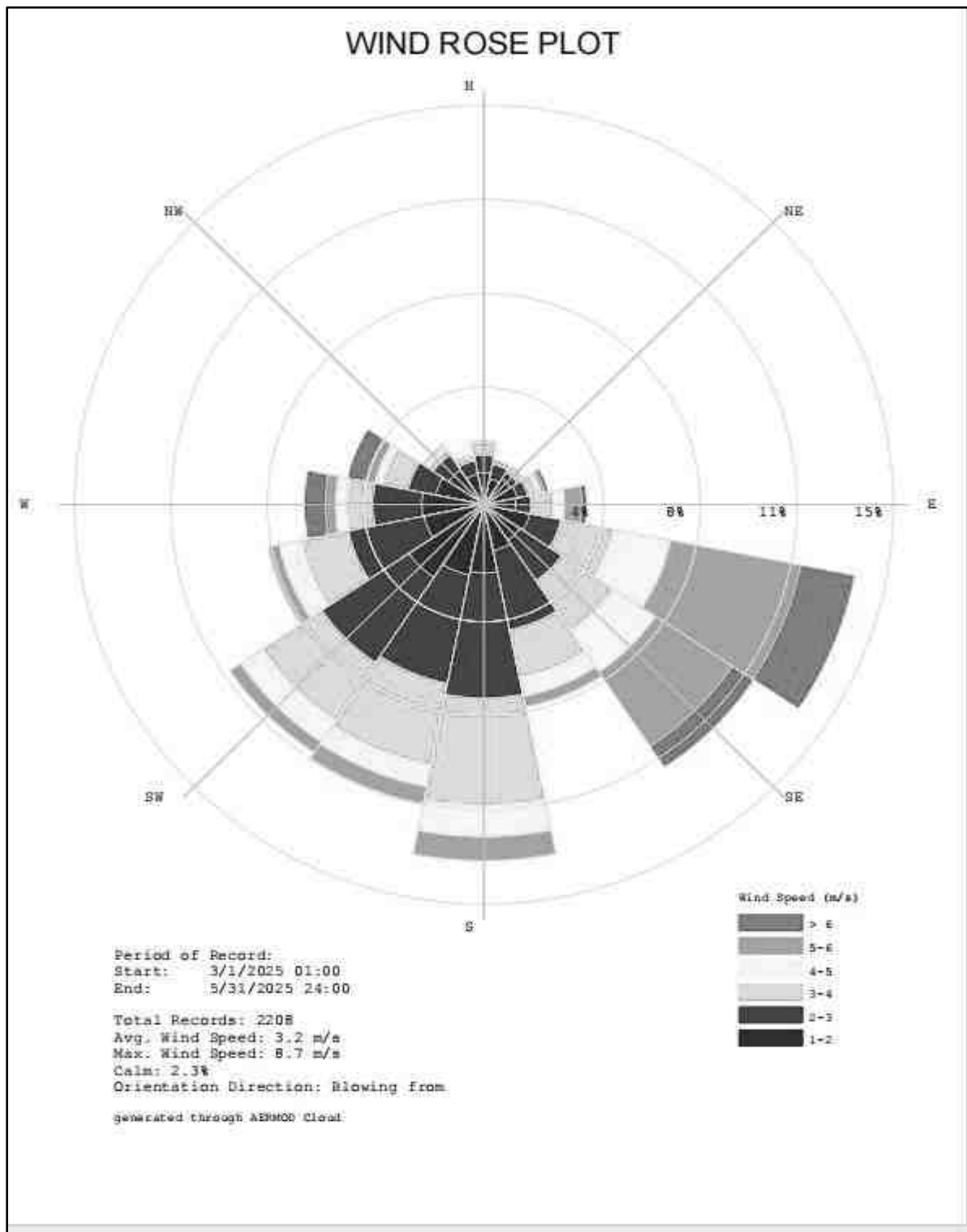


FIG 3.7 WIND ROSE PLOT DURING MARCH TO MAY 2025

Meteorological data of the project area

The meteorological data collected in the study area from March 2025 to May 2025 which includes Temperature, Wind speed, Wind direction and Relative humidity. The predominant wind blows from ESE.

Table 3.3 Meteorological Data Recorded at Site

S.NO	Parameters		March to May 2025
1.	Temperature (°C)	Min	21
		Max.	41
		Avg	29
2.	Relative Humidity (%)	Min	19
		Max	95
		Avg	60
3.	Wind Speed (m/s)	Min	0
		Max	8.7
		Avg	3.2
4.	Wind Direction	Blowing From – SE	

3.3.2 AMBIENT AIR MONITORING DATA

Ambient air quality monitoring has been carried out in 7 locations. One in the core zone and remaining six locations in the buffer zone areas. Monitoring locations have been chosen such that the measurement represents the overall air condition prevailing in the area. The study area represents mostly rural environment with stone mining quarries & crushers.

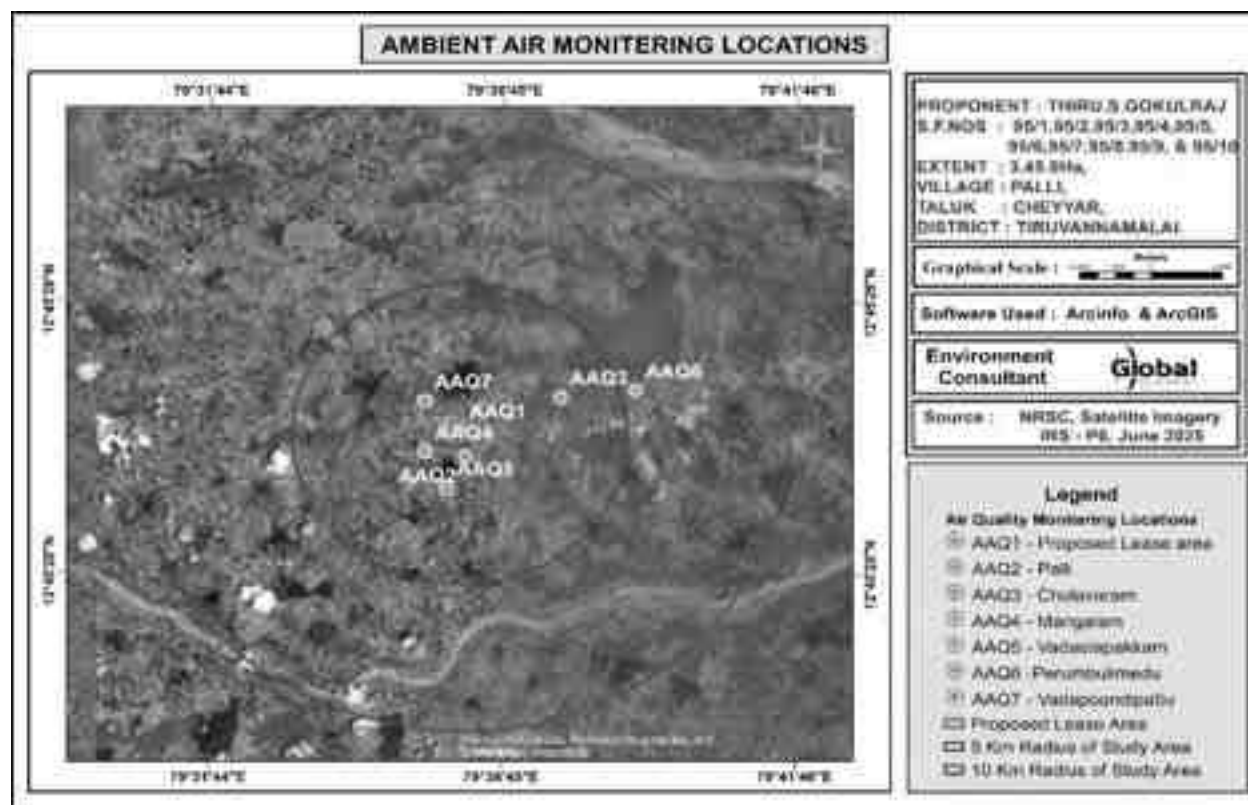
The regional climatologically data, was used as a guideline to know the predominant wind direction during study period. The locations were identified keeping in view predominant wind directions prevailing during study period, sensitive receptors, human settlements, and mining activities around.

The levels of Respirable Particulate Matter (PM₁₀), Fine Particulates (PM_{2.5}), Sulphur Dioxide (SO₂) and Oxides of Nitrogen (NO_x) were monitored for establishing the baseline status. PM₁₀ were sampled with the help of Respirable Dust Samplers on filter papers and SO₂ & NO_x were absorbed in the respective absorption media in the impingers attached to RD samplers and analyzed Spectro-photometrically. PM_{2.5} was monitored with the help of Fine Particulate

Samplers. The monitoring locations for ambient air study are given in Table – 3.4 and Figure 3.8 below.

Table 3.4: Details Of Ambient Air Quality Monitoring Locations				
S.NO.	Station Code	Locations	Distance & Direction	Coordinates
1	AAQ 1	Within Mine Lease area	Core Zone	12°43'1.24"N & 79°36'0.93"E
2	AAQ 2	Palli	512m - (S)	12°42'37.79"N & 79°36'5.59"E
3	AAQ 3	Cholavaram	4.34Km - SE	12°43'42.39"N & 79°37'43.72"E
4	AAQ 4	Mangalam	1.1Km - SW	12°42'40.15"N & 79°35'27.86"E
5	AAQ 5	Vadaelapakkam	1.89Km - S	12°41'59.98"N & 79°35'48.74"E
6	AAQ6	Perumbulimedu	5.75Km - NE	12°43'51.40"N & 79°38'56.61"E
7	AAQ7	Vadapoondipattu	1.2Km - NW	12°43'36.65"N & 79°35'25.76"E

FIG 3.8 BASE MAP OF AMBIENT AIR MONITORING LOCATIONS



The concentrations of various air pollutants at the 7 locations are given below. For all the components in the table, the unit are in $\mu\text{g}/\text{m}^3$.

Table.3.5 Results of Air sampling Analysis in 7 locations

Station ID	Min	Max	Avg.
Particulate matter PM-2.5 ($\mu\text{g}/\text{m}^3$)			
AAQ-1	24.5	33.9	29.2
AAQ-2	18.6	28.6	23.6
AAQ-3	19.7	28.6	24.2
AAQ-4	19.8	30.2	25.0
AAQ-5	21.7	31.3	26.5
AAQ-6	23.3	35.4	29.4
AAQ-7	23.5	35.6	29.6
CPCB NAAQS 2009 for PM_{2.5} - 60 $\mu\text{g}/\text{m}^3$			
Particulate matter PM-10 ($\mu\text{g}/\text{m}^3$)			
AAQ-1	52.5	72.5	62.5
AAQ-2	40.8	52.6	46.7
AAQ-3	43.2	54.5	48.9
AAQ-4	46.2	60.3	53.3
AAQ-5	48.5	63.3	55.9
AAQ-6	50.3	64.4	57.4
AAQ-7	50.9	65.0	58.0
CPCB NAAQS 2009 for PM₁₀ - 100 $\mu\text{g}/\text{m}^3$			
Sulphur Di-oxide as SO₂ ($\mu\text{g}/\text{m}^3$)			
AAQ-1	5.5	8.7	7.1
AAQ-2	3.4	5.9	4.7
AAQ-3	3.7	6.0	4.9
AAQ-4	4.0	6.4	5.2
AAQ-5	3.8	8.4	6.1
AAQ-6	4.2	6.6	5.4
AAQ-7	4.4	6.8	12.4
CPCB NAAQS 2009 for SO₂ - 80 $\mu\text{g}/\text{m}^3$			
Oxide of Nitrogen as NO₂ ($\mu\text{g}/\text{m}^3$)			
AAQ-1	10.0	12.9	11.5
AAQ-2	7.3	9.8	8.6
AAQ-3	6.7	8.7	7.7
AAQ-4	7.3	10.3	8.8
AAQ-5	7.7	12.4	10.1
AAQ-6	7.9	11.8	9.9
AAQ-7	8.5	12.4	10.5
CPCB NAAQS 2009 for NO₂ - 80 $\mu\text{g}/\text{m}^3$			

The results are summarized in graph and given as below Figures.

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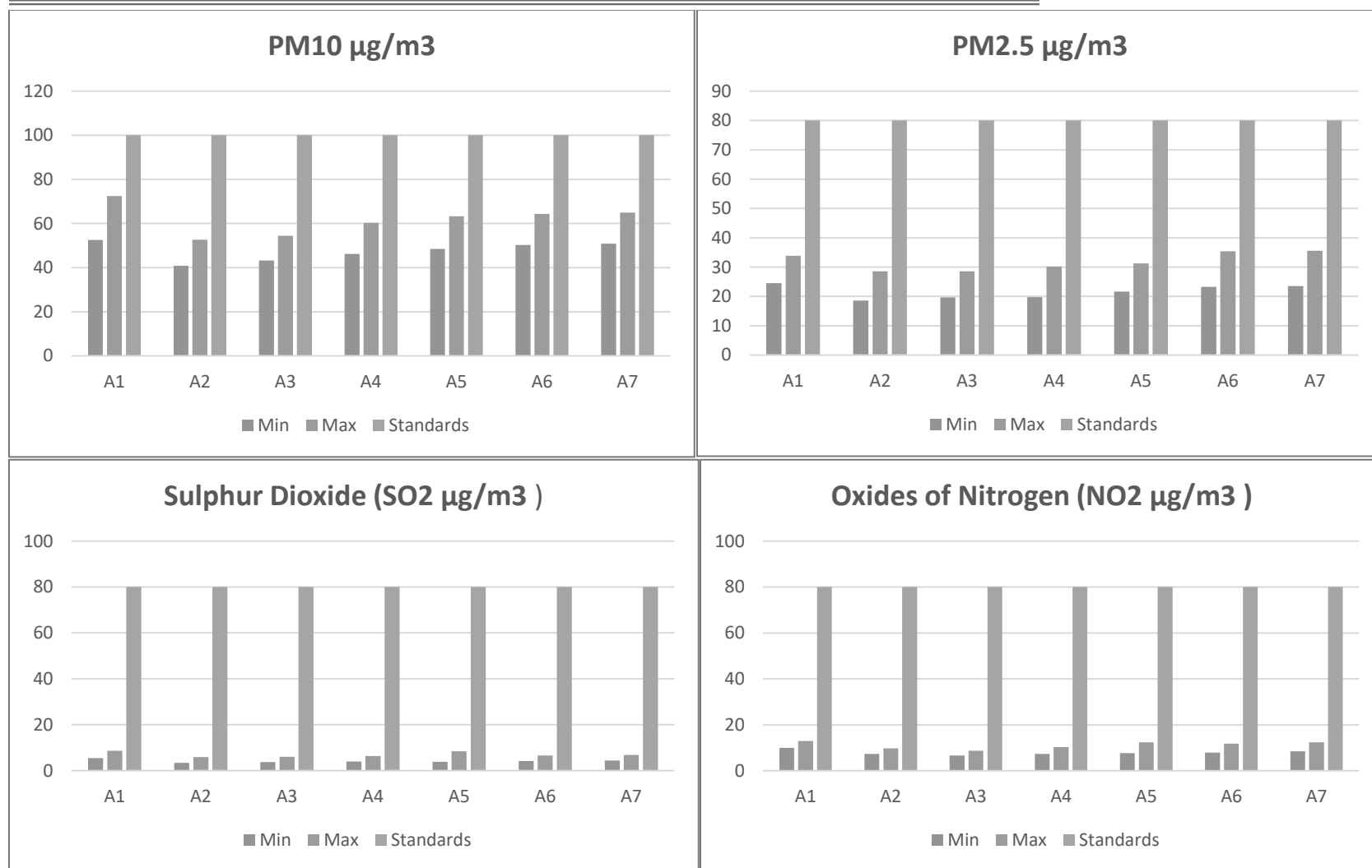


FIG 3.9 GRAPHICAL REPRESENTATION OF AIR QUALITY DATA

Discussion

From the table it is seen that, in core zone, the PM₁₀ values were in the range of 52.50 to 72.5 $\mu\text{g}/\text{m}^3$. PM_{2.5} values in the range of 24.50 to 33.90 $\mu\text{g}/\text{m}^3$. SO₂ levels were ranging from 5.5 to 8.7 $\mu\text{g}/\text{m}^3$ and NO₂ levels were ranging from 10.0 to 12.9 $\mu\text{g}/\text{m}^3$. In buffer zone, the PM₁₀ values were in the range of 40.80 – 65.00 $\mu\text{g}/\text{m}^3$. PM_{2.5} values were in the range of 18.6 – 35.60 $\mu\text{g}/\text{m}^3$. SO₂ levels were ranging from 3.40 – 8.40 $\mu\text{g}/\text{m}^3$. NO₂ levels were ranging from 6.70 – 12.40 $\mu\text{g}/\text{m}^3$. While comparing with the NAAQ Norms laid by MoEF, all monitored values of PM₁₀, PM_{2.5}, SO₂, NO₂ & CO were found to be well within the prescribed standards. The CO values in the all locations found to be below detectable limit (DL – 1144 $\mu\text{g}/\text{m}^3$). The maximum value of all four parameters is observed in the mine lease area. The main contributing factor is the presence of another existing crusher unit located adjacent to the project site.

3.3.3 WATER ENVIRONMENT

Assessment of baseline data on water environment includes:

- Identification of water resources
- Collection of water samples
- Analyzing water samples collected for physico-chemical parameters as per standards.

Surface Water

There are seven water bodies within 1 km radius. The other major water bodies in buffer are given below.

- Cheyyar river– 5.6Km (SE)

Ground Water

In Tiruvannamalai District, during the pre monsoon, the water level generally in declining trend ranges from G.L. to 15m. The depth of well below Ground Level 12.0m are become dry during hot season like May, June, July. In the post monsoon, the water level generally in upward trend due to rainfall and it may reach the Ground Level also.

The scenario of ground water in Cheyyar Taluk, Tiruvannamalai District, is given below.

Ground Water Level Status in Cheyyar Taluk							
S. No.	Firka	Net Annual Ground water availability	Existing gross Draft for irrigation	Existing gross Draft for domestic and industrial water supply	Existing gross draft for all uses	Stage of ground water development	Category
1	Cheyyar	1,522.95	1,526.85	20.80	1,647.65	108	Over Exploited

Source:nwm.gov.in

The rainfall is the main source for the availability of water both in surface and sub-surface. The quantum of rainfall varies every year depending upon the monsoon. However, the extraction of surface and sub-surface water is increasing year by year. It leads to environmental impact on the water sources like depletion of water level, deterioration of water quality. It makes the demand for the quantification of available water and also its quality for various purposes like agriculture, industries, drinking and domestic purposes. Total Sevan (07) ground water monitoring locations were identified for assessment in different villages around the project site based on the usage of sub surface water by the settlements/ villages in the study area. The groundwater results are compared with the acceptable and permissible water quality standards as per IS: 10500 (2012) for drinking water. Groundwater quality monitoring locations and results are given in Table 3.6 and Figure 3.10.

Sampling Locations

Two (2) surface water samples and Sevan (7) ground water samples were collected from the study area and were analysed for physio-chemical, heavy metals and bacteriological parameters in order to assess the effect of mining and other activities on water bodies. The samples were analysed as per the procedures specified by CPCB, IS-10500:2012. The water sampling locations are given in Table 3.6 and shown as Figure 3.11.

The monitoring locations were selected based on:

- Location of the major water bodies
 - Location of project site,
 - Likely areas that can represent baseline conditions
- Water bodies nearby

Table 3.6 Water Sampling Locations

S.NO	Location Code	Monitoring Locations	Latitude and longitude
Surface Water			
1	SW1	Cheyyar River up stream	12°39'12.62"N & 79°36'1.96"E
2	SW2	Cheyyar River down stream	12°39'37.24"N & 79°37'5.85"E
Ground Water			
1	GW1	Within Mine Lease area	12°43'1.24"N & 79°36'0.93"E
2	GW2	Palli	12°42'37.79"N & 79°36'5.59"E
3	GW3	Cholavaram	12°43'42.39"N & 79°37'43.72"E
4	GW4	Mangalam	12°42'40.15"N & 79°35'27.86"E
5	GW5	Vadaelapakkam	12°41'59.98"N & 79°35'48.74"E
6	GW6	Perumbulimedu	12°43'51.40"N & 79°38'56.61"E
7	GW7	Vadapoondipattu	12°43'36.65"N & 79°35'25.76"E

FIG 3.10 BASE MAP OF GROUND WATER SAMPLING LOCATIONS

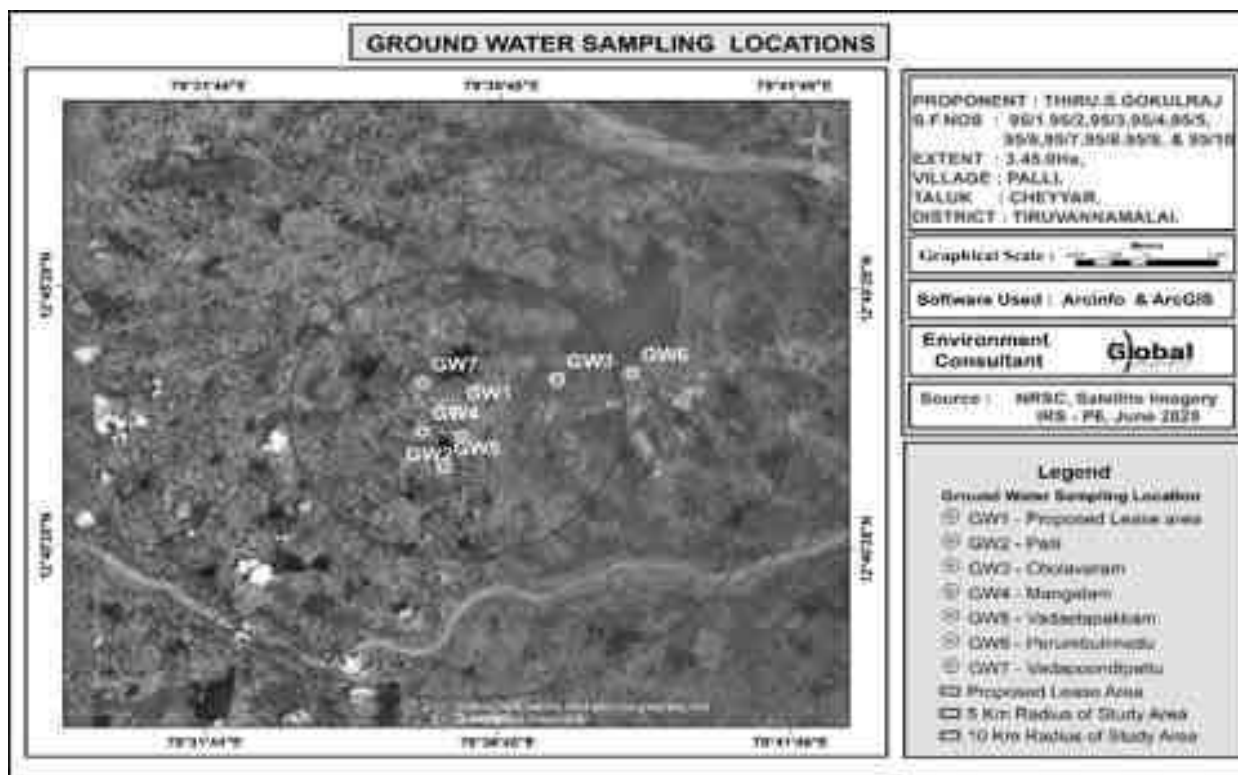


FIG 3.11 BASE MAP OF SURFACE WATER SAMPLING LOCATIONS

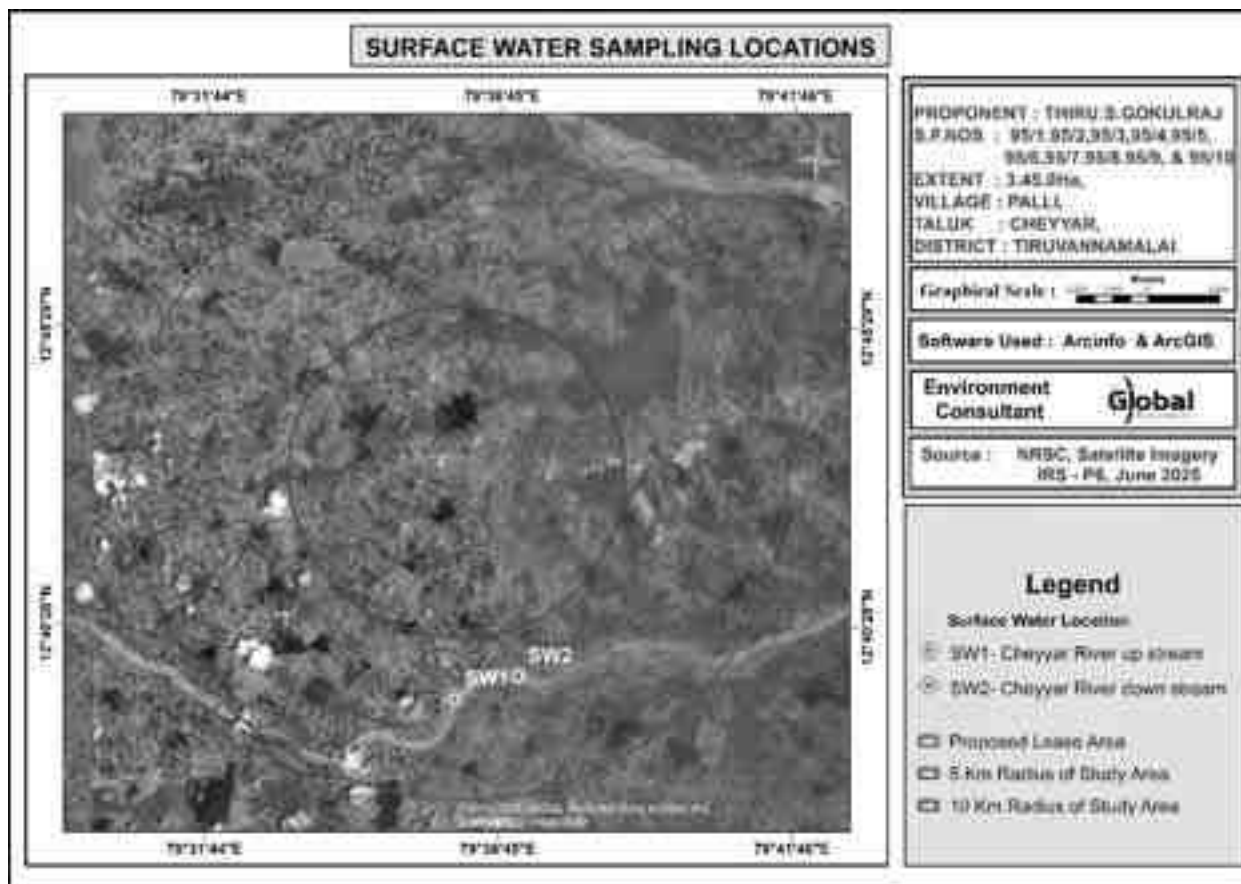


Table 3.7 Surface Water Analysis Results

S.No	Parameter	Unit	SW1	SW2	Surface water standard s (IS 2296 Class-A)
1	Odour	-	Agreeable	Agreeable	-
2	Turbidity	NTU	<1.0	<1.0	1
3	pH at 25 °C	-	7.72	7.89	6.5-8.5
4	Electrical Conductivity	µs/cm	252	243	-
5	Total Dissolved Solids	mg/l	152	146	500
6	Total hardness as (CaCO ₃)	mg/l	94.2	92.2	300
7	Calcium (as Ca)	mg/l	23.4	22.2	80.10
8	Magnesium (as Mg)	mg/l	8.57	8.81	24.28
9	Calcium Hardness as (CaCO ₃)	mg/l	58.5	55.5	-
10	Magnesium Hardness as (CaCO ₃)	mg/l	35.7	36.7	-
11	Total alkalinity as (CaCO ₃)	mg/l	35.6	35.1	-
12	Chloride (as Cl)	mg/l	142	138	250
13	Free Residual chlorine	mg/l	BDL (D.L - 0.2)	BDL (D.L - 0.2)	0.2
14	Sulphate as (SO ₄ ²⁻)	mg/l	15.6	18.9	400
15	Iron (as Fe)	mg/l	BDL(D.L - 0.01)	BDL(D.L - 0.01)	0.3
16	Nitrate (as NO ₃)	mg/l	BDL(D.L-1.0)	BDL(D.L-1.0)	20
17	Fluoride (as F)	mg/l	0.28	0.32	1.5
18	Manganese (as Mn)	mg/l	BDL(D.L-0.05)	BDL(D.L-0.05)	0.1
19	Chemical Oxygen Demand	mg/l	BDL (D.L – 4.0)	BDL (D.L – 4.0)	-
20	Bio Chemical Oxygen Demand 3 Days at 27°C	mg/l	BDL (D.L – 2.0)	BDL (D.L – 2.0)	-
21	Total Suspended Solids	mg/l	BDL (D.L – 2.0)	BDL (D.L – 2.0)	-
22	Dissolved Oxygen	Mg/l	6.2	6.3	6.0

The samples were analyzed by Shrient Analytical & Research Labs Private Limited, Chennai and the results are summarized below.

Table 3.8 Results of Ground Water sampling Analysis in 7 locations

**Standards as Per
IS 10500: 2012**

	GW1	GW2	GW3	GW4	GW5	GW6	GW7	Acceptable Limits	Permissible Limits
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	<1	<1	<1	<1.0	<1	<1	<1	1	5
pH at 25 °C	7.36	7.88	6.96	7.41	7.32	7.56	7.38	6.5- 8.5	No Relaxation
Electrical Conductivity	1024	402.5	716.8	1680	1002	1156	1864	-	-
Total Dissolved Solids	615	242	430	1010	602	695	1120	500	2000
Total hardness as CaCO ₃	430	172	234	350	405	330	436	200	600
Calcium as Ca	81.6	43.6	56.8	65.6	76	72.8	74.4	75	200
Magnesium as Mg	54.2	15.1	22.1	44.6	51.6	35.5	60.0	30.0	100
Calcium as CaCO ₃	204	109	142	164.0	190	182	186	-	-
Magnesium as CaCO ₃	226	63	92	186	215	148	250	-	-
Total alkalinity as CaCO ₃	316	148	159	320	254	256	305	200	600
Chloride as Cl ⁻	80.4	32.5	160	332	115	180	354	250	1000

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

Free Residual chlorine as Cl-	BDL(D.L -0.2)	BDL(D.L -0.2)	BDL (D.L - 0.2)	BDL(D.L- 0.2)	BDL(D.L -0.2)	BDL(D.L- 0.2)	BDL (D.L-0.2)	0.2	1
Sulphates as SO ₄ ²⁻	120	14.2	73.5	208	114	212	355	200	400
Iron as Fe	0.07	0.05	0.05	0.09	0.07	BDL(D.L - 0.01)	BDL(D.L - 0.01)	0.3	No Relaxation
Nitrate as NO ₃	2.45	BDL(D.L -1.0)	3.65	2.15	2.78	2.02	3.63	45	No Relaxation
Fluoride as F	0.34	0.25	0.27	0.38	0.27	0.56	0.64	1	1.5
Manganese as Mn	BDL(D.L -0.05)	BDL(D.L -0.05)	BDL (D.L - 0.05)	BDL(D.L- 0.05)	BDL(D.L -0.05)	BDL(D.L- 0.05)	BDL(D.L- 0.05)	0.1	0.3

Some of the common parameters including EC, TDS, Total Hardness, Total Alkalinity, Chlorides and Sulphates in the 7 locations were plotted and the graph is provided below.

FIG 3.12 GRAPHICAL REPRESENTATION OF GROUND WATER ANALYSIS

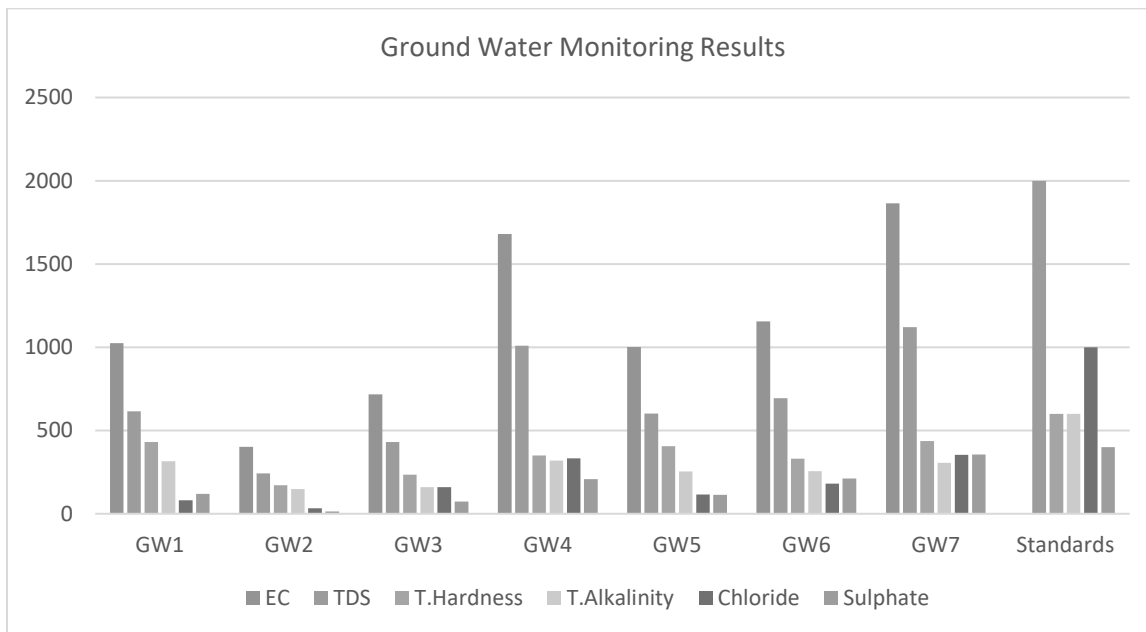
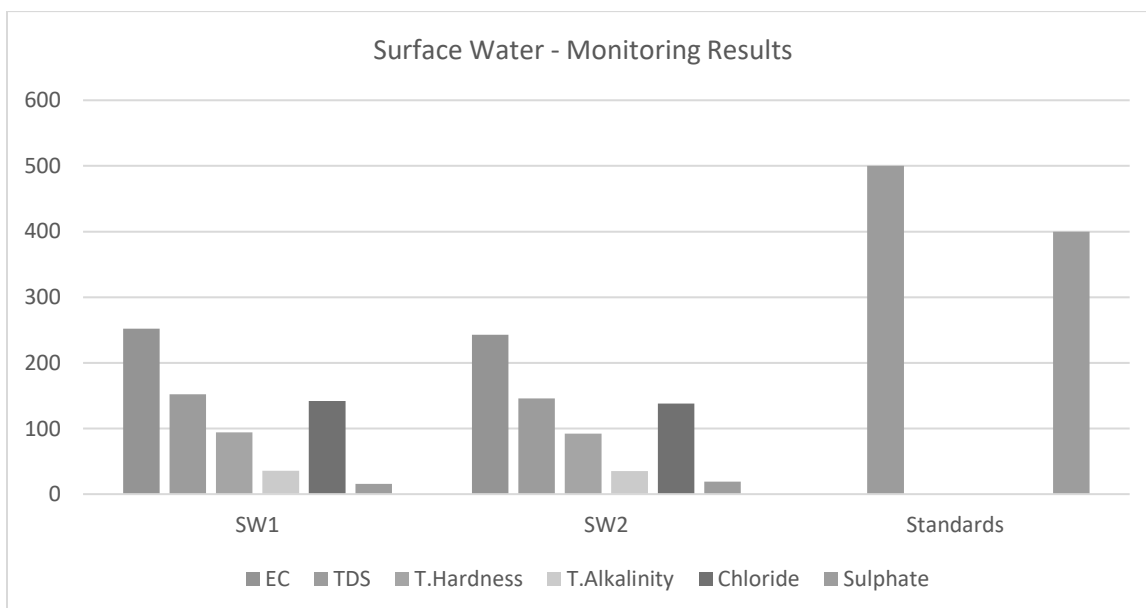


FIG 3.13 GRAPHICAL REPRESENTATION OF SURFACE WATER ANALYSIS



Discussion

Surface Water

The pH varied from 7.72 to 7.89 while turbidity found to be less than 1, which is within the permissible limit of 5.0. Total Dissolved Solids varied from 146 to 152 mg/l. Chloride varied between 138 mg/l and 142 mg/l. Nitrates varied from BDL(DL-1.0) mg/l, while sulphates varied from 15.6 to 18.9 mg/l.

Ground Water

Suitability of ground water for drinking/irrigation/industrial purposes is determined keeping in view the effects of various chemical constituents present in water as required human use, plant use. Though many ions are very essential for the growth of plants and human body but when present in excess, have an adverse effect on health and growth.

As Per the data it has been observed that the pH value varies from 6.96 to 7.88, Chlorides Ranges From 32.5 to 354 mg/l, Sulphates value found to be between 14.2 to 355 mg/l, Fluoride value varies from 0.25 to 0.64 mg/l, Total Hardness varies from 172 to 436 mg/l, and Total dissolved solid 242 to 1120 mg/l. The ground water has been analyzed as per IS10500: 2012 and found to be suitable for drinking purpose. So the results of chemical and bacteriological analysis of water samples are classified under good class for drinking purpose with respect to total dissolved solids. Total hardness of the samples ranged from soft to moderately hard waters and can be fairly used for drinking. Regular ground water monitoring is suggested as the quality of ground water may fluctuate with groundwater consumption and seasonal variations.

3.3.4 NOISE MONITORING

The vehicular movement on road and mining activities is the major sources of noise in study area, the environmental assessment of noise from the mining activity and vehicular traffic can be undertaken by taking into consideration various factors like potential damage to hearing, physiological responses, and annoyance and general community responses.

Sampling Locations

In order to assess the ambient noise levels within the study area, noise monitoring was carried out at Sevan (7) locations. The noise level of monitoring locations were carried out by covering 10 km radius of the project area. A noise monitoring methodology was chosen such that it

best suited the purpose and objectives of the study. The noise monitoring locations are given in Figure 3.14 and in below table.

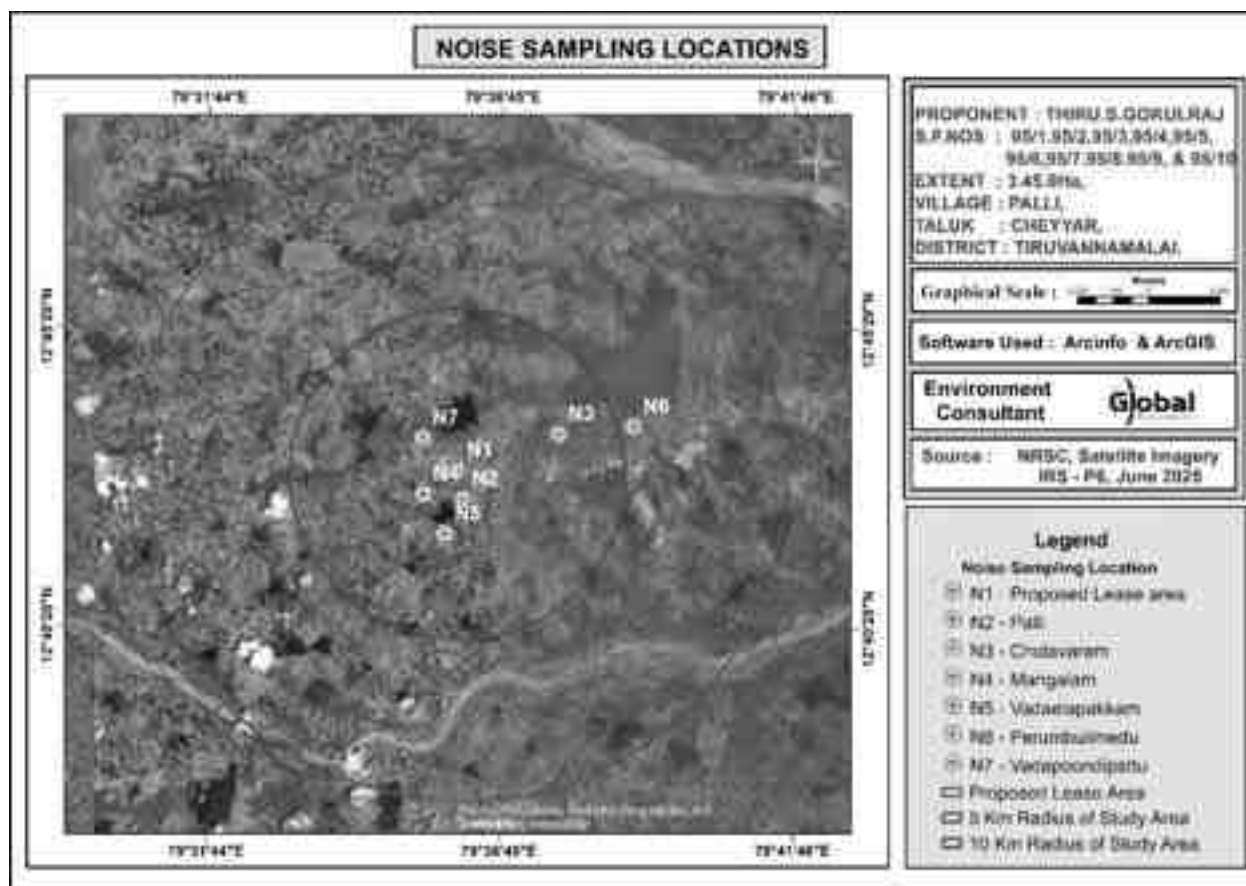
Table 3.9 Noise Monitoring Locations

S.NO	Location Code	Monitoring Locations	Latitude and longitude
1	N1	Within Mine Lease area	12°43'1.24"N & 79°36'0.93"E
2	N2	Palli	12°42'37.79"N & 79°36'5.59"E
3	N3	Cholavaram	12°43'42.39"N & 79°37'43.72"E
4	N4	Mangalam	12°42'40.15"N & 79°35'27.86"E
5	N5	Vadaelapakkam	12°41'59.98"N & 79°35'48.74"E
6	N6	Perumbulimedu	12°43'51.40"N & 79°38'56.61"E
7	N7	Vadapoondipattu	12°43'36.65"N & 79°35'25.76"E

Noise level monitoring was calculated using a noise level meter by NABL Accredited lab and the results are summarized below.

The noise monitoring locations are given in Fig 3.14

FIG 3.14 BASE MAP OF NOISE MONITORING LOCATIONS



Method of Monitoring

Noise levels were measured using sound level meter manufactured by (Model No - SL4001, Make - Lutron). Sound Pressure Level (SPL) measurements were measured at all locations where ambient air quality monitored; one reading for every hour was taken for 24 hours.

Noise Monitoring Result

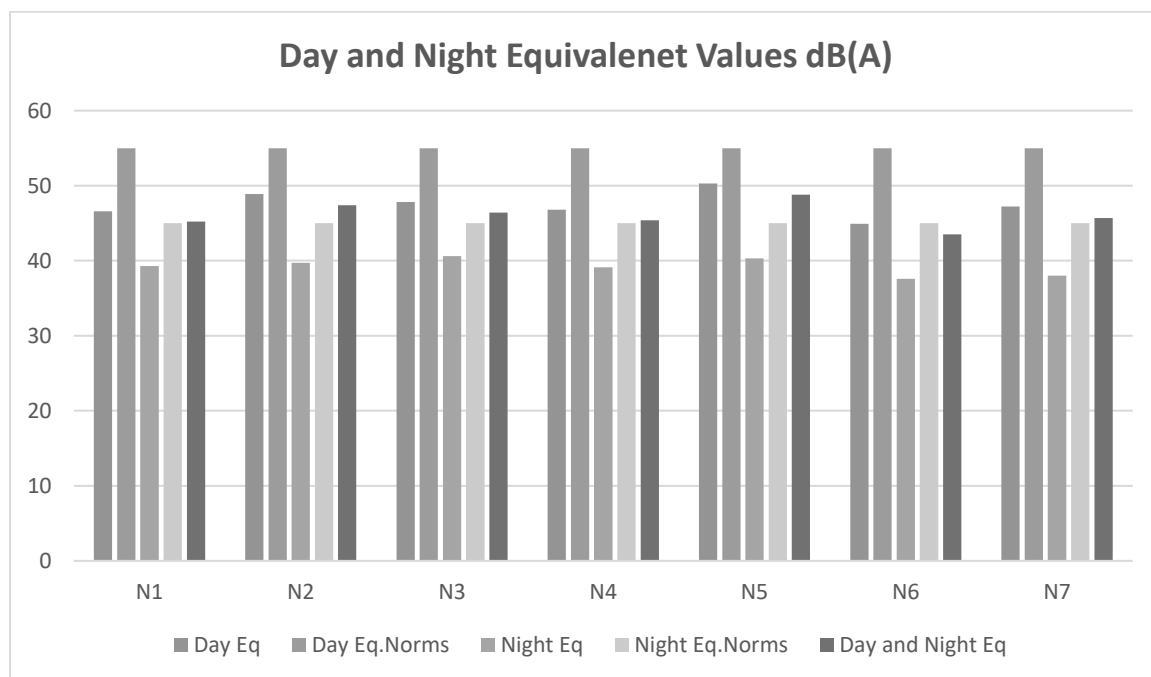
An analysis of the different Leq data obtained during the study period has been made. Variation was noted during the day-time as well as night-time. The results are presented in below Table 3.10.

Table 3.10 Noise Monitoring Result

Monitoring Location	N1	N2	N3	N4	N5	N6	N7
DAY EQUIVALENT	46.6	47.8	46.8	50.3	44.9	47.2	51.4
NIGHT EQUIVALENT	39.3	40.6	39.1	40.3	37.6	38.0	40.7
DAY & NIGHT EQUIVALENT	45.2	46.4	45.4	48.8	43.5	45.7	49.9
Limits as per MoEF&CC							
Day equivalent - 55 dB (A); Night equivalent - 45 dB (A); Work zone Exposure in 8 hr - 90 dB (A)							

The results are plotted as below.

FIG 3.15 DAY AND NIGHT EQUIVALENT VALUES IN 7 LOCATIONS



Discussion

From the table it is observed that the day Equivalent Noise (Leq-d) level were ranging from 44.9 to 51.4 dB(A) and Night Equivalent Noise (Leq-n) level were ranging from 37.6 to 40.7 dB(A). Day and Night Equivalent Noise (Leq-n) level were ranging from 43.5 to 49.9 dB(A). While comparing with the MoEF Norm of 55 dB(A) for day time and 45 dB(A) for night time, the monitored ambient noise levels are within the limit values.

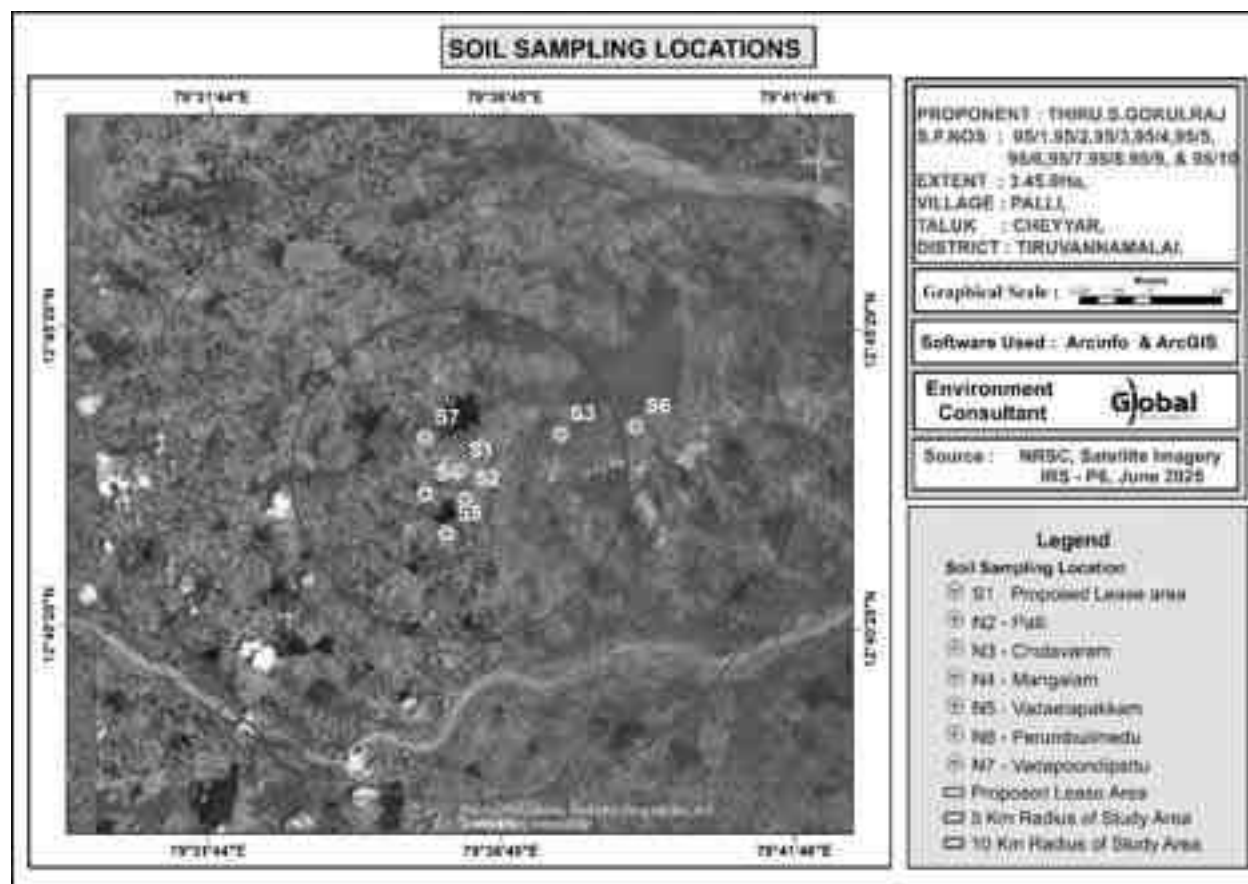
After commencement of mine operation the anticipated noise level will be 52 dB – 65 dB in the N1 location. (Project Site). It is very negligible and within the prescribed standards of MoEF & CC and DGMS.

3.3.5 SOIL SAMPLING ANALYSIS

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 analyzed for different parameters. The locations of the monitoring sites are detailed in Figure 3.16.

Soil samples have been collected from the mine lease area and 6 other locations from Palli, Cholavaram, Mangalam, Vadaelapakkam, Perumbulimedu, Vadapoondipattu, Villages. The locations are shown in figure below.

FIG 3.16 BASE MAP OF SOIL SAMPLING LOCATIONS



Methodology

For studying soil quality, sampling locations were selected to assess the existing soil conditions in and around the project site representing various land use conditions. The samples were collected by auger boring into the soil up to 90-cm depth. Seven locations were selected for soil sampling on the basis of soil types, vegetative cover, industrial & residential activities including infrastructure facilities, which would accord an overall idea of the soil characteristics.

Composite grab samples of the topsoil were collected by specified depth, and mixed to provide a representative sample for analysis. They were stored in airtight Polythene bags and analyzed at the laboratory.

The results are summarized in the table below.

Table 3.11 - Soil Testing Result

S. No	Parameter	Unit	S1	S2	S3	S4	S5	S6	S7
1	pH at 25 °C	-	7.54	6.87	6.95	7.01	7.44	6.92	7.86
2	Electrical Conductivity	µmhos/cm	72.32	46.65	60.97	42.58	132	48.95	59.58
3	Dry matter content	%	97.54	97.44	96.57	97.05	95.57	97.32	95.29
4	Water Content	%	2.46	2.56	3.43	2.95	4.43	2.68	4.71
5	Organic Matter	%	0.52	0.74	0.81	1.18	0.98	0.76	1.05
6	Soil texture	-	LOAM	loam	loam	loam	SANDY LOAM	loam	Silty Clay Loam
7	Grain Size Distribution i.Sand	%	50.21	48.65	34.45	40.06	66.72	49.55	6.75
8	i. Silt	%	28.99	31.66	45.49	36.55	23.76	31.69	62.09
9	ii. Clay	%	20.8	19.69	20.06	23.39	9.52	18.76	31.16
10	Phosphorous as P	mg/kg	1.36	1.65	1.22	2.1	1.98	1.24	1.23
11	Sodium as Na	mg/kg	670	432	389	423	475	432	796
12	Potassium as K	mg/kg	356	632	589	658	295	630	405
13	Total Nitrogen	mg/kg	184	145	182	232	164	149	302

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14	Total Sulphur	%	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)	BDL(D.L. 0.02)
15	Porosity	%	19.5	20.7	22.2	24.1	20.9	22.6	20.5
16	Water Holding Cabacity	Inches/ foot	42	40	42	44	41	40	38

Soil Testing Result

Results of the soil samples show that the pH values were found to be 6.87 to 7.86 and Electrical Conductivity values were ranging between 42.58 to 132 $\mu\text{mhos/cm}$. Soils are generally Silt Loam. Organic matter values were ranging between 0.52 to 1.18 %. Total Nitrogen values were ranging between 145 to 302 mg/kg. Phosphorus values were ranging between 1.22 to 2.10 mg/kg. Potassium values were ranging between 295 to 658 mg/kg. Sodium values were ranging between 389 to 796 mg/kg. The soil quality data for the 7 samples collected and analyzed are provided in Table no – 3.11.

3.3.6 BIOLOGICAL ENVIRONMENT

An ecological survey was conducted to collect the baseline data regarding flora and fauna in the study area of 10 km radius. Data were also collected from different sources, i.e., government departments such as District Forest Office, Government of Tamil Nadu. On the basis of onsite observations as well as forest department records the checklist of flora and fauna was prepared.

Methodology

Sampling locations were selected with reference to topography, land use, vegetation pattern, etc. In this study, quadrats of 25m $\times$ 25m were laid down to assess trees and quadrats of 10m $\times$ 10m were laid down for shrubs.

Flora

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

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

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

Core Zone

The lease area is a non- forest, private land with scrub and thorny bushes. In the core zone, there are no trees.

Flora in 300 m radius zone

There are Agriculture land within 500 m radius. It contains a total of 13 species belonging to 12 families have been recorded from the buffer zone of 300 m radius. Trees 4 (30%), Shrubs 4 (30 %) Herbs 5 (40%) were identified.

Table 3. 12 - Flora in 300 m radius

S.No	Local Name	Scientific Name	Family Name	IUCN Conservation Status
Trees				
1	Kondrai	Cassia fistula	Caesalpiniaceae	Not Listed
2	Seetha	Annona squamosa	Annonaceae	Not Listed
3	Vembu	Azadirachta Indica	Meliaceae	Not Listed
4	Karuvelam	Vachellia Nilotica	Fabaceae	Not Listed
Shrubs				
1	Erukku	Calotropis Gigantea	Apocynaceae	Not Listed
2	Chundai	Solanum torvum	Solanaceae	Not Listed
3	Thuthi	Abutilon Indicum	Meliaceae	Not Listed
4	Unnichedi	Lantana camara	Verbenaceae	Not Listed
Herbs				
1	Kuppaimeni	Acalypha indica	Euphorbiaceae	Not Listed
2	Nelavembu	Andrographis paniculata	Acanthaceae	Not Listed
3	Kovakkai	Trichosanthes Dioica	Cucurbitaceae	Not Listed
4	Perandai	Cissus Quadrangularis	Vitaceae	Not Listed
5	Thumbai	Leucas Aspera	Lamiaceae	Not Listed

FLORISTIC SCENARIO IN BUFFER ZONE AREA

Taxonomically a total of 60 species distributed among 46 families have been recorded from the buffer area. Based on habitat classification of the enumerated plants the majority of species were Trees 27 and Shrubs 12 followed by herbs (13), climbers 6. Details of flora with the scientific name were mentioned in Table No. 3.13.

Table 3.13 – List of Flora in Buffer Zone

S.No	Local Name	Scientific Name	Family Name
	Trees		
1	Lemon	Citrus limon	Rutaceae
2	Krishna Fig	Ficus benghalensis	Moraceae
3	Karuvelam	Acacia nilotica	Fabaceae
4	chokla	Agalaia elaeagnoidea	Meliaceae
5	Vagai	Albizia lebbeck	Caesalpiniaceae
6	Seetha maram	Annona Squamosa	Annonaceae
7	kattu elumichai	Atalantia monophyla	Rutaceae
8	Vaeppa maram	Azadirachta indica	Meliaceae
9	vazhai	Musa paradisiaca	Musaceae
10	Guava	Psidium gujava	Myrtaceae
11	Karuvali	Cassine glauca	Celastraceae
12	Naruvizhi maram	Cordia monoica	Boraginaceae
13	Kattunochchi	Debregaesia velutina	Urticaceae
14	Neruppu Kondrai	Delonix regia	Minosaceae
15	Nagai	Syzygium cumini	Myrtaceae
16	mull kalyanamurungai	Erythrina stricta	Fabaceae
17	Kallichi	Ficus microcarpa	Moraceae
18	atti	Ficus racemosa	Moraceae
19	Kattarasu	Ficus tomentosa	Moraceae
20	Kambimaram	Gardenia resinifera	Rubiaceae
21	Kumalaa maram	Gmelina arborea	Verbenaceae
22	Tambachi	Holoptelea integrifolia	Ulmaceae
23	Kunnancholai	Mallotus Philippensis	Euphorbiaceae
24	Peyimurungai	Moringa concanensis	Moringaceae
25	Malaithekku	Premna tomentosa	Verbenaceae
26	Peymiratti	Schefflera stellata	Araliaceae
27	Thaan-dri kaai	Terminalia bellirica	
	Shrubs		
1	Seethaaththazhai	Acalypha fruiticosa	Euphorbiaceae
2	peymarutti	Anisomeles malabarica	Lamiaceae
3	Barleria paniculata	Barleria tomentosa	Acanthaceae
4	Turatti	Capparis divaricate	Capparidaceae
5	Sirukilaa	Carissa spinarum	Apocynaceae

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6	Kodikalai	Carmona retusa	Boraginaceae
7	Virali	Dodonaea viscosa	Sapindaceae
8	Manjal Thutthi	Hibiscus vitifolia	Malvaceae
9	Karuppu avuri	Indigofera longiracemosa	Fabaceae
10	Velimungil	Justicia betonica	Acanthaceae
11	Sirunelli	Phyllanthus polyphyllus	Euphorbiaceae
12	Ottu Pullu	Triumfetta pentandra	Tiliaceae
Herbes			
1	Kuppaimeni	Acalypha indica	Euphorbiaceae
2	perumpeelai	Aerva persica	Amaranthaceae
3	Katthaalai	Aloe vera	Agavaceae
4	Nilaccurunki	Biophytum sensitivum	Oxalidaceae
5	Nattai-churi	Borreria pusilla	Rubiaceae
6	Malaiyavarai	Cassia hirsute	Caesalpinaceae
7	Cuvarnaciri Taivelai	Cleome felina	Caryophyllaceae
8	korai kizhangu	Cyperus rotundus	Cyperaceae
9	Karungurundhu	Dicliptera cuneata	Acanthaceae
10	Chinnammanpacharisi	Euphorbia thymifolia	Euphorbiaceae
11	Narina	Indigofera cassioides	Fabaceae
12	Nai Tulasi	Ocimum canum	Lamiaceae
13	Water peper	Polygonum hydropiper	Polygonaceae
Climbers			
1	Mudakathan	Cardiospermum halicacabum	Sapin
2	Kattuppirantai	Cayratia trifoliata	Vitaceae
3	Pirantai	Cissus bicolor	Vitaceae
4	Kovai	Coccinia indica	Cucurbitaceae
5	Iviralkovai	Diplocyclos palmatus	Cucurbitaceae
6	Adambu	Ipomoea pescarpae	Convolvulaceae
Grasses			
1	bread grass	Brachiaria remota	Poaceae
2	feather fingergrass	Chloris dolichostachya	Poaceae
3	spear grass	Heteropogon contortus	Poaceae

Fauna in the study area

There is no specific Fauna found within ML area. The buffer zone Fauna in the area is studied by direct observation method. Secondary data collected from Forest department and the same is used in this report. People in the nearby locality were also consulted. The commonly found fauna in the area are given below.

Table 3.14 – Fauna in Study Area

S.No	Common name	Scientific name	Family	IUCN / WPA schedule
MAMMALS				
1	Indian Palm squirrel	Funambulus palmarum	Squirrel	IV
2	Hare	Lepus nigricollis	Leporids	IV
3	House rat	Rattus rattus	Murids	IV
4	Mannuli paambu	Eryxjohni	Boidae	-
5	Indian Grey Mongoose	Herpestes edwardsii	Mongoose	IV
6	Field mouse	Rattus norvegicus	Murids	IV
7	Rusty spotted Cat	Felis rubiginosa	Felidae	IV
REPTILES				
1	Common Garden lizard	Calotes versicolor	Agamid lizards	IV
2	Rough tailed Sand boa	Gongylophis conicus	Boidae	IV
3	Indian Cobra	Naja naja	elapid snakes	II
4	Indian mud turtle	Lissemys punctate	Softshell turtles	IV
5	Common Green Snake	Passerita mycterizaris	Colubrid Snakes	IV
6	Common rat snake	Ptyas mucosus	Colubrid Snakes	II
BIRDS				
1	Grey Partridge	Francolinus pondicerianus	Phasianidae	IV
2	Indian Ring Dove	Streptopelia decaocto	Pigeons and doves	IV
3	Red collared dove	Streptopelia tranquebarica	Pigeons and doves	IV
4	Astur badius	Shikra	Accipitridae	IV
5	Black Drongo	Dicrurus macrocerus	Drongos	IV
6	House Sparrow	Passer domesticus	Sparrow	IV

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7	Weaver bird	Ploceus Philippines	Ploceidae	IV
8	Rose Ringed Parakeet	Psittacula krameria	Parrots	IV
9	Little egret	Egretta garzetta	Heron	IV
10	Redvented Bulbul	Pycnonotus cafer	Bulbul	IV
FISH				
1	Common carp	Cyprinus earpio	Minnows and Carps	IV
2	Tilapia	Oreochromis mossambicus	Cichlid	IV
3	Carplet	Amblypharyngodon Sp	Cyprinidae	IV
4	Trout	Chela sp	-	IV
5	Punctatus	Ophiocephalus	Snakehead	IV

3.3.7 LAND ENVIRONMENT

The main objective of this section is to provide a baseline status of the study area covering 10km radius around the project periphery; so that temporal changes due to the mining activities on the surroundings can be assessed in future.

Land use Pattern of the Project Area

The present and the post mining land use pattern is shown below.

Table 3.15 Land use pattern of the project site

Description	Present Area in Ha.	Area at the end of life of Quarry in Ha.
Quarrying pit	Nil	2.60.0
Infrastructure	Nil	0.01.0
Roads	Nil	0.01.0
Greenbelt	Nil	0.83.0
Unutilized	3.45.0	Nil
Total	3.45.0	3.45.0

- At the end of life of mine, the excavated mine pit / void of 2.60.0 Ha. will act as artificial reservoir for collecting rain water and helps to meet out the demand or crises during drought season.
- After mine closure the greenbelt (0.83.0Ha.) will be developed along the safety barrier and top benches and 0.03 ha are approach road and Infrastructure.

LAND USE PATTERN OF THE STUDY AREA

A visual interpretation technique has been adopted for land use classification based on the keys suggested in the chapter – V of the guidelines issued by NNRMS Bangalore & Level III classification with 1:50,000 scale for the preparation of land use mapping. Land use pattern of the area was studied through LISS III imagery of Bhuvan (ISRO). The 10 km radius map of study area was taken for analysis of Land use cover. The land use map of the study area is given in Figure 3.17.

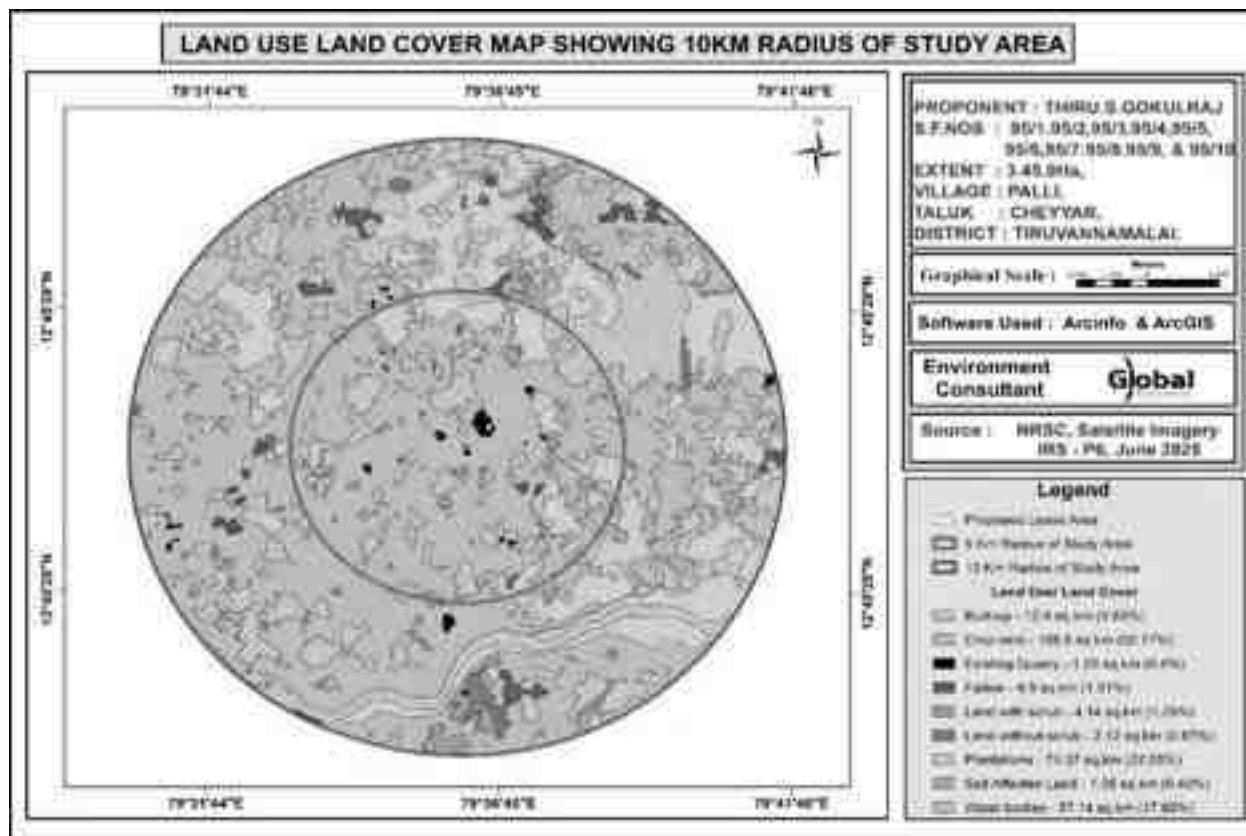
Table 3.16 Land use pattern of the Study area of 10 km radius

S.No.	LAND USE / LAND COVER	Area in Sq.Km	Area in Percentage
1	Built-up land	12.4	3.83
2	Crop land	168.9	52.17
3	Fallow land	4.9	1.51
4	Land with scrub	4.14	1.29
5	Land without scrub	2.12	0.67
6	Plantations	71.37	22.05
7	Salt Affected Land	1.36	0.43
8	Water bodies	57.14	17.65
9	Existing Quarry	1.25	0.4
	Total Area	323.58	100.00

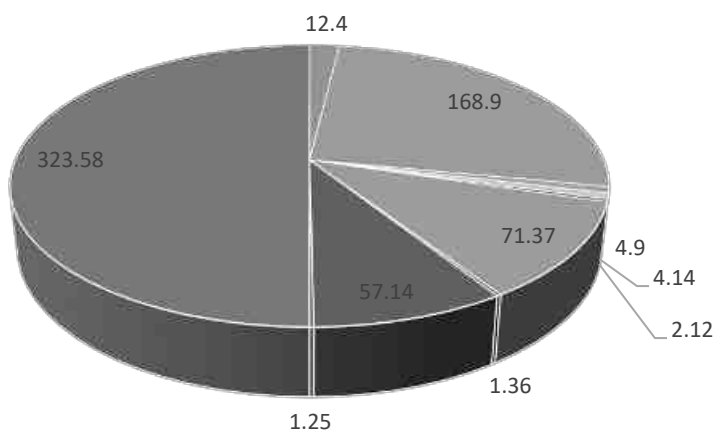
Source : Survey of India Toposheet and Landsat Satellite Imagery

From above table it is inferred that the majority of the land in the study area is Crop Land (52.17%) followed by Plantations (22.05%).

Figure 3.17 land use/land cover map of the study area



LAND USE MAP OF THE STUDY AREA



- Built-up land
- Crop land
- Fallow land
- Land with scrub
- Land without scrub
- Plantations
- Salt Affected Land
- Water bodies
- Existing Quarry
- Total area

3.3.8 SOCIOECONOMIC ENVIRONMENT

The socio-economic environment of the study area is studied by conducting primary sites through site visits and conducting sample surveys. The secondary data obtained from Census 2011 is also used. The following data area collected from secondary data:

- Demographic pattern.
- Health pattern
- Occupational structure.

Objectives of the Study

The objectives of the socio-economic study are as follows:

- To study the socio-economic status of the people living in the study area of the proposed mining project
- To assess the impact of the project on Quality of life of the people in the study area
- To recommend Community Development measures needs to be taken up in the study Area.

Scope of Work

- To study the Socio-economic Environment of the area from the secondary sources;
- Data Collection & Analysis
- Prediction of project impact
- Mitigation Measures

3.11.1 DETAILS OF VILLAGES

The profile of the villages located in the study area is given in Fig 3.19 below.

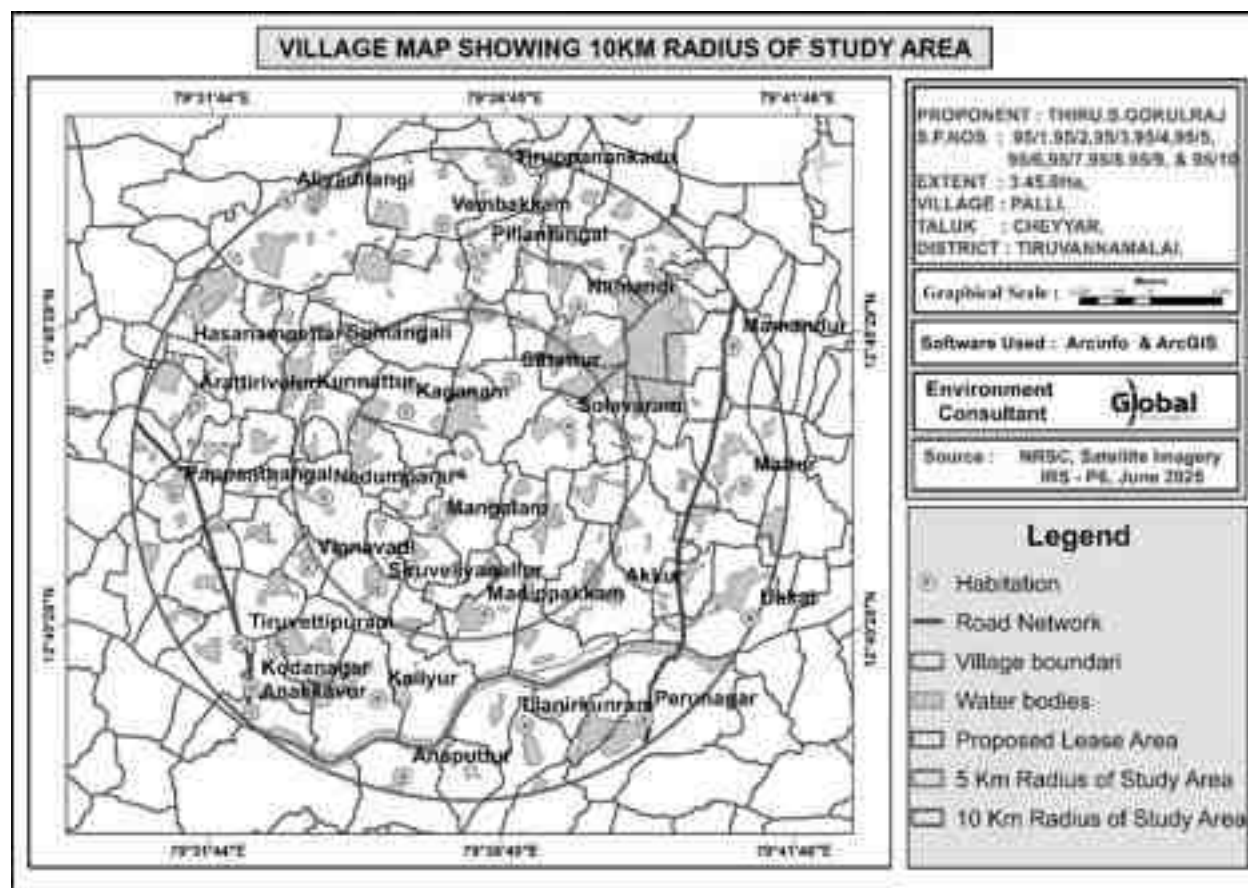


FIG 3.18 VILLAGE MAP OF THE STUDY AREA

DETAILS OF VILLAGES

The project is located in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State. According to 2011 census, Tiruvannamalai District has a population of 24.65 Lac (24,64,875) with 12.36 Lac (12,35,889) males and 12.29 Lac (12,28,986) females. The sex ratio in Tiruvannamalai is 995, indicating an above-average ratio compared to the national average of 943. Child Population (Age group 0-6 years) of Tiruvannamalai District is 2.73 Lac (2,72,569) which is 11.06% of Tiruvannamalai District overall population, Child sex Ratio of Tiruvannamalai District is 931 females for every 1000 males.. There are 19 villages in the study area. (10 km radius)

Basic Amenities

A better network of physical infrastructure facilities (well-built roads, rail links, irrigation, power and telecommunication, information technology, market-network and social infrastructure support, viz. health and education, water and sanitation, veterinary services

and co-operative) is essential for development of the rural economy. All basic amenities Education (higher education, colleges, universities, Medical college, Transport facilities, Railway station, Bus station area available.

Table 3.17 Population profile of the study area		
Particulars	No of Population	Percentage (%)
A. Population break-up by Gender		
Male Population	25993	50.33
Female Population	25656	49.67
Total	51649	100
B. Population break-up by Caste		
Scheduled Caste	11522	22.32
Scheduled Tribes	663	1.28
Others	39464	76.40
Total	51649	100
C. Literacy Level		
Total Literate Population	38822	75.17
Total illiterate population	12827	24.83
Total	51649	100
D. Occupational structure		
Main workers	20302	39.31
Marginal workers	7861	15.22
Total Workers	28163	54.53
Total Non-workers	23486	45.47
Total	51649	100

The above table shows that the male and female population ratio are almost equal. Among the total population, 1.28 % belong to Scheduled Tribes, 22.32 % are Scheduled Caste and the balance is 76.40 % people belong to other castes. Among the total population, 75.17 %

of the people are literate. This shows that the male literates are higher than the female literates. The results are plotted in the figures below.

FIG 3.19 GENDER-WISE POPULATION DISTRIBUTION

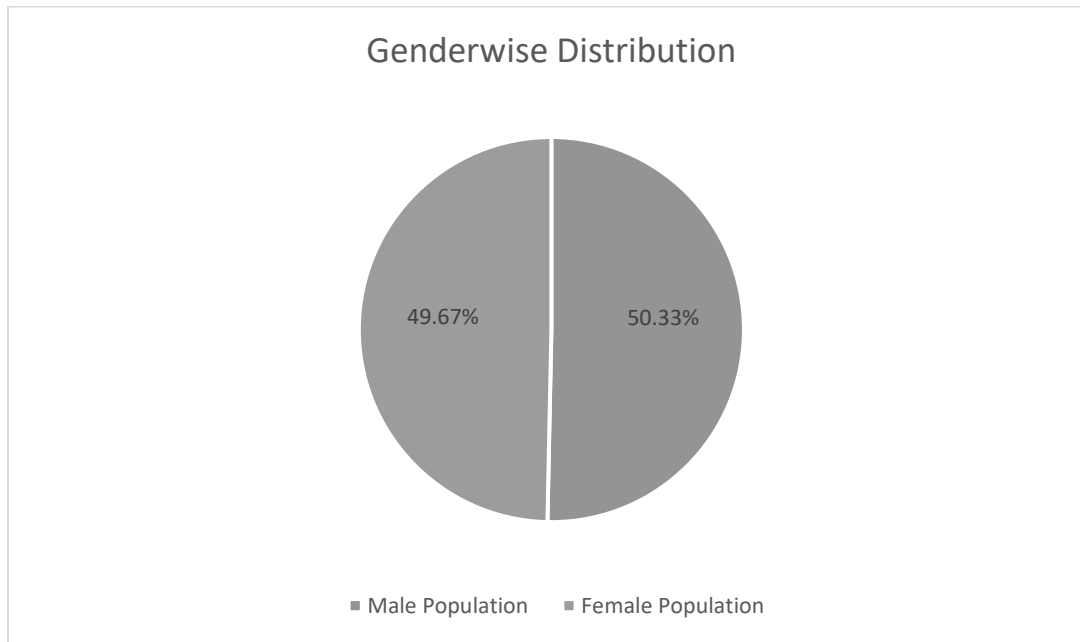


FIG 3.20 GENDER WISE LITERACY DISTRIBUTION

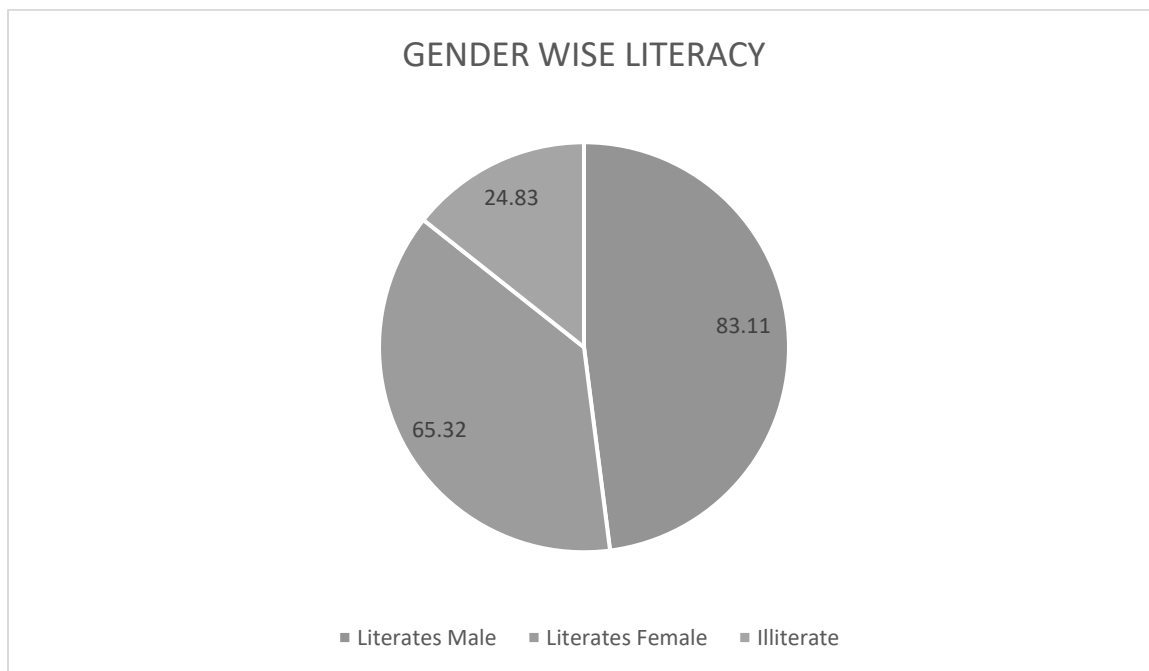
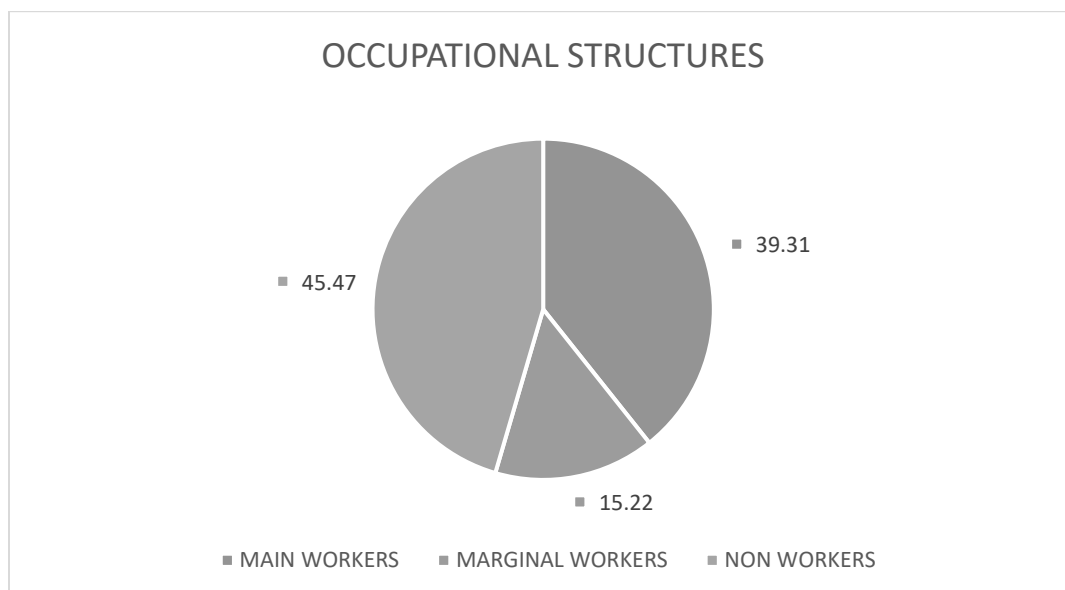


FIG 3.21 OCCUPATIONAL STRUCTURE WITHIN BUFFER ZONE



The above table shows that the male and female population ratio are almost equal. Among the total population, 3.70 % belong to Scheduled Tribes, 22.93 % are Scheduled Caste and the balance is 83.37 % people belong to other castes. Among the total population, 66 % of the people are literate. Among the total population, 13.23% are literate males and 20.77% are literate females. This shows that the male literates are higher than the female literates. The results are plotted in the figures below.

Table 3.18 Population profile – Palli Village		
Particulars	No of Population	Percentage (%)
A. Population break-up by Gender		
Male Population	1348	49.52
Female Population	1374	50.48
Total	2722	100
B. Population break-up by Caste		
Scheduled Caste	1165	42.80
Scheduled Tribes	18	0.66
Others	1539	56.54
Total	2722	100
C. Literacy Level		
Total Literate Population	2036	74.80
Illiterate	686	25.20
Total	2722	100

D. Occupational structure		
Main workers	987	36.26
Marginal workers	647	23.77
Total Workers	1634	60.03
Total non-workers	1088	39.97
Total	2722	100

Infrastructure facilities in the study area

Education

Table 3.19 Educational infrastructure		
S.NO.	Particulars	Available in villages (Nos)
1	Govt. Primary Schools	1798
2	Govt. High Schools	219
3	Govt. Higher Secondary School	160
4	Govt. Arts and Science Degree College	2
5	Govt. Engineering College	1
6	Govt. Medicine College	1
7	Govt. Management Institute	0
8	Govt. Polytechnic	1
9	Govt. Vocational Training School/ITI	1

In the study area, there are total 1798 primary schools functioning. Among them, 1 village has 1 primary school, The number of primary schools is greater than the total number of villages, which means some villages have more than one primary school, and some villages may have none.

Healthcare

In the study area, the following facilities are available.

Table 3.20 Medical Infrastructure		
S.No.	Particulars	Available in villages (Nos)
1	Block Primary Health Centre	18

2	Primary Health Centre	97
3	Primary Health Sub Centre	410
4	Additional Primary Health Centre	73
5	Govt. Hospital	11

Sample Survey

The expert visited 6 villages in the study area Palli, Cholavaram, Mangalam, Vadaelapakkam, Perumbulimedu, Vadapoondipattu Villages. Discussions were held with the people from nearby locality to study the social and economic conditions prevailing in the area. The expert also visited nearby hospitals, primary health centres Cheyyar. The following observations were made.

Primary schools are available in many villages. For hospital facilities, people in the locality have to go to hospital in Cheyyar/Tiruvannamalai which is within 8.0 kms from the lease area. Major schools with higher secondary and senior secondary schools are located in Cheyyar. The major Panchayat Union located in the area is Cheyyar. Facilities like petrol pump stations, ATM facility are available in Cheyyar.

3.3.9 HYDROGEOLOGY OF THE STUDY AREA

(i) Major Geological formations:

Geology:

The origin, occurrence and movement of groundwater are controlled by geological setup of a terrain. Hence, a clear understanding of the sub surface geological conditions is of primary importance. Geologically, the area lying with in this district can be broadly classified into hard rock and sedimentary terrain.

a) Hard rocks

More than 95% of the area of this district is underlain by hard rock formations. These hard rock formations are predominantly occupied by gneissic rock. Charockites are prevalent in the western part, in and around Javadu hills, around central part of Tiruvannamalai block and as narrow limbs in parts of Cheyyar and Vandavasi taluks.

b) Sedimentary formations

Sedimentary formations include the transported materials by means of stream, river, wind etc., which are either loose or compact in nature. The common terminology used for such formations are alluvium which consists of sandstone, compact gravels, shales, etc., Alluvial or unconsolidated formation occur as thin and isolated patches along the river Cheyyar and also in southern portion of the river Palar. They generally consists of sand, gravel, gravelly soil, clay, etc., which are recent to sub recent (quaternary) in age.

b.1) Gondwana formations

These are semi-consolidated formations consisting of sandstone and shale.

Drilling of boreholes:

Thorough knowledge of the sub-surface geological framework is absolutely necessary to understand the hydrogeological condition existing within it. To ascertain the sub-surface geological and aquifers parameters, boreholes are drilled in this district by State Ground and Surface Water Resources Data Centre, Tharamani, Chennai.

More than 140 bore holes were drilled, spreading over the entire district, to find out the behaviour and nature of the water bearing zones. It is inferred that in Arni, Polur and Cheyyar taluks considerable thickness of weathered and jointed formations to a maximum depth of 32 meters below ground surface are existing, depending upon topography and relief.

However, in the remaining parts, the thickness of weathering is restricted to a maximum depth of 25 meters below ground level, which indicates that there is diversity in nature of the formations even within a short distance. The depth to bed rock is varying from 18 m to 42 m. Fractured zone occurs in between 5 and 38 m.

Aquifer parameters:

The thickness of aquifers (weathered and jointed portion) in this district is highly erratic and varies from 18 to 32 meters below ground level. The intergranular porosity is essentially depending upon the intensity and degree of weathering and fracture development in the bed rock. It is noted that thickness of weathering is more in gneissic formation and moderate in chert formation. The range of aquifer parameters in hard rock region is given below.

Aquifer Characteristics

S.No.	Parameters	Range
1.	Well yield in LPM (Average pumping of 2 hrs in a day)	30 to 250
2.	Transmissivity (T) m ² /day	12 to 43
3.	Permeability (K) m/day	0.39 to 1.56

(iii) Drilling:

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

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

A detailed hydrogeological study will be incorporated in the Final EIA/EMP report. There are seven water bodies within 1 km radius. The other major water bodies in buffer are given below.

- Cheyyar river- 5.6Km (SE).

The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 42m bgl and water table is found at a depth of 72 m BGL.

Topography

The area applied for quarry lease is exhibits almost plain topography covered by Gravel formation. The massive Charnockite formation is noticed below 2m (avg) Gravel formation

and sloping towards southeastern side of the area, the altitude of the area is above 102m (maximum) from MSL.

Drainage pattern of the Area

The Drainage pattern study reveals that, there is seasonal odai passing on west side of the area and is 220m away from the area. There are seven water bodies within 1 km radius. The other major water bodies in buffer are given below.

- Cheyyar river- 5.6Km (SE).

The drainage map of the study area is given in Figure 3.22.

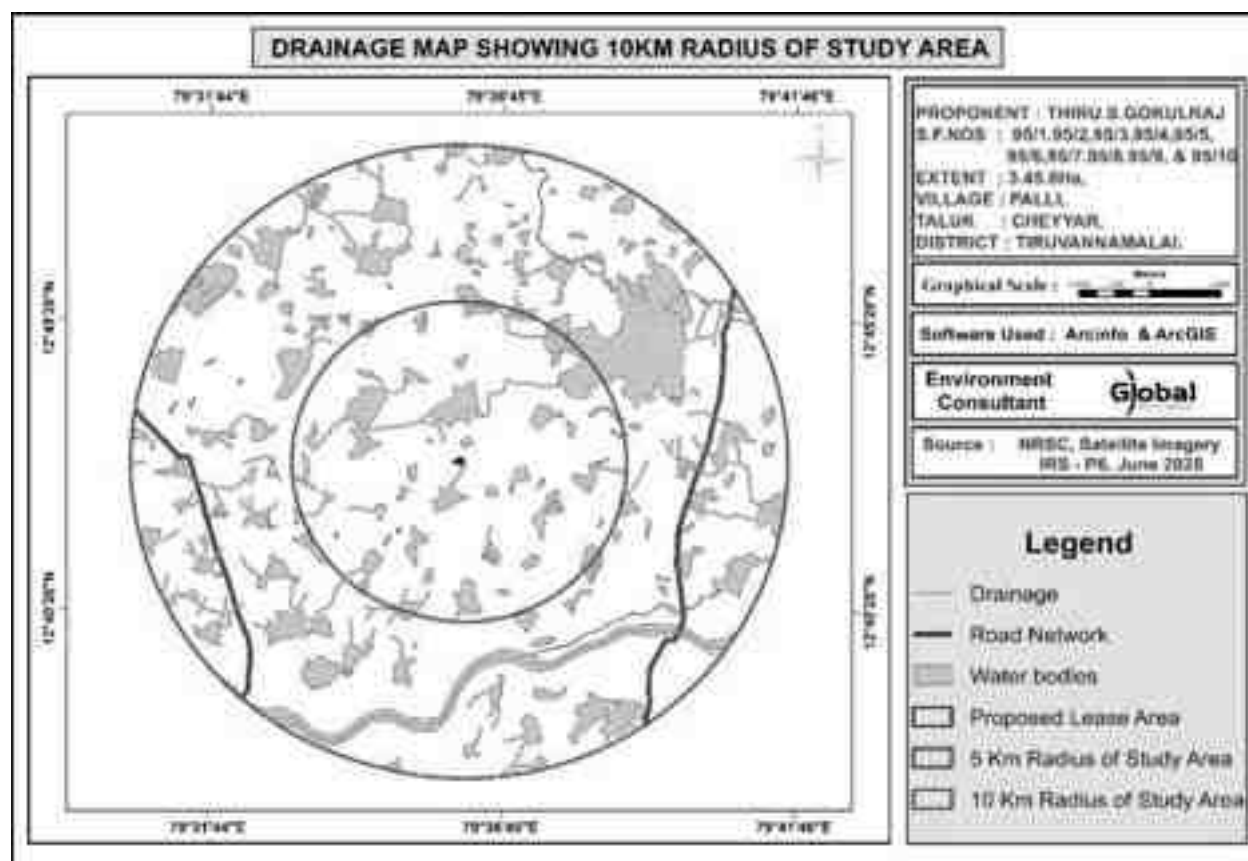


Figure 3.22 Drainage map of the study area

GEOMORPHOLOGY

Predominantly the buffer zone is dominated by Shallow weathered Buried Pediplain (57.63 %) and Moderately weathered buried pediplain (34.42 %), and the lease area falls under

Pediment category. Geomorphology of the study area is detailed below. The geomorphology of the study area is given in Figure 3.24.

S.No.	GEOMORPHOLOGY	Area in Sq.Km	Area in Percentage
1	Flood Plain	16.56	5.11
2	Moderately weathered buried pediplain	111.36	34.42
3	Pediment-Insberg Complex	8.78	2.71
4	Shallow weathered Buried Pediplain	186.46	57.63
5	Structural Hills	0.43	0.13
	Total Area	323.59	100.00

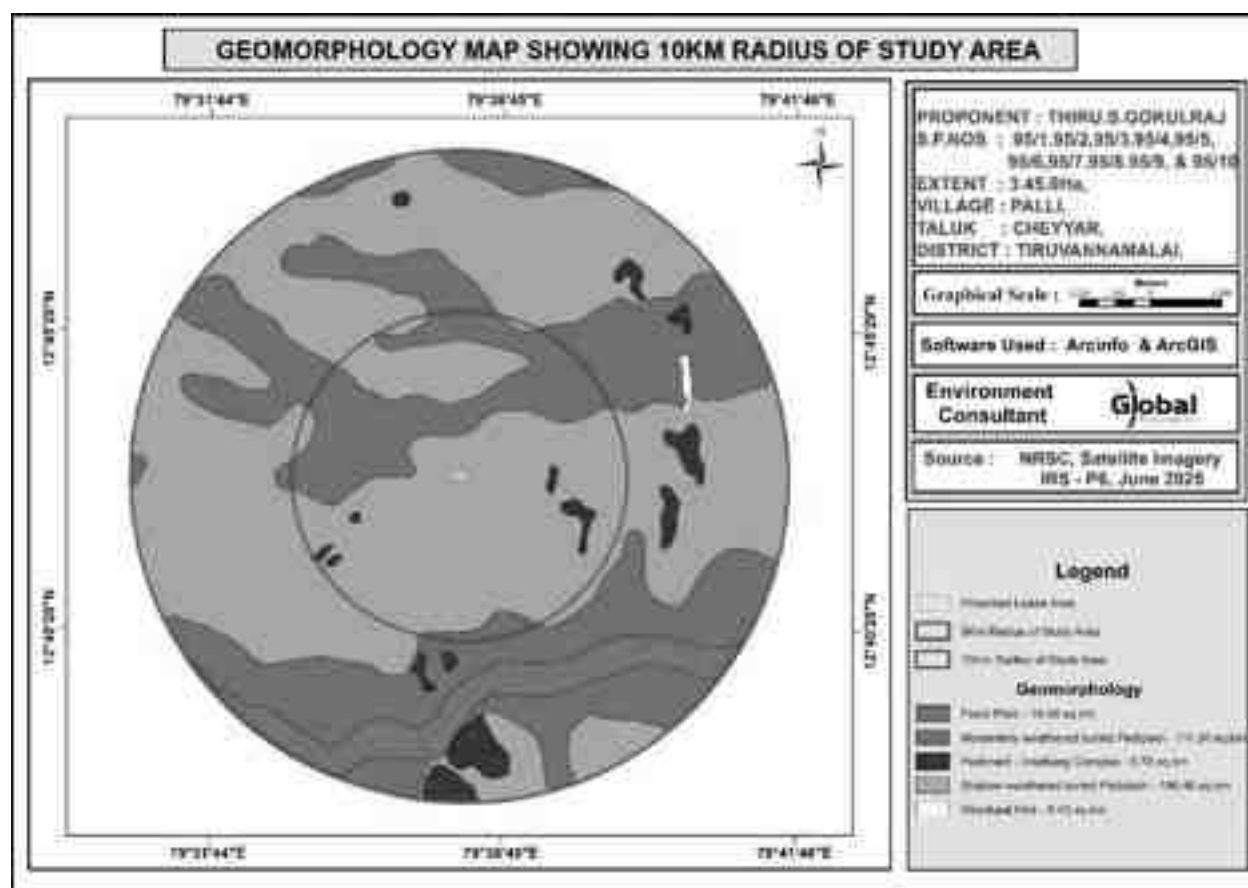


Figure 3.23 Geomorphology map of the study area

Geology

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

The geology of the study area is shown below in Figure 3.23. The majority of the buffer zone is composed of Charnockite (69.11 %). The lease area also falls under the same category. The geology of the study area is detailed below.

S.No.	GEOLOGY	Area in Sq.Km	Area in Percentage
1	Charnockite	222.94	69.11
2	Migmatite-Gneiss	32.11	9.95
3	Hornblende Biotite Gneiss	62.06	19.24
4	Sandstone and Shales	5.49	1.70
	Total Area	322.6	100

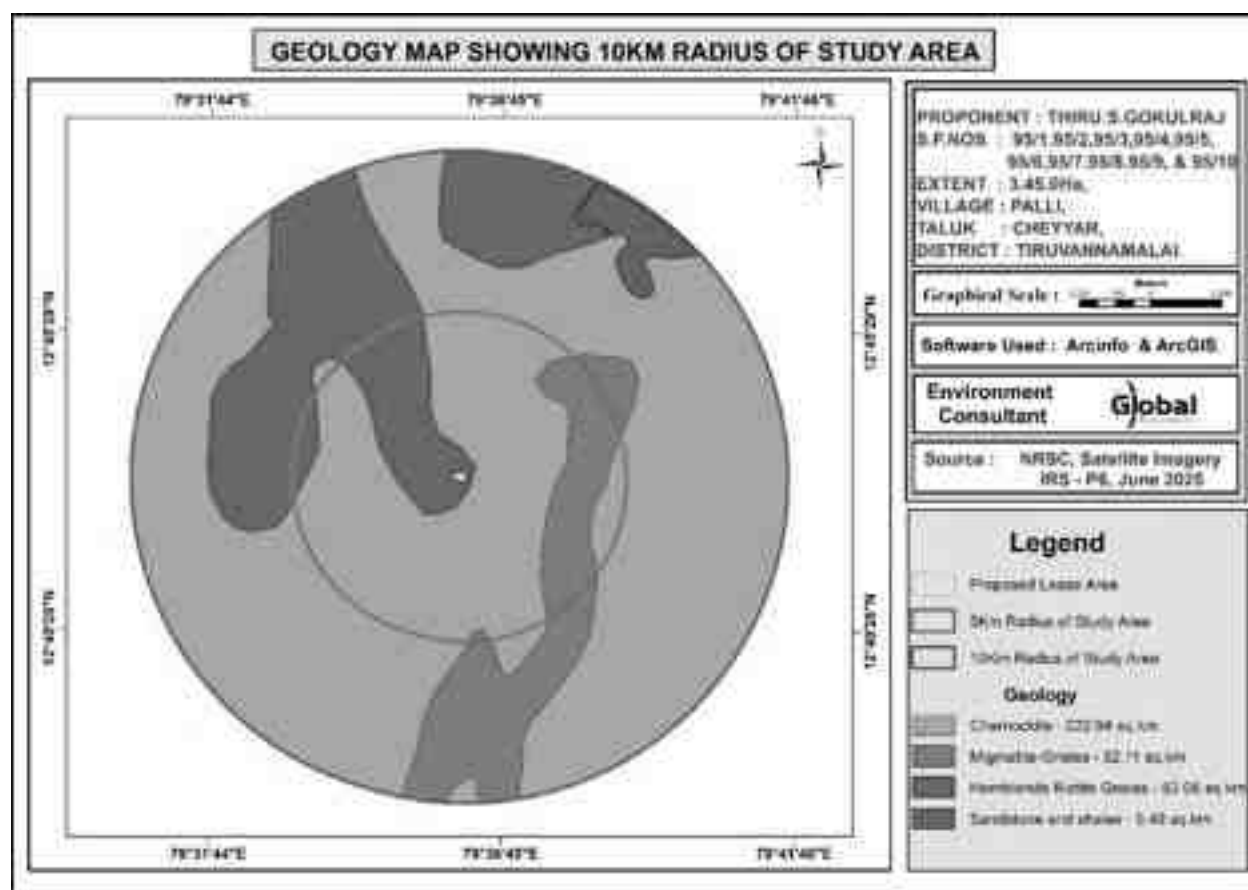


Figure 3.24 Geology map of the study area

Soil texure

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

The major soil texture found in the buffer zone are Sandy Loam (56.40%), followed by Clay Loam (43.60%). The lease area falls under rock land category. The soil texture of the study area is detailed below.

S.No.	SOIL TYPE	Area in Sq.Km	Area in Percentage
1	Clay Loam	141.07	43.60
2	Sandy Loam	182.54	56.40
	Total	323.61	100

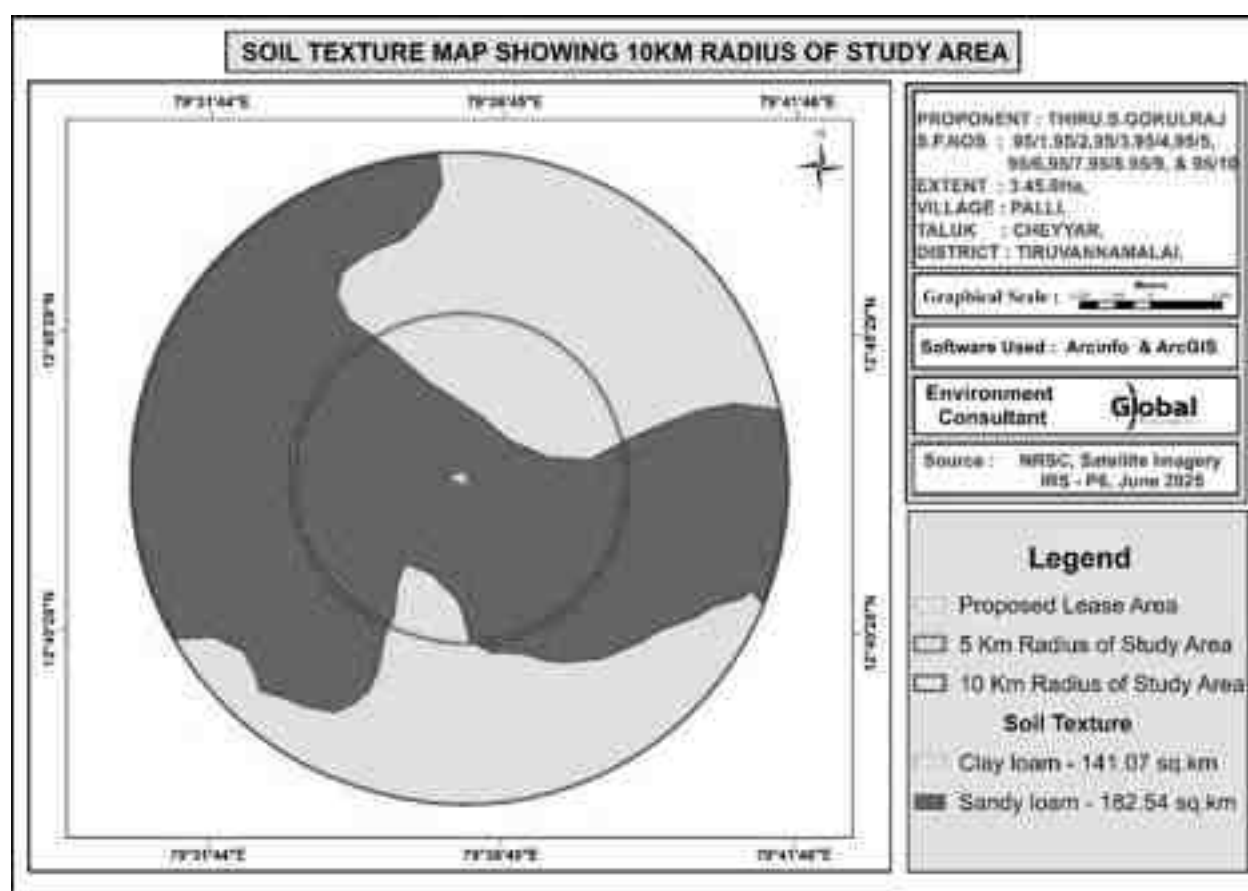


Figure 3.25 – Soil Texture Map of the Study Area

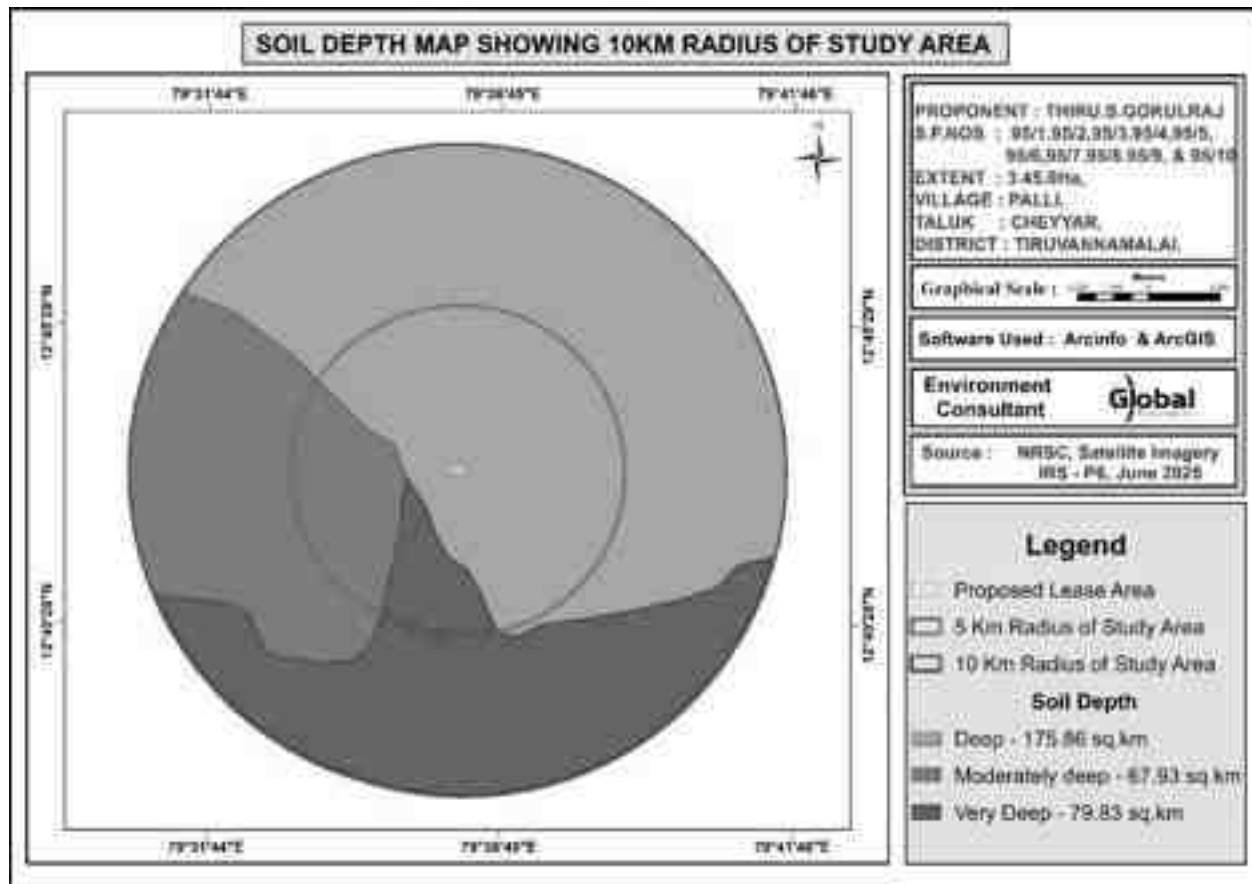


Figure 3.26 – Soil Depth Map of the Study Area

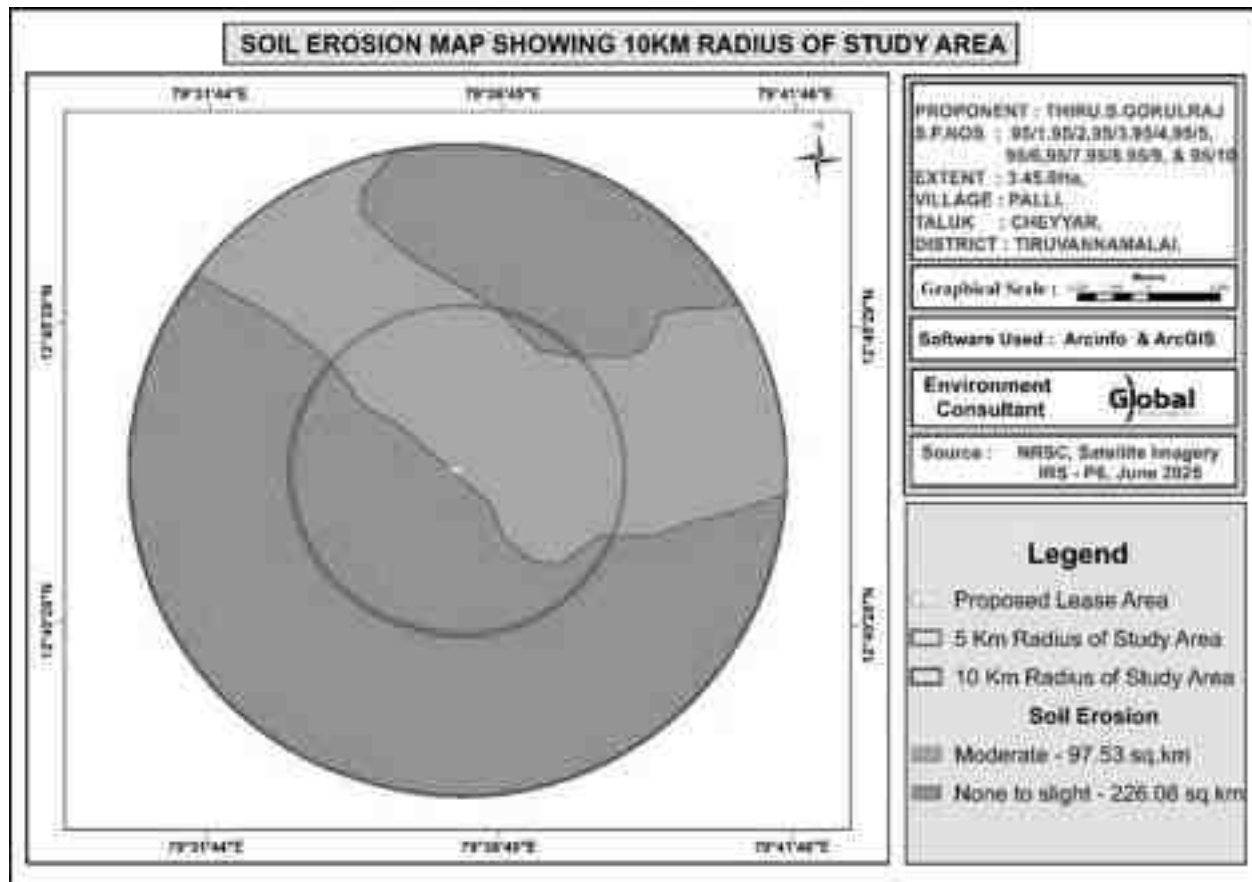
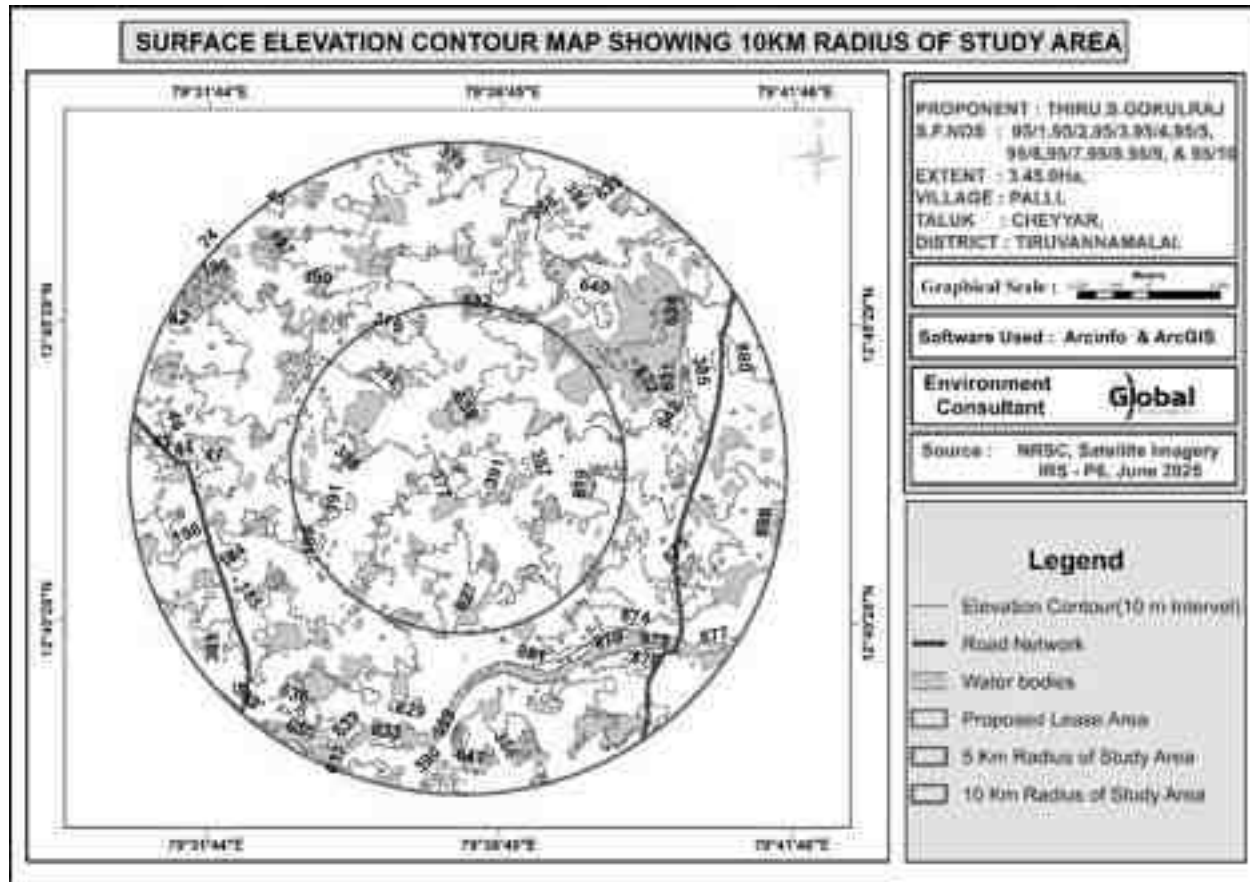


Figure 3.27 – Soil Erosion Map of the Study Area



CHAPTER 4

ANTICIPATED ENVIRONMENTAL IMPACTS AND **MITIGATION MEASURES**

INTRODUCTION

This chapter deals with the various anticipated environmental impacts and mitigation measures of the proposed mining activity. The proposed method of mining is Opencast Mechanized and the quarry operation involves Shallow Jack Hammer Drilling, Blasting, Excavation, Formation of benches, Loading and Transportation of minerals. The above activities may affect the surrounding environment like removal of rock mass, Loss of flora and fauna of the area, surface water discharge, change in air and water quality, etc., If adequate measures are not taken for the proposed operations, it will cause the environmental degradation of the area and it will lead to affect to the ecosystem of the surrounding environment.

In order to maintain the existing environmental scenario of the proposed mine lease area it is mandatorily required to assess the present ecology and environment of the proposed mine lease area and buffer area of the project before starting mining operations. The various environmental impacts which are identified by the proposed quarrying activities have been discussed below and its subsequent paragraphs.

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

4.1 DETAILS OF INVESTIGATED ENVIRONMENTAL IMPACTS DUE TO PROJECT LOCATION POSSIBLE ACCIDENTS, PROJECT DESIGN, PROJECT CONSTRUCTION, REGULAR OPERATIONS FINAL DECOMMISSIONING OR REHABILITATION OF A COMPLETE PROJECT.

This is a proposed Rough Stone and Gravel Quarry in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 & 95/10 over an extent of 3.45.0 Hectares at Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State. The method of mining is Opencast mechanized with a bench width and height of 5m. It is proposed to excavate to 5,35,845m³ of Rough Stone and 55,252m³ of Gravel for ten years upto a depth of 42m BGL. There is no stream/odai within the mine lease area.

The main anticipated impact on the Land Environment due to quarrying operation is change in Landscape, change in Land – use Pattern.

The entire mine lease area is Patta Land. It is proposed to be altered by effective quarrying operation such as excavation (2.60.0 Ha), Infrastructure (0.01.0), Road (0.01.0 Ha) and green belt will be developed in the safety zone of 0.83.0 Ha. The ultimate depth of quarrying is proposed with maximum depth of 42m BGL and will not intersect the ground water table.

4.2 MEASURES FOR MINIMIZING AND /OR OFFSETTING ADVERSE IMPACTS

IDENTIFIED

Aspect	Impact	Mitigation measures																																												
Topography	The area is almost plain topography covered by Charnockite formation. Quarrying activity will lead to change in geological setting of the area i.e., Due to the quarrying activity in the mine lease area will leads to affect the aesthetic view on the environment. Further, due to the movement of heavy vehicles in and around the mine lease area will leads to affect the surrounding agricultural lands, ecology and biodiversity, human habitations due to the emissions from vehicles like SO₂, NO_x, PM₁₀, PM_{2.5}, etc., The existing land use pattern is given as under. <table><tr><th>Land Use</th><th>Present Area (Hect)</th><th>Area in use during the quarrying period (Hect)</th></tr><tr><td>Quarrying Pit</td><td>Nil</td><td>2.60.0</td></tr><tr><td>Infrastructure</td><td>Nil</td><td>0.01.0</td></tr><tr><td>Roads</td><td>Nil</td><td>0.01.0</td></tr><tr><td>Green Belt</td><td>Nil</td><td>0.83.0</td></tr><tr><td>Unutilized</td><td>3.45.0</td><td>Nil</td></tr><tr><td>Total</td><td>3.45.0</td><td>3.45.0</td></tr></table>	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)	Quarrying Pit	Nil	2.60.0	Infrastructure	Nil	0.01.0	Roads	Nil	0.01.0	Green Belt	Nil	0.83.0	Unutilized	3.45.0	Nil	Total	3.45.0	3.45.0	The major impact due to this project on land environment is the change in land use. Mining activity will be carried out upto a depth of 42m Below ground level. At the end of mining period, the quarried pit will act as a water reservoir to store the rain water. Land Use at the end of mine will be as follows. <table><tr><th>Land Use</th><th>Area in use during the quarrying period (Hect)</th></tr><tr><td>Area left for water body</td><td>2.60.0</td></tr><tr><td>Green Belt</td><td>0.83.0</td></tr><tr><td>Remaining area</td><td>0.02.00</td></tr><tr><td>Total</td><td>3.45.0</td></tr></table> At the mine closure stage 2.60.0 Ha of lease area will be left as rain water harvesting pond 0.83.0Ha will be developed with green belt. Greenbelt shall be developed around the mine lease area and the details has been given below. <table><tr><th>Year</th><th>Species</th><th>No. of trees</th><th>Spacing</th><th>Survival</th></tr><tr><td>I</td><td>Pungai,</td><td>830</td><td rowspan="2">3m x 3m</td><td rowspan="2">85%</td></tr><tr><td>II</td><td>Vagai,</td><td>-</td></tr></table>	Land Use	Area in use during the quarrying period (Hect)	Area left for water body	2.60.0	Green Belt	0.83.0	Remaining area	0.02.00	Total	3.45.0	Year	Species	No. of trees	Spacing	Survival	I	Pungai,	830	3m x 3m	85%	II	Vagai,	-
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	The ultimate pit dimension of the mine lease area is given below. <table><tr><th colspan="4">Ultimate Pit dimension at the end of Mining plan Period</th></tr><tr><th>Pit No.</th><th>Length (max) (m)</th><th>Width (Avg) (m)</th><th>Depth (max) (m)</th></tr><tr><td>I</td><td>342</td><td>76</td><td>42m (BGL)</td></tr></table> If mining is not done systematically it will leads to the dumping failure in the mining area.	Ultimate Pit dimension at the end of Mining plan Period				Pit No.	Length (max) (m)	Width (Avg) (m)	Depth (max) (m)	I	342	76	42m (BGL)	<table><tr><td>III</td><td>Vembu,</td><td>-</td><td rowspan="3"></td><td rowspan="3"></td></tr><tr><td>IV</td><td>Manjal</td><td>-</td></tr><tr><td>V</td><td>konrai, Naval, Puvarasu, etc</td><td>-</td></tr><tr><td colspan="3">Total</td><td>830</td><td></td><td></td></tr></table>	III	Vembu,	-			IV	Manjal	-	V	konrai, Naval, Puvarasu, etc	-	Total			830		
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		III	Vembu,	-																											
IV	Manjal	-																													
V	konrai, Naval, Puvarasu, etc	-																													
Total			830																												
Due to the thick vegetation around the mine lease area and sprinkling of water around the haul roads the dust emissions arise from the vehicles will be controlled. At the end of mining period, fencing will be provided around the mine lease area to arrest the entry of public/cattle to the mining area. The Rough Stone are proposed to quarry 5m bench height and 5m width with 45° slope and with conventional opencast Mechanized method. As per the approved mining plan a safety distance of 7.5m, 10m shall be provided. There is no overburden anticipated during the entire Rough Stone quarrying operation. The excavated Rough Stone will be directly loaded into tipper to the needy crusher/other buyers.																															
As per the approved mining plan the ultimate pit limit is 42m (BGL). The ground water table is reported as 72 m. In the proposed mining plan only 42m below ground level has been envisaged as workable depth for safe & economic quarrying for the entire lease period. Hence the quarrying operation may not affect the ground water.																															
Drainage	Mine drainage is surface water or groundwater that drains from an active or abandoned mine. One of the adverse impact of mine drainage is it will contaminate the ground water.																														

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Soil Quality and Agriculture	In monsoon seasons due to the excavation of minerals soil erosion and sediment deposition will occur in the nearby water bodies.	It is proposed to quarry upto a depth of 42m below ground level and the nearby water table is 72 m. So, the mining activity will not affect the ground water. To prevent the soil erosion during monsoon season, garland drain will be constructed with silt traps.
Visual impact on surrounding environment	Quarrying activities and rock extraction generally cause several environmental effects on the surrounding areas. The alteration of landscape due to activities like excavation, drilling or blasting, in particular, often generates a visual impact on the receptors set in the surroundings. Among these effects, the shape, extent, or chromatic contrast of the mining surface with the original land form may represent a huge loss of appeal for the growth of new urban settlements.	The reclamation of the post mined quarry surface is aimed at restoring the ecological balance taking into account geological parameters but also local flora and climate. Further the ultimate depth of mining is 42m BGL. In the post mining stage, the quarried out pit will be used for rainwater harvesting.

4.2.1 SOLID WASTE GENERATION AND MANAGEMENT

The plastic waste generation is very negligible and it will be collected from the source level in specific dustbin and disposed through the municipal bins.

- Identification of solid waste generations
- Providing dustbins to collect with different color coding
- Creating awareness among the employees
- Developing common storage yards
- Disposal to the nearby municipal yards
- Record keeping
- Review once in quarter

4.2.2 SOIL ENVIRONMENT

Anticipated Impact

Mining activities often disrupt the existing environment as they involve disturbing the untouched earth materials. The massive Charnockite formation is noticed below 2m (avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 102m (maximum) from MSL. There is no overburden / Waste generation from this proposal, after the excavation of Gravel and Rough Stone will be directly loaded into tipper to the needy crushers/other buyers for road project and construction works for filling and leveling of low lying areas. The entire mined out mineral will be transported to the needy buyers through tippers.

Mitigation Measures for Soil Erosion and Soil Conservation

- Runoff water will be collected in bottom of the quarry and used for plantation and dust suppression during dry season.no run off water will be discharged beyond lease area.
- Wet drilling and haul road water sprinkling will be carried out to minimize air born dust at source level, which may cause soil pollution due to sedimentation.
- Garland drains will be constructed around the project area with silt traps to control the soil erosion during rainy seasons.
- Greenbelt development (0.83.0Ha.) all along the periphery of the project area (i.e., 7.5 m safety barrier) will ensure binding strength and minimizes soil erosion.

- Soil sampling will be carried out in the core zone for every season to ensure the soil quality is not affected due to the quarrying activities.

4.2.3 WATER ENVIRONMENT

Impact on Surface Water Resources

The impact due to quarrying on the water quality is expected to be insignificant because of no use of chemicals or hazardous substances during quarrying process.

There are seven water bodies within 1 km radius. The other major water bodies in buffer are given below.

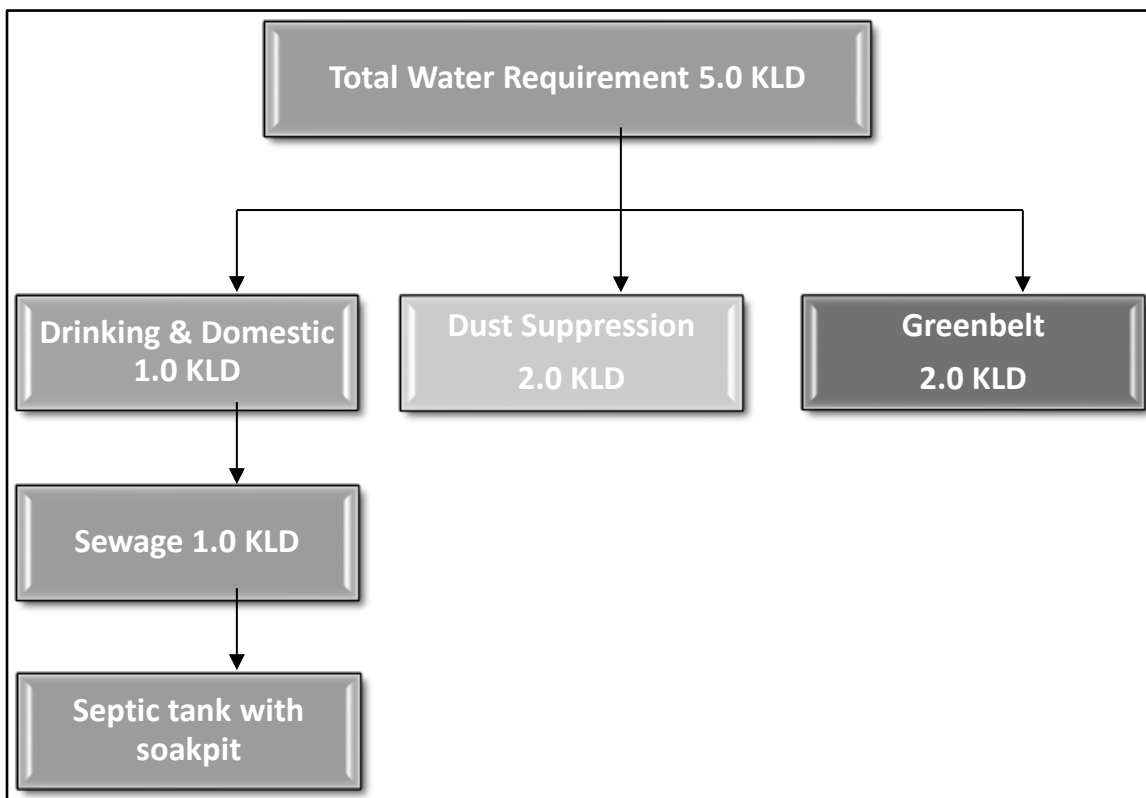
- Cheyyar river- 5.6Km (SE)

Based on the drainage map given in the Fig.No.3.22, it is found that there is no stream connect the lease area to the water body. As the proposed mining activity takes place with 100 % recovery. Moreover, no toxic element will be quarried out or no chemicals or hazardous substances are used during mining process. No other water bodies close to the project site, there is no proposal for discharging of wastewater outside the project area. There is no proposal for a Rough Stone processing or workshop within the project area, so no effluent is anticipated in the mine.

Impact due to Water use in Mines

In the proposed mines water will be mainly used for domestic purpose, dust suppression & plantation. Total water requirement for the project is 5.0 KLD which will be sourced from outside agencies. Negligible sewage of 1.0 KLD will be generated, for which a septic tank with soak pit will be set up. The water balance diagram is given below.

FIG 4.1 WATER BALANCE DIAGRAM



Impact on Ground Water

The mining activity is not likely to intersect ground water as the ground water table occurs at a depth of 72 m BGL. The mining will go up to the maximum depth of 42m BGL. So, there will be no chance of intersecting the ground water table by the mining activity. So, the impact of mining on the ground water is not envisaged.

Mitigation measures

- Entire lease area will be provided with proper garland drains.
- Check wears will be provided to prevent solids from wash off.
- Construction of garland drains around freshly excavated so that flow of water with loose material is prevented.
- The mine water will be passed through the natural slopes and valleys and gets accumulated in the settling tank (Bottom pit)

Ground water environment in buffer zone

The scenario of ground water in Cheyyar Taluk is given below.

Ground Water Level Status in Cheyyar Taluk							
S. No.	Firka	Net Annual Ground water availability	Existing gross Draft for irrigation	Existing gross Draft for domestic and industrial water supply	Existing gross draft for all uses	Stage of ground water development	Category
1	Cheyyar	1,522.95	1,526.85	20.80	1,647.65	56	Over Exploited

Source: nwm.gov.in

It is planned to carryout appropriate rainwater harvesting schemes and artificial recharge schemes in the area.

Rainwater Harvesting Plan

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

- Development of garland drain around the quarry connected to settling tank.
- Cleaning of drain periodically to prevent siltation
- The supernatant clear water from the settling pond will drain into the nearby channel on the eastern side of the lease.
- Utilizing the rainwater harvested in the mine pit to meet the water requirement of the project.

The maximum annual rainfall of the area is 1019.7 mm. Taking into consideration of 0.35 as runoff co-efficient for mining area, the total quantity of rain water can be harvested per annum from the area has been tabulated as below.

Table 4.1 – Rainwater Harvesting Plan

S.No	Rainwater Harvesting Area	Area in Sq.m	Average annual rainfall	Volume of harvestable quantity (Cum) of rain water per annum
1	Quarry Area	34500	1.1	13,283
Total Harvested Rainfall				13,283

Total surface water runoff is 13,283 Cum per Annum. 10% of this amount will be evaporated and rest 11,955 m³ will be recharged in the rain water harvesting pit.

Four sumps with each capacity 3000 Cu.m will provided to harvest the rainwater. The rain water stored in the sump will be utilized for plantation, dust suppression activities. The capacity of Rain water harvesting post will be sufficient to arrest the surface runoff from the lease area considering the highest amount of rain fall.

4.2.3 BIOLOGICAL ENVIRONMENT

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 below Table.

Table 4.2 Ecological Impact Assessments and Its Mitigations -Part 1

S.NO	Issues	Assessment	Mitigations
1	Proximity to national park/ wildlife sanctuary / reserve forest / mangroves / coastline/estuary/sea	There are no R.F within 10Km radius from the project site. The proposed project does not attract Forest Conservation Act, 1980. There is no wild life sanctuaries found around	The fugitive dust generated by the mining activity will be suppressed by frequent sprinkling of water based on

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		10km radius and the area does not attract Wildlife Protection Act, 1972 and C.R.Z. Notification, 1991.	evaporation rate in the site specific.
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 by developing green belt all along the lease boundary, regular maintenance of tippers, excavators, transporting the tippers within speed limits.
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 Wild life 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. There is no proposal for discharge of wastewater to nearby water bodies.	NIL
6	Proposed mining project increase siltation that would	Surface runoff management structures like garland drain, settling pond etc. as explained above will be constructed and as such there will not be any appreciable impact on	

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	affect nearby Biodiversity area.	surface water quality which in turn can affect the bio diversity of the area.	
7	Risk of fall/slip or cause death to wild animals due to project activities	In the post mining stage, wire fencing is proposed all around the mined-out void to prevent falling of animals in the mine pits.	
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 are R.F. within 10Km radius.	All the necessary control measures will be adopted to protect the nearby 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 such significantly important medicinal value species within the ML area and its nearby region.	NIL
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 4.3 Ecological Impact Assessments and Its Mitigations -Part 2

Identified Impacts	Ecological Significance of impact	Magnitude	Phase / duration	Reversibility	Mitigation
Project site Habitat due to Site Clearance.	There are no trees in the core zone. The Mining activity will be carried within the lease area. No clearance of vegetation in the buffer zone	Low impact	Planning stage	Irreversible	The quarried-out pit will be used as water storage pond which increases agricultural activity in the buffer zone.
Impact on 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 and crop field in the buffer zone which affects growth and its productivity.	Temporary Impact	Operational stage	Reversible	The sprinkling of water over the haul road will be done. Then completely wet drilling will be take place. The transportation vehicles will be maintained and serviced Properly.
road construction	No Road construction is required to assess the project site. The existing internal Road connects the project site to the existing SH and NH	No Impact	-	-	-
Ecological Impact on Surrounding/ Eco sensitive habitat due to waste water generated from	Since the proposed project is a mining activity no waste water generation is expected. Sewage will be generated due to the workers	No impact	-	-	-

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the project activity.					
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 tipper within specified limits also control the noise generations.
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. The sprinkling of water over the haul road will be done. Then completely wet drilling will be take place.

Carbon Emission:

Carbon released from quarrying machineries and tippers during quarrying would be 314 kg per day, 1,14,886 kg per year and 11,48,851kg over ten years, as provided in below Table.

Description	Per Day	Per year	For Ten Years
Total fuel consumption in liters	117	42,868	4,28,676
Co ₂ emission in kg	314	1,14,886	11,48,851

Carbon Sequestration:

To mitigate carbon emission due to mining activities. We recommend planting trees around the quarry to offset the carbon emission. Fuel efficient machinery and optimize transportation routes to reduce emissions from diesel powered vehicles. Conduct regular vehicular emission tests for the transport vehicles to ensure minimal impact due to carbon emissions. To further mediate the carbon emissions, additional plantation will be carried out around the lease area.

Greenbelt Development

In order to compensate the loss of vegetation cover, it is suggested to carry out afforestation program mainly in proposed mine lease area earmarked for plantation program as per Approved Mining Plan in different phases. This habitat improvement program would ensure the faunal species to re-colonize and improve the abundance status in the core zone. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area.

Table – 4.4 GREENBELT DEVELOPMENT PLAN

Year	No. of trees proposed to be planted	Survival %	Name of the Species	No. of trees expected to be grown
I	830	85%	Neem, Casuarina, Pongamia pinnata, etc.,	705
II				
III				
IV				
V				
Total	830			705

Nearly 0.83.0 Ha of area is proposed for Greenbelt development by planting 830 Nos of trees and expected growth is around 705 Nos @ survival rate of 85%.

The objectives of the green belt cover will cover the following:

- Noise abatement.
- Reuse of waste water to the extent possible.
- Prevention of soil erosion.
- Ecological restoration.
- Aesthetic, biological and visual improvement of area due to improved vegetative and plantations cover.

4.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF ENVIRONMENTAL COMPONENTS.

4.3.1 IMPACT DUE TO MINING OPERATION

Impact prediction is a very important phenomenon in evaluating the environmentally potential adverse impacts for any proposed mine project. The impact prediction is always carried out under worst possible conditions so as to mitigate or to eliminate the environmental hazards. These predictions thus calculated are superimposed over the baseline data to calculate the net impact on the environment after the proposed mine Project comes into production.

4.3.2 IMPACT ON AIR ENVIRONMENT

The impacts on air environment from a mining activity depend on various factors like production capacity, machinery involved, operations and maintenance of various equipments and vehicle. Apart from these, there will be other activities associated viz transportation of mineral and waste, stocking facilities and dump management within the mine lease area that may contribute to pollution.

4.3.3 Air Emissions

The impacts on air environment from a mining activity depend on various factors like production capacity, machinery involved, operations and maintenance of various equipments and vehicle. Apart from these, there will be other activities associated viz transportation of mineral and waste, stocking facilities and dump management within the mine lease area that may contribute to pollution.

4.3.4 Quantitative Estimation of Impacts on Air Environment

An attempt has been made to predict the incremental rise of various ground level concentrations above the baseline status in respect of air pollution due to proposed production of 5,35,845 m³ of Rough Stone and 55,252m³ of Gravel for the period of 10 years upto a depth of 42m BGL.

The pollutants released into the atmosphere will disperse in the down wind direction and finally reach the ground at farther distance from the source. The concentration of ground level concentrations mainly depends upon the strength of the emission source and micrometeorology of the study area.

In order to estimate the ground level concentrations due to the emission from the proposed project, EPA approved Industrial Source Complex ISC AERMOD View Model has been employed.

The mathematical model used for predictions on air quality impact in the present study is ISC-AERMOD View-6.8.6. It is the next generation air dispersion model, which incorporates planetary boundary layer concepts.

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

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

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

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

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

Salient features of the AERMOD model are given hereunder:

- ❖ Excavation operations are considered as area sources.
- ❖ Transportation of material on haulage roads has been considered as line source

The predicted ground level concentrations for study period computed using AERMOD model are plotted as isopleths.

4.3.5 Sources of Dust Emission

The proposed mining is carried out by mechanized opencast method. The air borne particulate matter generated by ore handling operations, transportation and screening of ore is 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 proposed production and net increase in emissions. Based on the various operations involved in the production of minerals, the various emission sources has been identified as given below.

- a. Area sources.
- b. Line sources.

Extraction of mineral from mine, are considered as area sources. Transportation of material from mining benches to various end points are considered as line sources. The impact of above sources on air environment is discussed below:

The other sources of air pollution are the dust generated during the movement of tippers on the haul road. Water tankers with spraying arrangement will be used for regular water sprinkling on the haul roads to ensure effective dust suppression. The tippers are well maintained so that exhaust smoke does not contribute abnormal values of noxious gases and un-burnt hydrocarbons.

4.3.6 Emission Details

All the emissions discussed above are quantified for proposed maximum production of 5,35,845 m³ of Rough Stone and 55,252m³ of Gravel for the period of 10 years upto a depth of 42m BGL by the open-cast mechanised mining method. The existing air quality levels are covered in the baseline scenario. Excavation, loading and transportation through tippers are

the major sources, which are of significance. Therefore, the emissions considered for modeling are from drilling blasting, excavation & transportation Rough Stone.

The emissions are computed based on AP-42 emission factors. Operational hours, activity rate, wind speed and moisture content have been considered for estimation of emissions from point and area sources. For line source, apart from operational hours, activity rate, moisture, silt content and vehicle weight have been considered.

Predictions are carried out for the worst-case scenario of simultaneous operation of excavators (area sources) and tippers for transportation from mine pit to loading pit (line sources) over a distance of 500 m.

The number of working days has been taken at 300 days per year with 8 hours of operation/day, hence the concentrations predicted are considered to be the worst case. With control measures, the emissions have been taken at 30% of uncontrolled emissions for handling and 10% of uncontrolled emissions for transportation.

4.3.7 Meteorological Data

The meteorological data recorded continuously during the month of March 2025 – May 2025 on hourly basis on wind speed, wind direction and temperature has been processed to extract the 24- hourly mean meteorological data as per the guidelines of IMD and MoEF for application of AERMOD model. Stability classes computed for the mean hours is based on guidelines issued by CPCB on modeling. Mixing heights representative of the region have been taken from the available published literature.

4.3.8 Summary of Predicted Ground Level Concentrations

Ground level concentrations due to the mining activities have been estimated to know the incremental raise and extent of impact in the study area.

The maximum ground level concentration is estimated to be about 2.17 $\mu\text{g}/\text{m}^3$ of PM 2.5 & 3.24 $\mu\text{g}/\text{m}^3$ of PM10 within the mine area and surrounding cluster area 2.62 $\mu\text{g}/\text{m}^3$ of PM 2.5 & 4.09 $\mu\text{g}/\text{m}^3$ of PM10, where mining operations are being carried out. The impact of mining operations would be negligible beyond 0.5 km.

Figure – 4.2 – Figure 4.5 represents the spatial distribution of the predicted ground level concentrations of PM₁₀ due to emissions from mine.

4.3.9 Emission sources & Quantification

Various point and non-point sources of emissions from Proposed Rough Stone and Gravel Quarry of Thiru.S.Gokulraj is quantified and presented below:

Area Emissions – Total Material handling (Rough Stone and Gravel)

Quantity, TPA	Thiru.S.Gokulraj Rough stone - 5,35,845 m3 Gravel - 55,252 m3
Operational Hours Per Year	2400
Activity Rate, t/hr.	400.1145
Emission of dust, g/t.	0.23
Emission of dust, g /hr.	53.246
Area of influence, m2	627
Uncontrolled emission rate g/s/m2	0.00005398
Controlled emission rate, PM10 g/s/m2	0.000053981
Controlled emission rate, PM2.5 g/s/m2	0.000035171

Area Emissions – Total Material handling (Cluster Rough Stone)

Quantity, m3	- Thiru.S.Gokulraj 5,35,845 m3 of rough stone and Gravel 55,252 m3 for a period of ten years, - Tmt.T.Poornima 7,42,225 m3 and Gravel 57,976 m3 for a period of ten years - Thiru.S.Nirmal 2,18,960 m3 and Gravel 30,858 m3 for a period of ten years, - Shri Vinayaga Mine 1,00,150 m3 and Gravel 38,601 m3
Operational Hours Per Year	2400
Activity Rate, t/hr.	362.36
Emission of dust, g/t.	0.27
Emission of dust, g /hr.	75.361
Area of influence, m2	628
Uncontrolled emission rate g/s/m2	0.0006359
Controlled emission rate, PM10 g/s/m2	0.00063598
Controlled emission rate, PM2.5 g/s/m2	0.00044792

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(I) Line Source – Transport of Rough Stone from Pit to Boundary

Quantity, TPA	Thiru.S.Gokulraj Rough stone - 5,35,845 m3 Gravel - 55,252 m3
Operational Hours Per Year	2400
Capacity of each Dumper (T)	10
Total No. of Tippers/ year	18980
Lead length/trip, Km	0.96
Total VKT/Year	82456
Emission Kg/VKT	0.23
Total emission Kg/Year	42365
Uncontrolled emission rate g/s/m	4.7845
Controlled emission rate, PM10 g/s/m	0.478456
Controlled emission rate, PM2.5 g/s/m	0.39275

Line Source – Transport of Rough Stone (Cluster)

Quantity, m3	- Thiru.S.Gokulraj 5,35,845 m3 of rough stone and Gravel 55,252 m3 for a period of ten years, - Tmt.T.Poornima 7,42,225 m3 and Gravel 57,976 m3 for a period of ten years - Thiru.S.Nirmal 2,18,960 m3 and Gravel 30,858 m3 for a period of ten years, - Shri Vinayaga Mine 1,00,150 m3 and Gravel 38,601 m3
Operational Hours Per Year	2400
Capacity of each Dumper (T)	10
Total No. of Tippers/ year	75190
Lead length/trip, Km	0.25
Total VKT/Year	71356
Emission Kg/VKT	0.26
Total emission Kg/Year	223564
Uncontrolled emission rate g/s/m	5.97562
Controlled emission rate, PM10 g/s/m	0.59756
Controlled emission rate, PM2.5 g/s/m	0.39546

Note: *Emission factor computed based on wind speed of 2 m/s, and moisture content of 10 %. + Emission factor computed based on silt content of 10 % and moisture content of 10 %

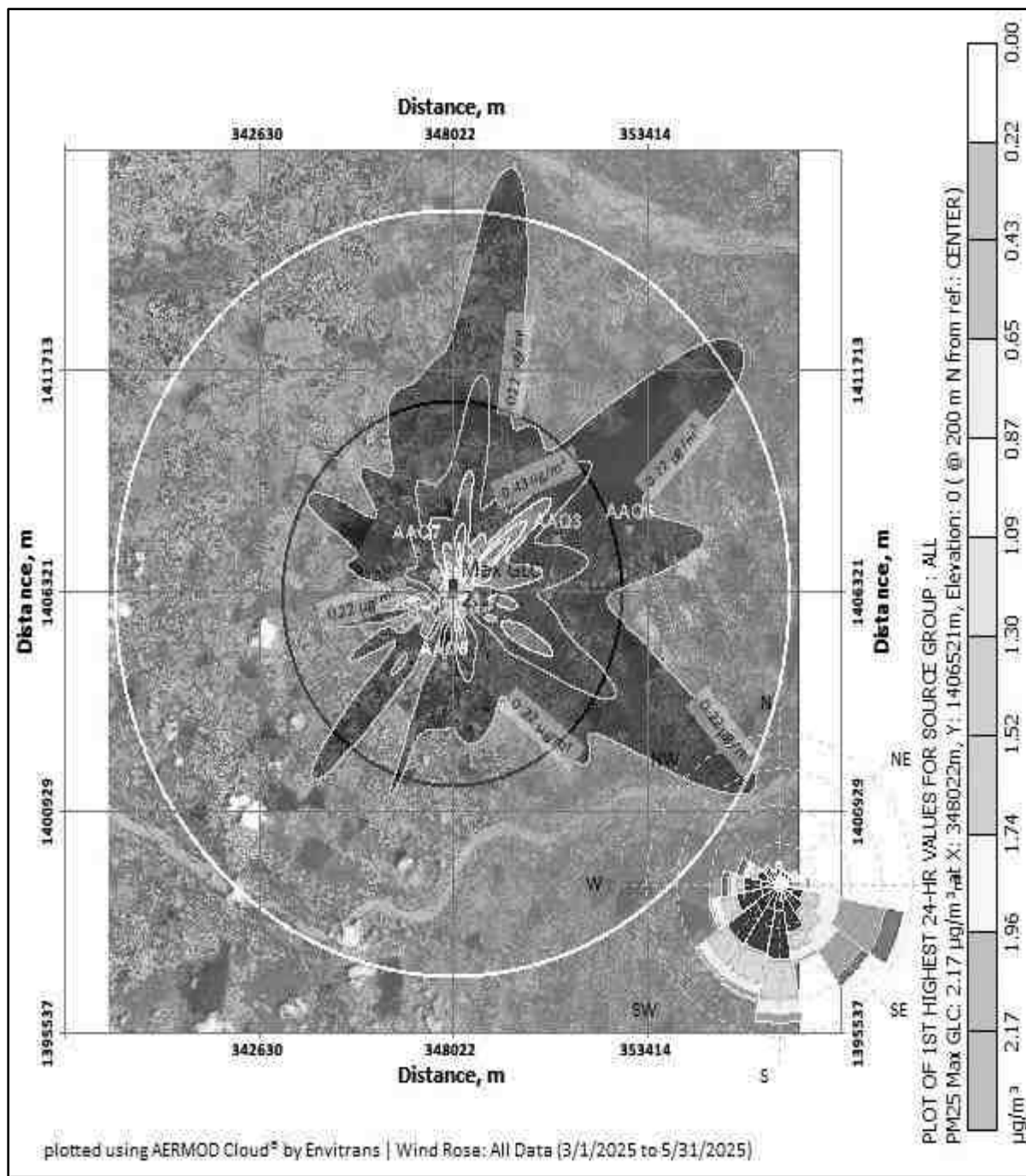


FIG 4.2 Isopleth of GLC Prediction for PM_{2.5}

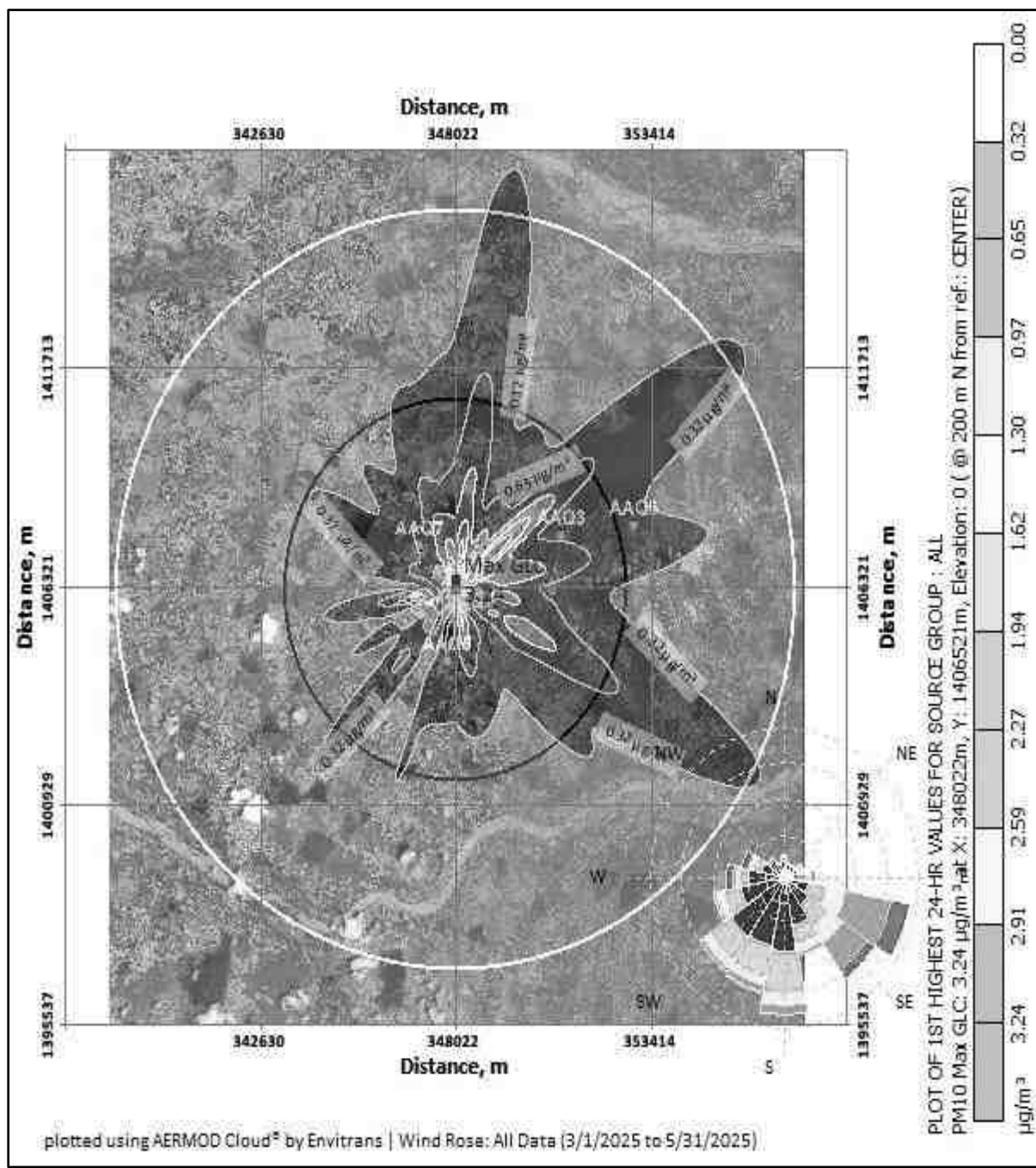


FIG 4.3 Isopleth of GLC Prediction for PM₁₀

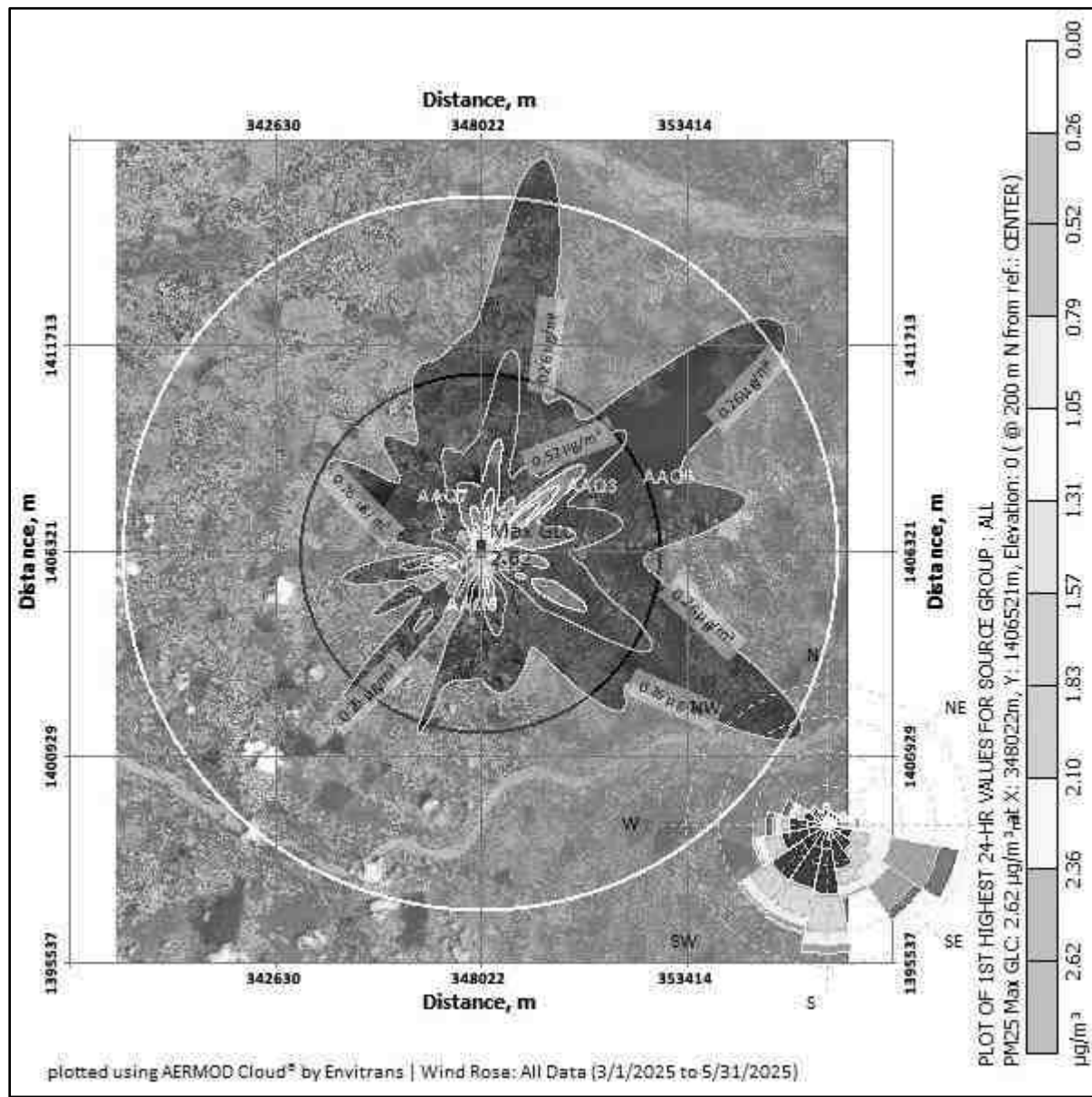
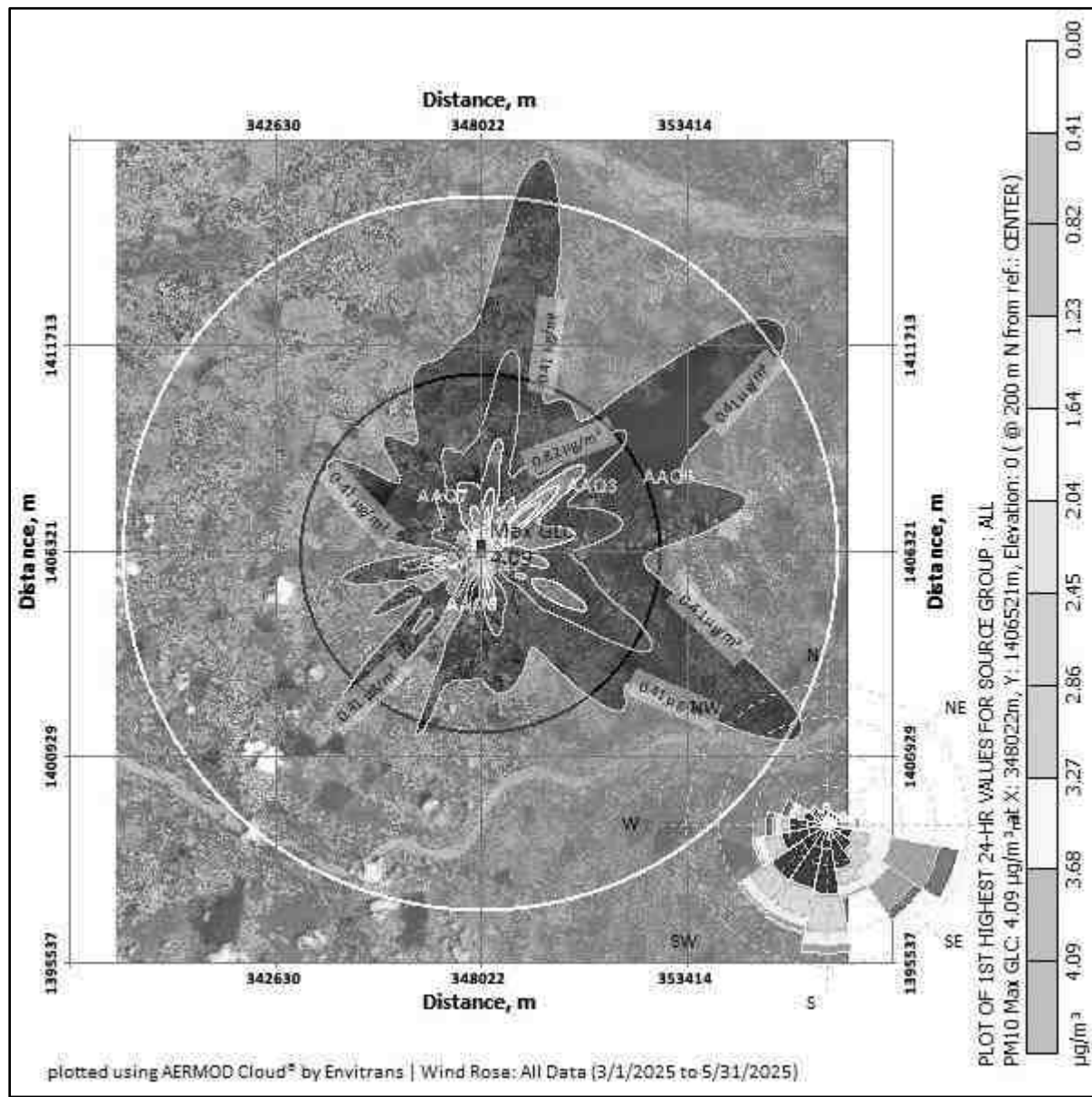


FIG 4.4 Isopleth of GLC Prediction –Cumulative for PM_{2.5}



PREDICTED AMBIENT AIR QUALITY:

The post project Concentrations of PM₁₀, PM_{2.5}, (GLC) (base line + incremental) after adopting necessary control measures is given in Table No - 4.5 to 4.8.

Table 4.5 Concentrations of PM2.5 after Project Implementation					
S.No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Project site	33.9	2.17	36.07	60
2	Palli	28.6	1.96	30.56	
3	Cholavaram	28.6	1.74	30.34	
4	Mangalam	30.2	1.52	31.72	
5	Vadaelapakkam	31.3	1.30	32.60	
6	Perumbulimedu	35.4	1.09	36.49	
7	Vadapoondipattu	35.6	<1.0	36.6	
Table 4.6 Cluster Concentrations of PM2.5 after Project Implementation					
S.No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Project site	33.9	2.62	36.52	60
2	Palli	28.6	2.36	30.96	
3	Cholavaram	28.6	2.10	30.70	
4	Mangalam	30.2	1.83	32.03	
5	Vadaelapakkam	31.3	1.57	32.87	
6	Perumbulimedu	35.4	1.31	36.71	
7	Vadapoondipattu	35.6	1.05	36.65	
Table 4.7 Concentrations of PM10 after Project Implementation					
S.No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in µg/m³
1	Project site	72.5	3.24	75.74	100
2	Palli	52.6	2.91	55.51	
3	Cholavaram	54.5	2.59	57.09	
4	Mangalam	60.3	2.27	62.57	
5	Vadaelapakkam	63.3	1.94	65.24	
6	Perumbulimedu	64.4	1.62	66.02	
7	Vadapoondipattu	65.0	1.30	66.30	

Table 4.8 Cluster Concentrations of PM₁₀ after Project Implementation

S.No	Location	Background Concentration	Predicted incremental Concentration	Post Project Concentration	Statutory Limits in $\mu\text{g}/\text{m}^3$
1	Project site	72.5	4.09	76.59	100
2	Palli	52.6	3.68	56.28	
3	Cholavaram	54.5	3.27	57.77	
4	Mangalam	60.3	2.86	63.16	
5	Vadaelapakkam	63.3	2.45	65.75	
6	Perumbulimedu	64.4	2.04	66.44	
7	Vadapoondipattu	65.0	1.64	66.64	

The above report seems that, even in the worst-case scenario, the resultant added concentrations with baseline figures show that the values of ambient air quality for PM₁₀ are in the range of 55.51 $\mu\text{g}/\text{m}^3$ to 75.74 $\mu\text{g}/\text{m}^3$ and for PM_{2.5} are in the range of 30.34 $\mu\text{g}/\text{m}^3$ to 36.6 $\mu\text{g}/\text{m}^3$ and PM₁₀ are surrounding area range of 56.28 $\mu\text{g}/\text{m}^3$ to 76.59 $\mu\text{g}/\text{m}^3$ and for PM_{2.5} are in the range of 30.70 $\mu\text{g}/\text{m}^3$ to 36.71 $\mu\text{g}/\text{m}^3$ which are within the statutory limits in each case. The mitigation measures undertaken in the mine for control of air pollution are given below.

- Wet drilling will be practiced in drilling operation.
- Water sprinkling will be done in haul roads & loading etc.
- The mines workers are provided with the dust masks.
- Three-layer plantation in the safety zone.
- DG sets shall be periodically maintained as per manufacturer's specifications.

4.4 ASSESSMENT OF SIGNIFICANCE OF IMPACTS (CRITERIA FOR DETERMINING SIGNIFICANCE, ASSIGNING SIGNIFICANCE).

4.4.1 NOISE ENVIRONMENT

The main noise generating source during mining operation and related activities are drilling, excavation, loading and transportation. Intermittent noise is generated due to operation of diesel generator.

4.4.2 Likely Noise Levels in Lease Area due to mining activity

S.No.	Source Name	Noise Level in dB (A)
1	Diesel generator	90
2	Excavator Operation	86
3	Trucks movement	82
4	Drilling	96
5	Blasting	102

It is expected that the generated noise will be limited within the mine lease area and there will be no profound effect of noise on the buffer zone. The noise level will be maintained below the threshold limit by vigorous maintenance of the machineries. Wet drilling with dust extractor is being used to reduce the noise level during the mining operation.

Noise levels were measured in the lease area and in the nearby Palli, Cholavaram, Mangalam, Vadaelapakkam, Perumbulimedu, Vadapoondipattu Villages, and the values are given below.

TABLE 4.9 Noise Levels in Monitoring Locations				
S.NO.	Location	Distance and direction from Mine lease area	Day Equivalent (in dBA)	Night Equivalent (dBA)
1	Within Mine Lease area	Core Zone	46.6	39.3
2	Palli	512m - (S)	47.8	40.6
3	Cholavaram	4.34Km - SE	46.8	39.1
4	Mangalam	1.1Km - SW	50.3	40.3
5	Vadaelapakkam	1.89Km - S	44.9	37.6
6	Perumbulimedu	5.75Km - NE	47.2	38.0
7	Vadapoondipattu	1.2Km - NW	51.4	40.7

The noise levels are within the MoEF & CC limits of 70 dB(A) in the working area and in the buffer areas, the values are below the limit of 75 dB(A). Since, the residential area norm has been considered for all six locations mentioned above, during mining operation mine lease area will be considered as industrial area/quarry area for which DGMS norms 85 dB(A)/CPCB guidelines 75 dB(A).

4.4.3 Impact of Noise due to mining

- ✚ Noise generation in mining is due to operation like drilling, blasting and transportation of minerals within and outside the lease area.
- ✚ As per DGMS (Directorate General of Mines Safety) limits, the acceptable noise level is 85 dB(A) for an exposure period of 8 hours.
- ✚ Exposure to loud noise can also cause high blood pressure, heart disease, sleep disturbances, and stress. Noise pollution also impacts the health and well-being of wildlife.
- ✚ Noise exceeding prescribed limits may cause impairment like abnormal loudness perception, tinnitus which causes a persistent high-pitched ringing in the ears, paracusis or distorted hearing.

4.5 MITIGATION MEASURES

4.5.1 Noise level control.

- ✚ As the distance between the source and receptor increases, the noise level decreases. Hence, there will be a natural attenuation.
- ✚ The proponent has planned to develop green belt in the periphery of the lease area which diminishes sound volume by dampening them.
- ✚ All the equipment/machinery/tippers involved will be properly maintained to control noise generation.
- ✚ Conducting regular health checkups for employees involved.
- ✚ Employees will be made to work on shifts to reduce their exposure time.
- ✚ Providing earplugs to all employees.
- ✚ Providing green walls/nets wherever possible.

By adopting these measures, the noise levels will be maintained well within MoEF & CC limits since the baseline value is low.

4.5.2 IMPACTS DUE TO VIBRATION

There will be negligible vibration of ground due to the following activities.

- ✚ Due to Blasting
- ✚ Due to Drilling
- ✚ Due to movement of machinery

Impacts

- ✚ Though vibration will be only felt by the people working inside the lease area it is usually

undesired.

- ✚ Vibration may also cause fly rocks.
- ✚ It may frighten the birds and small insects in the lease area. However, it will be felt only for a short period.

Mitigation measures

- ✚ The DG set will be kept within the acoustic enclosure made by the stone blocks.
- ✚ Drills will be equipped with sharp bits and wet drilling will be adopted.
- ✚ A well-planned green belt is proposed for the mining to reduce noise level.
- ✚ Proper warning system before blasting will be adopted and clearance of the area before blasting will be ensured.
- ✚ Regular maintenance of the machineries and vehicles to reduce the noise level.
- ✚ Use of ear muffs by the workers with occupational exposure to noise.
- ✚ Carrying out blasting on limited scale, only from 12:00 PM to 2:00 PM
- ✚ Control of fly rock and vibration by maintaining peak particle velocity within the standard as prescribed by the DGMS and MOEF & CC.
- ✚ Shallow depth jackhammer drilling and blasting is proposed to be carried out with minimum use of explosive.
- ✚ Supervising blasting by competent and statutory Foreman/ Mines Manager.

4.5.3 SOCIO ECONOMIC IMPACT

From the primary Socio-economic survey & through secondary data available from established literature and census data 2011, it is found that there would be positive impact on Socio-economic condition of the nearby area. There is no habitation within 300 m of the proposed mining lease area. Therefore, no major impact is anticipated on the nearby habitation during the entire life of the mine. The entire lease area is in the proponent's possession. Hence, there are no habitations or hutments in the core zone area and no rehabilitation or resettlement problems will arise here.

The mining operations in the proposed mine will employ about 30 persons directly and indirect basis through allied opportunities in logistics, trading, repairing works etc. good employment potential will arise, which will provide raising income levels and standards of living in the area through various service related activities connected with the project operations as shown under.

- Project related logistical operations for transport of Rough Stone, etc,

- Various trading services for consumer goods, spare parts, sundry items, etc.
- Contractual services connected with the project.
- Green belt and horticultural works in the project.
- Casual labor needs for various activities.

The State and the Central governments will also get benefited through financial revenues by way of royalty, tax etc from this project.

Mine management will contribute for the upliftment of these villages by conducting regular medical camps, assistance in developing necessary infrastructure facilities like maintenance of schools, village roads, drinking water supply, etc.

From above details, it is clear that the project operations will have highly beneficial positive impact in the area. However, towards the socio economic development of the surrounding area, the proponent has earmarked an amount of Rs.3.0 Lakhs under Corporate Environmental Responsibility.

4.5.4 OCCUPATIONAL HEALTH

Impacts on humans due to various mining activities

The occupational risk due to proposed mining may be due to drilling, blasting, excavation and transportation. A total of 30 workers will be engaged in the mining activity. Mining activity may cause various health problems to the mines workers as follows:

- Dust generated during excavation, drilling, stone cutting, sizing and transportation may cause health problems like Silicosis, Asthma, Tuberculosis and other respiratory lungs disorders.
- Heavy weight lifting by the workers may cause injuries to arms, legs and back.
- Noise generated during the mining activity may cause Noise Induced Hearing Loss (NIHL).

Table 4.10 Impacts on humans due to various mining activities

S.No.	Type of activity	Impact
1	Dust generation due to drilling and blasting	Continuous exposure to dust causes Pneumonia, Tuberculosis, Rheumatic arthritis and Segmental Vibration
2	Noise generation due to drilling and blasting	Short term impact will be lack of sleep, high blood pressure and heart ailments. Long term exposure may lead to partial or permanent deafness
3	Unexpected accidents	Risks include fly rocks, cracks or fissures due to improper mining methods

Mitigation measures

- The mines worker will be provided with dust mask to minimize the inhalation of the dust.
- Water sprinkling twice in a day is in practice on the haul roads, near excavation and roads to reduce the fugitive dust emission.
- Wet drilling and drilling with dust extractor will be practiced.
- Ear muffs will be supplied to the workers working in the noise prone area
- The mining site will be supplied with first aid facilities and the entire mines worker will have access to that.
- The mines workers will be well trained about the safety practices in the mining activities.
- As per Mines Rules, 1955, medical examination of employees at the initial stage and periodically, shall be done by a team of qualified medical officers provided by the project proponent.
- Regular medical checkup camps shall also be arranged for detection of occupational diseases and minor disease in the nearby rural population.
- Free checkup and medicine for treatment for their acute and chronic illness shall be provided by the lessee. Conducting periodical Medical Examination as per DGMS.
- Making all first aid kits available in mines office
- Keeping fire extinguisher in place
- Educating the employees about how to handle unexpected happenings
- Posting information containing emergency contact numbers in mines office
- By adopting all these measures, the safety of the employees working in the quarry will be ensured.

4.5.5 WASTE MANAGEMENT

Solid Waste

Since the entire mined out material will be utilized there will not be any solid waste generation from this project. However, the Solid waste (MSW) generated from administrative activities will be properly collected and disposed to Govt. Authorized yards / Re-cylers / Disposers.

Liquid Waste

There is no process effluent generation from this mine. Hence no liquid waste is generated. Domestic wastewater i.e 1.0 KLD will be discharged in soak pit via septic tank.

Hazardous Waste Management

In this project the following management practices will be followed:

In the quarrying operation, the source of hazardous waste is from machinery maintenance activities that are waste oil/ Waste lubricants / Used filters / Used Hydraulic hoses. The said hazardous waste are very negligible quantity, it will be properly collected in the source level, stored in impervious storage yards and disposed of as per the Hazardous waste (Trans-boundary Movement) Management Rules, 2016.

Plastic Waste

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

CHAPTER 5

ANALYSIS OF ALTERNATIVES

5.1 DESCRIPTION OF EACH ALTERNATIVE

Analysis of alternative site helps in selection of best possible site for the project. On one hand it helps to closeness to the existing infrastructure and on other hand it also helps to minimize the impact of project on environment.

5.2 SUMMARY OF ADVERSE IMPACTS OF EACH ALTERNATIVE

The project proponent has prepared mining plan under rule 19(1) 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Deputy Director, Department of Geology and Mining, Tiruvannamalai vide Rc.No.397/Kanimam/2024, Dated: 16.06.2025.

- There is no forest land or other Eco-sensitive places.
- Proposed mine site is selected on the basis of occurrence of mineral for suitable end use.

Hence seeking alternative site is not required.

5.3 MITIGATION MEASURES PROPOSED FOR EACH ALTERNATIVE

The mining technology is mechanized Opencast in single-shift operation without any change in technology. The operation will be carried out as per DGMS norms. No alternate technology will be used. Details of the technology used are given in Chapter 2.

5.4 SELECTION OF ALTERNATIVE

In case of Mining projects alternate site selection is not necessary as the mining is site specific and the area in which mining will be carried out has been adequately proved for presence of mineral. The deposit is also having good infrastructural facilities for access and development.

The mining technology is mechanized Opencast in single-shift operation without any change in technology. The operation will be carried out as per DGMS norms. No alternate technology will be used. Details of the technology used are given in Chapter II.

CHAPTER 6

ENVIRONMENTAL MONITORING PROGRAMME

6.1 TECHNICAL ASPECTS OF THE MONITORING THE EFFECTIVENESS OF MITIGATION MEASURES (INCL MEASUREMENTS, METHODOLOGIES, FREQUENCY LOCATION DATA ANALYSIS, REPORTING SCHEDULES EMERGENCY PROCEDURES DETAILED BUDGET AND PROCUREMENT SCHEDULES)

6.1.1 ENVIRONMENTAL MONITORING

Monitoring is done to measure the efficiency of control measures implemented. Regular monitoring of various environmental parameters like air, water, noise and soil environments is needed to assess the status of environment during the project operation.

A schedule is framed with timeline to monitor various parameters during the operation of the project. The schedule is framed based on MoEF & CC and Tamil Nadu State Pollution Control Board. In case the SEIAA/TNPCB/MoEF & CC or other statutory bodies demand monitoring of any additional parameter/factor, the same will also be done.

The proposed quarry is a small quarry. Hence the Mines-in-charge will be responsible for environmental related activities. After obtaining EC, the conditions mentioned in EC will be strictly followed. The Mines-in-charge will be responsible for implementing the conditions. EC compliance report will also be submitted periodically.

6.1.2 OBJECTIVES OF ENVIRONMENTAL MONITORING

The objectives of Environmental Monitoring are as follows.

- ✚ Monitoring and analysis of air and water samples
- ✚ Implementing the control and protective measures.
- ✚ Coordinating the environment related activities within the project as well as with outside agencies. Collecting statistics of health of workers and population of the surrounding villages. Green belt development etc.
- ✚ Monitoring the progress of implementation of Environmental Management Programme.
- ✚ Monitoring the noise generation in and around the project areas.
- ✚ Monitoring of wastewater treatment and disposal of solid waste.
- ✚ The laboratory will be suitably equipped for sampling/testing for various environmental pollutants.

6.1.3 ENVIRONMENTAL MONITORING SCHEDULE

To evaluate the effectiveness of Environmental Management Programme, regular monitoring of the important environmental parameters will be taken up. The frequency of monitoring different parameters is given in table 6.1.

Table 6.1 Environmental Monitoring Schedule			
S.No.	Description of Parameters	Parameters	Frequency
1	Air	Air Quality for SPM, PM-10, PM-2.5, SO ₂ and NO _x	24-hour average samples Once in a 3 month.
2	Water	General, Physical, and chemical parameters	Once per season
3	Noise	Leq, L _{max} , L _{min} , Leq Day & Leq Night dB(A)	8-hour average samples Once in a 3 month.
4	Soil	Physical and Chemical characteristics.	Once per season

6.1.4 LOCATION

Monitoring of the above-mentioned environmental parameters would be done at appropriate and sensitive areas. The exact location of monitoring is given as Figure – 3.8, 3.10, 3.11 3.14 & 3.16.

6.1.5 MEASUREMENT METHODOLOGY

(a) Ambient Air Quality

Ambient air quality will be monitored for SO₂, NO_x, PM₁₀ and PM_{2.5}. The instruments like high volume air samplers and Respirable dust samplers would be used for this purpose. These parameters will be monitored as mentioned in the monitoring schedule previously.

(b) Water Quality

Water quality analysis will be done quarterly and the monitored parameters include pH, Temperature, TDS, etc. as specified by SPCB from time to time.

(c) Noise Monitoring

Noise level will be monitored in working environment mainly noise producing sources over the boundary and around the mining area.

(d) Green Belt and Afforested Areas

Continuous vigilance and monitoring of green belt will be done for performance and survival rate of the saplings. Watch and ward personnel will properly guard the plantation. Provision will be made for fertilizers application and watering on schedule.

(e) Socio-Economics

Socio-economic of the core and buffer zone details elaborated in Chapter-3.

6.1.6 TECHNICAL ASPECTS OF MONITORING THE EFFECTIVENESS OF MITIGATION MEASURES

The above monitoring schedule will be followed periodically. After collection of the data, the mines-in-charge will analyze the data obtained. The data thus obtained will be incorporated in the EC Compliance report submitted to the regional office, MoEF & CC. The measurement methodologies will be as per CPCB/BIS/MoEF & CC/DGMS norms.

6.1.7 EMERGENCY PROCEDURES

In case of any emergency due to environmental conditions, the mines in-charge will immediately report to the top-level management and the emergency response protocol will be implemented as per MoEF & CC/ SPCB / DGMS norms.

6.1.8 REPORTS TO BE GENERATED

The Project Proponent will maintain records of each test and its interpretation so as to formulate an adequate Environmental Management Plan. The set of records planned to be maintained by Project Proponent are given in below table 6.2.

Table 6.2 Important Records to be maintained by PP	
S.No.	Particulars
1	Monitoring results for Air, Water & Soil.
2	Records of slope failure, land erosion & drainage.
3	Plantation Records
4	Environmental and related standards/ norms
5	Records pertaining to statutory consents, approvals.
6	Periodic Medical examination (PME) records.
7	Complain register (Environmental pollution)
8	Records on water and electricity consumption
9	Periodic progress records.
10	Environmental Expenses Records

6.1.9 DETAILED BUDGET AND PROCUREMENT SCHEDULES

The budget planned for environmental monitoring is given below.

Table 6.3 - Environmental Management Plan Budget

S.No	Budget planned for	Capital Cost Amount (INR)	Recurring Cost/Annum Amount (INR)
1	Air Environment	12.75	1.52
2	Noise Environment	0.30	0.02
3	Waste Management	0.25	0.12
4	Mine Closure	0.83	0.17
5	Implementation of EC, Mining Plan & DGMS Condition	0.90	0.76
Total		15.03	2.59
Total EMP Cost for 10 years is 47.62lakhs (This amount will be subjected to change after public hearing) i.e., 15.03 Lakhs of Capital Cost + 32.59Lakhs of Recurring cost (For 10 Years)			

CHAPTER 7

ADDITIONAL STUDIES

The following Additional Studies were done as per items identified by project proponent and the regulatory authority.

- Public Consultation
- Risk Assessment
- Disaster Management Plan
- Cumulative Impact Study
- Mine Closure Plan
- Slope Stability Plan

7.1 PUBLIC CONSULTATION

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

7.2 RISK ASSESSMENT

The DGMS risk assessment process is intended to identify existing and probable hazards in the work environment and all operations and assess the risk levels of those hazards in order to prioritize those that need immediate attention. Further, mechanisms responsible for these hazards are identified and their control measures, set to timetable are recorded along with pinpointed responsibilities.

The whole quarry operation will be carried out under the direction of a Qualified Competent person holding certificate of competency to manage a metalliferous mine granted by the DGMS. Factors of risks involved due to human induced activities in connection with this proposed mining & allied activity with detailed analysis of causes and control measures for the mine is given in below Table 7.1.

Table 7.1 Risk Assessment and Control Measures

S.NO	Risk Factor	Causes of risk	Control Measures
1	Accidents due to explosives and heavy mining machineries	Improper handling and unsafe working practice	- All safety precautions and provisions of Mine Act, 1952, Metalliferous Mines Regulation, 1961 and Mines Rules, 1955 will be strictly followed during all mining operations. - Entry of unauthorized persons will be prohibited. - Fire-fighting and first-aid provisions in the mine office complex and mining area. - Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the employees and regular check for their use. - Quarry operation will be done as per approved mining plan and other applicable statutory guidelines issued by DGMS, Dept. of Mining & Geology-TamilNadu. - Handling of explosives, charging and firing shall be carried out under competent statutory persons. - A comprehensive standard operating procedure (SOP) will be prepared as per DGMS guidelines and the same will be circulated to all the employees and it will be strictly followed in the all face of mining operation.
2	Drilling	Improper and unsafe practices. Due to high pressure of compressed air, hoses may burst. Drill Rod may break.	- Safe operating procedure established for drilling (SOP) will be strictly followed. - Only trained operators will be deployed. - No drilling shall be commenced in an area where shots have been fired until the blaster/blasting foreman has made a thorough Examination of all places. - Drilling shall not be carried on simultaneously on the benches at places directly one above the other. - Periodical preventive maintenance and replacement of worn-out accessories in the compressor and drill equipment as per operator manual. - Drills unit shall be provided with wet drilling to ensure efficient working.

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

3	Blasting	Fly rock, ground vibration, Noise and dust. Improper charging, stemming & Blasting/ fining of blast holes. Vibration due to movement of vehicles.	• Restrict maximum charge per delay as per approved mining plan. • Proper blasting design with optimum spacing & burden, Charge per delay and stemming. • SOP for Charging, Stemming & Blasting/Firing of Blast Holes will be followed by blasting crew during initial stage of operation. • Shots are fired during day time only. • Charging and firing shall be carried out in the same day. • Siren will be done for each blasting. Blasting evacuation plan prepared and executed. • The danger zone will be distinctly demarcated (by means of red flags).
5	Transportation	Potential hazards and unsafe workings contributing to accident and injuries. Overloading of material. While reversal & overtaking of vehicle. Operator of truck leaving his cabin when it is loaded.	• Before commencing work, drivers personally check the dumper/truck/tipper for oil(s), fuel and water levels, tyre inflation, general cleanliness and inspect the brakes, steering system, warning devices including automatically operated audio-visual reversing alarm, rear view mirrors, side indicator lights etc., are in good condition. Unauthorized person will not be allowed to operate or ride on the vehicle. • Loading according to the vehicle capacity. • Periodical maintenance of vehicles as per operator manual.
6	Natural calamities	Unexpected happenings	• An emergency management plan will be prepared considering all possible national calamity and the same will be executed if any such situation occurs. • Escape Routes will be provided to prevent inundation of storm water. • Fire Extinguishers & Sand Buckets in the designated areas.
7	Failure of Mine Benches and Pit Slope	Slope geometry, Geological structure	Ultimate or over all pit slope shall be below 60° and each bench height shall be 5m height.

7.3 DISASTER MANAGEMENT PLAN

This being a small Rough Stone and Gravel project that too working in a safe area, no major disaster is expected after following all the statutory rules and regulations.

7.3.1 MODEL DISASTER MANAGEMENT PLAN

The lessee has formulated the disaster Management plan keeping all eventualities in mind. The mining operation will be carried out under the direction of qualified mines manager and supervisors, based on the guidelines and directions of Directorate General of Mines Safety (DGMS) and Indian Bureau of Mines. Code of practice of different operations will be formulated to ensure safety of men and machines and to avoid various hazards mentioned above. Mine workers will be provided training on safe work practices. The following natural/ industrial hazards may occur during normal operation; slope failure at the mine faces; accident due to heavy equipment/ machinery.

In order to prevent or take care of hazard / disasters if any the following control measures have been adopted.

- All safety precautions and provisions of Metalliferous Mines Regulations (MMR), 1961 is strictly followed during all mining operations.
- Observance of all safety precautions for blasting and storage of explosives as per MMR 1961.
- Entry of unauthorized persons into mine & allied areas is completely prohibited.
- Fire-fighting and first-aid provisions in the mines office complex and mining area are provided.
- Provisions of all the safety appliances such as safety boot, helmets, goggles, dust masks, ear plugs and ear muffs etc. are made available to the employees and the use of same is strictly adhered to through regular monitoring.
- Training and refresher courses for all the employees working in hazardous premises. Working of mine, as per approved plans and regularly updating the mine plans.
- Handling of explosives, charging and blasting are carried out only by qualified persons following SOP.
- Checking and regular maintenance of garland drains and earthen bunds to avoid any inflow of surface water in the mine pit.
- Provision of high-capacity standby pumps with generator sets with enough quantity of diesel for emergency pumping especially during monsoon.
- A blasting SIREN is used at the time of blasting for audio signal.

- Before blasting and after blasting, red and green flags are displayed as visual signals. Warning notice boards indicating the time of blasting and NOT TO TRESPASS are displayed at prominent places.
- Regular maintenance and testing of all mining equipment were carried out as per manufacturer's guidelines.

7.3.2 OBJECTIVE OF DISASTER MANAGEMENT PLAN

The objective of disaster management plan is to identify mitigation measures to avoid hazards turning in to risk, the materials required for implementing the same, the personnel requirement and their roles and responsibilities, and the communication and operating procedures to be adopted in case of an emergency.

Communication System

The telephone numbers and addresses of mine sites in the vicinity, nearest fire station, police station, local hospital, electricity department, ambulance, and local public representatives and revenue officials shall be prepared and kept in custody of PP.

Facilities

The office shed will have provision of first aid centre to provide first aid in the event of an emergency. The office shed will also function as emergency control room. It will be provided with telephone and mobile phones, and a vehicle for emergency transport.

Personnel

The PP is responsible for overall supervision of the disaster management plan. He will be assisted by supervisors, in implementing the emergency management plan and procedures.

Operating Procedures

The operating procedures during emergencies are related communication to the immediate supervisor, who would relay the same to PP. The PP may assess the requirement of first aid, external assistance, transportation to nearby hospital contingent on the emergency. In the absence of mines manager, the senior most supervisor will be made responsible for disaster management.

7.4 CUMULATIVE IMPACT STUDY

There are two proposed Quarries including this proposed quarry are located within a radius of 500 m. The existing and proposed quarries situated within 500 m radius are presented in

below Table 7.2 and the letter received from Dept. of Geology and Mining, Tiruvannamalai stating the quarries detail within 500m radius is enclosed in Annexure – 3.

Table 7.2 Details of Quarries within 500m radius

S.No.	Name of the Quarry Owner	Village, Taluk & S.F.Nos.	Lease Period	Area in Ha
a. Existing Quarry				
1.	S.Nirmal	Palli, Cheyyar 115/1, 115/2, 115/3, 115/4 & 116 (P)	29.08.2023 to 28.08.2028	2.00.0
2.	Shri Vinayaga Mine	Palli, Cheyyar, 65/1,2A,2B & 3	02.12.2021 to 01.12.2031	1.67.5
b. Abandoned Quarry / Expired Quarry				
2.	R.Venkatachalam	Palli, Cheyyar 66/3A & 66/3B	21.07.2016 to 20.07.2021	2.90.0
4.	M.Marimuthu	Palli, Cheyyar 74/3 & 74/4	16.11.2018 to 15.11.2023	0.98.5
c. Present Proposed Quarry				
1.	Thiru.S.Gokulraj	Palli, Cheyyar 95/1, 95/10, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8 & 95/9	Presently Proposed	3.45.0
2.	Tmt.T.Poornima	Palli, Cheyyar 496/2, 98/1A, 98/1B, 98/1C, 98/1D1, 98/2A and 98/2B	Presently Proposed	3.91.0
Total Area of Cluster		11.03.5 Ha		

As seen above, although the individual lease area of this project is less than 5 hectares, the two existing and two proposed quarries within a 500-meter radius, along with this subject project, add up to more than 5 hectares i.e. 11.03.5 Ha. A map showing the existing and proposed quarry located within 500m radius is given in Figure 1.1.

The cumulative production load of existing and proposed Rough Stone quarries within cluster is shown in below table.

Table 7. 3 Salient Features of Existing & Proposed Quarries

Description		P1	P1		P3
Name of the Quarry		Thiru.S.Gokulraj	Tmt.T.Poornima	S.Nirmal	Shri Vinayaga Mine
Geological Resources in	Rough Stone	13,78,520 m ³	17,58,800 m ³	6,98,880 m ³	3,35,000
	Gravel	68,926 m ³	70,352 m ³	Weathered Rock – 19,968 m ³ Gravel – 39,936 m ³	Weathered Rock – 33,500 m ³ Gravel – 50,250 m ³
Mineable Reserves in	Rough Stone	5,35,845 m ³	7,42,225 m ³	2,18,960 m ³	1,00,150 m ³
	Gravel	55,252 m ³	57,976 m ³	Weathered Rock – 14,796 m ³ Gravel – 30,858 m ³	Weathered Rock – 22,968 m ³ Gravel – 38,601 m ³

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

Production quantity	Rough Stone	5,35,845 m3 (10 years)	7,42,225 m3	2,18,960 m3	73,925 m3 (5 years)
	Gravel	55,252 m3 (10 years)	57,976 m3	Weathered Rock - 14,796 m3 Gravel - 30,858 m3	38,601 m3 (5 years)
Peak Production	Rough Stone	86,050 m3	1,52,490 m3	44,220 m3	-
	Gravel	37,342 m3	34,176 m3	Gravel - 19,980 m3	-
Total Production in Tons per day		1038	1626	538	187
Lorry Loads per day in Nos		52	81	54	19
Employment in Nos		30	33	25	15
Proposed Depth in meters		42 m BGL	52 m BGL	38 m BGL	20 m BGL
Status of the quarry		Proposed	Proposed	Existing	Existing

AIR ENVIRONMENT

Based on the above production quantities the emissions due to various activities in both 2 proposed mines include various activities like ground preparation, excavation, handling and transport.

The data on the cumulative production resulting from the 4 projects have been given in Tables 7.4.

Table 7.4 Cumulative Production Load

Quarry	Quarry Name	Total Mineral Production	Number of Lorry load per day
P1 (Proposed)	Thiru.S.Gokulraj	1038	52 (20 Ts Lorry)
P2 (Existing)	S.Nirmal	538	54 (10 Ts Lorry)
P3 (Existing)	Shri Vinayaga Mine	187	19 (10 Ts Lorry)
P4 (Proposed)	Tmt.T.Poornima	1326	81 (20 Ts Lorry)
Grand Total		3389	206

The cumulative study shows that the overall production of Rough Stone & Gravel from the 4 (2 – Existing + 2 Proposed) quarries is 3389 tons per day with a capacity of 206 trips per day.

As two existing quarry are part of current traffic flow, the incremental volume from proposed quarries will bring 133 trips per day. The existing road can absorb this additional traffic due to this project. Various measures like proper maintenance of road, covering of the loaded truck with tarpaulin, water sprinkling will be carried out to ensure no adverse impact on the logistical front. Traffic density study is detailed in Chapter 2.

7.5 CLUSTER MINE CLOSURE PLAN

In the mine closure stage all necessary measures will be taken as per Act & Rules, there is no proposal for back filling, reclamation and rehabilitation in any of the proposals. The quarried pits after the end of life of mine will be properly fenced all around to prevent inherent entry of public and cattle and all the statutory requirements will be fulfilled. As already explained, in the post mining stage the rainwater harvested in the mined- out void shall be utilized for irrigation and domestic needs locally. The conceptual plan is provided in Figure 2.12.

7.6 SLOPE STABILITY PLAN

The factors that affect slope stability of the mine are detailed below.

- Geological structure comprising dip, intervening shear zone formation, clay intrusion, joints / discontinuities, faults etc.,
- Lithology of formation
- slope geometry
- Ground water availability which may cause increased thrust on the faces

Site Specific Analysis

- The area applied for quarry lease is exhibits almost plain topography covered by Gravel formation. The massive Charnockite formation is noticed below 2m (avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 102m (maximum) from MSL.
- The rock type noticed in the lease area is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian.
- Since the formation is of homogeneous rock type probability of slope failure is low and can be avoided if proper measures are adopted.
- There will be a 7.5m safety zone which will form a ridge which can also take care of the top section and as such no risk is envisaged on this front.

Mitigation Measures

- Regular inspection of the mine faces to be carried out by pp for ensuring absence of any structural features like faults, joints, dyke, intrusive material in the rock strata which may affect the slope stability and cleared.
- No loose material or boulders is to be stacked on the mine top or pit benches.
- Height of the benches should be 5m.
- Haul road formation will be at 1 in 15 slope with adequate road width.
- There will be no ground water table intersection.
- No seepage is expected due to formation. Adequate drainage management system comprising peripheral garland drain, settling pond to regulate monsoon water will be created to prevent saturation of compact layers, apparent drainage over the bench slope to avert damages to quarry face and manage the water flow.

CHAPTER 8

PROJECT BENEFITS

The project area is located on barren land, thereby causing no impact on the loss of agriculture or forest land. The project will create employment opportunities in the area. There will be no adverse effect of mining on the socioeconomic status of the people; rather, mining activities will improve their standard of living. The mining activity creates employment opportunities for the local people, and this definitely raises their economic status. Apart from the overall beneficial impact of the project on the local people of the region, it is felt necessary to augment facilities in the fields of education, health, and social awareness, including concern for the environment and ecosystem.

The mining activity at proposed Rough Stone and Gravel Quarry of Thiru.S.Gokulraj will create direct employment opportunity for 30 local people.

PP has proposed CER amount of Rs.3.0 Lakhs for various activities. The copy of the letter is enclosed below and CER activities will be implemented in Government Higher Secondary School, Palli.

கிடுநர்

திரு.ச.அன்பழகன்,MSc.MA.MA.MEd.MPhil

தலைமை ஆசிரியர்

அரசு மேல்நிலைப் பள்ளி, பல்லி.

பெற்றநர்

எஸ்.கோகுல் ராஜ்

எண்.14 காமராஜர் நெரு

பம்மல்,

சென்னை-600075.

ஐயா,

பொருள் : கல்வி மேற்பாட்டிற்கான உபகரணங்கள் வழங்குமாறு கோருதல்

திருவண்ணாமலை மாவட்டம், செய்யாறு வட்டம், பல்லி, அரசு மேல்நிலைப் பள்ளியில் 2025-2026 ஆம் கல்வி ஆண்டில் சுமார் 600 மாணவர்கள் பயின்று வருகின்றனர் இப்பள்ளியை சுற்றியுள்ள 20 கிராமங்களில் இருந்து வந்து இங்கு மாணவர்கள் பயின்று வருகின்றனர் மேலும் 10 ஆண்டுகளாக தொடர்ந்து 100% சதவீதம் தேர்ச்சியும் உயர்மதிப்பெண்களும் மாணவர்கள் பெற்று வருகின்றனர். மாணவர்களின் கற்றல் திறன் மேலும் அதிகரிக்க கீழ்க்காணும் கல்வி மேம்பாட்டு உபகரணங்கள் தந்து உதவிடுமாறு கேட்டுக்கொள்கிறேன்

1. Computer set	- 2 Nos
2. Xerox Machine	- 1 Nos
3. Plastic Chairs	- 50 Nos
4. Green Board	- 5 Nos

திரு.ச.அன்பழகன்
25/6/24
For தலைமை ஆசிரியர்,
அரசு மேல்நிலைப் பள்ளி,
பல்லி-604407, செய்யாறு Tk, தி.மலை Dt.

Figure 8.1 – CER Letter

The list of activities proposed for CER is mentioned below

Table 8.1 CER Activities

S.NO.	PROPOSED CER ACTIVITIES	COST IN LAKHS.
1	Carrying out of various infrastructural development activities	3.0
Total		3.0
The above-mentioned CER activities will be spent for Government Higher Secondary School, Palli.		

CHAPTER 9

ENVIRONMENTAL COST BENEFIT ANALYSIS

As per EIA Notification dated 14th Sept., 2006, as amended from time to time, 'Environmental Cost Benefit Analysis' is applicable only if the same is recommended at the Scoping stage.

As per the ToR points issued by SEIAA-TN vide ToR Identification No. TO25B0108TN5642622N, dated 25.09.2025 for the proposed project, the 'Environmental Cost Benefit Analysis' is not prescribed.

CHAPTER 10

ENVIRONMENTAL MANAGEMENT PLAN

10.1 DESCRIPTION OF THE ADMINISTRATIVE ASPECTS OF ENSURING OF ENSURING THAT MITIGATIVE MEASURES ARE IMPLEMENTED AND THEIR EFFECTIVENESS MONITORED AFTER APPROVAL OF THE EIA.

10.1.1 OBJECTIVES

The Environmental Management Plan is developed to ensure that a project is implemented in an environmentally sustainable manner, where all contractors and subcontractors, including consultants, understand the potential environmental risks arising from the project and take appropriate actions to minimize those risks. EMP also ensures that the project implementation is carried out in accordance with the planned design and by taking appropriate mitigation measures to reduce adverse environmental impacts during the project's life cycle. The impacts due to this mining project are detailed in Chapter 4 and Mitigation measures at the source level and an overall Management Plan at the site level are elaborated on in this chapter.

10.1.2 BASIC OF EMP

The Environmental Management Plan for the proposed project activities is formulated taking into considerations the following key environmental issues.

- ✚ Project activities
- ✚ Studies on Environmental Impact Assessment
- ✚ Air & water pollution control
- ✚ Working zone environment improvement
- ✚ Occupational hazards & safety
- ✚ Environmental monitoring facilities
- ✚ Environmental management costs

EMP covers all phases of the project considering the impacts with mitigation measures and monitoring programme. The plan outlines the measures that will be undertaken to ensure

compliance with environmental legislations and to minimize adverse impact. Details of EMP measures for implementation in the mine are given below.

Table 10.1 Environmental Management Plan	
Environmental Parameter	Mitigation Measures
Air	Wet drilling to suppress the dust emission from drill machine
	Regular water sprinkling on haulage road through fixed water sprinkler.
	2.0 KLD of water will be used for dust suppression.
	Avoiding blasting during high wind period, night times and temperature inversion periods.
	Regular grading of haul road to clear accumulation of loose material.
	It will be ensured that vehicles are properly maintained to comply with exhaust emission requirements
	Maintenance as per operator manual of the equipment and machinery in the mines to minimizing air pollution
	Ambient Air Quality Monitoring carried out in the project area and in surrounding villages to assess the impact due to the mining activities and the efficacy of the adopted air pollution control measures.
	Afforestation for control of dust.
Surface water	There are seven water bodies within 1 km radius. The other major water bodies in buffer are given below. • Cheyyar river– 5.6Km (SE).
	Surface runoff management structures like garland drain of required length which is connected to a settling pond will be constructed around the quarry to collect the rain water.
	Monthly or after rainfall, inspection will do to ensure performance of water management structures and systems. There is no discharge of any effluent into nearby water bodies.

Ground Water	The quarrying operation is proposed upto a depth of 42m below ground level, Water table is found at a depth of 72 m, hence the project will not intersect the Ground water table during entire quarry period.
Water Consumption and Wastewater generation	Water required for this project will be sourced from vendors.
	Domestic wastewater generation of 1.0 KLD will be treated in septic tank with soak pit.
	Conduct ground water and surface water monitoring for parameters specified by CPCB
Noise	The workers employed are provided with protection equipment, earmuffs and ear- plugs for the protection from high noise level generated at the mine site wherever required.
	Noise levels are controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes.
	Development of thick greenbelt all along the safety Zone (7.5 m) of the project area to attenuate the noise and the same will be maintained.
	Preventive maintenance of mining machinery and replacement of worn-out accessories to control noise generation.
	Annual ambient noise level monitoring is carried out in the project area and in surrounding villages to assess the impact due to the mining activities and the efficacy of the adopted noise control measures. Additional noise control measures will be adopted if required as per the observations during monitoring.
Ground Vibration and Fly Rock Control	Controlled blasting using delay detonators will be carried out to maintain the PPV value well within the prescribed standards of DGMS.
	Drilling and blasting will be carried under the supervision of qualified persons.
	Will be Ensured that blast holes are adequately stemmed for the depth of the hole and stemmed with suitable angular material.
	To be Undertake noise or vibration monitoring.
Land Environment	At conceptual stage, the mining pits will be converted into Rain Water Harvesting pit. Remaining area will be converted into greenbelt area.

	No external dumping i.e., outside the project area. The entire material will be sold.
	Garland drains with catch pits / settlement traps to be provided all around the project area to prevent run off affecting the surrounding lands.
	The periphery of Project area will be planted with thick plantation to arrest the fugitive dust, which will also act as acoustic barrier.
	Frequent Soil and ground water testing as per Environmental Monitoring Plan.
Top Soil / Overburden	The overburden in the form of Gravel, after the excavation of Gravel and Rough Stone will be directly loaded into tipper to the needy crushers/other buyers for road project and construction works for filling and leveling of low lying areas.
Biological Environment	During mining, thick plantation will be carried out on the mentioned safety zone areas.
	The main attributes that retard the survival of sapling is fugitive dust, this fugitive dust can be controlled by water sprinkling on the haul roads and installing a sprinkler unit near the newly planted area.
	Regular review on green belt development programme.
	Year wise greenbelt development plan mentioned in Chapter III will be monitored.

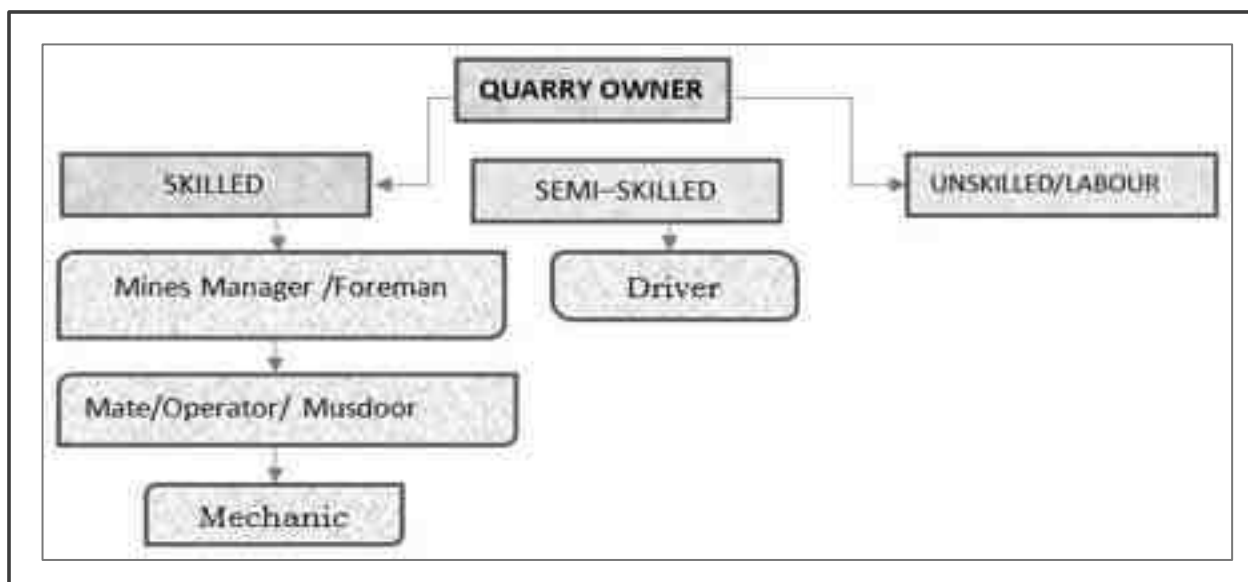
10.1.3 ADMINISTRATION AND TECHNICAL SETUP

Since this is a very small quarry, the mines in-charge will take care of all environment related aspects. He will ensure effective implementation of environment management plan and to ensure compliance of environmental statutory guidelines through Mine Management Level. The action plan for monitoring consists of monitoring of following environmental components.

- ✚ Monitoring of the water/ waste water quality, air quality and solid waste generated.
- ✚ Analysis of the water and air samples collected through external laboratory.
- ✚ Implementation and monitoring of the pollution control and protective measures/ devices which shall include financial estimation, ordering, installation of air pollution control equipment, waste water treatment plant, etc.
- ✚ Co-ordination of the environment related activities within the project as well as with outside agencies.
- ✚ Collection of health statistics of the workers and population of the surrounding villages.

- ✚ Green belt development.
- ✚ Monitoring the progress of implementation of the environmental monitoring programme.
- ✚ Compliance to statutory provisions, norms of State Pollution Control Board, Ministry of Environment and Forests and the conditions of the environmental clearance as well as the consents to establish and consents to operate.

Fig. 10.1 Organization Chart



1	Skilled	Mines Manager(II Class)	1 No
		Foreman/Mine Mate	2 Nos
		Operator	10 Nos
		Mechanic	1 No
2	Semi-Skilled	Diver	4 Nos
3	Un-skilled	Labours	12 Nos
Total			30 Nos

10.1.4 ENVIRONMENTAL POLICY

- The Project Proponent has stipulated a well-defined Environmental policy by which the lessee is committed to conducting business with a strong environmental conscience towards the community, customers, and employees. The Environment policy is given as below.
- The Environment policy of "Rough Stone and Gravel Quarry of Thiru.S.Gokulraj is that the rules and commitment are driven towards conservation of the environment.

- The lessee is committed to efficient use of natural resources based on the reduce, recycle and reuse method.
- The project is committed to the identification of possible impacts and will take the necessary management steps to mitigate the impacts.
- Environment performance will be regularly monitored and reported for continual improvement of our environment and health performance.

10.1.5 OCCUPATIONAL SAFETY & HEALTH MANAGEMENT

Occupational safety and health are very closely related to productivity and a good employer-employee relationship. The main factors affecting occupational health in quarries are fugitive dust and noise. Safety of employees during quarrying operations and maintenance of mining equipment will be taken care of as per the Mines Act 1952 and Rule 29 of the Mines Rules 1955. To avoid any adverse effect on the health of workers due to dust, noise, and vibration, sufficient measures have been provided. The health status of workers in the mine will be regularly monitored under an occupational surveillance programme. Under this programme, all employees are subjected to a detailed medical examination at the time of employment. Before the induction of employees, a pre-medical checkup is done. In addition, a periodical medical checkup will be done annually for all employees.

10.1.6 COST OF ENVIRONMENTAL CONTROL MEASURES

The effective implementation of EMP is not only reduce pollution load and comply the regulatory requirement but also increase productivity and improve marketability of product. The capital and recurring cost of EMP for the cluster of mines has been given in below table.

Table 10.2 - Environmental Management Plan Budget

S.No	Budget planned for	Capital Cost Amount (INR)	Recurring Cost/Annum Amount (INR)
1	Air Environment	12.75	1.52
2	Noise Environment	0.30	0.02
3	Waste Management	0.25	0.12
4	Mine Closure	0.83	0.17
5	Implementation of EC, Mining Plan & DGMS Condition	0.90	0.76
Total		15.03	2.59
Total EMP Cost for 10 years is 47.62lakhs (This amount will be subjected to change after public hearing) i.e., 15.03Lakhs of Capital Cost + 32.59Lakhs of Recurring cost (For 10 Years)			

10.1.7 CONCLUSION

Various aspects of mining activities were considered, and related impacts were evaluated. Considering all the possible ways to mitigate the Environmental concerns, an Environmental Management Plan was prepared, and INR 47.62 lakhs has been allocated for the same. The EMP is dynamic, flexible, and subjected to periodic review. For projects where major environmental impacts are associated, EMP will be under regular review. Thus, the proper steps will be taken to accomplish all the goals mentioned in the EMP, and the project will have a positive impact on the study area.

CHAPTER 11

SUMMARY& CONCLUSION

11.1 OVER ALL JUSTIFICATION FOR IMPLEMENTATION OF THE PROJECT

INTRODUCTION

Thiru.S.Gokulraj has obtained Precise Area Communication Letter from Deputy Director, Department of Geology and Mining, Tiruvannamalai, to quarry out 5,35,845 m³ of Rough Stone and 55,252m³ of Gravel for 10 years from an extent of 3.45.0 Ha located in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 & 95/10 at Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.

As per EIA notification, 2006 and its subsequent amendments the proposed "Rough Stone and Gravel Quarry of Thiru.S.Gokulraj mines cluster falls under Schedule 1(a) of EIA Notification and its subsequent amendments the project comes under Category B1. The ToR for preparation of EIA/EMP report of the project was approved vide ToR Identification No. TO25B0108TN5642622N, dated 25.09.2025. This report has been prepared in line with the approved ToR for production of maximum excavation of 5,35,845m³ of Rough Stone and 55,252 m³ of Gravel

S.No.	Description	Status/Remarks
1.	Sector	1(a), non-coal mining
2.	Category of the project	B1
3.	Proposed mineral	Rough Stone and Gravel
4.	Type of Lease	Fresh Project
5.	Extent of the lease	3.45.0 Ha
6.	Proposed depth of Mining	42m BGL
7.	Method of mining	Opencast Mechanized
8.	Proposed lease period	10 Years
9.	Proposed Environmental Clearance	10 Years
10.	Proposed production quantity for Ten years	5,35,845m ³ of Rough Stone and 55,252m ³ of Gravel for Ten years

The Lessee Thiru.S.Gokulraj is an individual with sound experience in the identification, quarrying and marketing of Rough Stone and Gravel. The proposed land is a Patta Land and attached as **Annexure-6**.

11.1.1 LOCATION

This project site is located in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State with Latitude 12°42'58.80" N to 12°43'06.06" N and Longitude: 79°35'54.09" E to 79°36'06.71" E with Survey of India Topo Sheet No. 57 P/10. To conduct the study, the proposed mine lease area (core zone) and an impact zone of 10 km radius (called buffer zone) around the proposed mine site were considered. The EIA report is based on three months baseline data (i.e. March 2025 to May 2025)

11.1.2 GEOLOGY

The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high-grade metamorphic rock. The strike of the Charnockite formation is N45°E –S45°W with dipping towards SE60°.

11.1.3 PROJECT DESCRIPTION

This is a proposed Rough Stone and Gravel quarry by Opencast Mechanized mining method with drilling and blasting. The quarrying is restricted up to a depth of 42m below ground level. The geological reserves are estimated to be 13,78,520 m³ of Rough Stone and 68,926m³ of Gravel. The mineable reserve calculated by deducting 7.5m, 10m safety distance and bench loss. The mineable reserves are 5,35,845m³ of Rough Stone and 55,252m³ of Gravel which will be recovered at the rate of 100% recovery up to a depth of 42m below ground level for the period of ten years.

- It is proposed to quarry out Rough Stone with 5m bench height, 5m width with 45° slope using conventional Open cast Mechanized method. The quarry operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough Stone.
- There is no overburden anticipated during entire Rough Stone quarrying operation.

S.No.	Type of Detail	Description
1	Sector	1(a) Non coal mining
2	Fresh/Existing project	Fresh Project
3	Category	B1
4	Nature of mineral	Minor mineral

5	Production	Rough Stone: 5,35,845m ³ Gravel: 55,252m ³
6	Life	10 years
7	Waste generation and management	There is no overburden anticipated during the quarrying operation. Hence, no waste generation.
8	Bench height and width	Height and Width – 5m
9	Ultimate pit depth	42m (BGL)
10	End use	Rough Stone will be loaded into tippers to needy buyers for producing aggregates, M-sand.

11.1.4 PROJECT REQUIREMENTS

The requirements of the project is given below.

S.No.	Nature of requirement	Description
1	Water requirement	Total water requirement of 5.0 KLD which will be procured from the outside agencies. Out of 1.5 KLD drinking water requirements, Green belt development is 1.5 KLD and dust suppression is 2.0 KLD.
2	Power requirement	No electricity is needed for mining operations, for office demands, it will be met from the state grid. Total Fuel requirement is 4, 37,885 Liters of HSD. For entire life of the project.
3	Manpower requirement	Permanent employees – 18, temporary employees – 12
4	Financial requirement	The total project cost as per PFR will be INR 156.39lakhs including Operational cost, Fixed Asset cost and EMP cost
5	Funds for Socio economic development	INR 3.0 Lakhs is allocated. In addition, any demand raised by people during public hearing will also be met.

11.1.5 DESCRIPTION OF LEASE AREA

The features in the study area is given below.

Table 11.1 Description of the lease area

S.No.	Areas	Distance from project site
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil within 15km radius
2	Areas which are important or sensitive for ecological reasons	
A	Wetlands, water courses or other water bodies,	Edayan Kulam - Adjoining the Lease (W), Tank - 422m (N), Canal - 432m (W), Palli Tank - 633m (S), Ermalnangal Tank - 1.0km (SE), Chittathur Tank - 1.1km (N), Mariyanallur Tank - 2.2km (NW), Kaganam Tank - 2.8km (NW), Karanai Tank - 2.8km (SE), Dusi Mamandur Tank - 3.4km (NE), Karandai Tank - 4.2km (NW) Kilnelli Tank - 4.5km (N), Thiruvidarirayapuram Tank - 4.7km (NE), Maharajanapakkam Tank - 4.9km (SE), Cheyyar River - 5.9km (S), Mangai Eri - 7.5km (SE)
B	Coastal zone, biospheres,	Nil within 10km radius
C	Mountains, forests	Nil within 10Km radius
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	Nil within 10 km radius
4	Inland, coastal, marine or underground waters	Nil within 10 km radius
5	State, National boundaries	Nil within 10 km radius
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	Nil within 10 km radius
7	Defense installations	Nil within 10 km radius
8	Densely populated or built-up area	Chithathur - 3.3 km- NE
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Cheyyar - 8.0 km - SW

10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Nil
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	Nil
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earth quakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) similar effects	No. The area is not prone to earthquakes, floods, etc.

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

Air, water, noise and soil samples are collected and analyzed through NABL accredited lab.

11.2 EXPLANATION OF HOW ADVERSE EFFECTS HAVE BEEN MITIGATED

11.2.1 AIR ENVIRONMENT

The air monitoring have been carried out in 7 locations and the results are given below.

Table 11.2 : Details Of Ambient Air Quality Monitoring Locations				
S.NO.	Station Code	Locations	Distance & Direction	Coordinates
1	AAQ 1	Within Mine Lease area	Core Zone	12°43'0.73"N & 79°35'49.83"E
2	AAQ 2	Palli	512m - (S)	12°42'37.79"N & 79°36'5.59"E
3	AAQ 3	Cholavaram	4.34Km - SE	12°42'40.15"N & 79°35'27.86"E
4	AAQ 4	Mangalam	1.1Km - SW	12°41'59.98"N & 79°35'48.74"E

Table 11.2 : Details Of Ambient Air Quality Monitoring Locations				
S.NO.	Station Code	Locations	Distance & Direction	Coordinates
5	AAQ 5	Vadaelapakkam	1.89Km - S	12°43'36.65"N & 79°35'25.76"E
6	AAQ6	Perumbulimedu	5.75Km - NE	12°44'12.09"N & 79°34'59.77"E
7	AAQ7	Vadapoondipattu	1.2Km - NW	12°43'21.56"N & 79°34'47.85"E

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

Station ID	Min	Max	Avg.
Particulate matter PM_{2.5} (µg/m³)			
AAQ-1	24.5	33.9	29.2
AAQ-2	18.6	28.6	23.6
AAQ-3	19.7	28.6	24.2
AAQ-4	19.8	30.2	25.0
AAQ-5	21.7	31.3	26.5
AAQ-6	23.3	35.4	29.4
AAQ-7	23.5	35.6	29.6
CPCB NAAQS 2009 for PM_{2.5} - 60 µg/m³			
Particulate matter PM₁₀ (µg/m³)			
AAQ-1	52.5	72.5	62.5
AAQ-2	40.8	52.6	46.7
AAQ-3	43.2	54.5	48.9
AAQ-4	46.2	60.3	53.3
AAQ-5	48.5	63.3	55.9
AAQ-6	50.3	64.4	57.4
AAQ-7	50.9	65.0	58.0
CPCB NAAQS 2009 for PM₁₀ - 100 µg/m³			
Sulphur Di-oxide as SO₂ (µg/m³)			
AAQ-1	5.5	8.7	7.1
AAQ-2	3.4	5.9	4.7
AAQ-3	3.7	6.0	4.9
AAQ-4	4.0	6.4	5.2
AAQ-5	3.8	8.4	6.1
AAQ-6	4.2	6.6	5.4
AAQ-7	4.4	6.8	12.4

CPCB NAAQS 2009 for SO₂ – 80 µg/m³			
Oxide of Nitrogen as NO₂ (µg/m³)			
AAQ-1	10.0	12.9	11.5
AAQ-2	7.3	9.8	8.6
AAQ-3	6.7	8.7	7.7
AAQ-4	7.3	10.3	8.8
AAQ-5	7.7	12.4	10.1
AAQ-6	7.9	11.8	9.9
AAQ-7	8.5	12.4	10.5
CPCB NAAQS 2009 for NO₂ – 80 µg/m³			

11.2.2 WATER ENVIRONMENT

Table 11.3 Results of Ground Water sampling Analysis in 7 locations								Standards as Per IS 10500: 2012	
	W1	W2	W3	W4	W5	W6	W7	Acceptable Limits	Permissible Limits
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity	<1	<1	<1	<1.0	<1	<1	<1	1	5
pH at 25 °C	7.36	7.88	6.96	7.41	7.32	7.56	7.38	6.5-8.5	No Relaxation
Electrical Conductivity	1024	402.5	716.8	1680	1002	1156	1864	-	-
Total Dissolved Solids	615	242	430	1010	602	695	1120	500	2000
Total hardness as CaCO ₃	430	172	234	350	405	330	436	200	600
Calcium as Ca	81.6	43.6	56.8	65.6	76	72.8	74.4	75	200
Magnesium as Mg	54.2	15.1	22.1	44.6	51.6	35.5	60.0	30.0	100
Calcium as CaCO ₃	204	109	142	164.0	190	182	186	-	-
Magnesium as CaCO ₃	226	63	92	186	215	148	250	-	-
Total alkalinity as CaCO ₃	316	148	159	320	254	256	305	200	600

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

Chloride as Cl-	80.4	32.5	160	332	115	180	354	250	1000
Free Residual chlorine as Cl-	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	BDL(D.L-0.2)	0.2	1
Sulphates as SO ₄ ²⁻	120	14.2	73.5	208	114	212	355	200	400
Iron as Fe	0.07	0.05	0.05	0.09	0.07	BDL(D.L-0.01)	BDL(D.L-0.01)	0.3	No Relaxation
Nitrate as NO ₃	2.45	BDL(D.L-1.0)	3.65	2.15	2.78	2.02	3.63	45	No Relaxation
Fluoride as F	0.34	0.25	0.27	0.38	0.27	0.56	0.64	1	1.5
Manganese as Mn	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	BDL(D.L-0.05)	0.1	0.3

All the values were found to be within permissible limits

11.2.3 NOISE ENVIRONMENT

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

Monitoring Location	N1	N2	N3	N4	N5	N6	N7
DAY EQUIVALENT	46.6	47.8	46.8	50.3	44.9	47.2	51.4
NIGHT EQUIVALENT	39.3	40.6	39.1	40.3	37.6	38.0	40.7
DAY & NIGHT EQUIVALENT	45.2	46.4	45.4	48.8	43.5	45.7	49.9
Limits as per MoEF&CC							
Day equivalent - 55 dB (A); Night equivalent - 45 dB (A); Work zone Exposure in 8 hr - 90 dB (A)							

11.2.4 SOIL ENVIRONMENT

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

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

S. No	Parameter	Unit	S1	S2	S3	S4	S5	S6	S7
1	pH at 25 °C	-	7.54	6.87	6.95	7.01	7.44	6.92	7.86
2	Electrical Conductivity	µmhos/cm	72.32	46.65	60.97	42.58	132	48.95	59.58
3	Dry matter content	%	97.54	97.44	96.57	97.05	95.57	97.32	95.29
4	Water Content	%	2.46	2.56	3.43	2.95	4.43	2.68	4.71
5	Organic Matter	%	0.52	0.74	0.81	1.18	0.98	0.76	1.05
6	Soil texture	-	LOAM	loam	loam	loam	SAND Y LOAM	loam	Silty Clay Loam
7	Grain Size Distribution i.Sand	%	50.21	48.65	34.45	40.06	66.72	49.55	6.75
8	i. Silt	%	28.99	31.66	45.49	36.55	23.76	31.69	62.09
9	ii. Clay	%	20.8	19.69	20.06	23.39	9.52	18.76	31.16
10	Phosphorus as P	mg/kg	1.36	1.65	1.22	2.1	1.98	1.24	1.23
11	Sodium as Na	mg/kg	670	432	389	423	475	432	796
12	Potassium as K	mg/kg	356	632	589	658	295	630	405
13	Total Nitrogen	mg/kg	184	145	182	232	164	149	302
14	Total Sulphur	%	BDL(D .L.0.02)	BDL(D .L.0.02)	BDL(D .L.0.02)	BDL(D .L.0.02)	BDL(D .L.0.02)	BDL(D .L.0.02)	BDL(D .L.0.02)
15	Porosity	%	19.5	20.7	22.2	24.1	20.9	22.6	20.5
16	Water Holding Capacity	Inches/foot	42	40	42	44	41	40	38

11.2.5 BIOLOGICAL ENVIRONMENT

FLORA

For measuring the extent of flora present in the study area, the area is divided into 4 quadrants. The flora population in each quadrant is summed up for the total population in the study area. Field survey is done. Erukku, Aavarai and Nayuruvi are found in lease area. In the buffer zone, common trees like Neem, papaya, mango, teak, etc and shrubs like Avarai, Aloe vera, etc, climbers like Kovai, jasmine etc are found.

FAUNA

In the study area, commonly found animals like dogs, cats, bush rat, cows, birds like crow, Myna, Sparrow, etc were found.

11.2.6 LAND USE

The land use land cover data is found using the LANDSAT – 9 satellite imagery. The number of bands used are 11. The land use pattern is given below:

Table 11.4 Major Land Use Units of the Study Area in Percentage

S.No.	LAND USE / LAND COVER	Area in Sq.Km	Area in Percentage
1	Built-up land	12.4	3.83
2	Crop land	168.9	52.17
3	Fallow land	4.9	1.51
4	Land with scrub	4.14	1.29
5	Land without scrub	2.12	0.67
6	Plantations	71.37	22.05
7	Salt Affected Land	1.36	0.43
8	Water bodies	57.14	17.65
9	Existing Quarry	1.25	0.4
	Total Area	323.58	100.00

11.2.7 SOCIO ECONOMIC ENVIRONMENT

The socio economic environment of the study area is studied by conducting primary sites through site visits and conducting sample surveys. The secondary data obtained from Census 2011 is also used.

The following data area collected from secondary data.

- Demographic pattern.
- Health pattern
- Occupational structure.
- Amenities available.

The expert visited 6 villages in the study area namely Palli, Cholvaram, Mangalam, Vadaelapakkam, Perumbulimedu, Vadapoondipattu Villages. Discussions were held with the people from nearby locality to study the social and economic conditions prevailing in the area. The expert also visited nearby hospitals, primary health centres Cheyyar. The following observations were made.

Primary schools are available in many villages. For hospital facilities, people in the locality have to go to hospital in Cheyyar/Tiruvannamalai which is within 8.0 kms from the lease area. Major schools with higher secondary and senior secondary schools are located in Cheyyar. The major Panchayat Union located in the area is Cheyyar. Facilities like petrol pump stations, ATM facility are available in Cheyyar.

11.2.8 HYDROGEOLOGY OF THE LEASE AREA

There are seven water bodies within 1 km radius. The other major water bodies in buffer are given below.

- Cheyyar river- 5.6Km (SE)

The quarrying activity will not intersect ground water table as quarrying is proposed upto a depth of 42m bgl and water table is found at a depth of 72 m BGL.

11.2.9 GROUND WATER STUDY

For Ground water study, satellite imagery is used. Water levels from monitoring levels are collected through imaging. The pre-monsoon and post-monsoon data are collected and the results are analyzed.

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

As far as the mining lease area is considered, the area is rocky and no major seepage is envisaged. The production quantity is very less and the depth proposed is 42m BGL. Hence, there will not be any major impact due to mining on water levels or ground water levels in the area.

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental impacts on the following environments are identified.

- Land environment
- Water environment
- Vegetation
- Fauna
- Air environment
- Noise environment
- Socio-economic impacts

11.2.10 LAND ENVIRONMENT: IMPACT AND MITIGATION MEASURES

The major impact due to this project on land environment is the change in land use. Since this quarry is a small one and the production is less, mining activity will be carried out upto 42m BGL. Other than quarrying of minerals, no other change will be done since there is no dumping. To prevent soil erosion during monsoon season, garland drain will be constructed with silt traps. At the mine closure stage, 2.60.00 Ha of lease area will be left as rain water harvesting pond. 0.83.0Ha will be developed with green belt. For this, plants like Pongamia pinnata, Syzigium cumini, Albizia lebbeck, Thespesia populnea, Bauhinia racemose, Cassia siamea, Azadirachta indica are selected. A total of 830 trees are planned to be planted. Spacing will be 3m x 3m.

11.2.11 WATER ENVIRONMENT: IMPACT AND MITIGATION MEASURES

There is no water body present inside the lease area. The entire water requirement for the project is 5.0 KLD which will be sourced from outside agencies. Negligible sewage will be generated, for which a septic tank with soak pit will be set up.

During monsoon season, the excess rain water, if any, will be led through garland drain to the collection pond with silt traps.

Since the mining operation will be limited upto depth of 42m (BGL), there will not be any seepage. However, the rain water percolation and collection of water from seepage shall be less than 300lpm and it shall be pumped out periodically by a stand by diesel powered Centrifugal pump motivated with 7.5H.P.Motor. The quality of water is expected to be potable. Hence, water stored in the quarry pit will be pumped into the adjacent agricultural fields. Further the water can also be used for plantation purposes

The major water bodies found in the buffer zone are. There are seven water bodies within 1 km radius. The other major water bodies in buffer are given below.

- Cheyyar river– 5.6Km (SE)

Since these water bodies are located outside the lease area and there is no discharge of effluent or any untreated water from the mines will be made in to these water bodies, there is no major impact. The proponent will restrict the mining operation only within the lease and no other work will be carried out near the water body or any area outside the lease.

It is planned to carryout appropriate rainwater harvesting schemes and artificial recharge schemes in the area.

- Rain water falling in the quarry will be collected efficiently through garland drains.
- Water thus collected will be passed through collection tank with silt traps. This water can be used by the proponent for water sprinkling and for green belt purposes.
- Excess water after desiltation will be provided to downstream users, if any

11.2.12 BIOLOGICAL ENVIRONMENT: IMPACT AND MITIGATION

MEASURES

Impacts

- Fauna is affected due to noise and vibration.
- Dust generation due to mining activities
- Change in land use of the lease area
- Accidental falling of animals

Mitigation measures

- Sirens will be blown before blasting in the mines. To reduce noise levels, plantation will be done. Blasting will be carried out only in the allotted time.
- To reduce dust generation, mist sprayers will be used. During transportation, the material will be covered with tarpaulin. Water sprinkling will be done to reduce generation of pollutants
- After the mine closure stage, the mine pit will be left as rain water collecting tank, which can attract bird population in the nearby areas.
- To prevent entry of animals, the mining area will be properly fenced.

11.2.13 AIR ENVIRONMENT: IMPACT AND MITIGATION MEASURES

The major air pollutants due to mining operations are fugitive emissions like PM₁₀, PM_{2.5}. Other than these pollutants, gaseous emissions of sulfur dioxide (SO₂) and oxides of nitrogen (NO_x) due to excavation/loading equipment and vehicles plying on haul roads are the cause of air pollution in the project area.

The major impacts are Dust emission due to drilling, blasting and transportation. The major mitigation measures include Using Wet drilling methods, Allowing drilling only with PPE, Carrying out blasting only during specified times, Avoiding blasting during unfavourable weather conditions, Using explosives of good quality, Using mist sprayers Regular wetting of transport, Covering the materials carried in tippers with tarpaulin, Proper maintenance of vehicles used for transportation, Conducting regular emission tests for vehicles used for transport Development of greenbelt is proposed in the safety zone 7.5m barriers in the lease area.

The anticipated data is calculated using AERMOD software and the projected values are found to be within limits.

11.2.14 NOISE ENVIRONMENT: IMPACT AND MITIGATION MEASURES

Impacts

- ✚ Noise generation in mining is due to operation like drilling, blasting and transportation of minerals within and outside the lease area.
- ✚ As per DGMS (Directorate General of Mines Safety) and OSHA (Occupational Safety and Health Administration) limits, the acceptable noise level is 85 dB(A) for an exposure period of 8 hours.

✚ Exposure to loud noise can also cause high blood pressure, heart disease, sleep disturbances, and stress. Noise pollution also impacts the health and well-being of wildlife.

✚ Noise exceeding prescribed limits may cause impairment like abnormal loudness perception, tinnitus, which causes a persistent high-pitched ringing in the ears, paracusis or distorted hearing

Mitigation measures

✚ As the distance between the source and receptor increases, the noise level also decreases. Hence, there will be a natural attenuation

✚ The proposed has planned to develop green belt in the periphery of the lease area, which diminishes sound volume by dampening them.

✚ All the equipment/machinery/trucks involved will be properly maintained to control noise generation

✚ Conducting regular health checkups for employees involved

✚ Employees will be made to work on shifts to reduce their exposure time

✚ Providing earplugs to all employees

By adopting these measures, the noise levels will be maintained well within MoEF & CC limits since the baseline value is low.

11.2.15 VIBRATION: IMPACT AND MITIGATION MEASURES

Impacts

✚ Though vibration will be only felt by the people working inside the lease area, it is usually undesired.

✚ Vibration may also cause flyrocks

✚ It may frighten the birds and small insects in the lease area. However, it will be felt only for a short period

Mitigation measures

✚ Carrying out blasting on limited scale, only from 12:00 PM to 2:00 PM

✚ Control of fly rock and vibration by maintaining peak particle velocity with in standard as prescribed by the DGMS and MOEF & CC.

✚ Shallow depths jackhammer drilling and blasting is proposed to be carried out with minimum use of explosive

✚ Supervising blasting by competent and statutory foreman/ mines manager

11.2.16 SOCIO ECONOMIC ENVIRONMENT

Impact and Mitigation measures

No land is acquired from anyone. No rehabilitation is needed. Hence, there is no negative impact. The proponent has planned to spend INR 3,00,000 for CER activities. This amount will be subjected to change after public hearing.

11.2.17 OCCUPATIONAL HEALTH

Impacts

Dust generation due to drilling and blasting, Noise generation due to drilling and blasting, unexpected accidents. Continuous exposure to dust causes Pneumonia, Tuberculosis, Rheumatic arthritis and Segmental Vibration, Short term impact will be lack of sleep, high blood pressure and heart ailments. Long term exposure may lead to partial or permanent deafness, Risks include fly rocks, cracks or fissures due to improper mining methods

Mitigation measures

- Using dust suppression measures like water spraying on roads to reduce rise of air pollutants
- Providing green belt for air pollutant and noise attenuation
- Ensuring slope stability
- Employing only trained professionals for blasting
- Conducting Pre-Medical Examination for employees before inducting
- Conducting periodical Medical Examination once in 6 months.
- Making all first aid kits available in mines office
- Keeping fire extinguisher in place
- Educating the employees about how to handle unexpected happenings
- Posting information containing emergency contact numbers in mines office
- By adopting all these measures, the safety of the employees working in the quarry will be ensured.

11.2.18 ENVIRONMENTAL MONITORING PROGRAMME

Monitoring is done to measure the efficiency of control measures implemented. Regular monitoring of various environmental parameters like air, water, noise and soil environments is needed to assess the status of environment during the project operation. A schedule is

framed with timeline to monitor various parameters during the operation of the project. To evaluate the effectiveness of environmental management programme, regular monitoring of the important environmental parameters will be taken up. Air monitoring will be carried out once in 3 months, water sample will be collected once in a season, noise will be monitored once in 3 months, soil samples will be analyzed once per season. For EMP, a budget of INR 47.62lakhs is allocated.

11.2.19 PROJECT BENEFITS

Financial benefits

- This project will contribute financially through payment of taxes like royalty, GST, etc
- The project will also contribute via CSR.
- The demands of people during public hearing will also be considered by the project proponent

Social benefits

- This project provides employment to 30 people directly. Local people will be hired for unskilled labour.
- Through CSR, nearby schools, hospitals will be benefitted.
- For CSR, INR 3,00,000 is allocated.
- Based on the demand of the people during public hearing, further funds will be allocated, if necessary.

Various aspects of mining activities were considered and related impacts were evaluated. Considering all the possible ways to mitigate the environmental concerns Environmental Management Plan was prepared and 47.62 lakhs for the Ten years has been allocated as EMP cost. The EMP is dynamic, flexible and subjected to periodic review. For project where the major environmental impacts are associated, EMP will be under regular review. Thus, the proper steps will be taken to accomplish all the goals mentioned in the EMP and the project will bring the positive impact in the study area.

CHAPTER 12

DISCLOSURE OF CONSULTANTS

Global Mining Solutions is a NABET Accredited EIA consultant as per NABET certificate NABET/EIA/23-26/SA 0241. The registered office of Global Mining Solutions is at Plot No.6, S.F.No.13/2 A2, VS City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamilnadu-636455.

Declaration by Experts contributing to the proposed Rough Stone and Gravel Quarry over a lease extent of 3.45.0 Ha. & Cluster extent of 11.03.5 Ha located at Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.

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

EIA Coordinator Name: M. Manikandan

M. MANIKANDAN

EIA CO-ORDINATOR
GLOBAL MINING SOLUTIONS
SALEM

Period of involvement: March 2025 to May 2025.

Contact information:

M/s Global Mining Solutions

Plot No.6, SF No. 13/2, A2, VS City, RC Chettypatty,

Kottamettupatty, Omalur,

Salem, Tamil Nadu – 636 455

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

S.NO.	Functional areas	Name of the expert/s	Involvement (period and task**)	Signature and Date
1	AP	Dhanalakshmi Ramanathan	Assessment of existing air quality, Impact of the project on ambient air and suggested mitigation measures for air pollution. <u>Period: March 2025 to May 2025.</u>	
2	WP	Abirami Kaliaperumal	Assessment of existing water quality, impact of the project on surface and ground water quality, suggested mitigation measures for minimizing the impact. <u>Period: March 2025 to May 2025</u>	
3	SHW	Ramados N	Assessment of waste generated from the project, suggested waste management practices. <u>Period: March 2025 to May 2025</u>	
4	SE	Sarasvathy K	Baseline SE studies. Data compilation and assessment. Impact of the project on SE status of the area. Formulation of CER plan. <u>Period: March 2025 to May 2025</u>	
5	EB	Saravanan S	Baseline data collection of related to ecology of the area. <u>Period: March 2025 to May 2025</u>	
6	HG	Ravinthiran N	Hydrogeological feature of the area. Ground water depth and impact of project on ground water of the area. <u>Period: March 2025 to May 2025</u>	
7	AQ	Srilatha Thiruveedhula	Air quality modeling utilizing the area source model.	

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

			Predication of the ground level concentration of the dust. Suggesting suitable mitigation measures. <u>Period: March 2025 to May 2025</u>	
8	NV	Dhanalakshmi Ramanathan	Ambient noise study of the area. Incremental noise generation due to quarry operation and impact of the noise due to the project. <u>Period: March 2025 to May 2025</u>	R. Dhanu
9	LU	Srilatha Thiruveedhula	Preparation of land use map based on satellite imagery. Land use classification and analysis. Impact prediction of the project on the surrounding land environment. <u>Period: March 2025 to May 2025</u>	T. Srilatha
10	RH	S.V. Prashant	Identification of the Risk related to the mining activities. Preparation of emergency disaster management plan. Plan for supply of safety equipment for the worker. <u>Period: March 2024 to May 2024</u>	S. Prashant
11	SC	Shisupal Sing	Soil monitoring, secondary data collection on soil type, soil management practices, utilization of topsoil. <u>Period: March 2025 to May 2025</u>	Shisupal Sing
12	GEO	Valliappan Meyyappan	Geological map, stability of quarry and dump, management plan for mine stability, after use of mining quarry and geological feature of the area. <u>Period: March 2025 to May 2025</u>	V. Meyyappan

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

TM- EC						
S. No	Name of TM (EC)	Sector (s) proposed	Approved (to work under)	Period of involvement	Type of work	Signature
1.	Abirami	1(a)	Manikandan Manickam	Period: March to May 2025.	Associated with EIA Coordinator in overall preparation of Draft EIA/EMP report.	
TM- FAE:						
S. N O	Name of TM (FAE)	Functional Area	Approved FAE (to work under)	Period of involvement	Type of work	Signature
1	Kamaraj S	HG	Ashok Kumar Rajagopal	Period: March to May 2025.	Associated with Experts in studying hydrogeological pattern of study area, Studying ground water and the impact of the project on ground water	
2	B.J.Sampatkumar	SE	Saraswathy K	Period: March to May 2025.	Assisted by the Expert in preparation of socio-economic report.	
		SC	Shishupali Singh	Period: March to May 2025.	Assisted by the Expert in interpretation of soil sampling and their quality	

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

					involved in the project.	
3	Mownica Balaji	NV	Dhanalakshmi Ramanathan	Period: March to May 2025.	Associated with the expert team in suggesting control measures for noise and Ground Vibration.	Mownica B
		AP	Dhanalakshmi Ramanathan		Associated with expert team in assessing existing air quality, impact of the project on ambient air and suggesting mitigation measures for air pollution	
4	Balasubramani G	NV	Dhanalakshmi Ramanathan	Period: March to May 2025.	Associated with the expert in selection of base line monitoring stations, Review of Noise quality results, Review of emission sources – drilling, blasting, excavation and transportation, Identification of impacts on environment, identification of remedial	Q. Ramanathan

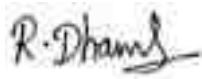
DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

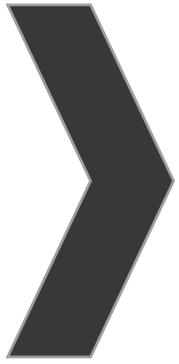
					measures and input to EIA preparation	
		Geo	Valliappa n Meyyappa n		Associated with the expert in preparing Geological map.	
5	Suresh Mani	LU	Srilatha Thiruvee dhula	<i>Period: March to May 2025.</i>	Associated with Experts in preparing Land use map based on satellite imagery, Land use classification and analysis, Impact prediction on surrounding land environment.	
		HG	Ashok Kumar Rajagopa l		Associated with Experts in studying hydro-geology pattern of study area, studying water and the impact of the project on ground water.	
6	Asan Ali S	NV	Srilatha Thiruvee dhula	<i>Period: March to May 2025.</i>	Associated with the expert in monitoring and analysis of blast induced ground vibration in order to develop the site-specific equation for its prediction,	

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

					monitoring of fly rocks & air blast (noise), preparation of SOP's for the safety blasting practice in the mines.	
		Geo	Valliappa n Meyyapp an		Associated with the Qualified Person & Experts in preparing Geological map, assessing stability of quarry slope faces and dump, management plan for mine stability and after use of mining quarry and geological features of the area during mine plan preparation.	
7	Prabu M	Geo	Valliappa n Meyyapp an	<i>Period: March to May 2025.</i>	Associated with Experts and involved in Field Investigations, Mapping /Geo-referencing	
8	Abirami Kaliyaperum al	RH	S V Prashant	<i>Period: March to May 2025.</i>	Associated with experts and involved in the identification risk and hazard, suggesting safeguard measures.	

DRAFT EIA EMP REPORT OF PROPOSED ROUGH STONE AND GRAVEL QUARRY OF THIRU.S. GOKULRAJ OVER AN EXTENT OF 3.45.0 HA LOCATED AT S.F.NOS. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 AND 95/10 OF PALLI VILLAGE, CHEYYAR TALUK, TIRUVANNAMALAI DISTRICT, TAMIL NADU STATE

9	Dhanalakshmi Ramanathan	AQ	Srilatha Thiruveedhula	<i>Period: March to May 2025</i>	Involved with Expert team and involved in calculating air emission values using Meteorological data and Providing inputs for running modelling (ISCT3, AERMOD).	
10	Manikandan Manickam	AP	Ramados N	<i>Period: March to May 2025.</i>	Associated with expert team in assessing existing air quality, impact of the project on ambient air and suggesting mitigation measures for air pollution	
		WP	Abirami Kaliyaperumal		Involved in the identification of source of water and waste generation, suggesting treatment for safe disposal of wastewater	



ANNEXURE-1



File No: 12479
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA),
TAMIL NADU)



Dated 25/09/2025



To,

Thiru.S.Gokulraj
S/o.Saravanaraj, No.14, Kamaraj Nagar, Pammal Post, Kanchipuram District, TAMIL NADU- 600075
gokulrajask@gmail.com

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

Sir/Madam,

Sub: SEIAA, Tamil Nadu – Proposed Rough stone and Gravel Quarry over an extent of 3.45.0 Hectares S.F Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10 in Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu by Thiru.S.Gokulraj- 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/544976/2025, Dated: 16/07/2025

2. Your application submitted for Terms of Reference dated: 21.07.2025.

3. Minutes of the 609th SEAC -I Meeting held on 26.08.2025

4. Minutes of the 888th Authority meeting held on 13.08.2025.

2. The particulars of the proposal are as below :

(i) TOR Identification No.	TO25B0108TN5642622N
(ii) File No.	12479
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vii) Name of Project	Proposed Rough stone and Gravel Quarry of Thiru.S.Gokulraj
(viii) Name of Company/Organization	GOKULRAJ SARAVANARAJ
(ix) Location of Project (District, State)	TIRUVANNAMALAI, TAMIL NADU
(x) Issuing Authority	SEIAA
(xi) Applicability of General Conditions	no
(xii) 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 in the meeting held on 13.08.2025 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 Thiru.S.Gokulraj 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.

8.The TORs with public hearing prescribed shall be valid for a period of three years from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

Copy To

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. The Additional Chief 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, Tiruvannamalai District
7. The Commissioner of Geology and Mines, Guindy, Chennai-32
8. The Assistant Director, Department of Geology & Mining, Tiruvannamalai District
9. EI Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
10. Integrated Regional office of MoEF&CC, Sasthri Bhawan, Nungambakkam, Chennai
11. File Copy

Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

1. Seiaa Specific Conditions :

S. No	Terms of Reference
1.1	The Authority noted that the subject was placed in the 609th meeting of SEAC-I held on 26.08.2025 . After detailed discussions, the Authority accepts the recommendation of SEAC-I and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 5,35,845 m³ of rough stone and 55,252m³ of Gravel up to the depth of 42m (Below Ground Level) as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-I & normal conditions & the SEIAA Standard conditions.

2. Seac Conditions - Site Specific

S. No	Terms of Reference
2.1	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 required statutory personnel, appropriate environmental management, system of maintaining the haul roads and village/panchayat roads, authorized blasting operation, Monitoring system of the environmental & other statutory compliances & its reporting status, etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal: (i) Copy of the agreement forming CMC. (ii) The Organisation chart of the Committee with defining the role of the members (iii) The 'Standard Operating Procedures' (SoP) executing the planned activities. 2. The PP shall ensure the installation of CCTV at the proposed quarry site and ensure its inclusion during the EIA presentation.

3. Seac Standard Conditions

S. No	Terms of Reference
3.1	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. 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

S. No	Terms of Reference
	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., 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

S. No	Terms of Reference
	in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind. 23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted. 24. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given. 25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided. 26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered. 27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided. 28. Impact on local transport infrastructure due to the Project should be indicated. 29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity. 30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific. 31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible. 32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner. 33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner 34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period. 36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be 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.

S. No	Terms of Reference
	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/TNPCCB. 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.

4. Seiaa Standard Conditions :

S. No	Terms of Reference
4.1	<u>Cluster Management Committee</u> 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. <u>Agriculture & Agro-Biodiversity</u> 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-

S. No	Terms of Reference
	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. <u>Forests</u> 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. <u>Water Environment</u> 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: - Hydrothermal/Geothermal effect due to destruction in the Environment. - Bio-geochemical processes and its foot prints including Environmental stress. - Sediment geochemistry in the surface streams. <u>Energy</u> 28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished. <u>Climate Change</u> 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.

S. No	Terms of Reference
	<u>Mine Closure Plan</u> 32. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued. <u>EMP</u> 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. <u>Risk Assessment</u> 35. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining. <u>Disaster Management Plan</u> 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. <u>Others</u> 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 Terms of Reference for (Mining of minerals)

1.

S. No	Terms of Reference
1.1	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994
1.2	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given
1.3	All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee
1.4	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the areashould be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the

S. No	Terms of Reference
	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 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

S. No	Terms of Reference
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 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

S. No	Terms of Reference
	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 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

S. No	Terms of Reference
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
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)

S. No	Terms of Reference
	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

Additional Terms of Reference

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 is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest , eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
20. Likely impact of the project on air, water, land, flora-fauna and nearby population
21. Emergency preparedness plan in case of natural or in plant emergencies
22. Issues raised during public hearing (if applicable) and response given
23. CER plan with proposed expenditure.

24. Occupational Health Measures

25. Post project monitoring plan

26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.

27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.

28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.

29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.

30. Reserve funds should be earmarked for proper closure plan.

31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

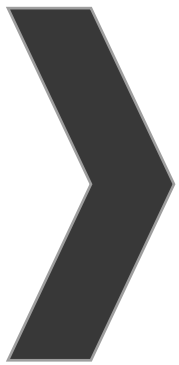
Besides the above, the below mentioned general points should also be followed:-

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -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.



ANNEXURE-2



ANNEXURE I

நக.எண்.397/கனிமம்/2024

இயக்குநர் அலுவலகம்,
புனித்யபல் மற்றும் சுரங்கத்துறை,
திருவண்ணாமலை
நாள். 28.05.2025

குறிப்பாணை

பொருள்: கனிமங்களும் சுரங்கங்களும் - சிறுகனிமம் - சாதாரண கற்கள் மற்றும் கிராவல் - திருவண்ணாமலை மாவட்டம் - செய்யார் வட்டம், பல்லி கிராமம் புல எண்.95/1, 95/2 மற்றும் பலவற்றின் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் - சாதாரண கற்கள் மற்றும் கிராமவல் மண் வெட்டியெடுக்க திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவர் 5 ஆண்டுகளுக்கு அனுமதிக்கோரி 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி எண்.19-ன் கீழ் விண்ணப்பம் செய்தது - அறிக்கைகள் வரப்பெற்றது - புலத்தணிக்கை செய்யப்பட்டது - தகுதியான நிலப்பரப்பாக கருதி ஏற்பளிக்கப்பட்ட சுரங்கதிட்டம் மற்றும் சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய தடையின்மை சான்று பெற்று சமர்ப்பிக்க கோருதல் தொடர்பாக.

- பார்வை:
1. திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவரின் விண்ணப்ப நாள். 18.12.2024.
 2. இவ்வலுவலக கடிதம் இதே எண். நாள். 18.12.2024.
 3. வட்டாட்சியர், செய்யார் அவர்களின் கடிதம் நக.ஆ1/5667/2024, நாள் 12.02.2025.
 4. சார் ஆட்சியர் (பொ), செய்யார் அவர்களின் கடிதம் நக.அ5/6710/2024, நாள். 07.03.2025.
 5. உதவி புவியியலாளர் (கனிமம்) தனி வருவாய் ஆய்வாளர் (கனிமம்) திருவண்ணாமலை புலத்தணிக்கை அறிக்கை நாள் 13.03.2024.
 6. இவ்வலுவலக கடிதம் இதே எண். நாள். 14.03.2025.
 7. அரசாணை (நிலை) எண்.37, இயற்கை வளங்கள் (எம்.எம்.சி.1) துறை, நாள். 22.04.2025
 8. வட்டார வளர்ச்சி அலுவலர்(கி.உ), ஊராட்சி ஒன்றியம், செய்யார் அவர்களின் கடிதம் 'நக.உஅ.அ4/675/2025, நாள்.20.05.2025.
 9. திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவரின் கடிதம் நாள். 27.05.2025.



பார்வையில் காணும் கடிதங்களின்பால்
வேண்டப்படுகிறது.

2) திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பண்ணை அமைப்பு எண்கள் 95/1 (0.41.0), 95/2 (0.12.5), 95/3 (0.42.5), 95/4 (0.12.5), 95/5 (0.69.0), 95/6 (0.23.0), 95/7 (0.82.5), 95/8 (0.18.5), 95/9 (0.03.5) மற்றும் 95/10 (0.33.0) ஆகியவற்றின் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் சாதாரண கற்கள் / கிராவல் மண் குவாரி செய்ய 5 ஆண்டுகளுக்கு குத்தகை உரிமம் வழங்கக்கோரி திரு.கோகுல்ராஜ், த/பெசுவண்ணராஜ் என்பவர் உரிய ஆவணங்களுடன் 18.12.2024 அன்று விண்ணப்பம் அளித்துள்ளார். மேலும் 27.05.2025 நாளிட்ட கடிதத்தின்படி 10 ஆண்டுகளுக்கு உரிமம் வழங்க கோரி மனு அளித்துள்ளார்.

3. மேற்கண்ட விண்ணப்பம் தொடர்பாக வட்டாட்சியர் மற்றும் சார் ஆட்சியர் (பொ), செய்யார் மற்றும் உதவி புனியியலாளர் (கணிமம்) திருவண்ணாமலை ஆகியோர் புலத்தணிக்கை மேற்கொண்டு திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராம புல எண்கள் 95/1 (0.41.0), 95/2 (0.12.5), 95/3 (0.42.5), 95/4 (0.19.5), 95/5 (0.69.0), 95/6 (0.23.0), 95/7 (0.82.5), 95/8 (0.18.5), 95/9 (0.03.5) மற்றும் 95/10 (0.33.0) ஆகியவற்றின் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் மட்டும் திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவருக்கு கிராவல் மண் மற்றும் சாதாரண கற்குவாரி உரிமம் வழங்க 5 ஆண்டு காலத்திற்கு கீழ்க்கண்ட நிபந்தனைகளுக்கு உட்பட்டு அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளனர்.

தமிழ்நாட்டினம்

- a. 1959-ம் வருடத்திய தமிழ்நாடு சிறு கணிம சலுகை விதிகள் , அட்டவணை II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கணிமங்களுக்கு சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கணிமம் கொண்டு செல்லப்பட வேண்டும்.
- b. அருகில் உள்ள பட்டா நிலங்களுக்கு 7.5மீ. மற்றும் அரசு நிலங்களுக்கு 10 மீ. பாதுகாப்பு இடைவெளியும் விட வேண்டும்.
- c. புல எண்.96ல் குளத்திற்கு 50 மீ. (அல்லது) தொடர்புடைய துறை சார்ந்த அலுவலரால் தெரிவிக்கப்பட்ட பாதுகாப்பு இடைவெளி விட்டு குவாரிப்பணி செய்ய வேண்டும்.

b. . அருகில் உள்ள பட்டா நிலங்களுக்கு 7.5மீ. மற்றும் அரசு நிலங்களுக்கு 10 மீ. பாதுகாப்பு இடைவெளியும் விட வேண்டும்.

c. புல எண்.96ல் குளத்திற்கு 50 மீ. (அல்லது) தொடர்புடைய துறை சார்ந்த அலுவலரால் தெரிவிக்கப்பட்ட பாதுகாப்பு இடைவெளி விட்டு குவாரிப்பணி செய்ய வேண்டும்.



- d. பொதுமக்களுக்கும் அருகிலுள்ள நிலங்களுக்கும் எவ்வித பாதிப்பும் ஏற்படுத்தக்கூடாது.
- e. குவாரிப்பணி தொடங்குவதற்கு முன்பாக குவாரியை சுற்று முன் கம்பிலேலி அமைத்து குவாரிப்பணி தொடங்க வேண்டும்.
- f. அனுபவம் வாய்ந்த வெடிபொருள் பயன்படுத்துவோர் மூலம் குறைந்த அளவு சக்தி கொண்ட வெடிபொருட்களை பயன்படுத்தி அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூறுமின்றி / அருகிலுள்ள பட்டா மற்றும் அரசு புலங்களில் எவ்வித ஆக்கிரமிப்பும் இன்றி குவாரிப் பணி மேற்கொள்ள வேண்டும்.
- g. விதிகளின்படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்ப்பிக்க வேண்டும்.
- h. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

4. வட்டார வளர்ச்சி அலுவலர், செய்யார் அவர்களின் 20.05.2025 நாளிட்ட கடிதத்தில் விண்ணப்ப புலத்தின் வடக்கே புல எண். 96ல் உள்ள குளத்திற்கு விடப்பட்டுள்ள பாதுகாப்பு இடைவெளி 10 மீ. எனவும், மேற்படி விண்ணப்ப புலத்தில் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் சாதாரண கற்கள் மற்றும் கிராவல் குவாரி உரிமம் வழங்கலாம் என தெரிவித்துள்ளார்.

5. இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை அவர்களின் 10.08.2020 நாளிட்ட கடிதத்துடன் இணைத்து வரப்பெற்ற அரசாணை எண்.169 தொழில் துறை (எம்.எம்.சி-1) நாள் 04.08.2020-ன்படி பட்டா புலங்களில் கிராவல், சாதாரண வகை கற்கள் ஆகிய சிறுகனிம உரிமம் வழங்கும் நேர்வுகளில் நடவடிக்கை எடுக்க விதி 19 மற்றும் 33-ல் மாவட்ட ஆட்சியருக்கு வழங்கப்பட்ட அதிகாரம் தற்போது சம்மந்தப்பட்ட உதவி/துணை இயக்குநர் அவர்களுக்கு மாற்றி வழங்க உத்திரவிடப்பட்டுள்ளது.

6. எனவே, வட்டாட்சியர் மற்றும் சார் ஆட்சியர் (பொ), செய்யார், உதவி புவியியலாளர் (கனிமம்) திருவண்ணாமலை மற்றும் வட்டார வளர்ச்சி அலுவலர், செய்யார் ஆகியோரின் பரிந்துரை, நிபந்தனைகள் மற்றும் மனுதாரரின் கோரிக்கையின் அடிப்படையில் திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராம புல எண்கள் 95/1 (0.41.0), 95/2 (0.12.5), 95/3



(0.42.5), 95/4 (0.19.5), 95/5 (0.69.0), 95/6 (0.23.0), 95/7 (0.82.5), 95/8 (0.18.5), 95/9 (0.03.5) மற்றும் 95/10 (0.33.0) ஆகியவற்றின் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் 1959-ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண்.19-ன்படி மேற்கண்ட நிபந்தனைகளுக்குட்பட்டு 10 (பத்து) வருட காலத்திற்கு திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவருக்கு கிராவல் / சாதாரண கற்கள் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

7. மேலும், தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959, விதி 41-ன்படி குவாரிப் பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்குமாறு மனுதாரரைக் கேட்டுக் கொள்ளப்படுகிறது. மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959-ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், விதி எண்.42-ன்படி சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.

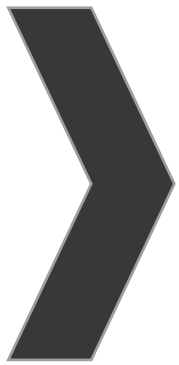

துணை இயக்குநர்,
புனியியல் மற்றும் சுரங்கத்துறை,
திருவண்ணாமலை.

பெறுநர்

திரு.ச.கோகுல்ராஜ்,
த/பெ.சரவணராஜ்,
எண்.14, காமராஜ் நகர்,
பம்மல் அஞ்சல்,
காஞ்சிபுரம் மாவட்டம்.

நகல்.

1. தலைவர், மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், சென்னை
2. ஆணையர், புனியியல் மற்றும் சுரங்கத்துறை, சென்னை-32.



ANNEXURE-3

From
Dr.S.Vediappan, M.Sc., Ph.D.,
Deputy Director,
Geology and Mining,
Tiruvannamalai - 4.

To
Thiru.S.Gokulraj,
S/o. Saravanaraj,
No.14, Kamarajar Nagar,
Pammal Post,
Kanchipuram.

Rc.No.397/Kanimam/2024, dated 16.06.2025.

Sir,

Sub: Mines and Minerals – Minor Mineral - Rough stone and Gravel - Tiruvannamalai District – Cheyyar Taluk - Palli Village Patta land SF.Nos. 95/1, 95/2, 95/3 etc., over an extent of 3.45.0 hecsts., – Application preferred by **Thiru.S.Gokulraj** - Precise area communicated – Submission of three copies of draft Mining Plan for approval - Approval accorded - regarding.

Ref: 1. Application from Thiru.S.Gokulraj, kanchipuram District dated 18.12.2024.
2. Precise Area Communication Notice Rc.No.397/Kanimam/2024 dt. 28.05.2025.
3. Mining Plan submitted by Thiru.S.Gokulraj, kanchipuram District dated 10.06.2025.

Thiru.S.Gokulraj, kanchipuram District has preferred an application for the grant of Rough Stone and Gravel quarry lease over an extent of 3.45.0 hecsts., of Patta land in SF.Nos. 95/1 (0.41.0), 95/10 (0.33.0), 95/2 (0.12.5), 95/3 (0.42.5), 95/4 (0.19.5), 95/5 (0.69.0), 95/6 (0.23.0), 95/7 (0.82.5), 95/8 (0.18.5) & 95/9 (0.03.5) of Palli Village, Cheyyar Taluk, Tiruvannamalai District for a period of 5 (Five years) vide in the reference 1st cited and the precise area has been communicated to the applicant vide the reference 2nd cited with a direction to submit the approved mining plan and Environmental Clearance.

2. As directed, the applicant has submitted three copies of mining plan for approval vide in the reference 3rd cited. The Mining Plan has been verified in detail and found that it has been 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.

i) The reserves estimated in the mining plan is

Depth in Mts.	Geological Resources			Mineable Reserves		
	Mineral	in Cbm	in Tons	Mineral	in Cbm	in Tons
42m (Below Ground Level)	Rough Stone	1378520	3790930	Rough Stone	535845	1473573.75
	Gravel	68926	137852	Gravel	55252	110504

ii) Year wise production proposed for the **first five year period** are as follows:-

Year	Mineral	Quantity Rough Stone		Quantity Gravel	
		CBM	Tons	CBM	Tons
I	Rough Stone	85375	234781.25	37342	74684
II		86025	236568.75	17910	35820
III		86050	236637.50	-	-
IV		85725	235743.75	-	-
V		83050	228387.50	-	-
Total		426225	1172118.75	55252	110504

iii) Year wise production proposed for the **Second five year period** are as follows:-

Year	Mineral	Quantity Rough Stone	
		CBM	Tons
I	Rough Stone	21840	60060.00
II		21945	60348.75
III		21945	60348.75
IV		22010	60527.50
V		21880	60170.00
Total		109620	301455.00

3. Therefore in exercise of the powers conferred under Rule 41(2) of Tamil Nadu Minor Mineral Concession Rules, 1959, the mining plan is hereby approved, subject to the following conditions:-

- 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.
- 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. Scheme of Mining shall be submitted for the 2nd five year 180 Days prior to expiry of 1st five year period as stipulated in rule 41 (a) of TNMMCR.
- v. Quarrying shall be done in accordance with the approved Mining Plan.
- vi. If anything is found to be concealed in the contents of the mining plan which are required by the mines act or if any proposed for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
- vii. All the conditions stipulated in the precise area communication dated 28.05.2025 should be duly complied with.

4. Further, other quarries situated within 500m radial distance are as follows.

i) Existing Quarries

Name of the Owner	Village & S.F. Nos.	Extent in Hects.	Lease Period	Remarks
S.Nirmal S/o. Saravananaraj, No.14, Kamaraj Street, Pammal, Chennai-75	115/1, 2,3,4 & 116 (Part)	2.00.0	29.08.2023 to 28.08.2028	Existing Quarry
Shri Vinayaga Mine, No.7, Elumalai Street, West Tambaram Chennai	65/1, 2A, 2B & 3	1.675	02.12.2021 to 01.12.2031	

ii) Abandoned quarries

Name of the Owner	Village & S.F. Nos.	Extent in Hects.	Lease Period	Remarks
Thiru.R.Venkatachalam, S/o. Ramasamy, No.30, New State Bank Colony, West Tambaram, Chennai.	Palli 66/3A (1.03.0) & 66/3B (1.87.0)	2.90.0	21.07.2016 to 20.07.2021	Expired Quarry
Thiru.M.Marimuthu, S/o. Maharajan, Kilpudupakkam Village, Cheyyar Taluk, Tiruvannamalai District.	74/3, 74/4	0.98.5	16.11.2018 to 15.11.2023	

iii) Present Proposed Quarries

Sl. No	Name of the Owner	Village & S.F. Nos.	Extent in Hects.
1	Thiru.S.Gokulraj, S/o. Saravanaraj, No.14, Kamarajar Nagar, Pammal Post, Kanchipuram.	Palli 95/1, 95/10, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8 & 95/9	3.45.0
2	Tmt.Poornima, W/o.Tamil Oli, No.1/62, North Street, Panruti, Kancheepuram.	Palli 496/2, 98/1A, 98/1B etc.,	3.91.0

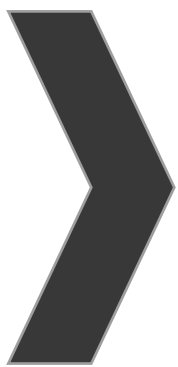
Encl: 2 Copies of Approved Mining Plan.


Deputy Director,
Geology and Mining,
Tiruvannamalai.

Copy submitted to:

1. The Chairman, SEIAA,
Tamil Nadu, 3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet, Chennai-15.
2. The Commissioner of Geology and Mining, Chennai-32.
3. The District Collector, Tiruvannamalai.


16/6/25



APPROVAL MINING PLAN



MINING PLAN FOR PALLI ROUGH STONE AND GRAVEL QUARRY

(Prepared Under Rule 19, 41 & 42 of Tamil Nadu Minor Mineral Concession
Rules, 1959)

LOCATION OF THE QUARRY LEASE APPLIED AREA

STATE : TAMIL NADU
DISTRICT : TIRUVANNAMALAI
TALUK : CHEYYAR
VILLAGE : PALLI
S.F.NOS : 95/1, 95/2, 95/3, 95/4, 95/5,
95/6, 95/7, 95/8, 95/9 AND
95/10
EXTENT : 3.45.0Ha

FOR

APPLICANT

Thiru.S.Gokulraj,
S/o.Saravananaraj,
No.14, Kamaraj Nagar,
Pammal Post,
Kanchipuram District.

PREPARED BY

C.Natarajan, M.Sc.,M.Phil.,
Qualified Person

M/s. GLOBAL MINING SOLUTIONS

(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)

PLOT NO. 6, SF NO. 13/2, A2, VS CITY, RC CHETTPATTY,

KOTTAMETTUPATTY,

OMALUR, SALEM, TAMIL NADU – 636 455

NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110

CONTACT: 97502 23535, 94446 54520

Email: infoglobalmining@gmail.com, globalminingsolutionssalem@gmail.com

ECO-FRIENDLY



SUSTAINABILITY



SAFETY



(PPE)



S.Gokulraj,
S/o.Saravanaraj,
No.14, Kamaraj Nagar, Pammal Post,
Kanchipuram District.



CONSENT LETTER FROM THE APPLICANT

The Mining Plan in respect of **Rough Stone and Gravel** quarry over an extent of 3.45.0Hectares of Patta land in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State has been prepared by

C.Natarajan, M.Sc., M.Phil.,
Qualified Person

I request to the Deputy Director, Department of Geology and Mining, Tiruvannamalai District to make further correspondence regarding modifications of the Mining Plan with the said Qualified Person on this following address.

C.Natarajan, M.Sc., M.Phil.,
Qualified Person

M/s. GLOBAL MINING SOLUTIONS

(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)

PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty,

Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455

NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110

CONTACT: 97502 23535, 94446 54520

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

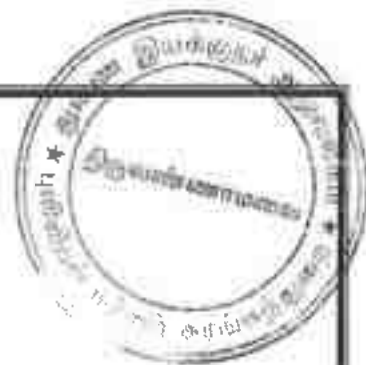
Signature of the Applicant

S.Gokulraj

Place: Kanchipuram

Date: 29.05.2025

S.Gokulraj,
S/o.Saravanaraj,
No.14, Kamaraj Nagar,
Pammal Post,
Kanchipuram District.



DECLARATION

The Mining Plan in respect of **Rough Stone and Gravel** quarry over an extent of 3.45.0 Hectares of Patta land in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State has been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the Mining Laws.

Signature of the Applicant

S.Gokulraj

Place: Kanchipuram

Date: 29.05.2025

C.Natarajan, M.Sc., M.Phil.,

Qualified Person

M/s. GLOBAL MINING SOLUTIONS

(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)

PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty,

Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455

NABET ACCREDITATION NO – NABET/EIA/2326/IA 0110

CONTACT: 97502 23535, 94446 54520



CERTIFICATE

This is to certify that, the provisions of Minor Minerals Conservation and Development Rules, 2010 (MMCDR) have been observed in the Mining Plan for the grant of **Rough Stone and Gravel** quarry lease over an extent of 3.45.0 Hectares of Patta land in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State applied by Thiru.S.Gokulraj, for fresh quarry lease.

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

Certified

Signature of Qualified Person.

C.Natarajan, M.Sc., M.Phil.,

Qualified Person

Place: Salem

Date: 30.05.2025

C.NATARAJAN M.Sc.,M.Phil.,

Qualified Person

C.Natarajan, M.Sc., M.Phil.,

Qualified Person

M/s. GLOBAL MINING SOLUTIONS

(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)

PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty,

Kottamettupatty, Omalur, Salem, Tamil Nadu - 636 455

NABET ACCREDITATION NO - NABET/EIA/2326/IA 0110

CONTACT: 97502 23535, 94446 54520



CERTIFICATE

Certified that, in preparation of Mining Plan for **Rough Stone and Gravel** quarry over an extent of 3.45.0 Hectares of Patta land in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State for Thiru.S.Gokulraj, covers all the provisions of Mines Act, Rules and Regulations etc. made there under and whenever specific permission are required, the applicant will approach the Director General of Mines Safety, Chennai. The standards prescribed by DGMS in respect of Mines Health will be strictly implemented.

Certified

Signature of Qualified Person.

C.Natarajan, M.Sc., M.Phil.,

Qualified Person

C.NATARAJAN M.Sc., M.Phil.,

Qualified Person

Place: Salem

Date: 30.05.2025

CERTIFICATE

Certified that I, C.Natarajan, M/s. GLOBAL MINING SOLUTIONS (NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT) Plot No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu - 636 455 NABET ACCREDITATION NO - NABET/EIA/2326/IA 0110. I am a Post graduate in Geology (M.Sc., Geology) from Annamalai university and more than five years of experience in mining Field.

Rule 15(1)(a) and (b) of Minerals (Other than Atomic, Hydro Carbons Energy Minerals) concession Rules 2016 stipulates the eligibility for preparing Mining Plans as *"(1)(a) a post graduate degree in Geology granted by a university established" and (1)(b) "Professional experience of five years of working in a supervisory capacity in the field of mining after obtaining the degree"*. Since my qualification and experience are satisfied the Rule (1)(a) and (1)(b) of 15 of the Said Rules, I am eligible to prepare Mining Plans for both Major and Minor Minerals.

Accordingly I prepared this Mining Plan in respect of Rough Stone and Gravel quarry lease applied for an extent of 3.45.0Ha of (Patta land) in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District, by Thiru.S.Gokulraj, for a period of Ten years. Since the Mining Plan is prepared as per the provisions contained in Rule 15(1) (a) and (b) of Minerals (Other than Atomic, Hydro Carbons Energy Minerals) concession Rules 2016, the same may be approved by the Competent Authority.

C.Natarajan, M.Sc., M.Phil.,

Qualified Person

C.NATARAJAN M.Sc., M.Phil.,

Qualified Person

Place: Salem

Date: 30.05.2025

CONTENTS

S. No.	Description	Page No.
1.0	Introduction	1
2.0	General Information	5
3.0	Location	6
4.0	Geology and Mineral Reserves	8
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6.0	Blasting	18
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10.0	Environment Management Plan	23
11.0	Mine Closure Plan	26
12.0	Any Other Details Intend to furnish by the Applicant	27

Annexure

S. No.	Description	Annexure No.
1.0	Precise Area Communication letter issued by the Deputy Director, Department of Geology and Mining,	
2.0	Copy of FMB	II
3.0	Copy of Village map	III
4.0	Copy of Patta	IV
5.0	Copy of Adangal	V
6.0	Copy of A Register	VI
7.0	Copy of Consent Document	VII
8.0	Copy of BDO Letter	VIII
9.0	Copy of Identity Proof	IX
10.0	Copy of QP Certificate	X

LIST OF PLATES

S. No.	Description	Plate No.
1.0	Location Plan	I
2.0	Environmental Plan	I-A
3.0	Satellite imagery map	I-B
4.0	Topo sketch of Quarry lease applied area for 10Km Radius	I-C
5.0	Key Plan	I-D
6.0	Quarry lease & Surface plan	II
7.0	Topography, Geological plan and sections	III
8.0	Mineable plan and sections	IV
9.0	Year wise Development and Production Plan & Sections	V
10.0	Second five Year wise Development and Production Plan & Sections	VA
11.0	Progressive Quarry Closer Plan & Sections	VI
12.0	Conceptual Plan & Sections	VII



MINING PLAN FOR MINOR MINERALS

ROUGH STONE AND GRAVEL

Over an extent of 3.45.0 hectares of Patta land in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State.

(PREPARED UNDER RULE 19(1), 41 and 42 OF TNMMCR 1959)

1.0 Introduction and Executive Summary:

1. The present Mining Plan is prepared for Thiru.S.Gokulraj, S/o.Saravanaraj, residing at No.14, Kamaraj Nagar, Pammal Post, Kanchipuram District.
2. The application was processed by the Deputy Director, Department of Geology and Mining, Tiruvannamalai, and passed an order vide Rc.No.397/Kanimam/2024 dated 28.05.2025 directing the applicant to produce approved Mining Plan under Rule 41(5) of the Tamil Nadu Minor Mineral Concession Rules, 1959 and Environmental Clearance Certificate under Rule 42 from the State Level Environmental Impact Assessment Authority (SEIAA) for the grant of quarry lease to quarry Rough Stone and Gravel over an extent of 3.45.0 hectares of Patta land in S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10 of Palli Village, Cheyyar Taluk, Tiruvannamalai District of Tamil Nadu State for a period of ten years.
3. Accordingly, Mining Plan is prepared under the provisions of rule 19(1), 41 and 42 as per the amendments under Tamil Nadu Minor Mineral Concession Rules, 1959 by incorporating following the conditions imposed in the precise area communication letter.
 - i) The applicant should pay seigniorage (for quarried out mineral) fee time to time as per the Tamil Nadu Minor Mineral Concession Rules - 1959 Appendix-II.
 - ii) A 7.5 meters of safety distance should be left out for the adjacent patta lands and 10 meters of safety distance should be provided to the adjoining government land while quarrying operation.



- iii) The applicant should leave 50 meters of safety to the Kalam situated at S.F.No.96, or the applicant should leave a safety distance as mentioned by the department officer mentioned safety distance.
 - iv) The applicant should not cause any hindrance to adjacent lands and public while quarrying operation.
 - v) Barbed wire fencing should be erected all along the boundary of the lease granted area before quarrying operation.
 - vi) The applicant should appoint an experienced, qualified blaster. During blasting, use mild explosives to avoid hindrance to adjacent pattadars and do not encroach on the adjacent patta and government land during quarrying operations.
 - vii) The drafted mining plan should be submitted within the period as per the rule.
 - viii) The Environmental clearance should be submitted before the grant of quarry lease.
4. Geological Resources is estimated at 37,90,930Ts of Rough stone and 1,37,852Ts of gravel, Mineable Reserves is estimated at 14,73,573.75Ts of Rough Stone and 1,10,504Ts of gravel after leaving necessary safety distance from the lease boundary as indicated in the precise area letter and relevant mining laws in force.
 5. The production schedule is proposed production of 11,72,118.75Ts of Rough Stone and 1,10,504Ts of gravel for the period of first five years upto a depth of 42m below ground level and remaining quantity of 3,01,455Ts of Rough Stone will be proposed for the period of second five years.
 6. The applicant ensured that, child labours under 18 years of age will not be engaged for quarrying operation.
 7. The applicant ensure that will appoint should have valid certified persons (Mines Manager, Foreman, Mate) during quarrying operation.
 8. Environmental parameters,
 - i) The area does not attract the Forest Conservation Act, 1980 as there is no forest around 10km radius.
 - ii) There is no interstate boundary around 10Kms radius.

- 
- iii) There is no wild life animal sanctuary within 10Kms radius from the project site area under the Wildlife (Protection) Act, 1972.

Therefore the project seeks clearance only from State Level Environmental Impact Assessment Authority (SEIAA).

9. Environmental measures to be adopted shall be,

- i) Dust Control at source while drilling and blasting,
- ii) Dust suppression at loading point and transport haul roads,
- iii) Noise Control in blasting, control of fly rock missiles and vibration by doing peak particle velocity with in standard as prescribed by the DGMS and MOEF.
- iv) Unnecessary land degradation should be avoided or damaged land should be reclaimed or rehabilitated.
- v) Avoid uneven rat hole mining and follow scientific and systematic mining by safe bench system of open cast mining.
- vi) Mining near major fracture zones if any should be avoided to control ground water fluctuation in the adjacent agricultural lands.
- vii) Emission test of vehicles should be in tack to maintain minimum emission level of flue gases.
- viii) Noise level should not exceed 80db and the vehicles should use only permitted Air Horn while on road near residential areas.
- ix) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly adhere to.
- x) And any other conditions as stipulated by the concerned authorities should be followed to protect the environment.



EXECUTIVE SUMMARY:

a.	Name of the Village Panchayat	:	Palli																																																						
b.	Name of the Panchayat Union	:	Cheyar																																																						
c.	The proposed total Movable Reserves	:	14,73,573.75Ts of Rough Stone 1,10,504Ts of gravel formation																																																						
d.	The proposed quantity of reserves (level of production) for Five years to be mined is(Recoverable reserves)	:	11,72,118.75Ts of Rough Stone 1,10,504Ts of gravel formation																																																						
e.	Total extent of the area	:	3.45.0Ha																																																						
f.	Proposed Period of mining	:	Five Years																																																						
g.	Existing depth	:	It is fresh quarry lease applied area																																																						
h.	Proposed Depth of mining	:	42m (below ground level) for the proposed mining plan.																																																						
i.	Method of mining/level of mechanization	:	Opencast, Semi-mechanized Mining with a bench height of 5m and bench width of 5m is proposed.																																																						
j.	Types of Machineries used in the quarry	:	Machineries like Tractor mounted compressor attached with Jack hammers, Excavators are proposed to deploy for quarrying operation.																																																						
k.	Cost of the Project A. Fixed Assets Cost B. Operational Cost C. EMP Cost	:	Rs. 23,70,000 /- Rs. 82,00,000/- Rs. 6,70,000/- Total Project cost(A+B+C)= Rs. 1,12,40,000 /-																																																						
l.	The area applied for lease is bounded by fifteen corners and the coordinates are clearly marked in plate no II.																																																								
	<table border="1"> <thead> <tr> <th rowspan="2">Corners</th><th colspan="2">Co- ordinates</th><th rowspan="2">Distance between the corners</th></tr> <tr> <th>Latitude</th><th>Longitude</th></tr> </thead> <tbody> <tr><td>1</td><td>12° 43' 02.29"N</td><td>79° 35' 54.09"E</td><td>1-2 = 57.4m</td></tr> <tr><td>2</td><td>12° 43' 03.54"N</td><td>79° 35' 55.46"E</td><td>2-3 = 42.8m</td></tr> <tr><td>3</td><td>12° 43' 03.68"N</td><td>79° 35' 56.88"E</td><td>3-4 = 35.8m</td></tr> <tr><td>4</td><td>12° 43' 04.51"N</td><td>79° 35' 57.70"E</td><td>4-5 = 54.0m</td></tr> <tr><td>5</td><td>12° 43' 02.99"N</td><td>79° 35' 58.60"E</td><td>5-6 = 76.4m</td></tr> <tr><td>6</td><td>12° 43' 04.07"N</td><td>79° 36' 00.81"E</td><td>6-7 = 53.6m</td></tr> <tr><td>7</td><td>12° 43' 05.53"N</td><td>79° 35' 59.85"E</td><td>7-8 = 15.0m</td></tr> <tr><td>8</td><td>12° 43' 05.93"N</td><td>79° 36' 00.14"E</td><td>8-9 = 76.0m</td></tr> <tr><td>9</td><td>12° 43' 06.06"N</td><td>79° 36' 02.66"E</td><td>9-10 = 53.0m</td></tr> <tr><td>10</td><td>12° 43' 05.90"N</td><td>79° 36' 04.41"E</td><td>10-11 = 136.2m</td></tr> <tr><td>11</td><td>12° 43' 01.65"N</td><td>79° 36' 03.12"E</td><td>11-12 = 115.6m</td></tr> <tr><td>12</td><td>12° 43' 00.33"N</td><td>79° 36' 06.71"E</td><td>12-13 = 48.4m</td></tr> </tbody> </table>			Corners	Co- ordinates		Distance between the corners	Latitude	Longitude	1	12° 43' 02.29"N	79° 35' 54.09"E	1-2 = 57.4m	2	12° 43' 03.54"N	79° 35' 55.46"E	2-3 = 42.8m	3	12° 43' 03.68"N	79° 35' 56.88"E	3-4 = 35.8m	4	12° 43' 04.51"N	79° 35' 57.70"E	4-5 = 54.0m	5	12° 43' 02.99"N	79° 35' 58.60"E	5-6 = 76.4m	6	12° 43' 04.07"N	79° 36' 00.81"E	6-7 = 53.6m	7	12° 43' 05.53"N	79° 35' 59.85"E	7-8 = 15.0m	8	12° 43' 05.93"N	79° 36' 00.14"E	8-9 = 76.0m	9	12° 43' 06.06"N	79° 36' 02.66"E	9-10 = 53.0m	10	12° 43' 05.90"N	79° 36' 04.41"E	10-11 = 136.2m	11	12° 43' 01.65"N	79° 36' 03.12"E	11-12 = 115.6m	12	12° 43' 00.33"N	79° 36' 06.71"E	12-13 = 48.4m
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10	12° 43' 05.90"N	79° 36' 04.41"E	10-11 = 136.2m																																																						
11	12° 43' 01.65"N	79° 36' 03.12"E	11-12 = 115.6m																																																						
12	12° 43' 00.33"N	79° 36' 06.71"E	12-13 = 48.4m																																																						



13	12° 42' 58.80"N	79° 36' 06.34"E	13-14	142.4m
14	12° 43' 00.00"N	79° 36' 01.78"E	14-15	134.0m
15	12° 43' 01.56"N	79° 35' 57.63"E	15-1	109.2m

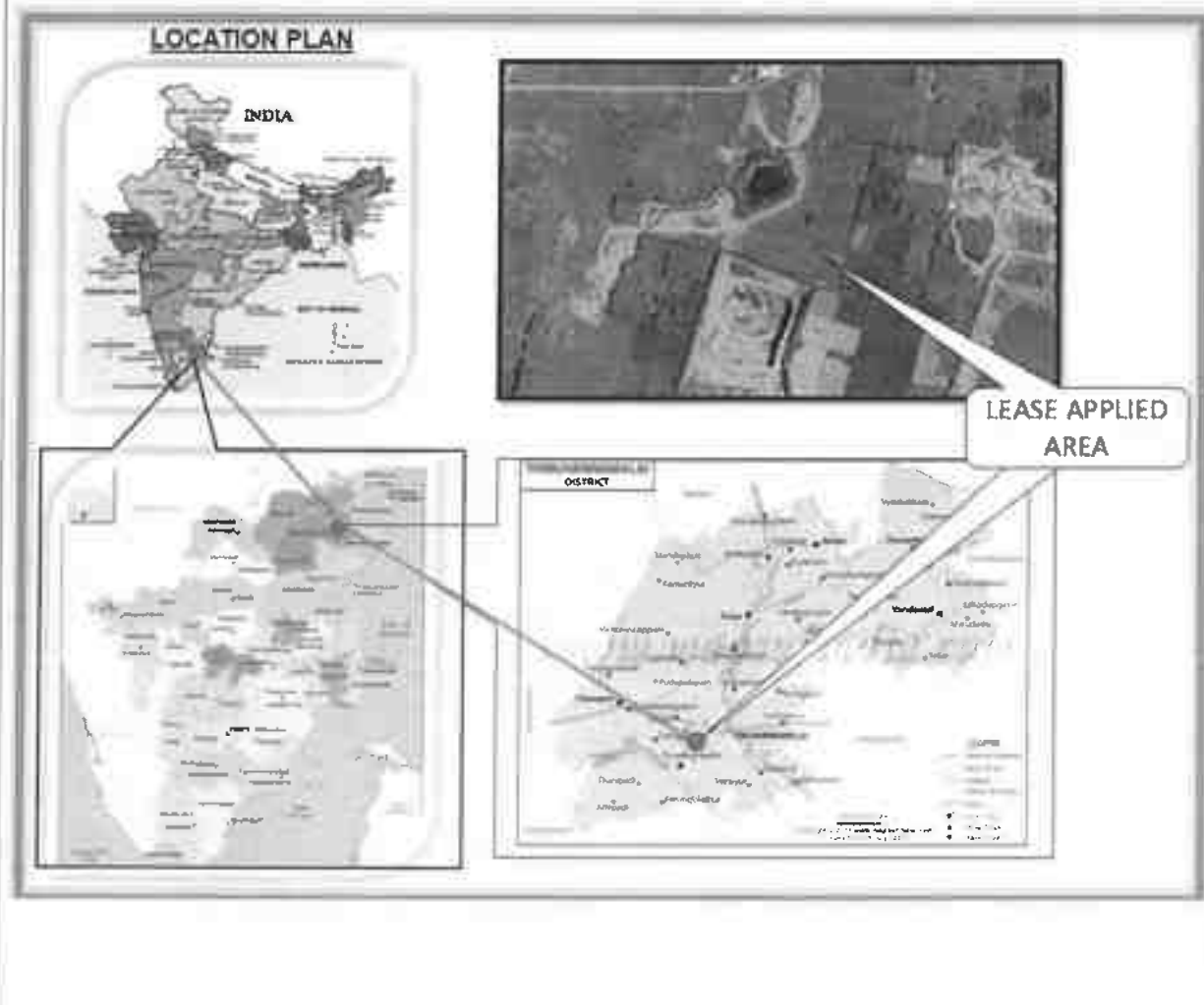
2.0 General Information

2.1	a.	Name of the Applicant	:	Thiru.S.Gokulraj,
	b.	Address of the Applicant with phone No and e-mail id if any	:	S/o.Saravananaraj, No.14, Kamaraj Nagar, Pammal Post, Kanchipuram District. Pin Code- 600075 Cell No.: 7299916161
	c.	Status of the Applicant	:	Individual
2.2	a.	Mineral Which the applicant intends to mine	:	Rough Stone and Gravel.
	b.	Precise area communication letter No.	:	Precise area communication letter received from the Deputy Director, Department of Geology and Mining, Tiruvannamalai, vide Rc.No.397/Kanimam/2024 dated 28.05.2025
	c.	Period of permission / lease granted	:	The Deputy Director, Department of Geology and Mining, Tiruvannamalai, has grant of lease period for ten years .
	d.	Name and Address of the QP preparing Mining Plan	:	C.Natarajan, M.Sc.,M.Phil., Qualified Person M/s. GLOBAL MINING SOLUTIONS (NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT) PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamil Nadu - 636 455 NABET ACCREDITATION NO - NABET/EIA/2326/IA 0110 Contact: 97502 23535, 94446 54520.



3.0 Location:

S.No	Details of the Area:	
1	Corner Coordinates	Latitude : 12°42'58.80"N to 12°43'06.06"N Longitude : 79°35'54.09"E to 79°36'06.71"E
2	Toposheet Number	57- P/10
3	The altitude of the area	102m (MSL)
4	Extent	3.45.0Ha
5	Survey Nos	95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 and 95/10
6	Village	Palli
7	Taluk	Cheyar
8	District	Tiruvannamalai
9	State	Tamil Nadu





a.	Classification of the Area (Ryotwari / poramboke / others)	:	Patta land
b.	Ownership / Occupancy of the Applied area (Surface rights)	:	It is patta land registered in the name of Thiru.Saravanaraj vide patta no. 1466, The applicant has obtained consent from pattadhar, Please refer the Annexure Nos- IV & VII.
c.	Toposheet No. with Latitude and Longitude	:	Topo Sheet No: 57-P/10 Latitude:12°42'58.80"N to 12°43'06.06"N Longitude:79°35'54.09"E to 79°36'06.71"E
d.	Existence of Public Road / Railway line if any nearby the area and approximate distance	:	There is an existing road from the area leads to Vadapoondipattu - Somavaram village road on north side of the area. The Nearest Railway line is Kanchipuram to Chengalpattu line which is about 17.9Km on northeast side of the area.



SATELLITE IMAGERY OF THE LEASE APPLIED AREA



TOPOGRAPHICAL VIEW OF LEASE APPLIED AREA

Fig. Location of the lease applied area



PART - A

4.0 Geology and Mineral Reserves:

4.1	a. Topography	: > The area applied for quarry lease is almost plain covered by Gravel formation. The massive Charnockite formation is noticed below 2m (Avg) Gravel formation and sloping towards southeastern side of the area, the altitude of the area is above 102m (maximum) from MSL. > No major river is found nearby the lease applied area. > Water table is found at a depth of 72m in summer and 69m in rainy seasons. > Temperature of the area is reported to be 18°C to a maximum of 42°C during summer. > Rainfall of this area is about 800mm to 900 mm during the both NE & SW monsoons.
	b. General Geology of the Area	: The area is underlain by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the district are Archaean rocks like Gneisses, Granites, Charnockites basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite. The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high grade metamorphic rock. The strike of the Charnockite formation is N45°E -S45°W with dipping towards SE60°.



			The general geological succession of the area is given as under. <table><thead><tr><th><u>AGE</u></th><th><u>ROCK TYPE</u></th></tr></thead><tbody><tr><td>Recent</td><td>Gravelly soil</td></tr><tr><td></td><td>Unconformity</td></tr><tr><td>Archaean</td><td>- Dolerite dyke</td></tr><tr><td></td><td>Charnockite.</td></tr><tr><td></td><td>Peninsular</td></tr><tr><td></td><td>Gneissic complex</td></tr><tr><td></td><td>and Calc Gneiss</td></tr></tbody></table>	<u>AGE</u>	<u>ROCK TYPE</u>	Recent	Gravelly soil		Unconformity	Archaean	- Dolerite dyke		Charnockite.		Peninsular		Gneissic complex		and Calc Gneiss
<u>AGE</u>	<u>ROCK TYPE</u>																		
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Archaean	- Dolerite dyke																		
	Charnockite.																		
	Peninsular																		
	Gneissic complex																		
	and Calc Gneiss																		
4.2		Details of Exploration already carried out if any	: No exploration was carried out, as the Rough stone formations are clearly visible from adjacent existing quarry pit.																
4.3	a.	Estimation of Reserves	: The Geological and Recoverable reserves are estimated by cross sectional method. Totally four sections have been drawn, three sections drawn length wise as (X-Y), (X1-Y1), (X2-Y2) and another one section drawn width wise as (A-B), to cover maximum area considered for lease. The Plans and Sections have been drawn with a scale of 1:1000 and 1:500 respectively. Please refer plate No.III.																

a. Geological Resources

The quarrying is restricted up to a depth of 42m (below ground level) only, availability of resources is given below.

Table No-1

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m3	Geological Resources in m3	Bulk Density	Gravel in Ts	Geological Resources of Rough stone in Ts
XY-AB	I	126	71	2	17892	-	2.00	35784	-
	II	126	71	5	-	44730	2.75	-	123007.50
	III	126	71	5	-	44730	2.75	-	123007.50
	IV	126	71	5	-	44730	2.75	-	123007.50
	V	126	71	5	-	44730	2.75	-	123007.50
	VI	126	71	5	-	44730	2.75	-	123007.50
	VII	126	71	5	-	44730	2.75	-	123007.50
	VIII	126	71	5	-	44730	2.75	-	123007.50
	IX	126	71	5	-	44730	2.75	-	123007.50
Total					17892	357840	-	35784	984060.00
XIV1- AB	I	110	59	2	12980	-	2.00	25960	-
	II	110	59	5	-	32450	2.75	-	89237.50
	III	110	59	5	-	32450	2.75	-	89237.50
	IV	110	59	5	-	32450	2.75	-	89237.50
	V	110	59	5	-	32450	2.75	-	89237.50
	VI	110	59	5	-	32450	2.75	-	89237.50
	VII	110	59	5	-	32450	2.75	-	89237.50
	VIII	110	59	5	-	32450	2.75	-	89237.50
	IX	110	59	5	-	32450	2.75	-	89237.50
Total					12980	259600	-	25960	713900.00



X2Y2- AB	I	359	53	2	38054	2.00	76108	
	II	359	53	5		2.75		261621.25
	III	359	53	5		2.75		261621.25
	IV	359	53	5		2.75		261621.25
	V	359	53	5		2.75		261621.25
	VI	359	53	5		2.75		261621.25
	VII	359	53	5		2.75		261621.25
	VIII	359	53	5		2.75		261621.25
	IX	359	53	5		2.75		261621.25
	Total				38054	761080	-	76108
Grand Total				68926	1378520	-	137852	3790930.00

Gravel Formation

1,37,852Ts

The Geological Resources of Rough stone

37,90,930Ts

b. Mineable Reserve

The mineable reserve calculated by deducting 7.5m and 10m safety distance and bench loss.

Table No-2

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m ³	Mineable Reserves in m ³	Bulk Density	Gravel in (Ts)	Mineable Reserves Rough stone in (Ts)
XY-AB	I	109	63	2	13734	-	2.00	27468	-
	II	103	60	5	-	30900	2.75	-	84975.00
	III	93	55	5	-	25575	2.75	-	70331.25
	IV	83	50	5	-	20750	2.75	-	57062.50
	V	73	45	5	-	16425	2.75	-	45168.75
	VI	63	40	5	-	12600	2.75	-	34650.00
	VII	53	35	5	-	9275	2.75	-	25506.25
	VIII	43	30	5	-	6450	2.75	-	17737.50
	IX	33	25	5	-	4125	2.75	-	11343.75
Total					13734	126100	-	27468	346775.00



X1Y1- AB	I	91	59	2	10738		2.00	21476	
	II	85	59	5		25075	2.75		68956.25
	III	75	59	5		22125	2.75		60843.75
	IV	65	59	5		19175	2.75		52731.25
	V	55	59	5		16225	2.75		44618.75
	VI	45	59	5		13275	2.75		36506.25
	VII	35	59	5		10325	2.75		28393.75
	VIII	25	59	5		7375	2.75		20281.25
	Total				10738	113575	-	21476	312331.25
X2Y2- AB	I	342	45	2	30780		2.00	61560	
	II	336	42	5		70560	2.75		194040.00
	III	326	37	5		60310	2.75		165852.50
	IV	316	32	5		50560	2.75		139040.00
	V	306	27	5		41310	2.75		113602.50
	VI	296	22	5		32560	2.75		89540.00
	VII	286	17	5		24310	2.75		66852.50
	VIII	276	12	5		16560	2.75		45540.00
	Total				30780	296170	-	61560	814467.50
Grand Total				55252	535845	-	110504	1473573.75	

The mineable reserve is computed as 14,73,573.75Ts of Rough stone and 1,10,504Ts of Gravel formation upto a depth 42m (below ground level) only.





5.0 Mining

5.1	Method of Mining	: 1. Opencast method of semi mechanized mining with 5.0m height 5m width of the bench. 2. However, as far as the quarrying of Rough stone is concerned, observance of the provisions of Regulation 106(2) (b) as above is seldom possible due to various inherent petrogenetic factors coupled with mining difficulties. Hence it is proposed to obtain relaxation to the provisions of the above regulation from the Director of mines safety for which necessary provision is available with the regulation 106 (2) (b) of MMR-1961, under Mine Act-1952.
5.2	Mode of Working	: The rough stone is proposed to quarry 5m bench height, 5m width with conventional opencast semi-Mechanized method. The quarry operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough stone to the needy crushers/other buyers. The production of Rough stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining. Splitting of rock mass of considerable volume from the parent rock mass by jackhammer drilling and blasting, hydraulic excavators are used for loading the Rough Stone from pithead to the needy crushers/other buyers. Occasionally hydraulic excavators are attached with rock breakers for fragmentation to avoid secondary blasting. The primary boulders thus splitted are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators. It is a conventional opencast semi mechanized method of mining.
5.3	Proposed bench height & Width	: Quarrying of Rough Stone is proposed bench height of 5m and bench width of 5m.
5.4	Details of Overburden / Mineral Production proposed for the first 5 years.	: The overburden in the form of Gravel, after the excavation of Gravel and Rough stone will be directly loaded into tipper to the needy crushers/other buyers for road project and construction works for filling and leveling of low lying areas.

The Yearwise Production and Development Table

Table No -3

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Gravel in m ³	Mineable Reserves in m ³	Bulk Density	Gravel in (Ts)	Mineable Reserves Rough stone in (Ts)
I	XY-AB	I	109	63	2	13734	-	2.00	27468	-
		II	103	60	5	-	30900	2.75	-	84975.00
	X1Y1-AB	I	91	59	2	10738	-	2.00	21476	-
		II	85	59	5	-	25075	2.75	-	68956.25
	X2Y2-AB	I	143	45	2	12870	-	2.00	25740	-
		II	140	42	5	-	29400	2.75	-	80850.00
Total						37342	85375	-	74684	234781.25
II	X2Y2-AB	I	199	45	2	17910	-	2.00	35820	-
		II	80	42	5	-	16800	2.75	-	46200.00
		III	210	37	5	-	38850	2.75	-	106837.50
	X1Y1-AB	III	75	59	5	-	22125	2.75	-	60843.75
		XY-AB	III	30	55	5	-	8250	2.75	-
	Total						17910	86025	-	35820
III	XY-AB	III	63	55	5	-	17325	2.75	-	47643.75
		IV	83	50	5	-	20750	2.75	-	57062.50
	X1Y1-AB	IV	65	59	5	-	19175	2.75	-	52731.25
		X2Y2-AB	IV	180	32	5	-	28800	2.75	-
Total						-	86050	-	-	236637.50



IV	X2Y2-AB	IV	20	32	5		3200	2.75		8800.00	
		V	190	27	5		25650	2.75		70537.50	
		VI	180	22	5		19800	2.75		54450.00	
	X1Y1-AB	V	55	59	5		16225	2.75		44618.75	
VI		15	59	5		4425	2.75		12168.75		
	XY-AB	V	73	45	5		16425	2.75		45168.75	
		Total						85725		-	235743.75
V	X1Y1-AB	VI	30	59	5		8850	2.75		24337.50	
		VII	35	59	5		10325	2.75		28393.75	
		VIII	25	59	5		7375	2.75		20281.25	
	XY-AB	VI	63	40	5		12600	2.75		34650.00	
		VII	53	35	5		9275	2.75		25506.25	
		VIII	43	30	5		6450	2.75		17737.50	
	X2Y2-AB	IX	33	25	5		4125	2.75		11343.75	
		VII	170	17	5		14450	2.75		39737.50	
		VIII	160	12	5		9600	2.75		26400.00	
		Total						83050		-	228387.50
		Grand Total					55252	426225		110504	1172118.75

The applicant has proposed to carry out 11,72,118.75Ts of Rough stone and 1,10,504Ts of Gravel formation upto a depth of 42m (below ground level) for the period of first five years and remaining quantity of 3,01,455Ts of Rough Stone will be proposed for the period of second five years.





The proposed tentative yearwise production for 6th to 10th year is given below

Table No-4

Year	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Mineable Reserves in m³	Bulk Density	Mineable Reserves in (Ts)
VI	X2Y2- AB	II	104	42	5	21840	2.75	60060.00
Total						21840	-	60060.00
VII	X2Y2- AB	II	12	42	5	2520	2.75	6930.00
		III	105	37	5	19425	2.75	53418.75
Total						21945	-	60348.75
VIII	X2Y2- AB	III	11	37	5	2035	2.75	5596.25
		IV	116	32	5	18560	2.75	51040.00
		V	10	27	5	1350	2.75	3712.50
Total						21945	-	60348.75
IX	X2Y2- AB	V	106	27	5	14310	2.75	39352.50
		VI	70	22	5	7700	2.75	21175.00
Total						22010	-	60527.50
X	X2Y2- AB	VI	46	22	5	5060	2.75	13915.00
		VII	116	17	5	9860	2.75	27115.00
		VIII	116	12	5	6960	2.75	19140.00
Total						21880	-	60170.00
Grand Total						109620	-	301455.00

5.5	Machineries to be used						
a.	Drilling			: It is proposed to use following machineries for quarrying rough stone			
	S.No	Type	Nos	Dia Hole mm	Make	Motive power	
	1	Jack hammer	5	32	Atlas Copco	Compressed air	
	2	Compressor	2		Atlas Copco	Diesel Drive	
b.	Loading			: Excavator of 0.90m ³ bucket capacity (with Rock breaker attachment) (2No).			
c.	Transportation			: Tipper 4Nos (10/20Ts) capacity			



5.6	Disposal of Overburden	The overburden in the form of Gravel, after the excavation gravel will be directly loaded into tipper to the needy buyers for road project and construction works for filling and leveling of low lying areas.																				
5.7	Brief Note on Conceptual Mining Plan for the entire lease period	Conceptual Mining Plan is prepared with an object of ten years of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructures etc. Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc. Ultimate Pit dimension is given as under, <table><tr><th colspan="4">Ultimate Pit dimension (M) end of Mining plan Period</th></tr><tr><th>Pit No</th><th>Length (max) in (m)</th><th>Width (Avg) in (m)</th><th>Depth(max) in(m)</th></tr><tr><td>I</td><td>342</td><td>76</td><td>42m (below ground level)</td></tr></table> <table><tr><th colspan="4">Ultimate Pit dimension (M) end of Lease Period</th></tr><tr><td>I</td><td>342</td><td>76</td><td>42m (below ground level)</td></tr></table> Afforestation has been proposed on all along the boundary barrier by planting trees. All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies will be carried out every year as per the MOEF norms.	Ultimate Pit dimension (M) end of Mining plan Period				Pit No	Length (max) in (m)	Width (Avg) in (m)	Depth(max) in(m)	I	342	76	42m (below ground level)	Ultimate Pit dimension (M) end of Lease Period				I	342	76	42m (below ground level)
Ultimate Pit dimension (M) end of Mining plan Period																						
Pit No	Length (max) in (m)	Width (Avg) in (m)	Depth(max) in(m)																			
I	342	76	42m (below ground level)																			
Ultimate Pit dimension (M) end of Lease Period																						
I	342	76	42m (below ground level)																			

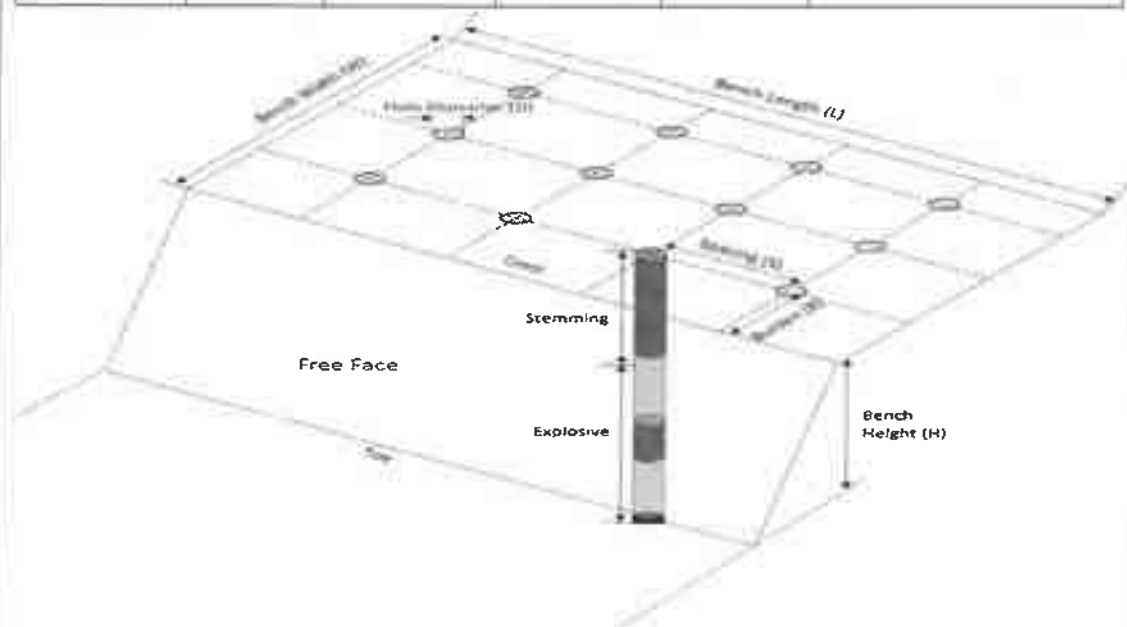


6.0 Blasting:

6.1 Blasting Pattern

The massive formation shall be broken into pieces of portable size by drilling and blasting using jack hammers and shot hole blasting. Powder factor of explosives for breaking such hard rock shall be in the order of 6 to 7 Tonnes per Kg of explosives. Blasting parameters are as follows.

Diameter of the hole	Spacing	Depth	Burden for hole	Pattern of hole	Inclination of hole
32-36mm	0.6m	1 to 1.5m	0.6m	Zig Zag	70° from the horizontal



6.2 Types of Explosives

Small dia, 25mm slurry explosive are proposed to be used for shattering and heaving effect for removal and winning of Rough stone. No deep hole drilling or primary blasting is proposed.



6.3	Measures proposed to minimize ground vibration due to blasting	➤ Controlled blasting measures will be adopted for minimizing ground vibration and fly rock. ➤ Shallow depths jackhammer blasting is proposed to be carried out with minimum use of explosive mainly to give shattering effect in rough stone for easy excavation and to control fly rock. <table border="1" data-bbox="766 582 1366 761"> <tr> <td>Number of holes</td> <td>: 260</td> </tr> <tr> <td>Powder factor</td> <td>: 6Ts/Kg of explosives</td> </tr> <tr> <td>Total explosive required</td> <td>: 130Kg slurry explosives</td> </tr> <tr> <td>Charge / hole</td> <td>: 0.5Kg</td> </tr> <tr> <td>Blasting time</td> <td>: 12-2 Pm</td> </tr> </table>	Number of holes	: 260	Powder factor	: 6Ts/Kg of explosives	Total explosive required	: 130Kg slurry explosives	Charge / hole	: 0.5Kg	Blasting time	: 12-2 Pm
Number of holes	: 260											
Powder factor	: 6Ts/Kg of explosives											
Total explosive required	: 130Kg slurry explosives											
Charge / hole	: 0.5Kg											
Blasting time	: 12-2 Pm											
6.4	Storage of Explosives and safety measures to be taken while blasting.	➤ The applicant will engage an authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory foreman/ mines manager. ➤ <i>The applicant ensure that will appoint the Mate (Should have Valid Blaster Certificate) during Blasting Operation.</i>										

7.0 Mine Drainage:

7.1	Depth of Water table	: The ground water table is reported as 72m below ground level. In the proposed mining plan only 42m (below ground level) depth has been envisaged as workable depth for safe & economic quarrying for the entire lease period. Hence the quarrying operation may not affect the ground water.
7.2	Arrangement and Places where the mine water is finally proposed to be discharged	: The ground water may not rise immediately in this type of mining. However, the rain water percolation and collection of water from the seepage shall be less than 300lpm and it shall be pumped about periodically by a stand by diesel powered Centrifugal pump motivated with 7.5H.P.Motor. The quality of water is potable and it is not contaminated with any hazardous things. Hence, water stored in the quarry pit will be pumped into the adjacent agricultural fields. Further the water stored in the old pit will also be used for plantation purposes



8.0 Other Permanent Structures

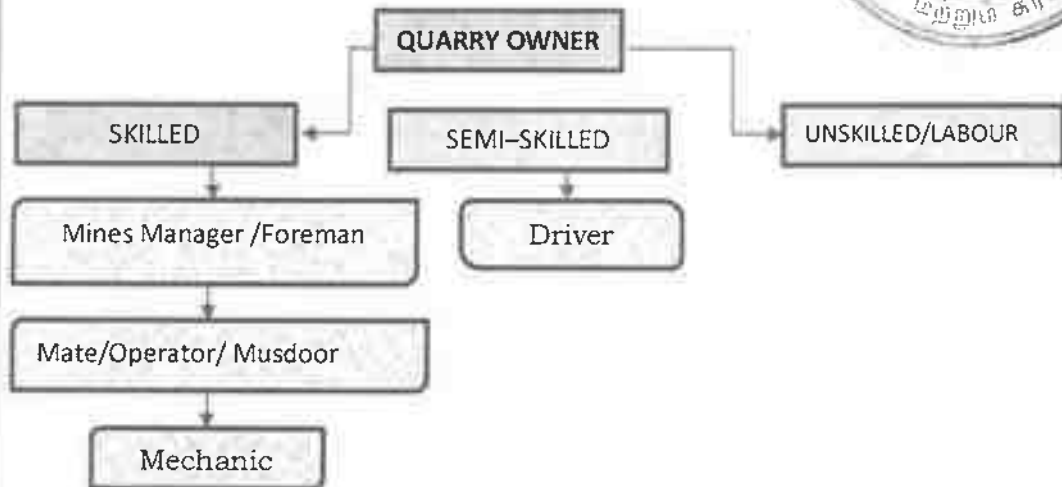
8.1	Habitations / Village	:	There is no habitations situated within a radius of 300m.
8.2	Power lines (HT/LT)	:	There is no Power line (HT/LT) passing within a radius of 50m.
8.3	Water bodies (River, Pond, Lake, Odai, Channel etc)	:	There is a Kulam situated in S.F.No.96 and is 10m safety distance maintained (Copy of BDO letter is Enclosed as Annexure No.VIII). There tank situated on north side of the area and is 410m away from the lease applied area. There is canal passing on west side of the area and is 440m away from the lease applied area.
8.4	Archeological / Historical Monuments	:	There are no Archaeological / Historical Monuments within a radius of 300m.
8.5	Road (NH, SH, Village Road etc)	:	The National Highway (NH-132B) Kanchipuram - Chengalpattu is about 16.8km on northeast side of the area. The State Highway (SH-116) Kanchipuram - Vandavasi is about 7Km on east side of the area.
8.6	Places of Worship	:	There are no Places of Worship within a radius of 50m.
8.7	Reserved Forest / Forest / Social Forest / Wild Life Sanctuary etc.,	:	There is no Reserved Forest, Wild Life Sanctuary within a radius of 1Km.
8.8	Any Interstate Border, Protected areas under the Wild Life (Protection) Act, 1972, Critically Polluted Areas as Identified by Central Pollution Control Board and Notified Eco sensitive areas	:	There are No inter State border within a radius of 10Kms.
8.9	Any Other Structures	:	Nil



9.0 Employment Potential & Welfare Measures:

9.1 Employment Potential (Management & Supervisory personnel)

The proposed organization chart



1	Skilled	Mines Manager	1 No.
		Foreman / Mate	2 No.
		Operator	10 No.
		Mechanic	1 No.
2	Semi-skilled	Driver	4 No.
3	Unskilled	Labours	12Nos
Total =			30Nos

Allowing 10% absentee, the no. of men of roll will be around 27.

The above man power is adequate to meet out the production schedule and the machinery strength envisaged in the mining plan and to comply the statutory provisions of Mines Safety Regulations.

- **It is been ensured that, child labours under 18 years of age will not be engaged for quarrying operation.**
- **Necessary life insurance policies will be taken by the applicant to all the employees up to the end of the lease period.**

9.2 Welfare Measures

a.	Drinking Water	Packaged drinking water is available from the nearby approved water vendors in Palli village which is about 0.6Km on south side of the area.



b.	Sanitary facilities	Semi-permanent latrines & urinals shall be maintained at convenient places for use of labourers as per the provisions of Rule (33) of the Mines Rules, 1960 separately for males and females. Washing facilities shall also be arranged as per rule (36) of the Mines Rules, 1960.
c.	First Aid Facility	First aid kits are kept in Mines office room, in case of such eventualities the victim will be given first aid immediately at the site and injured person will be taken to the hospital. Hospital is available at distance of 8.5Km (SW) in Cheyyar the competent and Statutory foreman/ permit manager will be in charge of first aid.
d.	Labour Health	As per Mines Rule, Periodic medical examination related to occupational health safety will be conducted to all the workers in applicant's own cost.
e.	Precautionary safety measures to the Labourers:	
	Safety provisions like helmet, goggles, safety shoes, Dust mask, Ear muffs etc., have to be provided as per the circulars and amendments made for Mine labours under the guidance of DGMS being a mechanized operation. 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.	



PART – B

10.0 Environmental Management Plan:

10.1	Existing Land Use Pattern	1. The area is exhibits almost plain topography covered by Gravel formation. 2. Quarrying operation is proposed up to a depth of 42m (below ground level) for the proposed mining plan period. 3. Fluctuation of Water table in this area is in between 72m and 69m during a year. 4. This region receives the average annual rainfall of 800mm to 900mm. The surrounding area is practiced by the seasonal cultivation. The existing land use pattern is given as under. Table No-5 <table><tr><th>Sl. No.</th><th>Land Use</th><th>Present Area (Ha)</th><th>Area in use during the quarrying period (Ha)</th></tr><tr><td>1.</td><td>Quarrying Pit</td><td>Nil</td><td>2.60.0</td></tr><tr><td>2.</td><td>Infrastructure</td><td>Nil</td><td>0.01.0</td></tr><tr><td>3.</td><td>Roads</td><td>Nil</td><td>0.01.0</td></tr><tr><td>4.</td><td>Green Belt</td><td>Nil</td><td>0.83.0</td></tr><tr><td>5.</td><td>Unutilized</td><td>3.45.0</td><td>Nil</td></tr><tr><td></td><td>Total =</td><td>3.45.0</td><td>3.45.0</td></tr></table>	Sl. No.	Land Use	Present Area (Ha)	Area in use during the quarrying period (Ha)	1.	Quarrying Pit	Nil	2.60.0	2.	Infrastructure	Nil	0.01.0	3.	Roads	Nil	0.01.0	4.	Green Belt	Nil	0.83.0	5.	Unutilized	3.45.0	Nil		Total =	3.45.0	3.45.0
Sl. No.	Land Use	Present Area (Ha)	Area in use during the quarrying period (Ha)																											
1.	Quarrying Pit	Nil	2.60.0																											
2.	Infrastructure	Nil	0.01.0																											
3.	Roads	Nil	0.01.0																											
4.	Green Belt	Nil	0.83.0																											
5.	Unutilized	3.45.0	Nil																											
	Total =	3.45.0	3.45.0																											
10.2	Water Regime	Water table in this area is noticed at a depth of 72m and presently, in the proposed mining plan only 42m (below ground level) depth has been envisaged as workable depth for safe & economic quarrying for the entire lease period. hence, it will not affect the ground water depletion of this area.																												
10.3	Flora and Fauna	Except acacia bushes, no other valuable trees are noticed in the applied area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.																												



10.4	Climatic conditions	Generally subtropical climatic condition prevails throughout the year and there is no sharp variation in climate. This District receives rain both in south west and north east monsoon. The average rainfall is about 800mm to 900mm and the temperature ranges from 18°C during winter and to a maximum of 42°C during the summer.																				
10.5	Human Settlement	The nearest habitations with the population is given as under. Table No-6 <table><tr><th>S. No</th><th>Name of the Village</th><th>Approximate distance & Direction from lease applied area</th><th>Approximate population</th></tr><tr><td>1</td><td>Chithathur</td><td>2.5Km - NE</td><td>1000</td></tr><tr><td>2</td><td>Vadapoondipattu</td><td>1.2km - NW</td><td>800</td></tr><tr><td>3</td><td>Palli</td><td>0.6km - S</td><td>500</td></tr><tr><td>4</td><td>Mangalam</td><td>1.1km - SW</td><td>200</td></tr></table>	S. No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population	1	Chithathur	2.5Km - NE	1000	2	Vadapoondipattu	1.2km - NW	800	3	Palli	0.6km - S	500	4	Mangalam	1.1km - SW	200
S. No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population																			
1	Chithathur	2.5Km - NE	1000																			
2	Vadapoondipattu	1.2km - NW	800																			
3	Palli	0.6km - S	500																			
4	Mangalam	1.1km - SW	200																			
10.6	Plan for Air, Dust Suppression	Air or dust expected to be generated from drilling process, hauling roads, places of excavation etc., will be suppressed by periodical wetting of land by water spraying. Wet drilling and dust extractor arrangements will be provided to drilling units so as to control raise of dust from the site of drilling. Operators, those exposed directly to such conditions will be provide such protective equipment like mask, ear plug, helmet, gloze etc., as per the Mines Act.																				
10.7	Plan for Noise Control	Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, and hence, noise will be very minimum. However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site. Nowhere the noise level should exceed the permissible limit of 80db during the quarry working hours.																				



10.8	Environmental Impact Assessment Statement Describing Impact on mining on the next Five years	: The mining plan proposed is for an small production of Rough stone without involving deep hole drilling and heavy blasting. Such limited mining activity is not likely to cause any impact adversely on environment as far as pollution of air, water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF.
10.9	Proposal for Waste Management	: There is no waste anticipated in this rough stone quarry operation.
10.10	Proposal of Reclamation of Land affected during mining activities and at the end of mining.	: In the proposed mining plan 42m (below ground level) depth has been envisaged as workable depth for safe & economic mining during the lease period. Hence, after quarry reaches ultimate pit limit (for end of lease period) of 42m depth, fencing will be constructed around the quarried pits to prevent inherent entry of the public and cattle.
10.11	Program for Afforestation	: The 7.5m and 10m safety distance along the lease boundary has been identified to be utilized for afforestation. Appropriate native species of Neem/Pungan trees will be planted in the first year. Nearly 8300Sqm area is proposed to use under afforestation by planting 996nos of Neem/Pungan trees during first year with an anticipated survival rate of 80%. The Quarry landuse, layout and afforestation plan is shown in Plate No.III.
10.12	Proposed Financial Estimate / Budget for (EMP) Environment Management	
	A. Fixed Asset Cost:	
	1. Land Cost (600000/1Ha)=	Rs. 20,70,000
	2. First aid room and accessories	Rs.1,00,000
	3. Labour Shed	Rs.1,00,000
	4. Sanitary Facility	Rs.1,00,000
	Total=	Rs. 23,70,000/-



B. Operational Cost		
1. Machineries	:	Rs.80,00,000-
2. Fencing cost	:	Rs. 2,00,000
Total	:	Rs.82,00,000/-
C.EMP Cost:		Budget Provision for the entire quarrying period.
		Air Quality Sampling = Rs. 40,000/-
		Water Quality Sampling = Rs. 40,000/-
		Noise Monitoring = Rs. 20,000/-
		Ground vibration test = Rs. 20,000/-
Expenditure		
1. Drinking water facility		Rs.1,50,000/-
2. Sanitary Arrangements		Rs. 50,000/-
3. Safety kids		Rs. 50,000/-
4. Water sprinkling		Rs. 1,50,000/-
5. Afforestation		Rs. 1,50,000/-
Total=		Rs. 6,70,000/-
Total Project Cost (A+B+C)		Rs. 1,12,40,000 /-
CSR Cost(2% of Total Project Cost)		Rs. 2,24,800/-

11.0 Mine Closure Plan:

11.1	Steps proposed for phased restoration, reclamation of already mined out area.	: There is no proposal for back filling, reclamation and rehabilitation. The quarried pits after the end of the life of lease will be fenced to prevent inherent entry of public and cattles.
11.2	Measures to be under taken on mine closure as per Act & Rules	: Measures will be taken as per the Acts and Rules. The quarried pit will be fenced by using Barbed wire fencing to prevent inherent entry of public and cattle.
11.3	Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area	: Mitigation measures: Drilling will be carried out by wet drilling mode to control the dust propagation into the air. Blasting will be carried out on limited scale. Mist Water spraying on haul road is proposed to prevent the dust propagation into the air.



12.0 Any Other Details Intend to Furnish by the Applicant:

- (i) Permission will be obtained from the District Mines Office to extract the Rough Stone from the Boundary barriers and for slopes.
- (ii) Care and precautionary measures will be taken for the safety of workers as per Rules and Acts.
- (iii) The applicant will endeavor every attempt to quarry the Rough Stone economically without any wastage and to improve the environment and ecology.
- (iv) The Mining Plan is prepared by incorporating the conditions stipulated in the precise area communication issued and relevant mining laws in force.
- (v) Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department.

Prepared by

C.Natarajan, M.Sc., M.Phil.,
Qualified Person

Place : Salem
Date : 30.05.2025

C.NATARAJAN M.Sc., M.Phil.,
Qualified Person

This Mining Plan Is Approved
Subject to the Conditions/Stipulation
Indicated In The Mining Plan Approval
Letter No. 397 /mines/2024 Dt: 16.6.2025
Office Of The Deputy Director Of
Geology And Mining, Tiruvannamalai.

Deputy Director,
Geology and Mining,
Tiruvannamalai.

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16/6/25



ANNEXURE I

நக.எண்.397/கனிமம்/2024

இயக்குநர் அலுவலகம்,
புனித்யபல் மற்றும் சுரங்கத்துறை,
திருவண்ணாமலை
நாள். 28.05.2025

குறிப்பாணை

பொருள்: கனிமங்களும் சுரங்கங்களும் - சிறுகனிமம் - சாதாரண கற்கள் மற்றும் கிராவல் - திருவண்ணாமலை மாவட்டம் - செய்யார் வட்டம், பல்லி கிராமம் புல எண்.95/1, 95/2 மற்றும் பலவற்றின் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் - சாதாரண கற்கள் மற்றும் கிராமவல் மண் வெட்டியெடுக்க திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவர் 5 ஆண்டுகளுக்கு அனுமதிக்கோரி 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் விதி எண்.19-ன் கீழ் விண்ணப்பம் செய்தது - அறிக்கைகள் வரப்பெற்றது - புலத்தணிக்கை செய்யப்பட்டது - தகுதியான நிலப்பரப்பாக கருதி ஏற்பளிக்கப்பட்ட சுரங்கதிட்டம் மற்றும் சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணைய தடையின்மை சான்று பெற்று சமர்ப்பிக்க கோருதல் தொடர்பாக.

- பார்வை:
1. திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவரின் விண்ணப்ப நாள். 18.12.2024.
 2. இவ்வலுவலக கடிதம் இதே எண். நாள். 18.12.2024.
 3. வட்டாட்சியர், செய்யார் அவர்களின் கடிதம் நக.ஆ1/5667/2024, நாள் 12.02.2025.
 4. சார் ஆட்சியர் (பொ), செய்யார் அவர்களின் கடிதம் நக.அ5/6710/2024, நாள். 07.03.2025.
 5. உதவி புவியியலாளர் (கனிமம்) தனி வருவாய் ஆய்வாளர் (கனிமம்) திருவண்ணாமலை புலத்தணிக்கை அறிக்கை நாள் 13.03.2024.
 6. இவ்வலுவலக கடிதம் இதே எண். நாள். 14.03.2025.
 7. அரசாணை (நிலை) எண்.37, இயற்கை வளங்கள் (எம்.எம்.சி.1) துறை, நாள். 22.04.2025
 8. வட்டார வளர்ச்சி அலுவலர்(கி.உ), ஊராட்சி ஒன்றியம், செய்யார் அவர்களின் கடிதம் 'நக.உஅ.அ4/675/2025, நாள்.20.05.2025.
 9. திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவரின் கடிதம் நாள். 27.05.2025.

பார்வையில் காணும் கடிதங்களின்பால்
வேண்டப்படுகிறது.



2) திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராம புல
எண்கள் 95/1 (0.41.0), 95/2 (0.12.5), 95/3 (0.42.5), 95/4 (0.19.5), 95/5
(0.69.0), 95/6 (0.23.0), 95/7 (0.82.5), 95/8 (0.18.5), 95/9 (0.03.5) மற்றும்
95/10 (0.33.0) ஆகியவற்றின் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் சாதாரண
கற்கள் / கிராவல் மண் குவாரி செய்ய 5 ஆண்டுகளுக்கு குத்தகை உரிமம்
வழங்கக்கோரி திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவர் உரிய
ஆவணங்களுடன் 18.12.2024 அன்று விண்ணப்பம் அளித்துள்ளார். மேலும்
27.05.2025 நாளிட்ட கடிதத்தின்படி 10 ஆண்டுகளுக்கு உரிமம் வழங்க கோரி
மனு அளித்துள்ளார்.

3. மேற்கண்ட விண்ணப்பம் தொடர்பாக வட்டாட்சியர் மற்றும் சார்
ஆட்சியர் (பொ), செய்யார் மற்றும் உதவி புனியியலாளர் (கனிமம்)
திருவண்ணாமலை ஆகியோர் புலத்தணிக்கை மேற்கொண்டு
திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராம புல எண்கள்
95/1 (0.41.0), 95/2 (0.12.5), 95/3 (0.42.5), 95/4 (0.19.5), 95/5 (0.69.0), 95/6
(0.23.0), 95/7 (0.82.5), 95/8 (0.18.5), 95/9 (0.03.5) மற்றும் 95/10 (0.33.0)
ஆகியவற்றின் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் மட்டும் திரு.கோகுல்ராஜ்,
த/பெ.சரவணராஜ் என்பவருக்கு கிராவல் மண் மற்றும் சாதாரண கற்குவாரி
உரிமம் வழங்க 5 ஆண்டு காலத்திற்கு கீழ்க்கண்ட நிபந்தனைகட்கு உட்பட்டு
அனுமதி வழங்கலாம் என பரிந்துரை செய்துள்ளனர்.

நிபந்தனைகள்

- 1959-ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள் ,
அட்டவணை II-ல் கண்டுள்ளபடி குவாரி செய்யப்படும் கனிமங்களுக்கு
சீனியரேஜ் தொகை அவ்வப்போது செலுத்தி கனிமம் கொண்டு
செல்லப்பட வேண்டும்.
- அருகில் உள்ள பட்டா நிலங்களுக்கு 7.5மீ. மற்றும் அரசு நிலங்களுக்கு 10
மீ. பாதுகாப்பு இடைவெளியும் விட வேண்டும்.
- புல எண்.96ல் குளத்திற்கு 50 மீ. (அல்லது) தொடர்புடைய துறை சார்ந்த
அலுவலரால் தெரிவிக்கப்பட்ட பாதுகாப்பு இடைவெளி விட்டு
குவாரிப்பணி செய்ய வேண்டும்.



- d. பொதுமக்களுக்கும் அருகிலுள்ள நிலங்களுக்கும் எவ்வித பாதிப்பும் ஏற்படுத்தக்கூடாது.
- e. குவாரிப்பணி தொடங்குவதற்கு முன்பாக குவாரியை சுற்று முன் கம்பிவேலி அமைத்து குவாரிப்பணி தொடங்க வேண்டும்.
- f. அனுபவம் வாய்ந்த வெடிபொருள் பயன்படுத்துவோர் மூலம் குறைந்த அளவு சக்தி கொண்ட வெடிபொருட்களை பயன்படுத்தி அருகிலுள்ள பட்டாதாரர்களுக்கு எவ்வித இடையூறுமின்றி / அருகிலுள்ள பட்டா மற்றும் அரசு புலங்களில் எவ்வித ஆக்கிரமிப்பும் இன்றி குவாரிப் பணி மேற்கொள்ள வேண்டும்.
- g. விதிகளின்படி ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தினை உரிய காலத்திற்குள் சமர்ப்பிக்க வேண்டும்.
- h. குவாரி உரிமம் வழங்க உள்ள பகுதிக்கு சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும்.

4. வட்டார வளர்ச்சி அலுவலர், செய்யார் அவர்களின் 20.05.2025 நாளிட்ட கடிதத்தில் விண்ணப்ப புலத்தின் வடக்கே புல எண். 96ல் உள்ள குளத்திற்கு விடப்பட்டுள்ள பாதுகாப்பு இடைவெளி 10 மீ. எனவும், மேற்படி விண்ணப்ப புலத்தில் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் சாதாரண கற்கள் மற்றும் கிராவல் குவாரி உரிமம் வழங்கலாம் என தெரிவித்துள்ளார்.

5. இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை அவர்களின் 10.08.2020 நாளிட்ட கடிதத்துடன் இணைத்து வரப்பெற்ற அரசாணை எண்.169 தொழில் துறை (எம்.எம்.சி-1) நாள் 04.08.2020-ன்படி பட்டா புலங்களில் கிராவல், சாதாரண வகை கற்கள் ஆகிய சிறுகனிம உரிமம் வழங்கும் நேர்வுகளில் நடவடிக்கை எடுக்க விதி 19 மற்றும் 33-ல் மாவட்ட ஆட்சியருக்கு வழங்கப்பட்ட அதிகாரம் தற்போது சம்மந்தப்பட்ட உதவி/துணை இயக்குநர் அவர்களுக்கு மாற்றி வழங்க உத்திரவிடப்பட்டுள்ளது.

6. எனவே, வட்டாட்சியர் மற்றும் சார் ஆட்சியர் (பொ), செய்யார், உதவி புவியியலாளர் (கனிமம்) திருவண்ணாமலை மற்றும் வட்டார வளர்ச்சி அலுவலர், செய்யார் ஆகியோரின் பரிந்துரை, நிபந்தனைகள் மற்றும் மனுதாரரின் கோரிக்கையின் அடிப்படையில் திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராம புல எண்கள் 95/1 (0.41.0), 95/2 (0.12.5), 95/3



(0.42.5), 95/4 (0.19.5), 95/5 (0.69.0), 95/6 (0.23.0), 95/7 (0.82.5), 95/8 (0.18.5), 95/9 (0.03.5) மற்றும் 95/10 (0.33.0) ஆகியவற்றின் மொத்தப்பரப்பு 3.45.0 ஹெக்டேரில் 1959-ம் வருட தமிழ்நாடு சிறுகனிம விதிகள், விதி எண்.19-ன்படி மேற்கண்ட நிபந்தனைகளுக்குட்பட்டு 10 (பத்து) வருட காலத்திற்கு திரு.கோகுல்ராஜ், த/பெ.சரவணராஜ் என்பவருக்கு கிராவல் / சாதாரண கற்கள் குவாரி உரிமம் வழங்குவதற்குரிய தகுதியான நிலப்பரப்பாக கருதப்படுகிறது.

7. மேலும், தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959, விதி 41-ன்படி குவாரிப் பணி மேற்கொள்வது தொடர்பாக வரைவு சுரங்க திட்டத்தினை 90 தினங்களுக்குள் சமர்ப்பிக்குமாறு மனுதாரரைக் கேட்டுக் கொள்ளப்படுகிறது. மேலும் ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டத்தின் தொடர்ச்சியாக 1959-ம் வருடத்திய தமிழ்நாடு சிறு கனிம சலுகை விதிகள், விதி எண்.42-ன்படி சுற்றுச் சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் தடையின்மை சான்று பெற்று சமர்ப்பிக்கும் பட்சத்தில் மட்டுமே குவாரி உரிமம் வழங்கப்படும் என இதன் மூலம் தெரிவிக்கப்படுகிறது.


 துணை இயக்குநர்,
 புனியியல் மற்றும் சுரங்கத்துறை,
 திருவண்ணாமலை.

பெறுநர்

திரு.ச.கோகுல்ராஜ்,
 த/பெ.சரவணராஜ்,
 எண்.14, காமராஜ் நகர்,
 பம்மல் அஞ்சல்,
 காஞ்சிபுரம் மாவட்டம்.

நகல்.

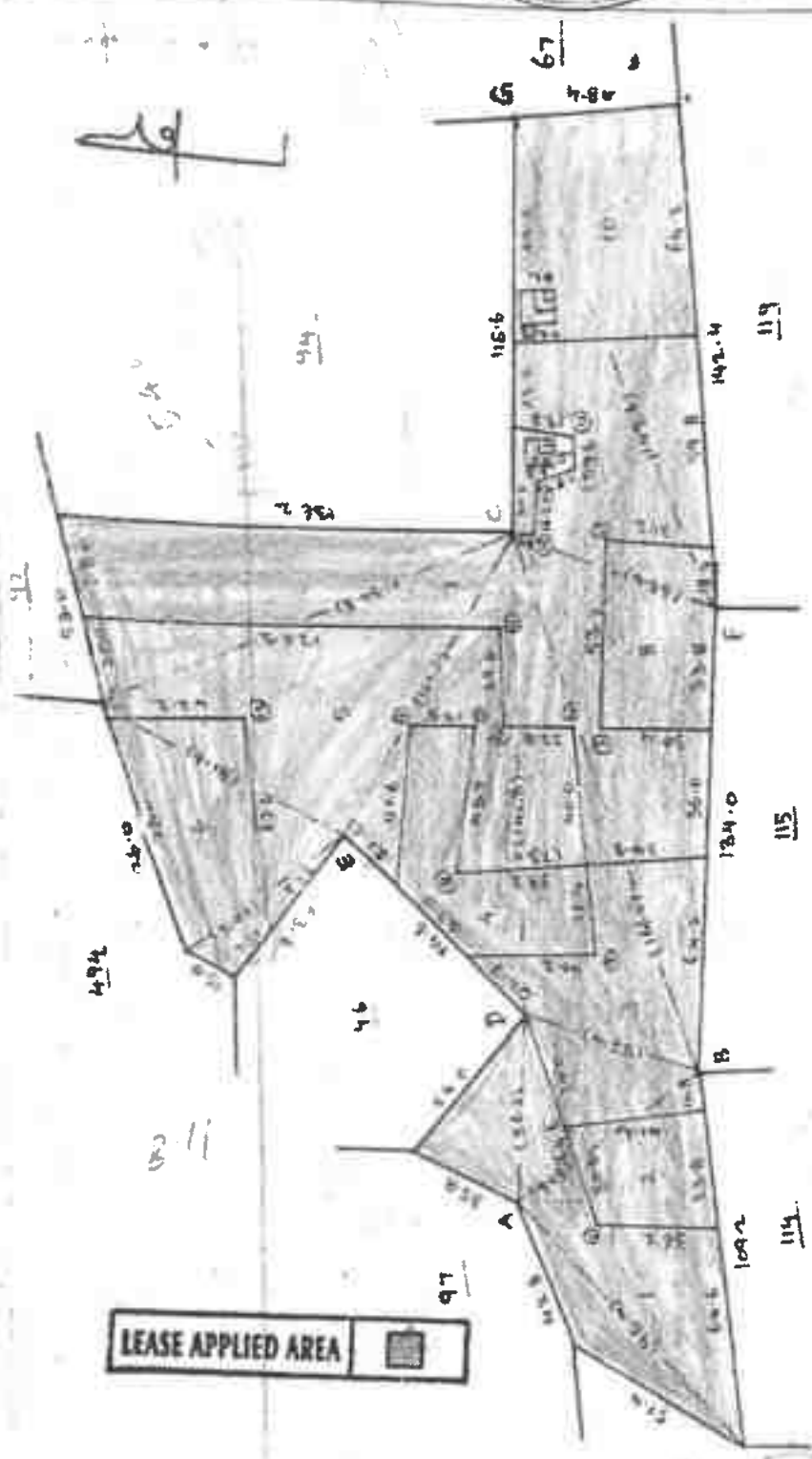
1. தலைவர், மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், சென்னை
2. ஆணையர், புனியியல் மற்றும் சுரங்கத்துறை, சென்னை-32.

பெரிய உட்குறுகாடு
 வட்டம் எட்டாம்
 பக்கம் 95



சென்னை, 23

86
 மல்கி
 3 ல் 45.0



C	155.6		
16.4	3.5		
38.4	4.2		
36.4	3.4		
51.8	3.4		
50.0	3.0		
46.2	2.0		
G			
C			
134.8			
37.2	19.5	15	
H			
C			
115.6			
99.4	9.4	16	
78.6	8.2	13	
88.0	19.6	12	
G			
F			
65.0			
7.6	28.2		
2.2	8.6		
C			
101.2			
37.8	2.2	9	
E			
D			
141.3			
98.8	18.8	8	
55.6	11.8	7	
55.2	3.6	6	
27.4	2.8	5	
C			
166.0			
187.0	1.0	4	
104.2	7.8	3	
16.0	43.0		
B			
67.6			
15.4	18.2		
A			

மேலும் 11.2.28 36 பக்கம் கீழ்க்கண்ட
 கட்டிடம் மல்கி மல்கி



தமிழ்நாடு அரசு

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை
நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செவ்வா

வருவாய் கிராமம் : பல்வி

பட்டா எண் : 1466

உரிமையாளர்கள் பெயர்

1 ரங்கன மகன் சரவணராஜ்

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக்டர் - ஏர்	ரூ - பை	ஹெக்டர் - ஏர்	ரூ - பை	ஹெக்டர் - ஏர்	ரூ - பை	
95	1	0 - 41.00	1.05	--	--	--	--	2018/0103/06/074600- Digitally signed:Ravichandaran D Zonal Deputy Tahsildar 29/05/2018 04:19:08:PM
95	10	0 - 33.00	0.85	--	--	--	--	2018/0103/06/074600- -- --WELL,SET.--- Digitally signed:Ravichandaran D Zonal Deputy Tahsildar 29/05/2018 04:19:08:PM
95	2	0 - 12.50	0.35	--	--	--	--	2018/0103/06/074600- Digitally signed:Ravichandaran D Zonal Deputy Tahsildar 29/05/2018 04:19:08:PM
95	3	0 - 42.50	1.10	--	--	--	--	2018/0103/06/074600- Digitally signed:Ravichandaran D Zonal Deputy Tahsildar



29/05/2018
04:19:08:PM

2018/0103/06/074600-

Digitally
signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
04:19:08:PM

2018/0103/06/074600-

Digitally
signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
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Zonal Deputy Tahsildar
29/05/2018
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Zonal Deputy Tahsildar
29/05/2018
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29/05/2018
04:19:08:PM

2018/0103/06/074600-

Digitally
signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
04:19:08:PM

95	4	0 - 19.50	0.50	--				
95	5	0 - 69.00	1.80	--	--	--		
95	6	0 - 23.00	0.60	--	--	--	--	
95	7	0 - 82.50	2.15	--	--	--	--	
95	8	0 - 18.50	0.50	--	--	--	--	
95	9	0 - 3.50	0.10	--	--	--	--	
		3 - 45.00	9.00					



ANNEXURE **V**

1434 - ஆம் பக்கம்

திருவண்ணாமலை

பக்கம்

36 11/1/95

தமிழ்நாடு அரசு					மாநிலப் பேரவை						
மாநிலப் பேரவை					மாநிலப் பேரவை						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
95	1	0410	105	1466	பெரிய கிணர்	-	-	-	-	-	-
95	10	0390	85	1466	"	-	-	-	-	-	-
95	2	0125	035	1466	"	-	-	-	-	-	-
95	3	0425	110	1466	"	-	-	-	-	-	-
95	4	0195	050	1466	"	-	-	-	-	-	-
95	5	0690	180	1466	"	-	-	-	-	-	-
95	6	0230	060	1466	"	-	-	-	-	-	-
95	7	0825	15	1466	"	-	-	-	-	-	-
95	8	0125	050	1466	"	-	-	-	-	-	-
95	9	0035	010	1466	"	-	-	-	-	-	-
/ 2 அண்ணா நகர் /											
24 ஆளுநர் மாநிலப் பேரவை											

9/3/24, 1:58 PM

வட்டாட்சியர் அலுவலக இணைய சேவை - அ-பதிவேடு விவரங்களை பார்வையிட

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

இராமம் : பல்லி

1. புல எண்	95	9. மண் வாயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	1	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-1	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி		12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 41.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.05
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்		15. குறிப்பு	
8. இரு போகமா		16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1 பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/1/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்லி



1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	2	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-2	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	.	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 12.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.35
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	.	15. குறிப்பு	.
8. இரு போகமா	.	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/2/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

இராமம் : பல்லி

1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	3	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-3	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 42.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.10
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/3/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்லி

1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	4	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-4	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி		12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 19.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.50
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1456
7. பாசன ஆதாரம்	-	15. குறிப்பு	
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/4/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்வி

1. புல எண்	95	2. மண் வயனமும் சலமும்	8 - 3
2. உட்பிரிவு எண்	5	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-5	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 69.00
5. அரக / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.80
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டன. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/5/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
பாப்பதுபெறும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

ஊராமம் : பல்லி

1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	6	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-6	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 23.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.60
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/6/110607 என்ற குறிப்பு எண்ணை உள்ளிட்டு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

இராமம் : பல்லி

1. புல எண்	95	9. மண் வியனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	7	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-7	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 82.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	2.15
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/7/110607 என்ற குறிப்பு எண்ணை உள்ளிடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்னி



1. புல எண்	95	9. மண் வியனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	8	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-8	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி		12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 18.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.50
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்		15. குறிப்பு	-
8. இரு போகமா		16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை நாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/8/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்லி

1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	9	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-9	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 3.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.10
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1456
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டன. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/9/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்து கொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்லி

1. புல எண்	95	9. மண் லீயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	10	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-10	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 33.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.85
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	WELL,SET.
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1 பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/10/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து
உறுதி செய்துகொள்ளவும்.

4966/2024

ANNEXURE

VII



தமிழ்நாடு தமிழ்நாடு TAMILNADU

Rs.1000/-

18.11.2024. P.R.S. சரவணராஜ்
080201.75

ஜனரல் பவர் பத்திரம்

(GENERAL POWER OF ATTORNEY)

BL 21454

J. சந்திரன்

ஸ்டாம்பு வென்டர்

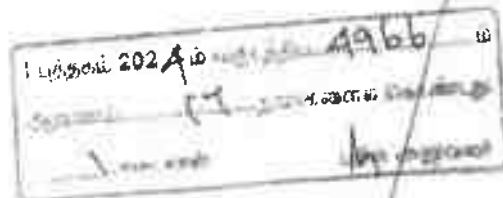
நிதவாசி (தி.மலை மா)

R.C.No.6/A1/93

2024 ஆம் ஆண்டு நவம்பர் மாதம் 18-பதினெட்டாம் தேதி, சென்னை -600 075, பம்மல், காமராஜ் தெரு, நெ.14, என்ற இல்லத்தில் குடியிருக்கும் திரு.P.R.S சரவணராஜ் அவர்களின் குமாரர் திரு.S.கோகுல்ராஜ் வயது 25 (ஆதார் எண்.5018 8617 8357), (PAN CARD NO.CPBPG4909N) (செல் நெ.9066616161) அவர்களுக்கு,

சென்னை -600 075, பம்மல், காமராஜ் தெரு, நெ.14, என்ற இல்லத்தில் குடியிருக்கும் திரு.P.ரங்கன் நாயக்கர் அவர்களின் குமாரர் திரு.P.R.S.சரவணராஜ் வயது 50 (ஆதார் எண் 2975 2348 2142), (PANCARD NO.BCHPS2018C) (செல் நெ. 9444025579) ஆகிய நான் மண்பூர்வீகமாக சம்மதித்தும் எழுதிக் கொடுத்த புஞ்சை நிலங்கள் பூராவும் மற்றும் கிணறு, மேற்படி கிணற்றங்கரையில் அமைத்துள்ள 3 HP மின்சார மோட்டார், பம்செட், சர்வீஸ் கணைக்ஷன், டெப்பாசிட் மற்றும் பைப் வகையறா உள்படவம் பொது அதிகாரப் பத்திரம் (GENERAL POWER OF ATTORNEY) என்னவென்றால்.

S.UR



நீ என்னுடைய மகன் என்ற உறவுமுறையிலும், நான் உனக்கு தந்தை என்ற உறவுமுறையிலும் கீழ்க்கண்ட சொத்து விவரத்தில் கண்டுள்ள சொத்துக்களைத் திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராமத்தில் குடியிருக்கும் திரு. P. தருமன்-1, வேலூர் மாவட்டம், மேம்பட்டம்-632 001, சர்வைமுனுசாமி முதலிதெரு, நெ.8/26/2E, என்ற இல்லத்தில் குடியிருக்கும் காலம் சென்ற துரைசாமி மந்திரி அவர்களின் குமாரர் வழக்கறிஞர் V. சந்திரகேசன்-2 ஆகியவர்கள் இருவரும் சேர்ந்து கடந்த 21-07-2008 ஆம் ஆண்டு ஒரு பாகப்பிரிவினைப்பத்திரம் எழுதிக்கொண்டார்கள். மேற்படி பாகப்பிரிவினைப்பத்திரம் திருவத்திபுரம் இணை எண் II சார்பதிவாளர் அலுவலகத்தில் 1 புத்தகம் 2008 ஆம் ஆண்டின் 4364 பத்திர எண்ணாக பதிவு செய்யப்பட்டுள்ளது. மேற்படி பாகப்பிரிவினைப்பத்திரத்தில் மேற்படி V. சந்திரகேசன் அவர்களுக்கு B-ஷெட்யூல் பாகமாக வரப்பெற்று அது முதல் மேற்படி V. சந்திரகேசன் அவர்கள் சர்வ சுதந்திரமாக ஆண்டு அனுபவித்து வந்த சொத்துக்களாகும். மற்றும்

திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், நெ.86, பல்லி கிராமத்தில் குடியிருக்கும் திரு. P. தருமன்-1, வழக்கறிஞர் V. சந்திரகேசன்-2 ஆகியவர்கள் இருவரும் சேர்ந்து கடந்த 21.07.2008 ஆம் ஆண்டு திருவண்ணாமலை மாவட்டம், செய்யாறு வட்டம், பல்லி கிராமம், கருணீசர் தெரு, நெ.45, என்ற இல்லத்தில் குடியிருக்கும் காலம் சென்ற துரைசாமி மந்திரி அவர்களின் குமாரர் திரு. D. கோபாலகிருஷ்ணன் அவர்களுக்கு கீழ்க்கண்ட சொத்து விவரத்தில் கண்டுள்ள சொத்துக்களை ஒரு தானசெட்டில்மெண்ட் பத்திரம் எழுதிக்கொடுத்துள்ளார்கள். மேற்படி தானசெட்டில்மெண்ட் பத்திரம் திருவத்திபுரம் இணை எண் II சார்பதிவாளர் அலுவலகத்தில் 1 புத்தகம் 2008 ஆம் ஆண்டின் 4381 பத்திர எண்ணாக பதிவு செய்யப்பட்டுள்ளது. அது முதல் மேற்படி திரு. D. கோபாலகிருஷ்ணன் அவர்கள் சர்வ சுதந்திரமாக ஆண்டு அனுபவித்து வந்த சொத்துக்களாகும். மற்றும்

திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராமத்தில் குடியிருக்கும் திரு. P. தருமன் அவர்கள் தன்னுடைய குமாரர் திரு. D. முத்துபச்சையப்பன் அவர்களுக்கு கடந்த 01-03-2017 ஆம் ஆண்டு கீழ்க்கண்ட சொத்து விவரத்தில் கண்டுள்ள சொத்துக்களை ஒரு செட்டில்மெண்ட் பத்திரம் எழுதிக்கொடுத்துள்ளார். மேற்படி செட்டில்மெண்ட் பத்திரம் திருவத்திபுரம் இணை எண் II சார்பதிவாளர் அலுவலகத்தில் 1 புத்தகம் 2017 ஆம் ஆண்டின் 297 பத்திர எண்ணாக பதிவு செய்யப்பட்டுள்ளது. அது முதல் மேற்படி திரு. D. முத்துபச்சையப்பன் அவர்கள் சர்வ சுதந்திரமாக ஆண்டு அனுபவித்து வந்த சொத்துக்களாகும். மற்றும்

S. CR



மேற்படி திரு.D.கோபாலகிருஷ்ணன்-1, V.சந்திரகேசன்-2, திரு.D. முத்துசையம்பன்-3, ஆகியவர்களிடமிருந்து கடந்த 18-04-2018 ஆம் ஆண்டு திரு.P.R.S.சுவாமிநாதன் கீழ்க்கண்ட சொத்துவிவரத்தில் கண்டுள்ள சொத்துக்களை சுயர்ஜிதமாய் கொள்வதற்காக வாரங்கியுள்ளேன். மேற்படி கிரையம் வாங்கிய பத்திரம் திருவத்திரம் இணை எண் II சார்பதிவாளர் தயவுசெய்து பதிவு செய்து கொள்ளுமாறு மன்றம் என 1 புத்தகம் 2018 ஆம் ஆண்டின் 911 பத்திர எண்ணாக பதிவு செய்யப்பட்டுள்ளது. மன்றம் என பெயரில் தனியப்பட்டா எண்.1466-ன்படி வரப்பெற்று அது முதல் நான் சர்வ சதந்திரமாக ஆண்டு அனுபவித்துவரும் சொத்துக்களாகும்.

மேற்படி நான் கிரையம் பெற்ற சொத்துக்கள் அனைத்தும் எனக்கு பாத்தியப்பட்டதும், எனக்கு பூரண உரிமை உள்ளதுமான சொத்துக்களை நான் தற்போது சார்பதிவாளர் அலுவலகத்தில் உரிய நேரத்தில் பதிவு செய்து கொடுக்க முடியாததினாலும், ஒரு சில காரணங்களால் அடிக்கடி வெளியூர் செல்ல இருப்பதினாலும் கீழ்க்கண்ட சொத்துக்களுக்கு நான் என் ஜெனரல் பவர் ஏஜெண்டாக தங்களை நியமிக்கிறேன். எனக்காக கீழ்க்கண்ட சொத்துக்களை பொருத்து என் முகவராகிய தாங்கள் செய்யும் அனைத்து பதிவுகளையும் அனைத்து செயல்களையும் நானே நேரில் வந்திருந்து செய்ததாக ஒப்புக்கொண்டு மேற்படி நான் என் ஜெனரல் பவர் ஏஜெண்டாக பொது அதிகார முகவராக தங்களை நியமிக்கிறேன். கீழ்க்கண்ட சொத்துக்களை பொருத்து அவ்வப்பொழுது நான் கேட்கும் சமயம் கணக்குகளை என்னிடம் ஒப்படைக்க வேண்டியது. இந்தபடிக்கு நான் மனப்பூர்வமாக சம்மதித்து எழுதிக் கொடுத்த புஞ்சை நிலங்கள் பூராவும் மற்றும் கிணறு, மேற்படி கிணற்றங்கரையில் அமைந்துள்ள 3 HP மின்சார மோட்டார், பம்செட், சர்வீஸ் கணைக்ஷன், டெப்பாசிட் மற்றும் பைப் வகையறா உள்படவும் பொது அதிகாரப் பத்திரம் (GENERAL POWER OF ATTORNEY) ஆகும்.

SUR

R. J. J. J. J.

18-04-2018 A. 1466-11
சுயர்ஜிதமாய் கொள்வதற்காக
2



செயல் முறைகள்

1. எனக்காக தாங்கள் கீழ்க்கண்ட சொத்து விபரத்தில் கண்டுள்ள சொத்துக்களை கிராமியப் பேசிகிரைய அக்ரிமெண்ட் பத்திரம் எழுதி பதிவு செய்து கொடுத்து முன்பணம் பெறவும்.
2. எனக்காக கிரையம் வாங்குபவர் பெயருக்கு கிரையத் தொகைகளைப் பெற்றுக் கொண்டு உரிய சார்பதிவாளர் அலுவலகத்தில் கிரையப் பத்திரத்தை பதிவு செய்து கொடுக்கவும்.
3. பதிவுக்கு தேவையான அனைத்து நுழைக்களிலும் (பாரங்களில்) என் சார்பாக தாங்களே கையெழுத்து செய்து உரிய அலுவலகங்களில் பதிவு செய்து கொடுக்கவும்.
4. கீழ்க்கண்ட சொத்துக்களைப் பொருத்து மட்டும் கிரையப் பத்திரம் என் சார்பாக தாங்களே கையெழுத்து செய்து பதிவு செய்து கொடுக்கவும்.
5. கீழ்க்கண்ட சொத்துக்களைப் பொருத்து கிரையப் பத்திரம் அடமானம், போக்கியம், குத்தகை, வாடகை, அக்ரிமெண்ட், பரிவர்த்தனை பத்திரம் மற்றும் திருத்தல் பத்திரம் போன்ற பத்திரங்களையும் என் சார்பாக தாங்களே கையெழுத்து செய்து பதிவு செய்து கொடுக்கவும்.
6. சொத்துக்களின் மதிப்புச் சான்று வில்லங்கச் சான்று பத்திர நகல்கள், ரெவின்யூ ரெக்கார்டுகள் போன்ற அனைத்து அலுவலகங்களிலும் செயல்பாடுகளையும் என் சார்பாக தாங்களே செய்து வரவேண்டியது.
7. கீழ்க்கண்ட சொத்து விபரத்தில் கண்டுள்ள சொத்துக்களை விற்பனை செய்யவும் நான் தங்களுக்கு முழு அதிகாரம் அளித்துள்ளேன்.
8. கீழ்க்கண்ட சொத்துக்களைப் பொருத்து அனைத்து நீதிமன்ற நடவடிக்கைகளுக்கும் தாங்கள் நேரடியாக வக்காலத்துகளில் கையெழுத்து செய்து அட்வகேட் நியமித்து வழக்காடவும். தங்களுக்கு நான் முழு அதிகாரம் அளிக்கிறேன்.
9. இந்த சொத்துக்களைப் பொருத்து நான் எந்தவிதமான கைமாற்று தொகையும் தங்களிடம் பெறவில்லை.
10. கீழ்க்கண்ட சொத்துக்களைப் பொருத்து அவ்வப்பொழுது நான் கேட்கும் சமயம் கணக்குகளை என்னிடம் ஒப்படைக்க வேண்டியது.

S. R.

[Handwritten Signature]

1 பிப்ரவரி 2022 அ. ந. எழுதின... 4966...
 மு. ந. எழுதின... 17...
 A... கை தான்

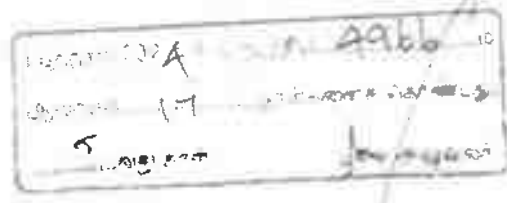


11. கல்குவாரி சம்மந்தமாக அனைத்து அனுமதிகளையும் என் சார்பாக தாங்களே பெற வேண்டியது.
12. சாதாரண கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க என்சார்பாக தாங்களே குத்தகை ஒப்பந்தப்பத்திரம் எழுதிக்கொடுக்கவும் நான் சம்மதிக்கிறேன்.
13. என் பெயரிலேயே தாங்கள் கல்குவாரிக்கு செலுத்த வேண்டிய கட்டிடவழிகளை திறுவை இன்றி செலுத்தி வரவேண்டியது.
14. தமிழ்நாடு சிறுகனிம சலுகை விதிகளில் உள்ள நிபந்தனைகளின் பேரில் தாங்களே எனக்காக குத்தகை உரிமம் பெற வேண்டியது.
15. கல்குவாரிக்கு சென்று வரும் பாதை வசதிகள் என் சார்பாக தாங்களே முன்னின்று தங்களின் சொந்த பொருப்பிலேயே அமைத்துக்கொள்ள வேண்டியது.
16. கல்குவாரி அமைக்கப்பட்டுள்ள நிலங்களை தெளிவாக காட்டும் வகையில் கல் நட்டு பயன்படுத்திக் கொள்ளவும்.
17. குத்தகை அனுமதி வழங்கப்பட்ட நிலத்திலிருந்து கொண்டு செல்லப்பட்ட கற்களுக்கு முறையான கணக்குகளும், குழிவாயில் பதிவேடும், முறையாக என்சார்பில் பராமரித்தல் வேண்டும். அவற்றை சம்மந்தப்பட்ட அலுவலர்கள் தணிக்கைக்கு ஆஜர்படுத்த கோரினால் என் சார்பாக தாங்களே தவறாது கணக்குகளை சமர்பித்து அதிகாரிகளின் கையெழுத்து பெற சம்மதிக்கிறேன்.



S. A. R.

Don. J. S. S. S.



செய்து விட்டது



திருவண்ணாமலை மாவட்டம், செய்யாறு வட்டம், செய்யாறு பதிவு மாவட்டம்
திருவத்திபுரம் இணை எண் 11 சார்பதிவாளர் அலுவலகத்தைச் சேர்ந்த நெ.86,பல்நிலை
கிராமத்தில் மேற்சொன்ன விவரப்படி நான் சர்வ கதந்திரமாக ஆண்டு அளவித்து வரும்

பட்டா எண் 1455-என்பது

புஞ்சை சர்வே எண்.95/1	0.41.00 ஏர்ஸ்	ஏக்கர் 1.01 செண்டு பூரா
புஞ்சை சர்வே எண்.95/2	0.12.50 ஏர்ஸ்	ஏக்கர் 0.31 செண்டு பூரா
புஞ்சை சர்வே எண்.95/3	0.42.50 ஏர்ஸ்	ஏக்கர் 1.05 செண்டு பூரா
புஞ்சை சர்வே எண்.95/4	0.19.50 ஏர்ஸ்	ஏக்கர் 0.48 செண்டு பூரா
புஞ்சை சர்வே எண்.95/5	0.69.00 ஏர்ஸ்	ஏக்கர் 1.70 செண்டு பூரா
புஞ்சை சர்வே எண்.95/6	0.23.00 ஏர்ஸ்	ஏக்கர் 0.57 செண்டு பூரா
புஞ்சை சர்வே எண்.95/7	0.82.50 ஏர்ஸ்	ஏக்கர் 2.04 செண்டு பூரா
புஞ்சை சர்வே எண்.95/8	0.18.50 ஏர்ஸ்	ஏக்கர் 0.46 செண்டு பூரா
புஞ்சை சர்வே எண்.95/9	0.03.50 ஏர்ஸ்	ஏக்கர் 0.09 செண்டு பூரா
புஞ்சை சர்வே எண்.95/10	0.33.00 ஏர்ஸ்	ஏக்கர் 0.81 செண்டு பூரா

மேற்படி புஞ்சை சர்வே எண்.95/9 ல் உள்ள கிணறு, 3.HP. மின்சார மோட்டார், பம்செட்,
டெப்பாசிட் மற்றும் பைப் வகையறா உள்படவும் . மேற்படி மின் இணைப்பு எண்.AGL NO.37
உள்படவும்.

SUR

செ. இராமச்சந்திரன்

பட்டா எண் 1455-என்பது 4966
செய்து விட்டது
பட்டா எண் 1455-என்பது 4966



ஆக மொத்த விஸ்தீரணம் 3.45.0 ஹெக்டேர்ஸ் ஏக்கர் 8.52 (எட்டு ஏக்கர் ஐம்பதாம் இரண்டு செண்டு) உட்படவும் உள்ள சொத்துக்கள் பூராவும் இந்த பொது அதிகார சீருய்வு இலாகா பத்திரத்திற்கு சம்மந்தப்பட்டது.

மேற்படி சொத்துக்கள் பல்லி கிராம ஊராட்சி மன்றத்திற்கும், ஒன்றியத்திற்கும் சம்மந்தப்பட்டது.

மேற்படி சொத்துக்களின் தற்கால மார்கெட் மதிப்பு ரூ.24,68,600/- ஆகும்.
எழுதி வாங்குபவர் கையெழுத்து எழுதிக் கொடுப்பவர் கையெழுத்து

S.ulf

R. Haribabu

சாட்சிகள்:

1.

ஆனந்தன் த/பெ. அரிபாபு

நெ.5, கஸ்தூரிபாய் தெரு, வந்தவாசி-604 408.

ஆதார் எண்.3135 0749 5373

2.

குணசேகரன் த/பெ. வடிவேல்

நெ.181/97, பம்பல் மெயின் ரோடு, காஞ்சிபுரம்-600 075.

ஆதார் எண்.2329 7780 7666

வரைவு செய்தவர்:



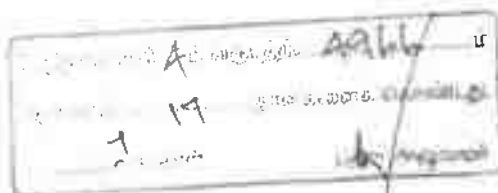
R. Haribabu, M.A., LLB.

ADVOCATE

Enrolment No. MS 1888/2013

நெ.5, கஸ்தூரிபாய் தெரு, வந்தவாசி.

Cell. 9944227201



1968-ஆம் வருடத்திய சென்னை முத்திரை மதிப்பு குறைப்புத் தடுப்பு சட்டத்தின் 3(1) விதிகளின் கீழ் ஸ்டேட்மெண்டு, செய்யாறு வட்டம், பல்லி கிராமத்தில்,

வரிசை சர்வே விஸ்தீரணம் சொத்தின் எழுதிக்கொடுப்பவரின்
எண் எண் தன்மை தீர்மானப்படி காலவரிசை

மட்டா எண்.1466-ன்படி

- 1.) புஞ்சை சர்வே எண்.95/1 0.41.00 ஏர்ஸ் ஏக்கர் 1.01 செண்டு பூரா மதிப்பு ரூ.2,82,800/-
- 2.) புஞ்சை சர்வே எண்.95/2 0.12.50 ஏர்ஸ் ஏக்கர் 0.31 செண்டு பூரா மதிப்பு ரூ. 86,800/-
- 3.) புஞ்சை சர்வே எண்.95/3 0.42.50 ஏர்ஸ் ஏக்கர் 1.05 செண்டு பூரா மதிப்பு ரூ.2,94,000/-
- 4.) புஞ்சை சர்வே எண்.95/4 0.19.50 ஏர்ஸ் ஏக்கர் 0.48 செண்டு பூரா மதிப்பு ரூ.1,34,400/-
- 5.) புஞ்சை சர்வே எண்.95/5 0.69.00 ஏர்ஸ் ஏக்கர் 1.70 செண்டு பூரா மதிப்பு ரூ.4,76,000/-
- 6.) புஞ்சை சர்வே எண்.95/6 0.23.00 ஏர்ஸ் ஏக்கர் 0.57 செண்டு பூரா மதிப்பு ரூ.1,59,600/-
- 7.) புஞ்சை சர்வே எண்.95/7 0.82.50 ஏர்ஸ் ஏக்கர் 2.04 செண்டு பூரா மதிப்பு ரூ.5,71,200/-
- 8.) புஞ்சை சர்வே எண்.95/8 0.18.50 ஏர்ஸ் ஏக்கர் 0.46 செண்டு பூரா மதிப்பு ரூ.1,28,800/-
- 9.) புஞ்சை சர்வே எண்.95/9 0.03.50 ஏர்ஸ் ஏக்கர் 0.09 செண்டு பூரா மதிப்பு ரூ. 25,200/-
- 10.) புஞ்சை சர்வே எண்.95/10 0.33.00 ஏர்ஸ் ஏக்கர் 0.81 செண்டு பூரா மதிப்பு ரூ.2,26,800/-
- 11.) மேற்படி சர்வே எண்.95/9 ல் உள்ள கிணறு பூரா மதிப்பு ரூ. 50,000/-
- 12.) மேற்படி கிணற்றங்கரையில் அமைந்துள்ள 3.HP மின்சார மோட்டார், பம்செட், மின் இளைணப்பு, மதிப்பு ரூ. 30,000/-
- 13.) மேற்படி டெப்பாசிட் மதிப்பு ரூ. 3,000/-

ஆக மொத்த விஸ்தீரணம் 3.45.0 ஹெட்டேர்ஸ்

8.52 (எட்டு ஏக்கர் ஐம்பத்தி இரண்டு செண்டு) மதிப்பு

8,600/-

S.W.R

புஞ்சை 1466 அம் வருடத்திய 4966 க்
17 கொண்டது
8



for Commissioner



தமிழ்நாடு அரசு

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

வருவாய் கிராமம் : பல்னி

பட்டா எண் : 1466

உரிமையாளர்கள் பெயர்

1. ரங்கன்

மகன்

சரவணராஜ்

புல எண் - உட்பிரிவு		புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு ஹெக்டே - ஏர்	தீர்வை ரூ - பை	பரப்பு ஹெக்டே - ஏர்	தீர்வை ரூ - பை	பரப்பு ஹெக்டே - ஏர்	தீர்வை ரூ - பை	
95	1	0 - 41.00	1.05	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	10	0 - 33.00	0.85	--	--	--	--	2018/0103/06/074600--- --WELL,SET----- 29-05-2018
95	2	0 - 12.50	0.35	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	3	0 - 42.50	1.10	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	4	0 - 19.50	0.50	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	5	0 - 69.00	1.80	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	6	0 - 23.00	0.60	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	7	0 - 82.50	2.15	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	8	0 - 18.50	0.50	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	9	0 - 3.50	0.10	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
		3 - 45.00	9.00					

குறிப்பு :



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டில்

1.பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> இணைய

தளத்தில் 06/04/086/01466/30607 என்ற குறிப்பு எண்ணைப் பயன்படுத்தி

செய்து செய்துகொள்ளவும்

2. இத் தகவல்கள் 18-11-2024 அன்று 12:49:56 PM நேரத்தில் அச்சு செய்யப்பட்டன

3.கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வல

இணையதளத்தில் சரிபார்க்கவும்

S.W.R

for Jmmmy


சரவணராஜ் ரங்கன்
Saravanasaj Rangan
 பிறந்த நாள் : DOB 28/09/1972
 ஆண் / MALE

2975 2348 2142

मेरा अधिकार, मेरी पहचान


சரவணராஜ் ரங்கன்
Saravanasaj Rangan
 பிறந்த நாள் : DOB 28/09/1972
 ஆண் / MALE

2975 2348 2142

मेरा अधिकार, मेरी पहचान

Saravanasaj Rangan

आयकर विभाग
INCOME TAX DEPARTMENT
भारत सरकार
GOVT. OF INDIA

P R S SARAVANARAJ
RANGAN
28/09/1972

BCHP52018C

Saravanasaj Rangan

आयकर विभाग
INCOME TAX DEPARTMENT
भारत सरकार
GOVT. OF INDIA

P R S SARAVANARAJ
RANGAN
28/09/1972

BCHP52018C

Saravanasaj Rangan

11/05/2024 10:00 AM
 4966
 17
 11/05/2024



பாஸ்போர்ட்

குமாரசேகரன்
Gunaselaran
பிறந்த நாள் DOB: 07/01/1981
ஆண் / MALE

2329 7780 7666

Handwritten signature

தமிழ்நாடு அரசு

திருவண்ணாமலை

முகவரி:
த/மே. கல்யாணி, 181/97,
பரப்பன் குடியிருப்பு வீடு,
பரப்பன், பரப்பன்,
சென்னை - 600075

Address:
D/O Vaidya, 181/97, PAMPAL
MAIN ROAD, PAMPAL, Chennai
600075

2329 7780 7666

பாஸ்போர்ட்

குமாரசேகரன்

17

12

சென்னை



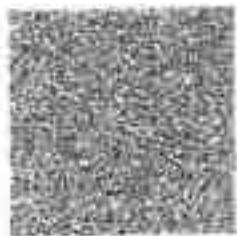


GOVERNMENT OF INDIA

Unique Identification Authority of India

பதிவேட் (ந) எண்/ Enrolment No. 0000/00416/52712

To
- 021-6411966
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Samsam-Thai
VTC Workshop
PC Workshop
Sub-District Workshop
District Workshop
Online Training
PC Case Study
Phone 0844777777



உங்கள் ஆதார எண் / Your Aadhaar No

3135 0749 5373

VID : 9179 2731 9338 4922

எனது எனது அண்ட யாள்பு



संस्कृत विभाग
Government of India



ANANDAN
DOB 09/11/1986
MALE

or date of birth. It should be used with verification (unique authentication) e.g. use of CS code / phone XRP)

3135 0749 5373

எனது குடி

எனது அடைபாடும்



செய்துள்ளதற்கு 11 மீட்டர்



FORMAT

- 1. **It is a Government initiative to provide a unique identification number to every citizen of India.**
- 2. **The Aadhaar number is unique and secure.**
- 3. **Documents to be submitted for Aadhaar include:**
 - **Proof of identity** (e.g., PAN card, Voter ID, etc.)
 - **Proof of address** (e.g., Ration card, etc.)
 - **Proof of date of birth** (e.g., School certificate, etc.)
- 4. **The Aadhaar number is valid for 10 years from the date of enrolment.**
- 5. **The Aadhaar number is used for various Government and Non-Government services.**
- 6. **Keep your mobile number and email id updated in the Aadhaar app.**
- 7. **Download mAadhaar app to avail of Aadhaar services.**
- 8. **Use the feature of Lock/Unlock - Biometrics to ensure security when not using Biometrics.**
- 9. **Entitled seeking Aadhaar are obligated to seek content.**



Unique Identification Authority of India

பெயர்: ABUJ0294
அ. கந்தசாமி
A.
S. Abuu, 5, kasthurbari THERU,
V. PO Vandavasi, DIST
Tiruvannamalai,
Tamil Nadu - 604408

3135 0749 5373

VID : 9179 2731

☎ 1947 : [DIA website](http://www.dia.gov)

புத்தகம் 2024 ம் ஆம் ஆண்டு
ஆய்வுகள் 17 துள்ளுதல்





சொத்தானது நீர்நிலை பகுதியில் அமையப் பெறவில்லை என்பதற்கான சான்று/உறுதிமொழி
(Declaration) (நீதிபேராணை எண்.22163/2018ல் வழங்கப்பட்ட தீர்ப்புரையைக்காண்க)

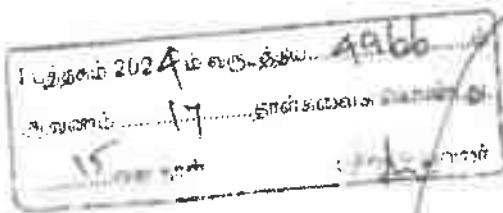
இந்த ஆவணத்தில் கண்ட சொத்தானது நீர்நிலைகள், நீர் வழிப்பாதைகள், நீர்விடிப்பு பகுதிகளில் கட்டுப்படவில்லை என சான்றளிக்கிறோம். மேலும் இதனில் தங்களுக்கு தவறான தகவல் அல்லது சான்று அளிக்கப்பட்டதாக பின்னாளில் கண்டுபிடிக்கப்பட்டால் அதனால் நான்/நாங்கள் சட்ட பூர்வ நடவடிக்கைகளுக்கு உட்படுத்தப்படுவோம் என்பதையும் அறிவேன்/அறிவோம்.

ஆவணத்தை எழுதிப் பெறுபவர்களின்
கையொப்பம்

S. A. K.

ஆவணத்தை எழுதிக் கொடுப்பவர்களின்
கையொப்பம்

For [Signature]



R/2 எண் இணை சார்பதிவாளர் செய்யார்/புத்தகம்-1/4966/2024

2024 ஆம் ஆண்டு நவம்பர் மாதம் 18ம் தேதி பிப 03:35 மணியளவில் 2 எண் இணை சார்பதிவாளர் அலுவலகத்தில் தாக்கல் செய்து கட்டணம் ரூ. 2,310/- செலுத்தியவர்



இடது பெருவிரல்



[Handwritten signature]

கூடுதல் விவரங்கள் ஆவண வாசகத்தில் உள்ளபடி

எழுதிக் கொடுத்ததாக ஒப்புக் கொண்டவர் இடது பெருவிரல்



[Handwritten signature]

‘சம்மதத்துடன் கூடிய ஆதார் அங்கீகாரம்’ என்ற வழி இந்த நபரின் அடையாளம் விரல் ரேகை மூலம் ஆதார் ஆணையத்துடன் சரிபார்க்கப்பட்டது. ஒப்பீட்டு எண் :

UKC:3054599b1daf5235fa4ebca3e4fa94796f6d67
(Details from UIDAI : Saravanaraj Rangan S/O:
Rangan, 28-08-1972, xxxxxxxx2142)



எழுதி வாங்கியதாக ஒப்புக் கொண்டவர் இடது பெருவிரல்



[Handwritten signature]

‘சம்மதத்துடன் கூடிய ஆதார் அங்கீகாரம்’ என்ற வழி இந்த நபரின் அடையாளம் விரல் ரேகை மூலம் ஆதார் ஆணையத்துடன் சரிபார்க்கப்பட்டது. ஒப்பீட்டு எண்

UKC:543947f74cbbd75c87f4515b5f53a5c4131297c
(Details from UIDAI : Gokul Raj S S/O: Saravanaraj,
05-09-1999, xxxxxxxx8357)



2024 ஆம் ஆண்டு நவம்பர் மாதம் 18ம் நாள்

இதனை 2024-ம் ஆண்டு 4966-ம் புத்தகம்
அதன் பக்கம் 17-ல் தாக்கல் செய்த
16 வது தாள்



R/2 எண் இணை சார்பதிவாளர் செய்யார்/புத்தகம்-1/4966/2024



R/2 எண் இணை சார்பதிவாளர் செய்யார்/புத்தகம்-1/4966/2024 எண்ணாகப்

நாள் 18/11/2024

2 எண் இணை சார்பதிவாளர் செய்யார்

2-எண்

இந்த பொது அதிகார ஆவண அடிப்படையில் பதிவு செய்யப்படும் எந்தவொரு ஆவணத்திற்கும் முதல்வர் உயிருடன் உள்ளார் என்பதற்கான சான்று தாக்கல் செய்யப்பட



புத்தகம் 202	4966
17	17
17	17



आयकर विभाग
INCOME TAX DEPARTMENT



भारत सरकार
GOVT. OF INDIA



स्थायी लेखा संख्या कार्ड
Permanent Account Number Card
CPBPG4909N



नाम/Name
GOKUL RAJ S

पिता का नाम/Father's Name
RANGAN SARAYANARAJ

जन्म की तारीख/
Date of Birth
05/09/1999

स्थायी/Permanent



ஸ்டீடர்

திரு.இலட்சுமிநாதன்
வட்டார வளர்ச்சி அலுவலர்(கி.அ)
ஊராட்சி ஒன்றியம், செய்யாறு
திருவண்ணாமலை மாவட்டம்

பெறுநர்

துணை இயக்குநர்
துணை இயக்குநர், அலுவலகம்
புவியியல் மற்றும் கரங்கத்துறை
திருவண்ணாமலை

ந.க.அ.அ.4/675/2025

நாள்: 25.05.2025



பொருள் : கனிமங்களும் குவாரிகளும் - செய்யாறு ஊராட்சி ஒன்றியம் -
ஊராட்சி - சர்வே எண்:95/1,2,3,4,5,6,7,8,9 மற்றும் 10 ஆகியவற்றின்
மொத்தப்பரப்பு 3.450 ஏக்கர் சாதாரண கற்கள் மற்றும் கிராவல் மண்
வெட்டியெடுக்க அனுமதி அளித்தல் -சார்பாக.

- மர்வை : 1. துணை இயக்குநர், புவியியல் மற்றும் கரங்கத்துறை,
திருவண்ணாமலை அவர்களின் கடிதம் ந.க.எண்
397/கனிமம்/2025/, நாள்: 14.03.2025.
2. உதவி பொறியாளர் அவர்களின் ஆய்வறிக்கை
3. வட்டார வளர்ச்சி அலுவலர்(கி.அ),செய்யாறு ஊராட்சி ஒன்றியம்
அவர்களின் கடிதம்: ந.க.எண்:675/2025/அ.அ.4 நாள்:15.05.25

பார்வை 1-ல் காணும் தங்களின் கடிதத்தில் திருவண்ணாமலை
மாவட்டம், செய்யாறு ஊராட்சி ஒன்றியம் பல்லி ஊராட்சி சர்வே எண்:
95/1,2,3,4,5,6,7,8,9 மற்றும் 10 ஆகியவற்றின் மொத்தப்பரப்பு 3.450 ஏக்கரில் சாதாரண
கற்கள் மற்றும் கிராவல் மண் வெட்டியெடுக்க திரு.கோகுலராஜ், த/பெ/சரவணன்,
என்பவர் அனுமதி கோரியுள்ளார்.மேற்படி இடத்திற்கு மேற்கே சர்வே எண் 95- குளம்
ஒன்று உள்ளதால் கல்குவாரி குத்தகை உரிமம் வழங்கும் போது குளத்திற்கு
விடவேண்டிய பாதுகாப்பு இடைவெளி குறித்த அறிக்கை அளித்திட தெரிவிக்கப்பட்டது.

மேற்படி பல்லி ஊராட்சி சர்வே எண் சர்வே எண்: 95/1,2,3,4,5,6,7,8,9
மற்றும் 10 அமைந்துள்ள இடம் மற்றும் சர்வே எண் 96-அமைந்துள்ள குளம் ஆய்வு
செய்யப்பட்டது.குளத்தினை சுற்றி 5-படிண்டரி கற்கள் நடப்பட்டு, படிண்டரி கல்லிருந்து
10 மீட்டர் இடைவெளி விட்டு பாதுகாப்பு இடைவெளி அமைக்கப்பட்டுள்ளது.

ஆகையால் பல்லி ஊராட்சியில் சர்வே எண்:95/1,2,3,4,5,6,7,8,9 மற்றும்
10 ஆகியவற்றின் மொத்தப்பரப்பு 3.450 ஏக்கரில் சாதாரண கற்கள் மற்றும் கிராவல்
மண் வெட்டியெடுக்க உரிமம் வழங்கலாம் என தெரிவித்துக்கொள்கிறேன்.

வட்டார வளர்ச்சி அலுவலர்(கி.அ),
செய்யாறு.

20/5/25



ANNEXURE 18

இந்திய அரசாங்கம்
Government of India

இந்திய அடையாள அமைப்பு
Unique Identification Authority of India

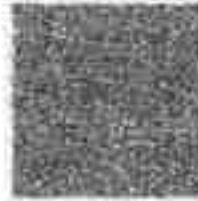


புகை / Enrolment No. : 2192/60041/22584

04/08/2013

To
Gokul Raj S
செங்குடி ராஜ்
S/O: Saravanan,
14,
KAMARAJAR STREET,
PAMMAL,
VTC: Pammal, PO: Pammal,
800 District: Pammal, District: Kanchipuram,
State: Tamil Nadu, PIN Code: 600075,
Mobile: 9005018161

22227342



உங்கள் ஆதார் எண் / Your Aadhaar No. :

5018 8617 8357

எனது ஆதார், எனது அடையாளம்



இந்திய அரசாங்கம்
Government of India



செங்குடி ராஜ்
Gokul Raj S
செங்குடி ராஜ் / S/O: Saravanan
ஆதார் எண் / Aadhaar

04/08/2013

5018 8617 8357

எனது ஆதார், எனது அடையாளம்

CHETTINAD CEMENT CORPORATION LTD.,

(Regd. Office: RANI SEETHAI HALL BUILDING IV & WORKS OFFICE

603, ANNA SALAI,

MADRAS-600006.)

TELE: 21144
PHONE 22744 - KARUR
21745 |
GRAM "CEMENT" Puliur C.F.
Telex: 0456-215.
STD Code: 04324



All Correspondences to
Muthiah Nagar
CEMENT FACTORY POST 638114
(Karur Taluk, Trichy Dt.)

T.RAJU., B.E.,
MINES MANAGER & DY. GENERAL MANAGER.

22nd September, 1987.

CERTIFICATE.

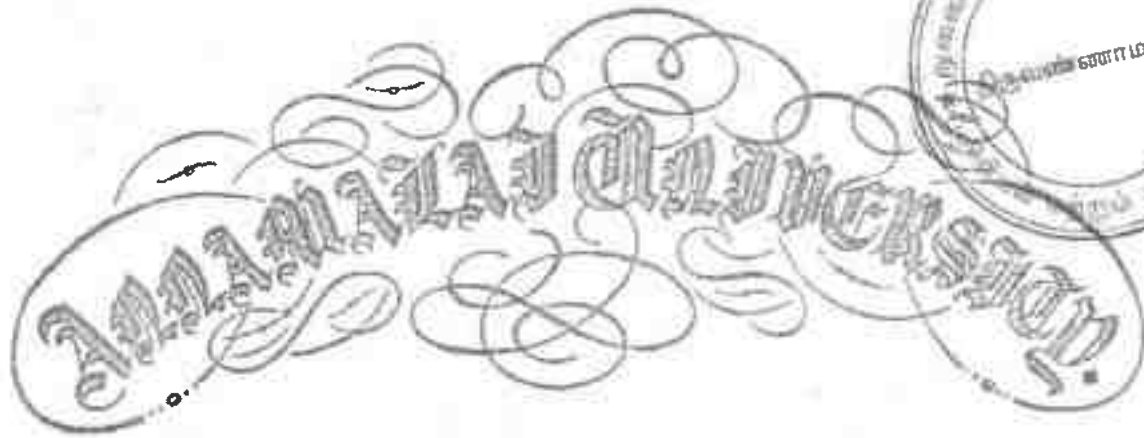
This is to certify that Mr.C.Natarajan has been working as a Geologist from 14-12-1979 to till date. He has been incharge of supervision of day to day functions in respect of Exploration, Preparation of Geological Plans & Sections, Preparation of Mines Plans, ~~and~~ Quality control and other allied mining activities in the following Pits of our Seethainagar Limestone Mines in Anna District.

<u>Name of the Pit.</u>	<u>Average Raising/day.</u>
1. Alambadi Pit.	- 1,700 T.
2. Mallapuram Pit.	- 900 T.
3. Karikkali Pit.	- 150 T.
Total.	- 2,750 T.

He has got nearly Eight years of total experience in our Mines in the above supervisory capacity.

for CHETTINAD CEMENT CORPORATION LTD.,

(T.RAJU).
Mines Manager & Dy. General Manager.



Faculty of Science

The Senate of the Annamalai University hereby makes known that G. Natarajan has been admitted to the Degree of Master of Science (by Examination) in Geology, he having been certified by duly appointed Examiners at the examination held in April, 1976, to be qualified to receive the same and that he was placed in the First Class.

Given under the seal of the University.

Annamalainagar.

8th December, 1976.

A. Chandrasekha
Vice-Chancellor.

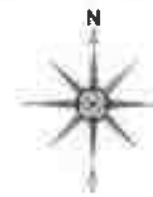


PLATE NO: 1A
DATE OF SURVEY : 29.05.2025
APPLICANT
THIRU S GOKULRAJ,
S/o SARAVANARAJ,
No 14, KAMARAJ NAGAR,
PAMMAL POST,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA
S.F.NOs : 95/1,95/2,95/3,95/4,95/5,95/6,95/7,
:95/8,95/9,&95/10
EXTENT : 3.45.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.



INDEX

TOPO SHEET NO : 57 P/10

LATITUDE : 12°42'58.80"N to 12°43'06.06"N

LONGITUDE : 79°35'54.09"E to 79°36'06.71"E

Q.L.APPLIED AREA

300M RADIUS

500M RADIUS

1KM RADIUS

APPROACH ROAD

PANCHAYAT ROAD

ODAI

BARREN LAND

TREES

SEASONAL AGRICULTURE

HABITATIONS

QUARRY PIT

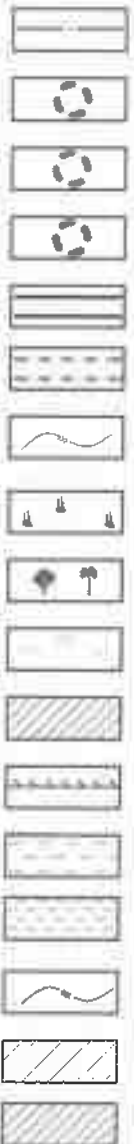
TANK

POND

CANAL

CRUSHER PLANT

FACTORY



LAND USE PATTERN

DESCRIPTION	AREA IN (%)
ROAD	05
TREES	05
BARREN LAND	55
AGRICUTURE LAND	20
HABITATIONS	05
WATER BODIES	10

ENVIRONMENTAL PLAN

SCALE 1: 10,000

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

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

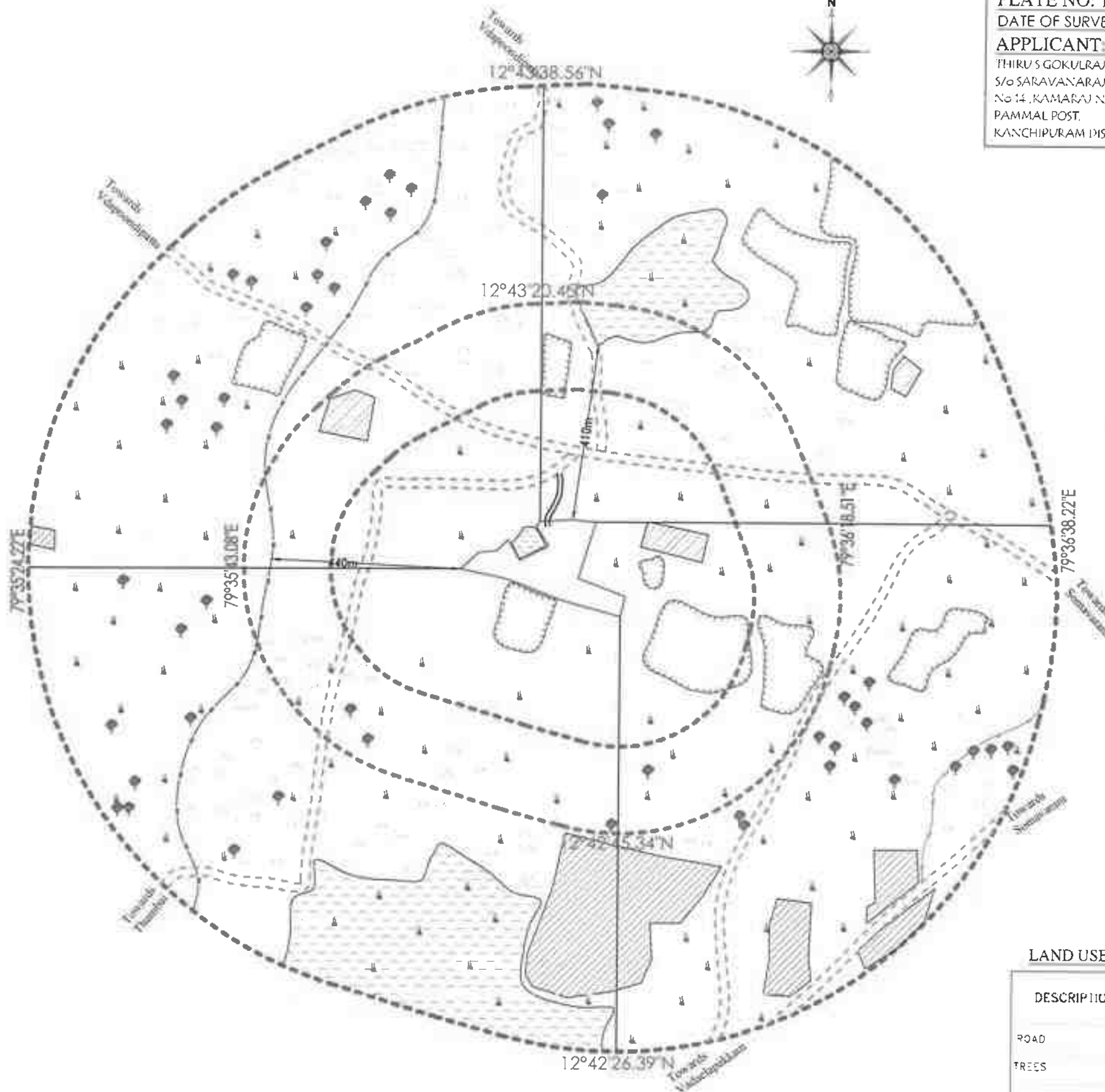




PLATE NO: 1B
DATE OF SURVEY :29.05.2025

APPLICANT:
THIRU S GOKULRAJ,
S/o.SARAVANARAJ,
No.14 ,KAMARAJ NAGAR,
PAMMAL POST,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:
S.F.Nos :95/1,95/2,95/3,95/4,95/5,95/6,95/7,
:95/8,95/9,&95/10
EXTENT : 3.45.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

INDEX
TOPO SHEET NO : 57 P/10
LATITUDE :12°42'58.80"N to 12°43'06.06"N
LONGITUDE :79°35'54.09"E to 79°36'06.71"E

Q.L.APPLIED AREA	☐
300M RADIUS	☒
500M RADIUS	☒
1KM RADIUS	☒
APPROACH ROAD	☐
PANCHAYAT ROAD	☐

SATELLITE IMAGERY MAP
SCALE 1: 10,000

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


C. NATARAJAN M. SCARFILL
QUALIFIED PERSON

KEY PLAN

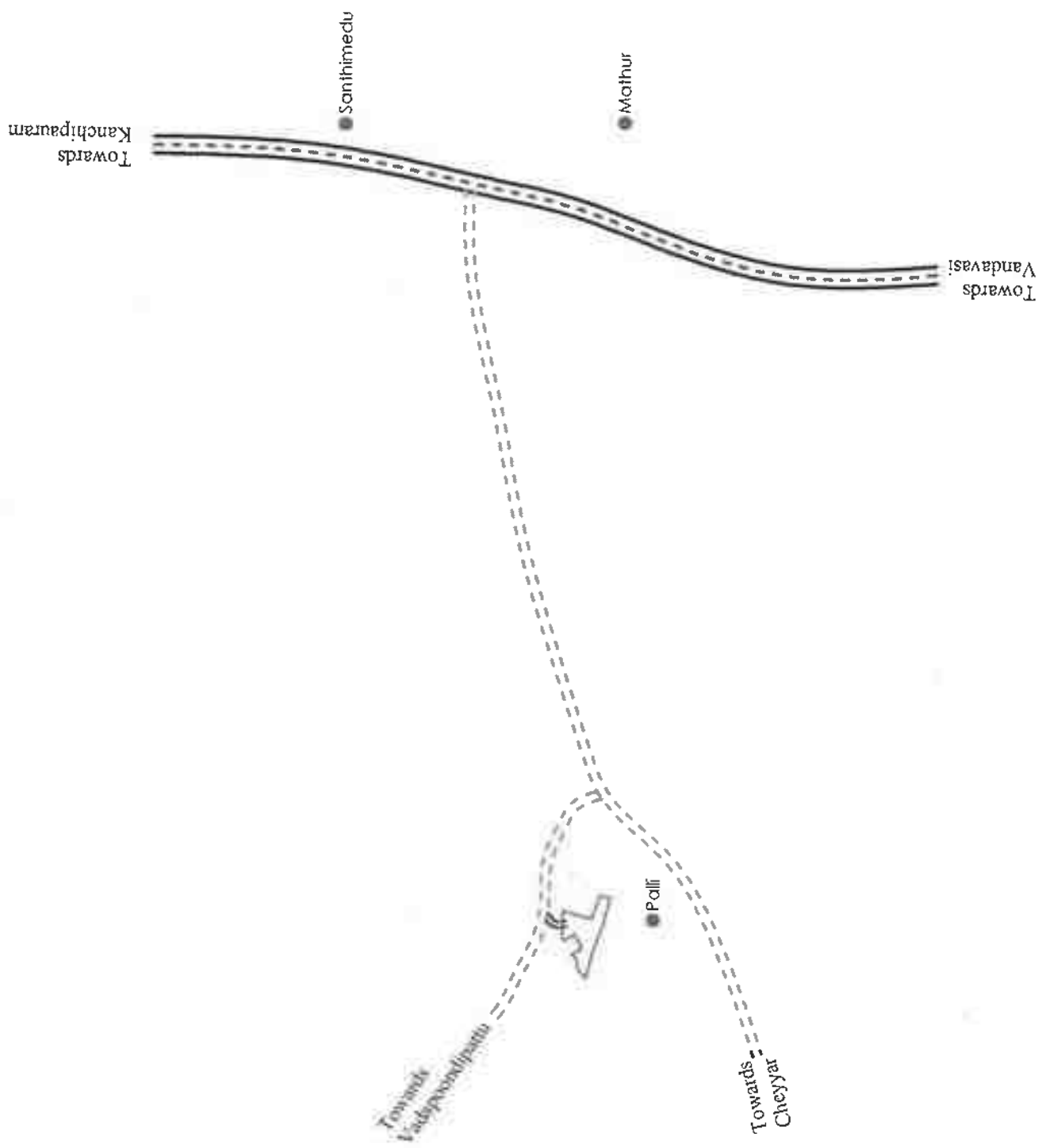


PLATE NO:ID
DATE OF SURVEY :29 DEC 2011
APPLICANT: THIRU S.GOKULRAJ, S/o SAKAVANARAJ No 14, KAMARAJ PAMMAL POST, KANCHIPURAM DIST
QUARRY LEASE APPLIED AREA
S.F.Nos :95/1,95/2,95/3,95/4,95/5,95/6,95/7, :95/8,95/9,&95/10
EXTENT : 3.45.0Ha,
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

INDEX

- Q.L.APPLIED AREA
- APPROACH ROAD
- PANCHAYAT ROAD
- STATE HIGHWAY
- HABITATIONS

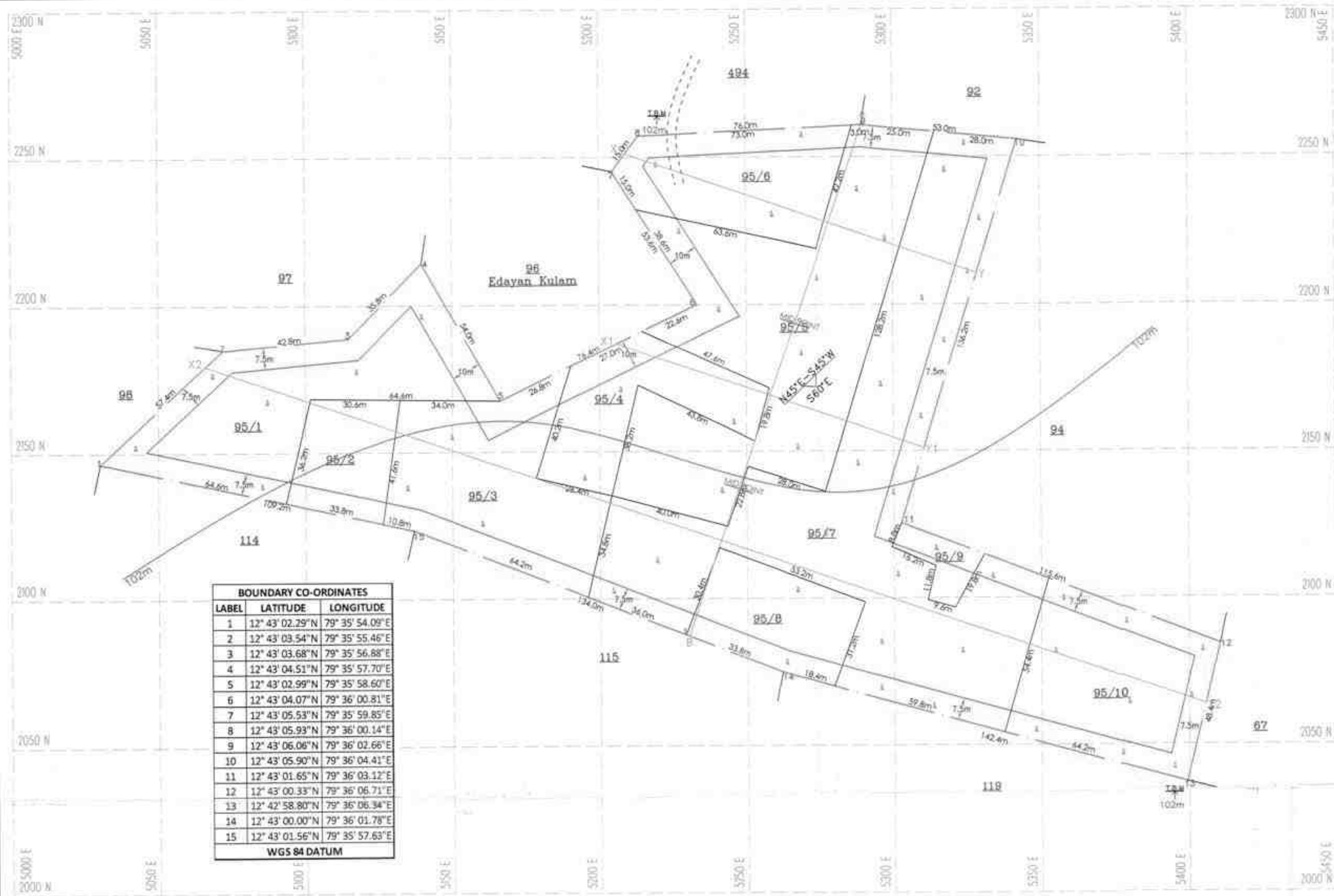
KEY PLAN

Not To Scale

PREPARED BY

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

C.NATARAJAN
QUALIFIED PERSON

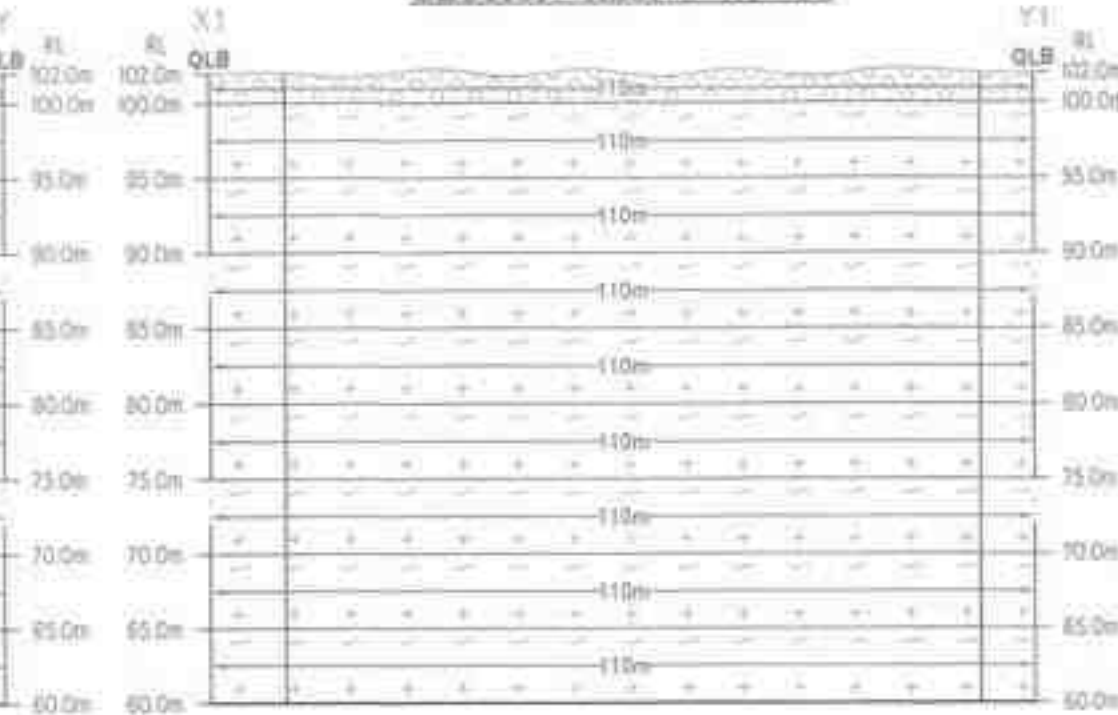


BOUNDARY CO-ORDINATES		
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2	12° 43' 03.54"N	79° 35' 55.46"E
3	12° 43' 03.68"N	79° 35' 56.88"E
4	12° 43' 04.51"N	79° 35' 57.70"E
5	12° 43' 02.99"N	79° 35' 58.60"E
6	12° 43' 04.07"N	79° 36' 00.81"E
7	12° 43' 05.53"N	79° 35' 59.85"E
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WGS 84 DATUM		

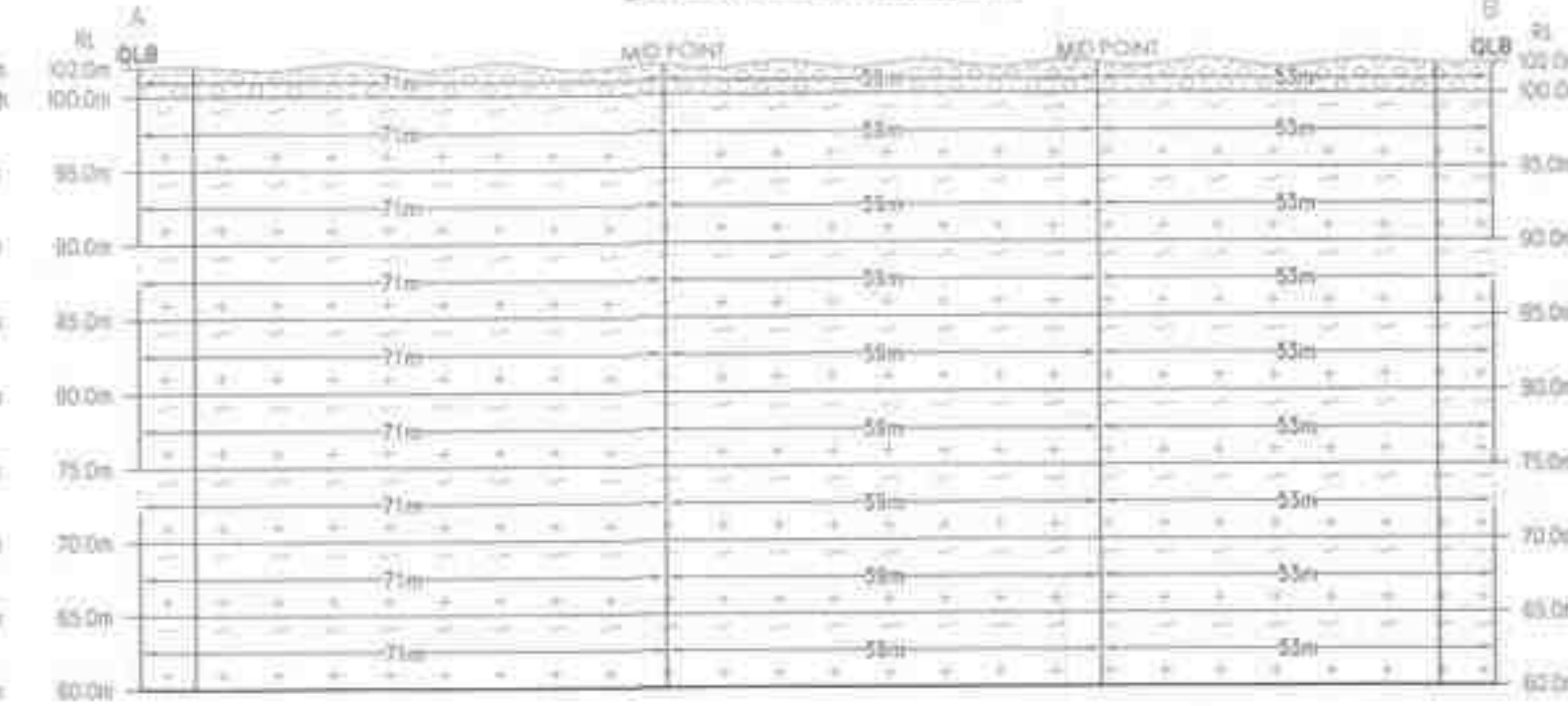
SECTION ALONG X-Y



SECTION ALONG X1-Y1



SECTION ALONG A-B



SECTION ALONG X2-Y2

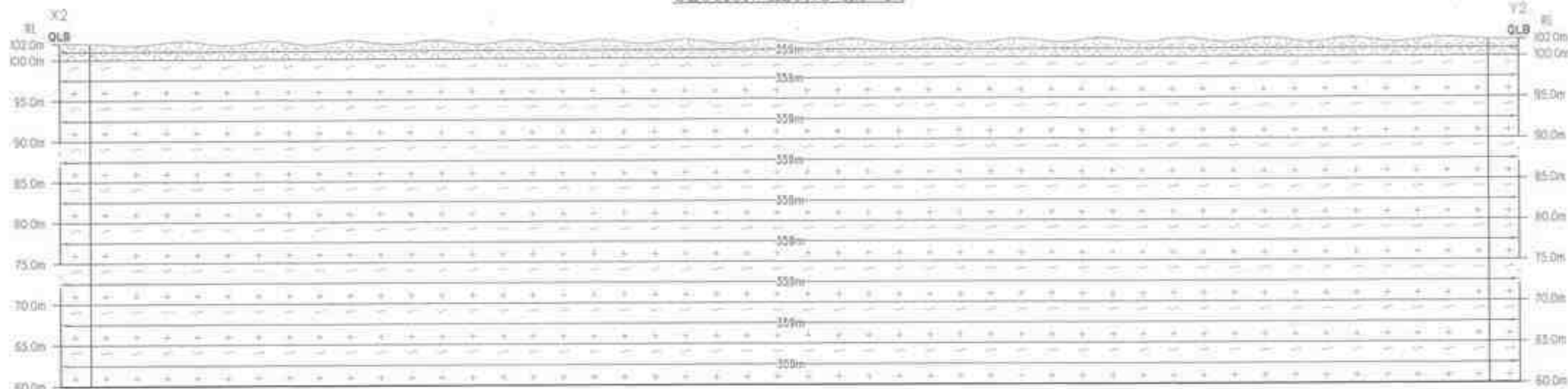


PLATE NO-III
DATE OF SURVEY :29.05.2025

APPLICANT:
THIRU S.GOKULRAJ
S/o SARAVANARAJ
No.14, KAMAKAV NAGAR,
PAMMAL POST,
KANCHIPURAM DISTRICT

QUARRY LEASE APPLIED AREA:
S.F.NO.s :95/1,95/2,95/3,95/4,95/5,95/6,95/7,
95/8,95/9,95/10
EXTENT : 3.45.0Ha.
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

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- Q.L.APPLIED BOUNDARY
- 7.5m & 10m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD
- CONTOUR
- SCRUB
- GRAVEL
- ROUGH STONE
- STRIKE & DIP

TOPOGRAPHY, GEOLOGICAL PLAN
& SECTIONS
SCALE 1 : 1000
SECTIONS HOR 1:1000, VER 1:500

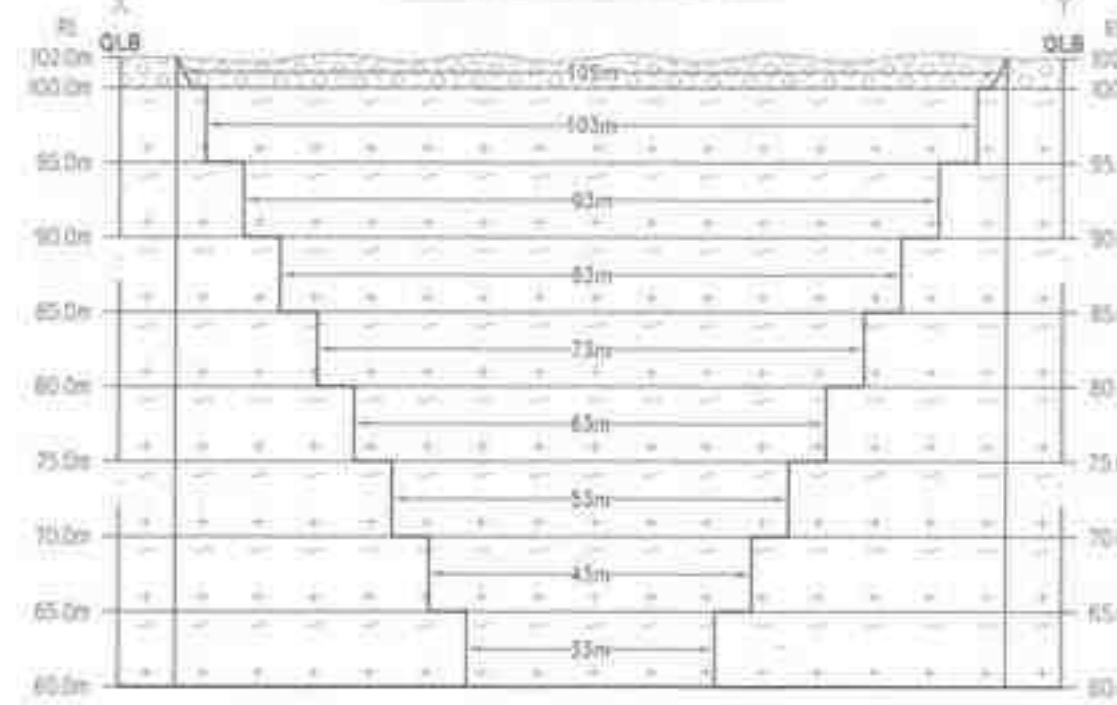
PREPARED BY:
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GOVERNMENT

C. NATARAJAN, P. S. PHIL.
QUALIFIED PERSON

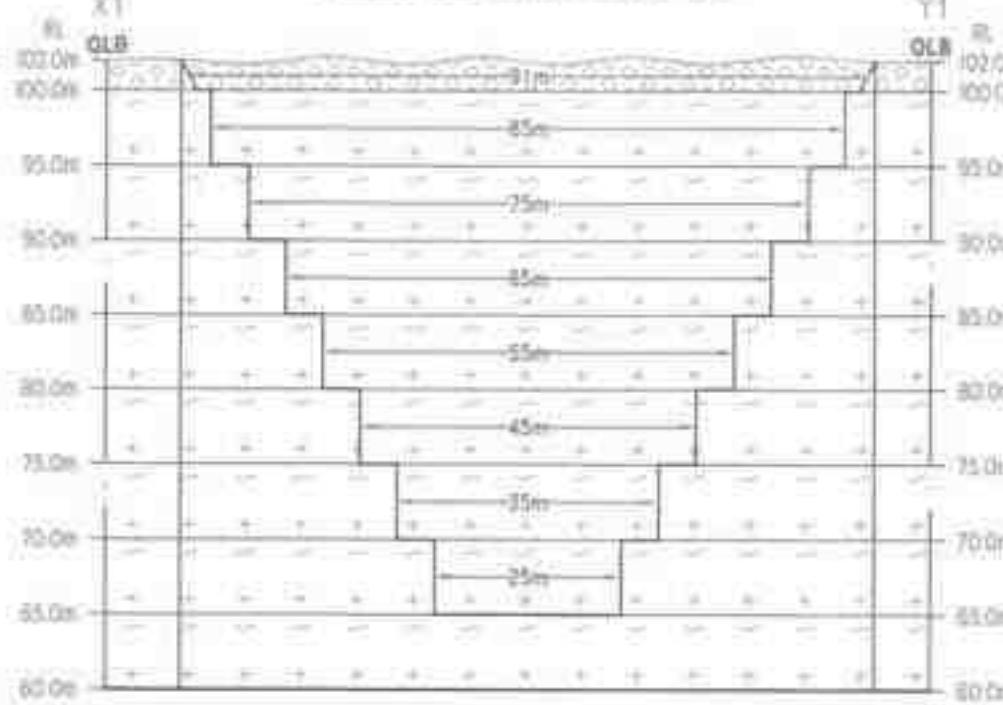


BOUNDARY CO-ORDINATES		
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2	12° 43' 03.54" N	79° 35' 55.46" E
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WGS 84 DATUM		

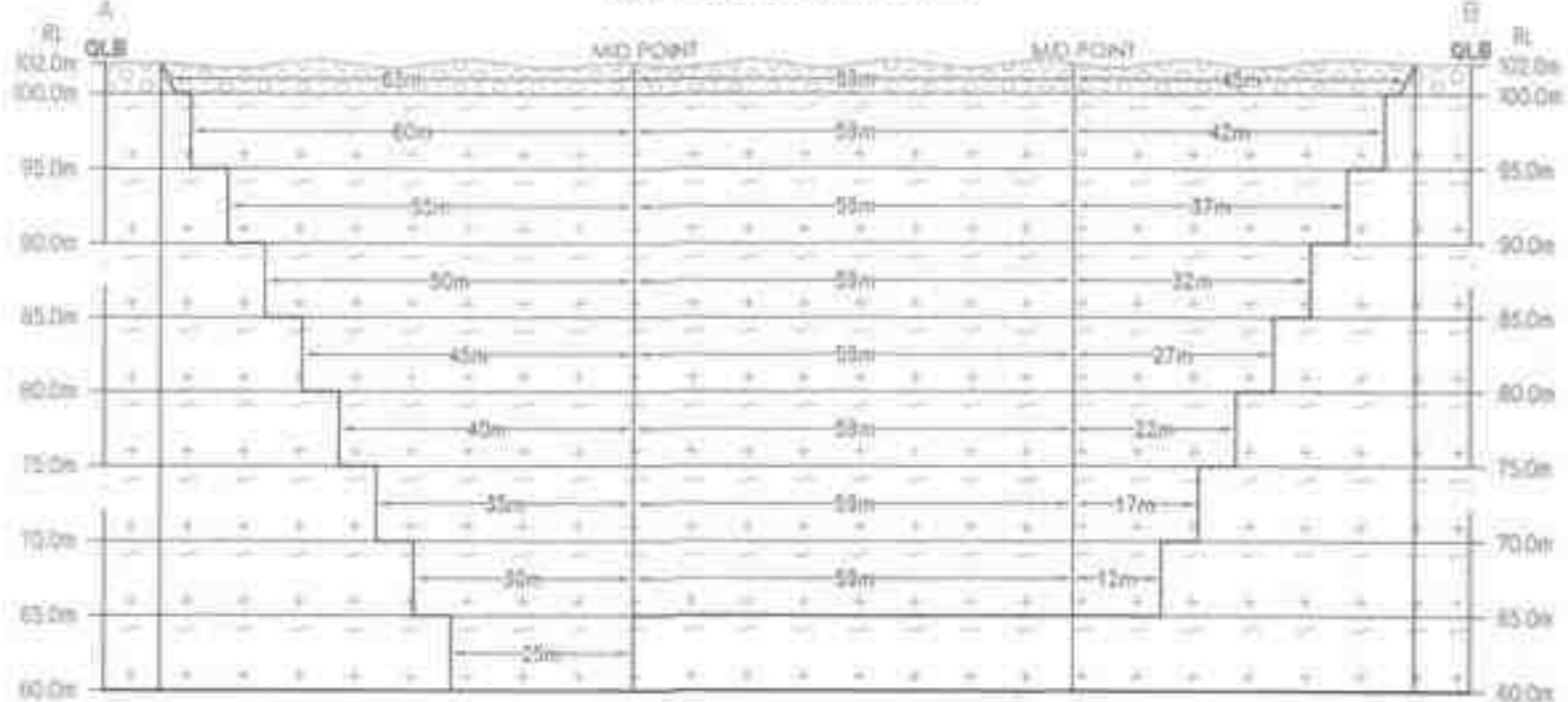
SECTION ALONG X-Y



SECTION ALONG X1-Y1



SECTION ALONG A-B



SECTION ALONG X2-Y2

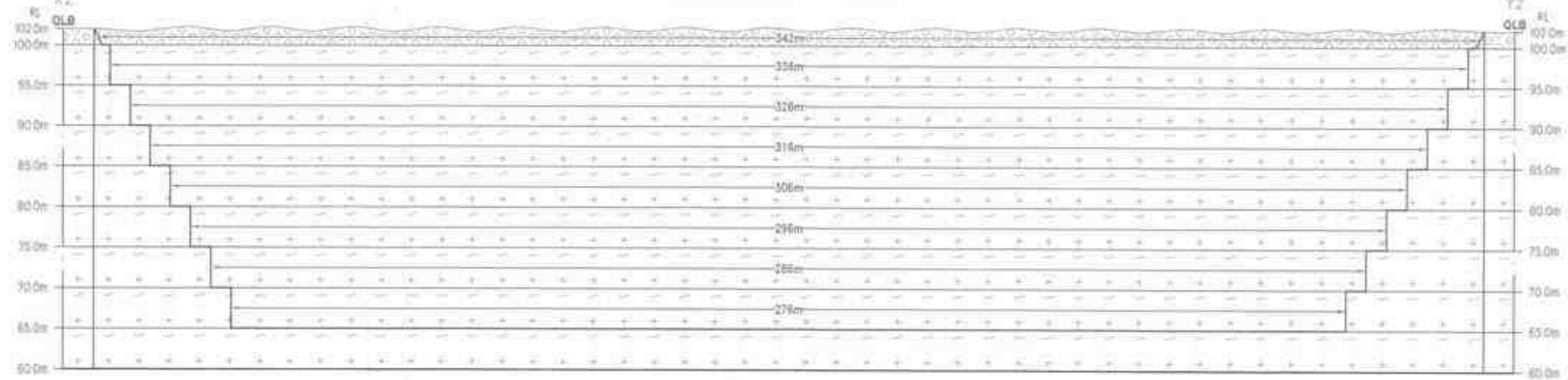


PLATE NO-IV
DATE OF SURVEY : 29.05.2025

APPLICANT:
THIRU S GOKULRAJ
S/O SARAVANARAJ
No 14, KAMARAJ NAGAR,
PAMMAL POST,
KANCHIPIRAM DISTRICT.

QUARRY LEASE APPLIED AREA:
S.F.NOs : 95/1,95/2,95/3,95/4,95/5,95/6,95/7,
95/8,95/9,95/10
EXTENT : 3.45.0Ha.
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

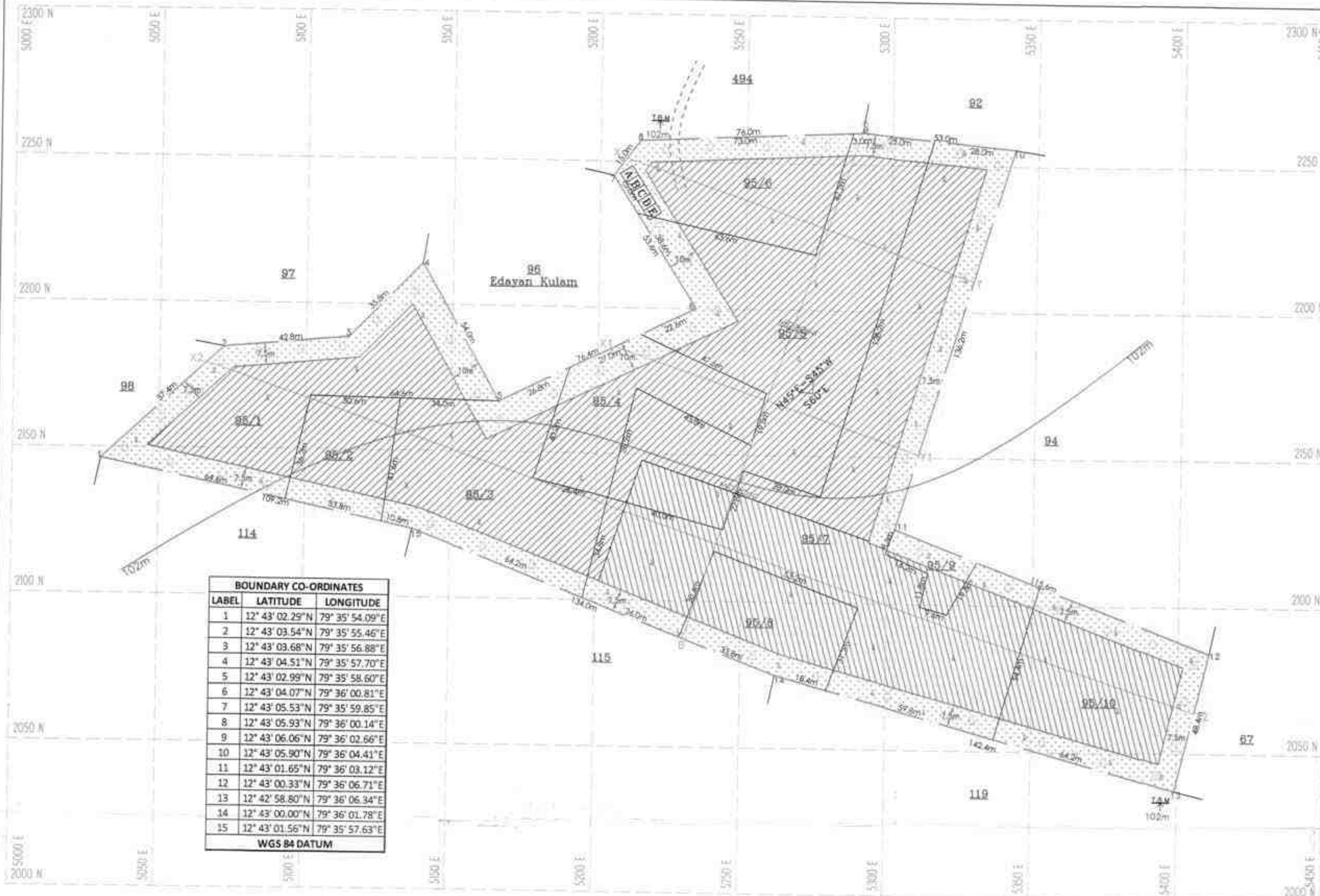
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Q.L.APPLIED BOUNDARY	
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APPROACH ROAD	
CONTOUR	
SCRUB	
GRAVEL	
ROUGH STONE	
STRIKE & DIP	

MINEABLE PLAN & SECTIONS
SCALE 1 : 1000
SECTIONS HOR 1:1000, VER 1:500

PREPARED BY:
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GOVERNMENT

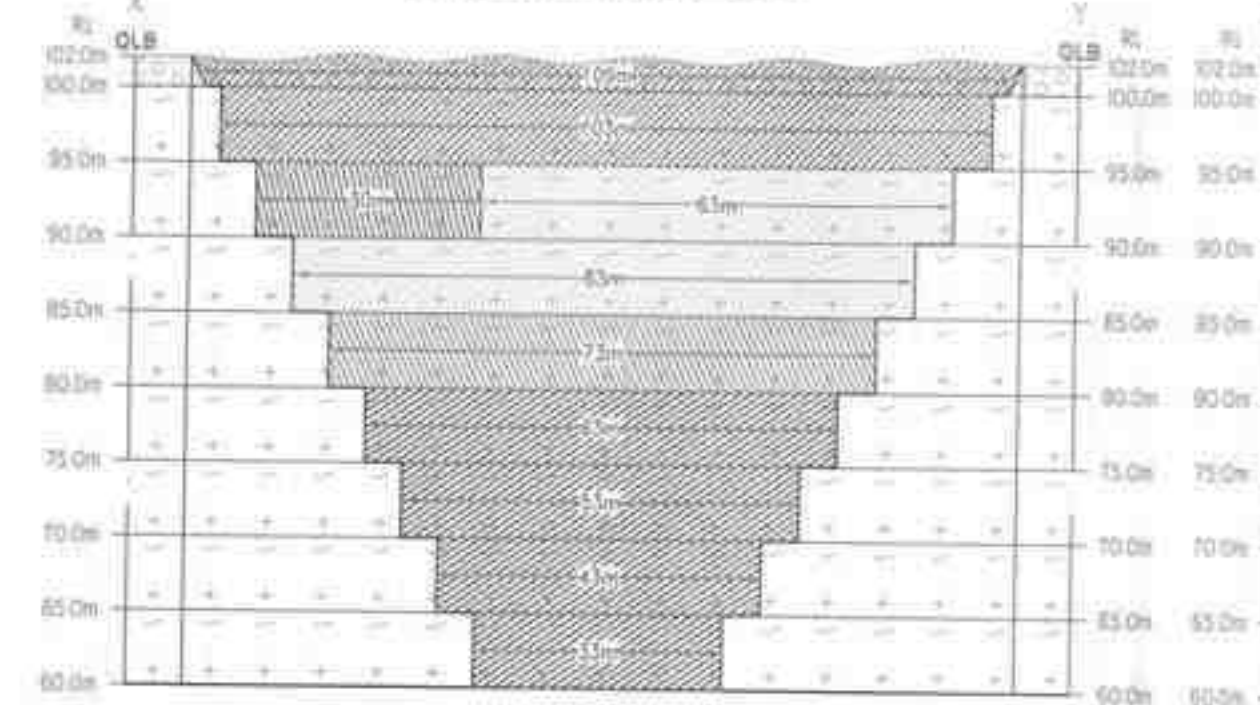
C.NATARAJAN M.Sc,M.Phil.
QUALIFIED PERSON



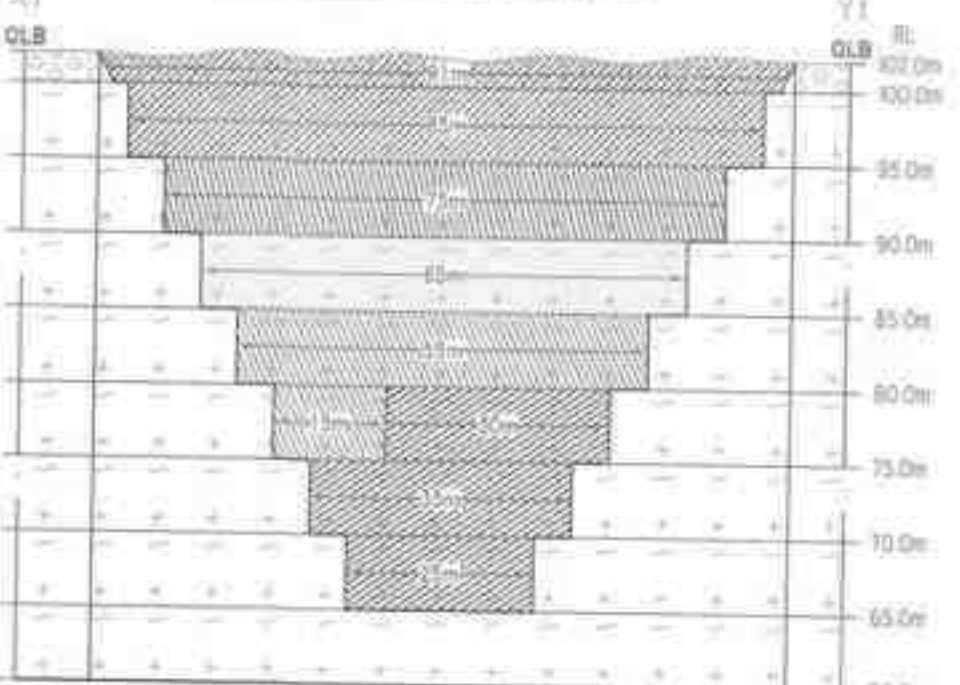
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WGS 84 DATUM		



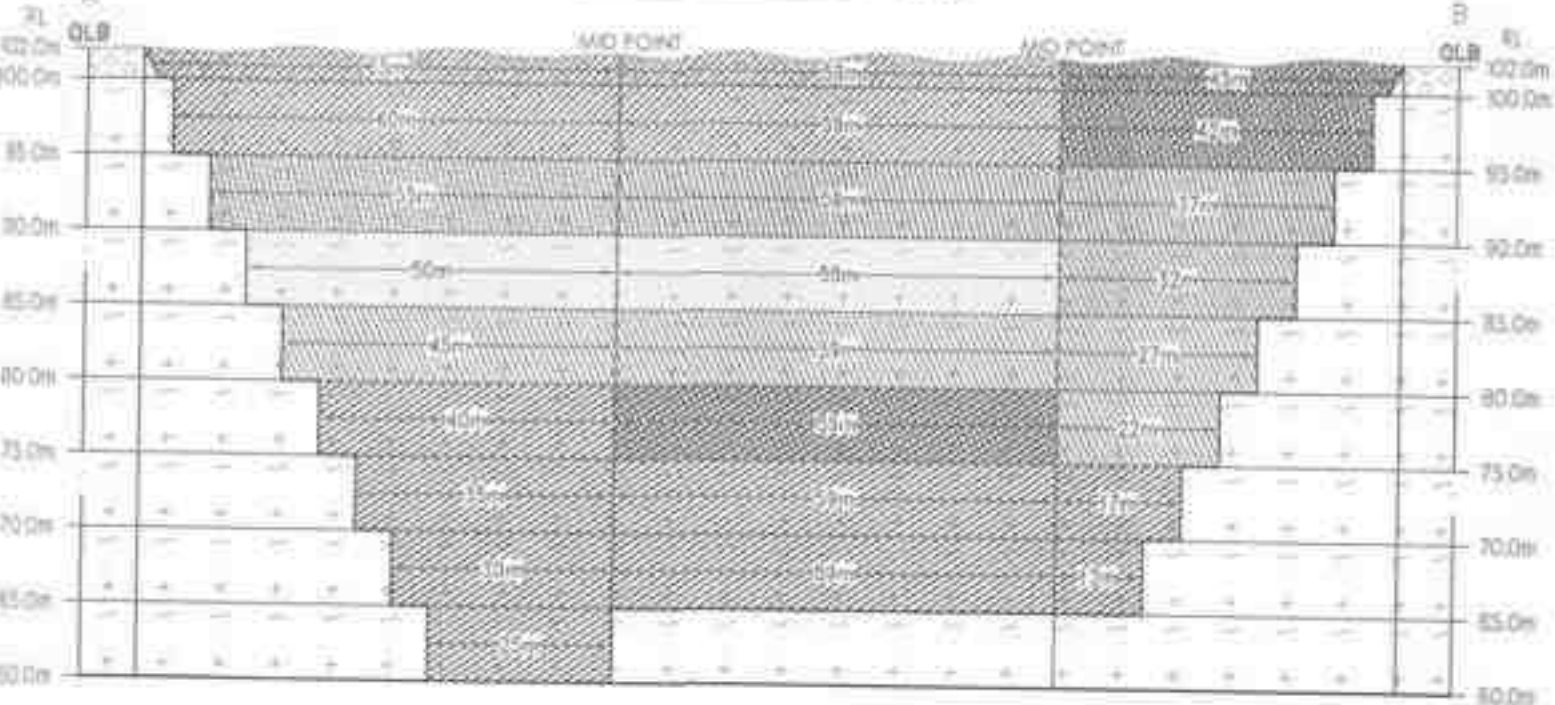
SECTION ALONG X-Y



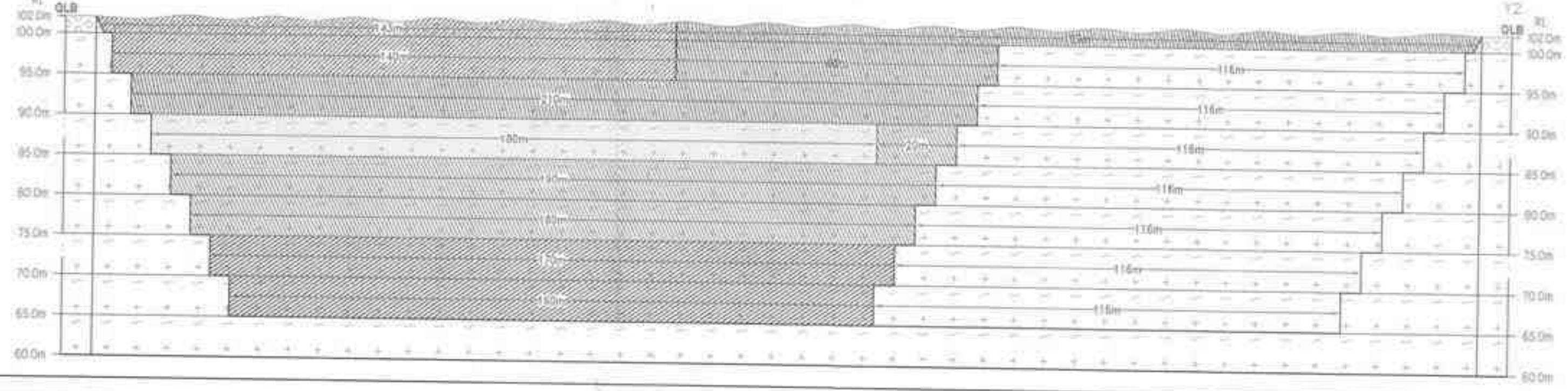
SECTION ALONG X1-Y1



SECTION ALONG A-B



SECTION ALONG X2-Y2



- PROPOSED SITE SERVICES**
- A - OFFICE
 - B - STORE ROOM
 - C - FIRST AID ROOM
 - D - REST SHELTER
 - E - TOILET

Proposed area to be Planted

- 1st yr Proposed area to be Quarried
- 2nd yr Proposed area to be Quarried
- 3rd yr Proposed area to be Quarried
- 4th yr Proposed area to be Quarried
- 5th yr Proposed area to be Quarried

PLATE NO-V
DATE OF SURVEY : 29.05.2025

APPLICANT:
THIRU S GOKULAJ,
S/o SARAVANARAJ,
No 14, KAMARAJ NAGAR,
PAMMAL POST,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:
S.F.NO's : 95/1,95/2,95/3,95/4,95/5,95/6,95/7,
95/8,95/9 & 95/10
EXTENT : 3.45.0Ha.
VILLAGE : PALLI,
TALUK : CHEYYAR,
DISTRICT : TIRUVANNAMALAI.

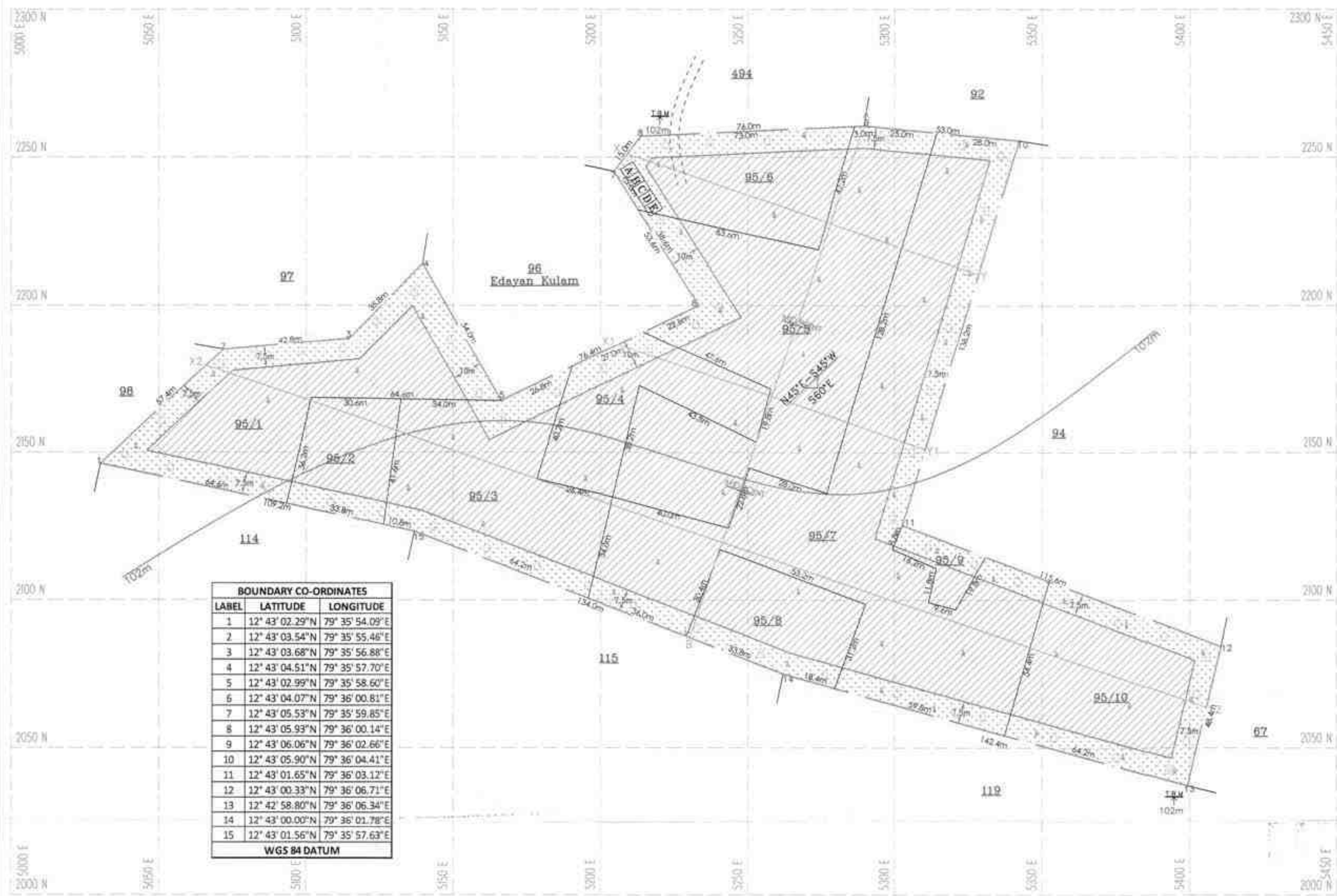
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- ROUGH STONE
- STRIKE & DIP

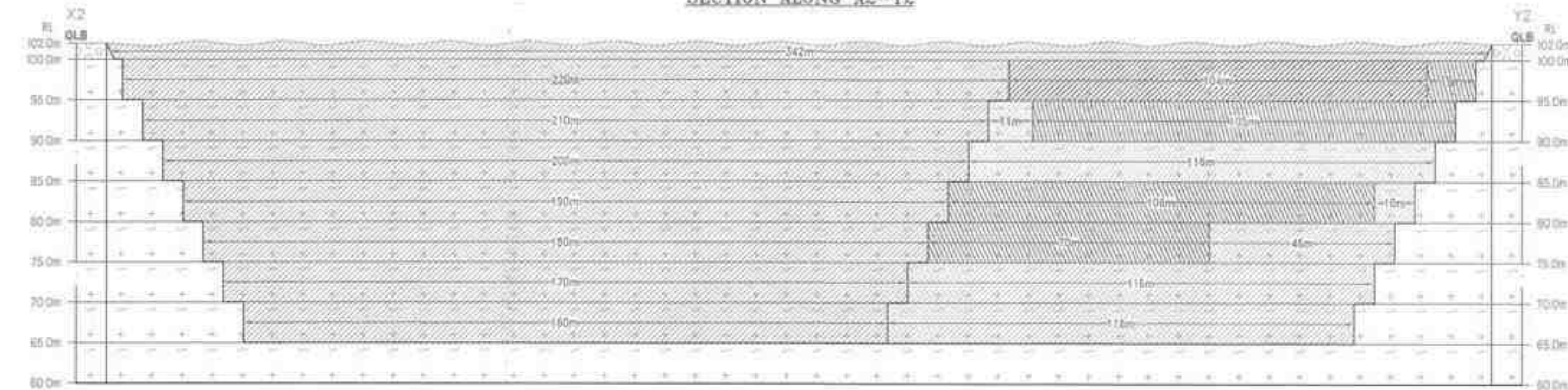
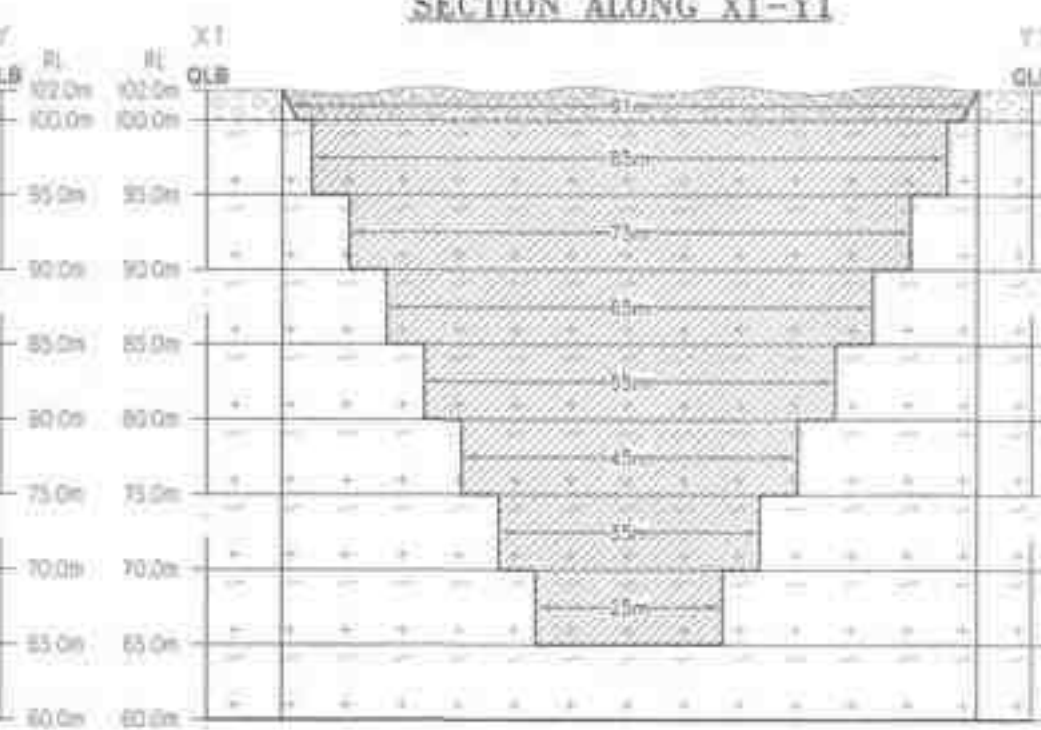
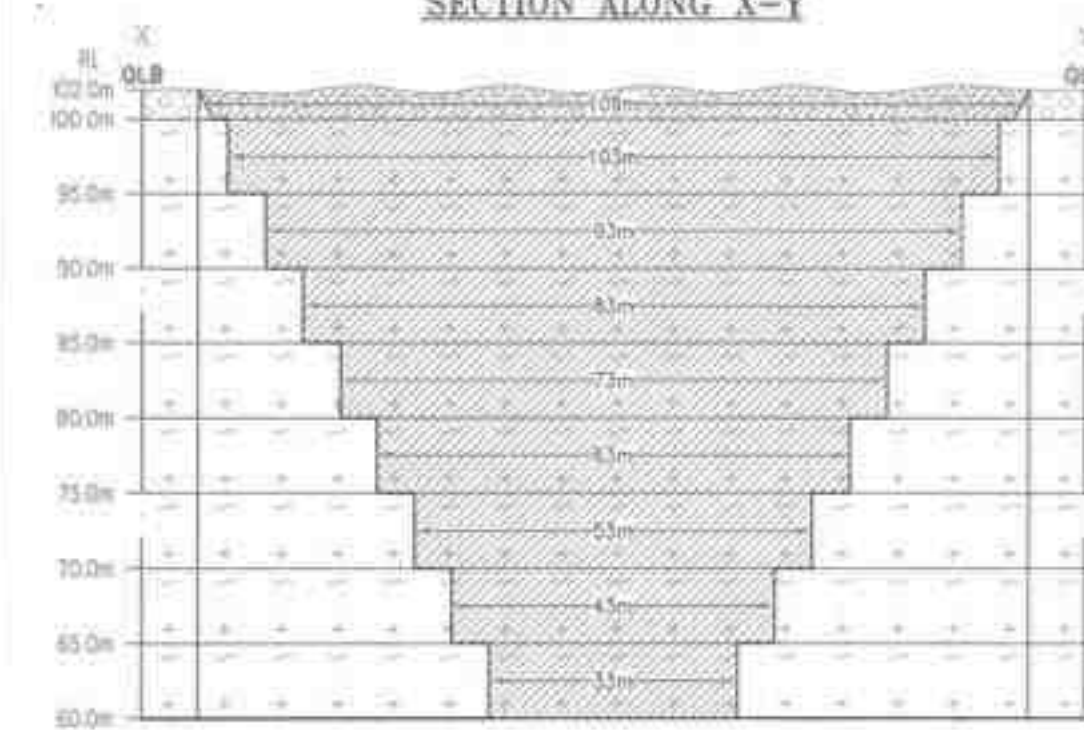
YEARWISE DEVELOPMENT & PRODUCTION PLAN & SECTION
SCALE 1 : 1000
SECTION HOR 1 : 1000, VER 1 : 500

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

C. NATARAJAN M. S. M. M.
QUALIFIED PERSON



BOUNDARY CO-ORDINATES		
LABEL	LATITUDE	LONGITUDE
1	12° 43' 02.29"N	79° 35' 54.09"E
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WGS 84 DATUM		



8th yr Proposed area to be Quarried 

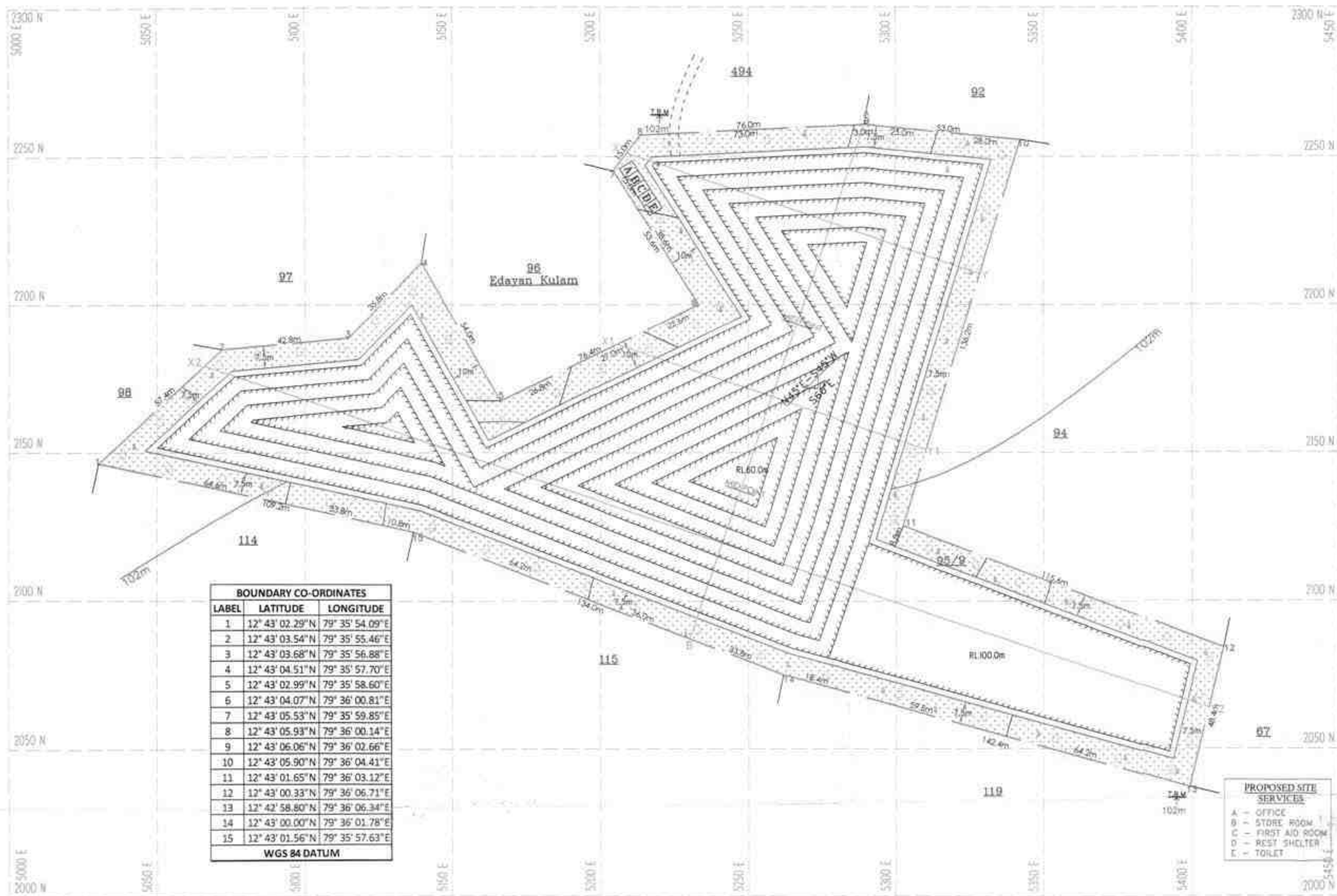
7th yr Proposed area to be Quarried 

6th yr Proposed area to be Quarried 

9th yr Proposed area to be Quarried 

10th yr Proposed area to be Quarried 

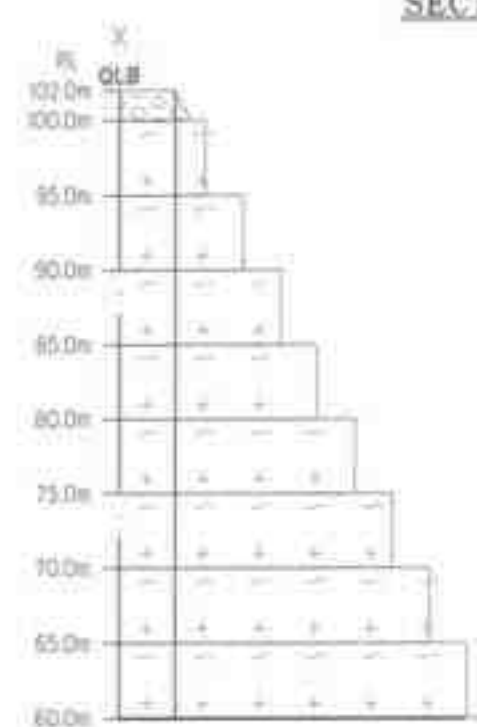
C. NATAKULPHIL, PHIL.
QUALIFIED PERSON



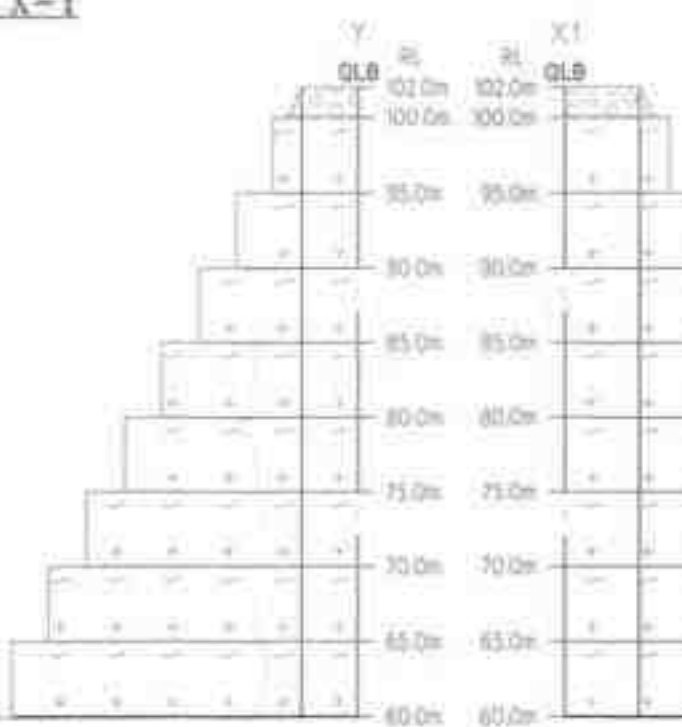
BOUNDARY CO-ORDINATES		
LABEL	LATITUDE	LONGITUDE
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WGS 84 DATUM		

PROPOSED SITE SERVICES	
A	OFFICE
B	STORE ROOM
C	FIRST AID ROOM
D	REST SHELTER
E	TOILET

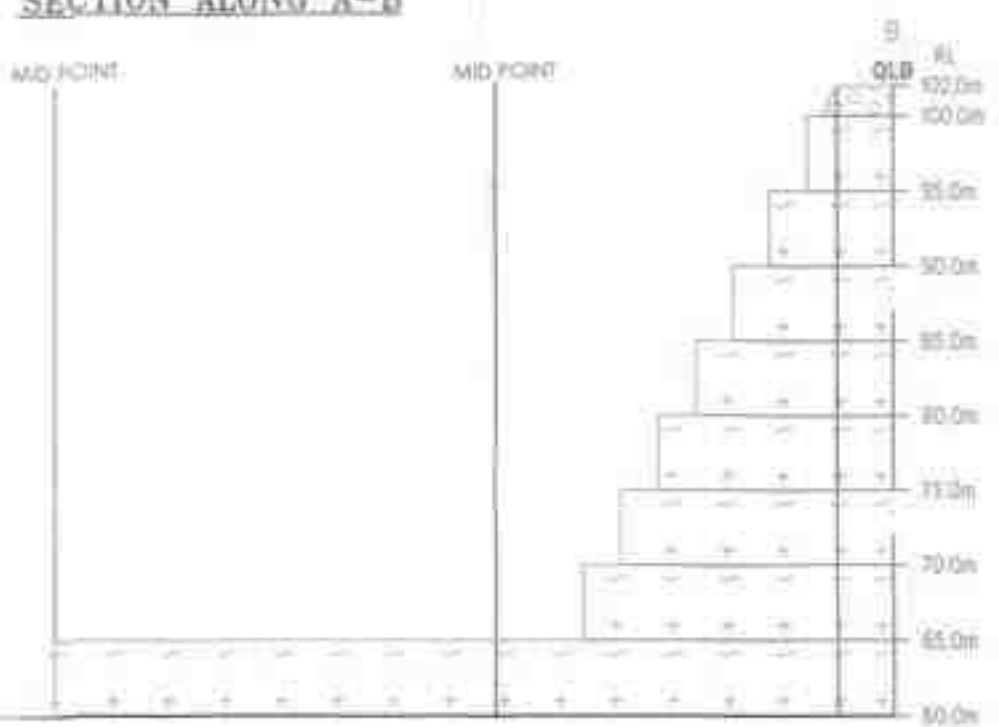
SECTION ALONG X-Y



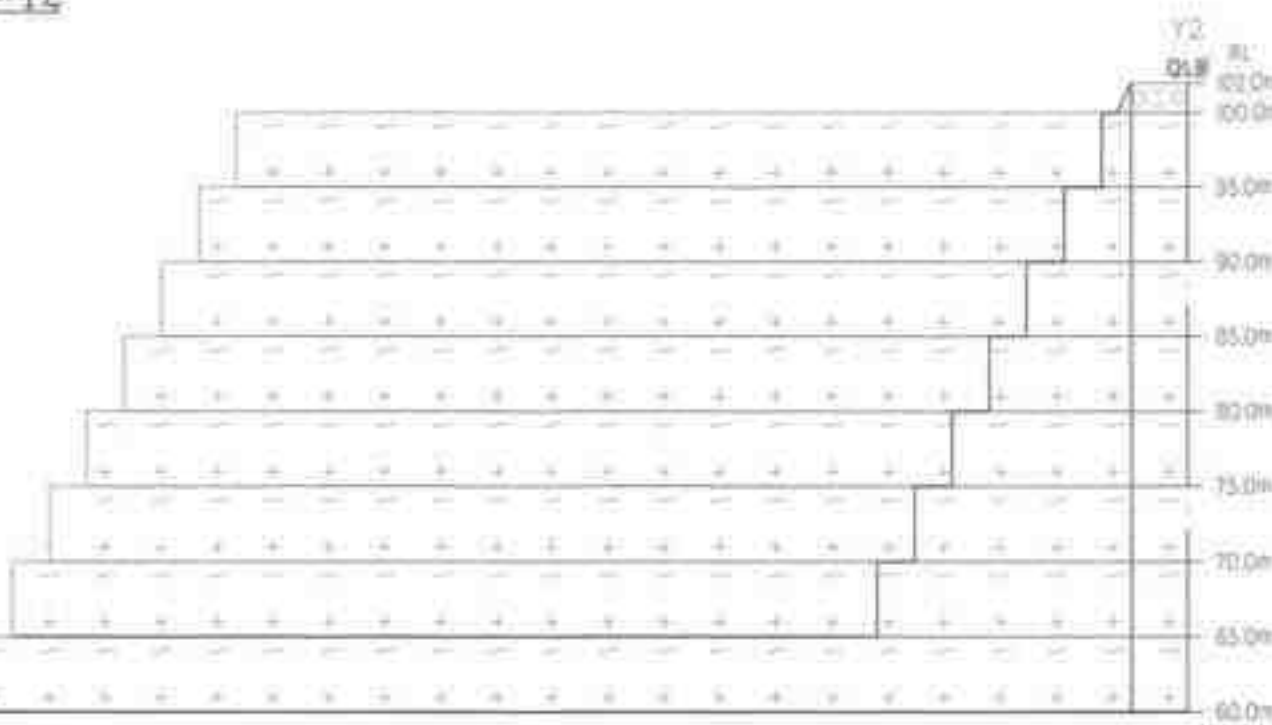
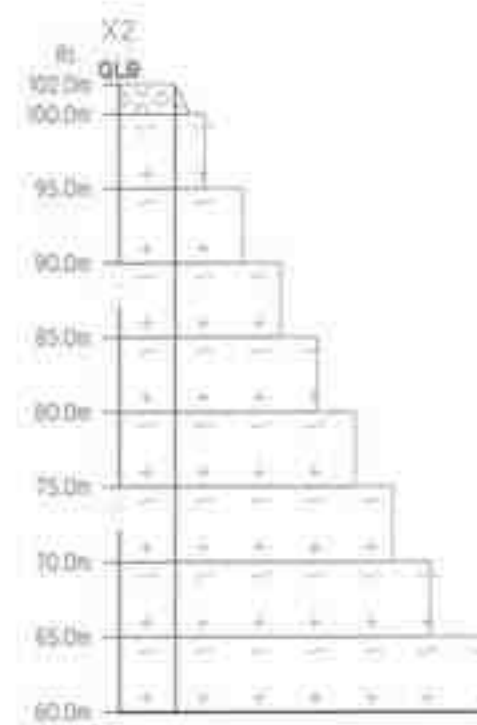
SECTION ALONG X1-Y1



SECTION ALONG A-B



SECTION ALONG X2-Y2



PRESENT & POST LAND USE PATTERN		
DESCRIPTION	PRESENT AREA (Ha)	AREA AT THE END OF THIS QUARRYING PERIOD (Ha)
AREA UNDER QUARRYING	Nil	2.60.0
INFRASTRUCTURE	Nil	0.01.0
ROADS	Nil	0.01.0
GREEN BELT	Nil	0.83.0
UN-UTILIZED AREA	3.45.0	Nil
GRAND TOTAL	3.45.0	3.45.0

Proposed area to be Planted

ULTIMATE PIT DIMENSION OF END OF THE MINING PLAN PERIOD
L342m(MAX)XW79m(Avg)X42m(d)(Max)

PLATE NO-VI

DATE OF SURVEY :29.05.2025

APPLICANT:
THIRU S GOKULRAJ,
S/o SARAVANANAGAI,
No.14 KAMARAJ NAGAR,
PAMMAL POST,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:
S.F.NOs :95/1.95/2.95/3.95/4.95/5.95/6.95/7.95/8.95/9.895/10

EXTENT :3.45.0Ha.
VILLAGE :PALLI,
TALUK :CHEYYAR,
DISTRICT :TRUVANNAMALAI.

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Q.L.APPLIED BOUNDARY

7.5m&10m SAFETY DISTANCE

TEMPORARY BENCH MARK

APPROACH ROAD

CONTOUR

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GRAVEL

ROUGH STONE

STRIKE & DIP

PROPOSED QUARRY PIT

PROGRESSIVE QUARRY CLOSER PLAN & SECTION
SCALE 1 : 1000
SECTION HOR 1 : 1000, VER 1 : 500

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

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



BOUNDARY CO-ORDINATES		
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WGS 84 DATUM		

PROPOSED SITE SERVICES
A - OFFICE
B - STORE ROOM
C - FIRST AID ROOM
D - REST SHELTER
E - TOILET

SECTION ALONG X-Y

SECTION ALONG X1-Y1

SECTION ALONG A-B

SECTION ALONG X2-Y2

ULTIMATE PIT DIMENSION OF END OF THE QUARRY LEASE PERIOD
L342m(MAX)XW76m(Avg)X42m(d)(Max)

Proposed area to be planted

PLATE NO-VII

DATE OF SURVEY : 29.05.2025

APPLICANT:

THIRU S. GOWDARAJ,
S/O. SARAVANARAJ,
No. 14, KAMARAJ NAGAR,
PAMMAL POST,
KANCHIPURAM DISTRICT.

QUARRY LEASE APPLIED AREA:

S.F.NOS : 95/1.95/2.95/3.95/4.95/5.95/6.95/7.95/8.95/9.895/10

EXTENT : 3.45.0Ha.

VILLAGE : PALLI

TALUK : CHEYYAR

DISTRICT : TIRUVANNAMALAI

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Q.L. APPLIED BOUNDARY

7.5m & 10m SAFETY DISTANCE

TEMPORARY BENCH MARK

APPROACH ROAD

CONTOUR

SCRUB

GRAVEL

ROUGH STONE

STRIKE & DIP

PROPOSED QUARRY PIT

CONCEPTUAL PLAN & SECTION

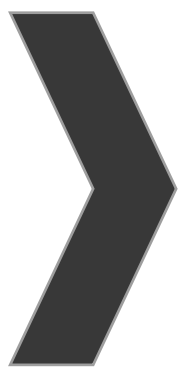
SCALE 1 : 1000

SECTION HOR 1 : 1000, VER 1 : 500

PREPARED BY:

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C. NATARAJAN, M.Sc.,
QUALIFIED PERSON



ANNEXURE-4

From
Dr.S.Vediappan, M.Sc., Ph.D.,
Deputy Director,
Geology and Mining,
Tiruvannamalai - 4.

To
Thiru.S.Gokulraj,
S/o. Saravanaraj,
No.14, Kamarajar Nagar,
Pammal Post,
Kanchipuram.

Rc.No.397/Kanimam/2024, dated 16.06.2025.

Sir,

Sub: Mines and Minerals – Minor Mineral - Rough stone and Gravel - Tiruvannamalai District – Cheyyar Taluk - Palli Village Patta land SF.Nos. 95/1, 95/2, 95/3 etc., over an extent of 3.45.0 hecsts., – Application preferred by **Thiru.S.Gokulraj** - Precise area communicated – Submission of three copies of draft Mining Plan for approval - Approval accorded - regarding.

Ref: 1. Application from Thiru.S.Gokulraj, kanchipuram District dated 18.12.2024.
2. Precise Area Communication Notice Rc.No.397/Kanimam/2024 dt. 28.05.2025.
3. Mining Plan submitted by Thiru.S.Gokulraj, kanchipuram District dated 10.06.2025.

Thiru.S.Gokulraj, kanchipuram District has preferred an application for the grant of Rough Stone and Gravel quarry lease over an extent of 3.45.0 hecsts., of Patta land in SF.Nos. 95/1 (0.41.0), 95/10 (0.33.0), 95/2 (0.12.5), 95/3 (0.42.5), 95/4 (0.19.5), 95/5 (0.69.0), 95/6 (0.23.0), 95/7 (0.82.5), 95/8 (0.18.5) & 95/9 (0.03.5) of Palli Village, Cheyyar Taluk, Tiruvannamalai District for a period of 5 (Five years) vide in the reference 1st cited and the precise area has been communicated to the applicant vide the reference 2nd cited with a direction to submit the approved mining plan and Environmental Clearance.

2. As directed, the applicant has submitted three copies of mining plan for approval vide in the reference 3rd cited. The Mining Plan has been verified in detail and found that it has been 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.

i) The reserves estimated in the mining plan is

Depth in Mts.	Geological Resources			Mineable Reserves		
	Mineral	in Cbm	in Tons	Mineral	in Cbm	in Tons
42m (Below Ground Level)	Rough Stone	1378520	3790930	Rough Stone	535845	1473573.75
	Gravel	68926	137852	Gravel	55252	110504

ii) Year wise production proposed for the **first five year period** are as follows:-

Year	Mineral	Quantity Rough Stone		Quantity Gravel	
		CBM	Tons	CBM	Tons
I	Rough Stone	85375	234781.25	37342	74684
II		86025	236568.75	17910	35820
III		86050	236637.50	-	-
IV		85725	235743.75	-	-
V		83050	228387.50	-	-
Total		426225	1172118.75	55252	110504

iii) Year wise production proposed for the **Second five year period** are as follows:-

Year	Mineral	Quantity Rough Stone	
		CBM	Tons
I	Rough Stone	21840	60060.00
II		21945	60348.75
III		21945	60348.75
IV		22010	60527.50
V		21880	60170.00
Total		109620	301455.00

3. Therefore in exercise of the powers conferred under Rule 41(2) of Tamil Nadu Minor Mineral Concession Rules, 1959, the mining plan is hereby approved, subject to the following conditions:-

- 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.
- 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. Scheme of Mining shall be submitted for the 2nd five year 180 Days prior to expiry of 1st five year period as stipulated in rule 41 (a) of TNMMCR.
- v. Quarrying shall be done in accordance with the approved Mining Plan.
- vi. If anything is found to be concealed in the contents of the mining plan which are required by the mines act or if any proposed for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
- vii. All the conditions stipulated in the precise area communication dated 28.05.2025 should be duly complied with.

4. Further, other quarries situated within 500m radial distance are as follows.

i) Existing Quarries

Name of the Owner	Village & S.F. Nos.	Extent in Hects.	Lease Period	Remarks
S.Nirmal S/o. Saravananaraj, No.14, Kamaraj Street, Pammal, Chennai-75	115/1, 2,3,4 & 116 (Part)	2.00.0	29.08.2023 to 28.08.2028	Existing Quarry
Shri Vinayaga Mine, No.7, Elumalai Street, West Tambaram Chennai	65/1, 2A, 2B & 3	1.675	02.12.2021 to 01.12.2031	

ii) Abandoned quarries

Name of the Owner	Village & S.F. Nos.	Extent in Hects.	Lease Period	Remarks
Thiru.R.Venkatachalam, S/o. Ramasamy, No.30, New State Bank Colony, West Tambaram, Chennai.	Palli 66/3A (1.03.0) & 66/3B (1.87.0)	2.90.0	21.07.2016 to 20.07.2021	Expired Quarry
Thiru.M.Marimuthu, S/o. Maharajan, Kilpudupakkam Village, Cheyyar Taluk, Tiruvannamalai District.	74/3, 74/4	0.98.5	16.11.2018 to 15.11.2023	

iii) Present Proposed Quarries

Sl. No	Name of the Owner	Village & S.F. Nos.	Extent in Hects.
1	Thiru.S.Gokulraj, S/o. Saravanaraj, No.14, Kamarajar Nagar, Pammal Post, Kanchipuram.	Palli 95/1, 95/10, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8 & 95/9	3.45.0
2	Tmt.Poornima, W/o.Tamil Oli, No.1/62, North Street, Panruti, Kancheepuram.	Palli 496/2, 98/1A, 98/1B etc.,	3.91.0

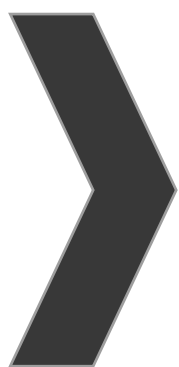
Encl: 2 Copies of Approved Mining Plan.


Deputy Director,
Geology and Mining,
Tiruvannamalai.

Copy submitted to:

1. The Chairman, SEIAA,
Tamil Nadu, 3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet, Chennai-15.
2. The Commissioner of Geology and Mining, Chennai-32.
3. The District Collector, Tiruvannamalai.


16/6/25



ANNEXURE-5

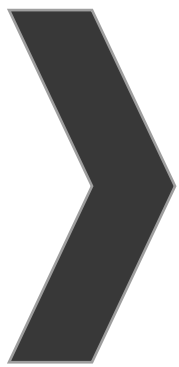
உறவு இல்லாத அழகமான காலை

કચ્છ : ૫૫૧૧૧

திருவண்ணாமலை மாவட்டம், கெய்யாறு வட்டம், பன்னி
கிராமத்தில் உள்ள புனாசு சாலை எண். 95/1 to 95/10
அக 3.45.0 ரெஜிஸ்டர் பதிவுடைய கிராம நிபந்தனை
சான்றிதழை கீழ்க்கண்ட விவரம் கீழ்க்கண்ட
திரு. ச. கெய்யாறு, No. 14, காமராசு தெரு, பல்லி,
திருவண்ணாமலை - 600075 எண்ணம் கீழ்க்கண்ட உள்ள நபர்
உரிமம் கேட்டு விண்ணப்பித்ததன்மீது விடத்தக்க சிறு
300 மீட்டர் சுற்றளவு பதிவுடைய கிராம நிபந்தனை பதிவுகளை,
அங்கீகரிக்கப்பட்ட உரிமையைப் பதிவுகளை, புராதன
சான்றிதழ்களை, அனைத்து உரிமைகளை, உரிமை
கம்பினை எவ்வளவு அல்லது எவ்வளவு அங்கீகரிக்கப்பட்டிருக்கிறது.

~~gly~~

ஆராம நூலாக அலுவலர்
28, மாலை, 36, பணி ஆராம
செய்யும் வடம் நீமலகை மாலை



ANNEXURE-6

பெரிய உட்குறியாக

எட்டிய பிழையாக

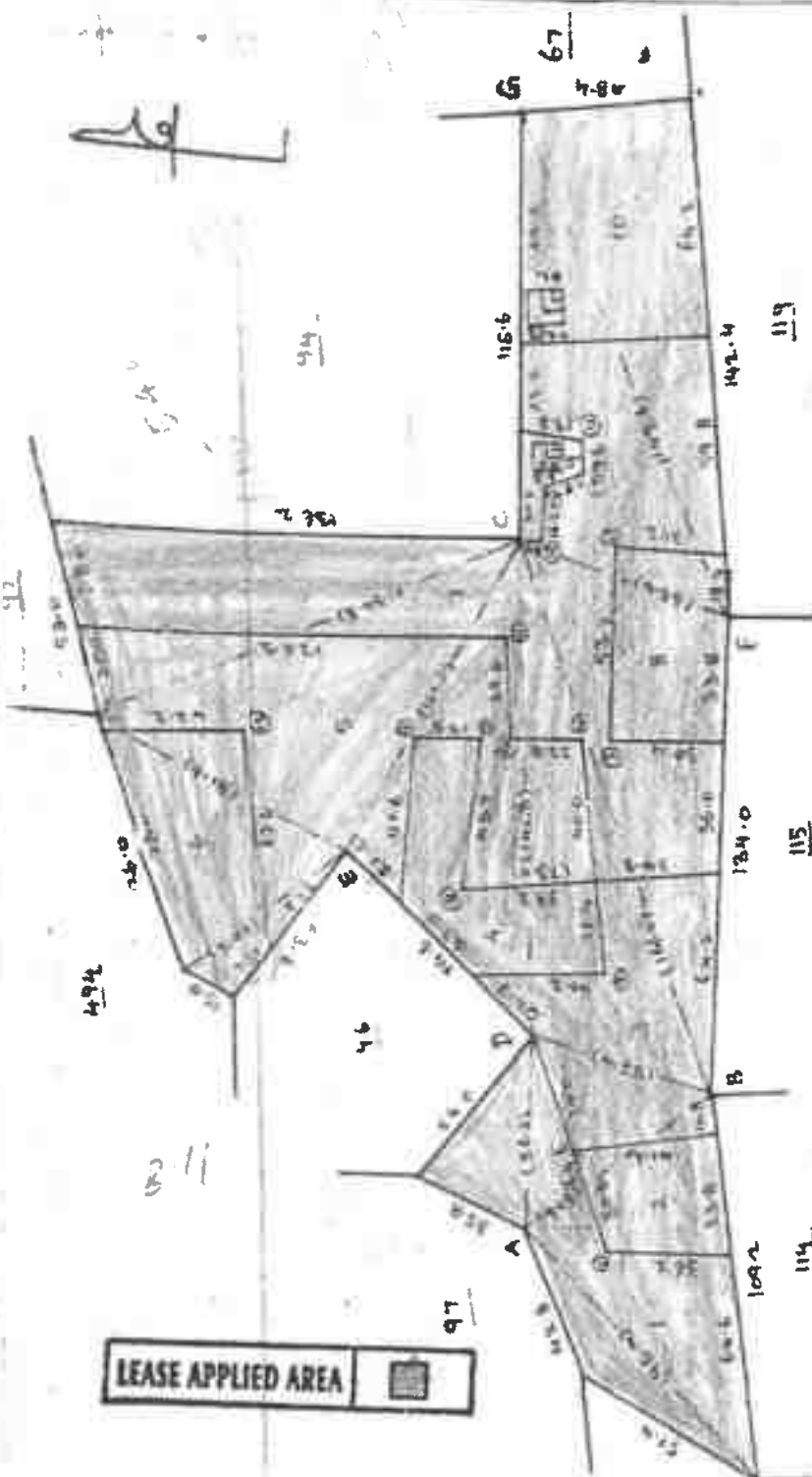
ਪੰਨਾ ਨੰਬਰ. ੧੫



86

புஸ்சி

3 00 45.0



LEASE APPLIED AREA

	C		
	116.6		
	116.4	3.0	w
	88.4	7.2	E
	88.4	3.4	
	51.2	3.4	
	50.0	3.0	
	46.2	2.0	
	G		
	C		
	134.8		
	39.2	19.8	35
	H		
	C		
	115.6		
	99.4	7.4	10
	88.4	8.2	13
	88.0	19.8	11
	G		
	F		
	65.0		
7.6	28.2		
2.2	8.6		
	C		
	101.2		
	37.8	2.2	9
	E		
	D		
	101.8		
	98.8	18.8	8
	55.6	11.8	7
	55.2	3.6	6
	27.4	2.8	5
	C		
	166.0		
	107.0	1.0	4
	104.2	7.8	3
16.0	43.0		
	B		
	67.6		
25	15.4	18.2	
	A		

மாண்புமிகு பேரவைத் தலைவர் அவர்களே, கீழ்க்கண்ட வினாக்களுக்குத் தயவுசெய்து பதிலளிப்பாரா:



தமிழ்நாடு அரசு

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை
நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செவ்வா

வருவாய் கிராமம் : பல்வி

பட்டா எண் : 1466

உரிமையாளர்கள் பெயர்

1 ரங்கன மகன் சரவணராஜ்

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக்டர் - ஏர்	ரூ - பை	ஹெக்டர் - ஏர்	ரூ - பை	ஹெக்டர் - ஏர்	ரூ - பை	
95	1	0 - 41.00	1.05	--	--	--	--	2018/0103/06/074600- Digitally signed:Ravichandaran D Zonal Deputy Tahsildar 29/05/2018 04:19:08:PM
95	10	0 - 33.00	0.85	--	--	--	--	2018/0103/06/074600- -- --WELL,SET.--- Digitally signed:Ravichandaran D Zonal Deputy Tahsildar 29/05/2018 04:19:08:PM
95	2	0 - 12.50	0.35	--	--	--	--	2018/0103/06/074600- Digitally signed:Ravichandaran D Zonal Deputy Tahsildar 29/05/2018 04:19:08:PM
95	3	0 - 42.50	1.10	--	--	--	--	2018/0103/06/074600- Digitally signed:Ravichandaran D Zonal Deputy Tahsildar



29/05/2018
04:19:08:PM

2018/0103/06/074600-

Digitally
signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
04:19:08:PM

2018/0103/06/074600-

Digitally
signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
04:19:08:PM

2018/0103/06/074600-

Digitally
signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
04:19:08:PM

2018/0103/06/074600-

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signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
04:19:08:PM

2018/0103/06/074600-

Digitally
signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
04:19:08:PM

2018/0103/06/074600-

Digitally
signed: Ravichandaran
D
Zonal Deputy Tahsildar
29/05/2018
04:19:08:PM

95	4	0 - 19.50	0.50	--				
95	5	0 - 69.00	1.80	--	--	--		
95	6	0 - 23.00	0.60	--	--	--	--	
95	7	0 - 82.50	2.15	--	--	--	--	
95	8	0 - 18.50	0.50	--	--	--	--	
95	9	0 - 3.50	0.10	--	--	--	--	
		3 - 45.00	9.00					



ANNEXURE **V**

1434 - ஆம் பக்கம்

திருவண்ணாமலை

பக்கம்

36 11/1/95

தமிழகப் பேரவை					மாநிலப் பேரவை							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
95	1	0410	105	1466	பெரிய கிணர்	-	-	-	-	-	-	
95	10	0390	85	1466	"	-	-	-	-	-	-	
95	2	0125	035	1466	"	-	-	-	-	-	-	
95	3	0425	110	1466	"	-	-	-	-	-	-	
95	4	0195	050	1466	"	-	-	-	-	-	-	
95	5	0690	180	1466	"	-	-	-	-	-	-	
95	6	0230	060	1466	"	-	-	-	-	-	-	
95	7	0825	15	1466	"	-	-	-	-	-	-	
95	8	0125	050	1466	"	-	-	-	-	-	-	
95	9	0035	010	1466	"	-	-	-	-	-	-	
/ 2 அண்ணா நகர் /												
24 ஆளுநர் மாநிலப் பேரவை												

9/3/24, 1:58 PM

வட்டாட்சியர் அலுவலக இணைய சேவை - அ-பதிவேடு விவரங்களை பார்வையிட

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

இராமம் : பல்லி

1. புல எண்	95	9. மண் வாயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	1	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-1	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி		12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 41.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.05
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்		15. குறிப்பு	
8. இரு போகமா		16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1 பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/1/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்லி



1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	2	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-2	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	.	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 12.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.35
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	.	15. குறிப்பு	.
8. இரு போகமா	.	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/2/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

இராமம் : பல்லி

1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	3	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-3	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 42.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.10
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
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தளத்தில் 06/04/086/95/3/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்லி

1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	4	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-4	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி		12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 19.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.50
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1456
7. பாசன ஆதாரம்	-	15. குறிப்பு	
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/4/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்வி

1. புல எண்	95	2. மண் வயனமும் சலமும்	8 - 3
2. உட்பிரிவு எண்	5	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-5	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 69.00
5. அரக / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	1.80
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/5/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
பாப்பதுபெறும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

ஊராமம் : பல்லி

1. புல எண்	95	9. மண் வயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	6	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-6	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 23.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.60
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/6/110607 என்ற குறிப்பு எண்ணை உள்ளிட்டு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

இராமம் : பல்லி

1. புல எண்	95	9. மண் வியனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	7	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-7	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 82.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	2.15
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டன. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/7/110607 என்ற குறிப்பு எண்ணை உள்ளிட்டு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்

மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்னி



1. புல எண்	95	9. மண் வியனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	8	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-8	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி		12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 18.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.50
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்		15. குறிப்பு	-
8. இரு போகமா		16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டவை. இவற்றை நாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/8/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்துகொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்லி

1. புல எண்	95	9. மண் லயனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	9	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-9	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 3.50
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.10
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1456
7. பாசன ஆதாரம்	-	15. குறிப்பு	-
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1. பெறப்பட்டன. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/9/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி
செய்த கொள்ளவும்.

அ-பதிவேடு விவரங்கள் - ஊரகம்



மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

கிராமம் : பல்லி

1. புல எண்	95	9. மண் பியனமும் ரகமும்	8 - 3
2. உட்பிரிவு எண்	10	10. மண் தரம்	5
3. பழைய புல உட்பிரிவு எண்	95-10	11. தீர்வை (ரூ - ஹெ)	2.62
4. பகுதி	-	12. பரப்பு (ஹெக்டேர் - ஏர்)	0 - 33.00
5. அரசு / ரயத்துவாரி	ரயத்துவாரி	13. மொத்த தீர்வை (ரூ - பை)	0.85
6. நிலத்தின் வகை	பஞ்சை	14. பட்டா எண்	1466
7. பாசன ஆதாரம்	-	15. குறிப்பு	WELL,SET.
8. இரு போகமா	-	16. பெயர்	1.சரவணராஜ்

குறிப்பு:



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து
1 பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய
தளத்தில் 06/04/086/95/10/110607 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து
உறுதி செய்துகொள்ளவும்.

4966/2024

ANNEXURE

VII



தமிழ்நாடு TAMILNADU

Rs.1000/-

18.11.2024. P.R.S. சரவணராஜ்
080201.75

ஜெனரல் பவர் பத்திரம்

(GENERAL POWER OF ATTORNEY)

BL 214541

J. சந்திரன்

ஸ்டாம்பு வென்டர்

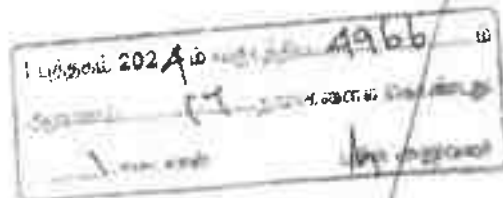
நிதவாசி (தி.மலை மா)

R.C.No.6/A1/93

2024 ஆம் ஆண்டு நவம்பர் மாதம் 18-பதினெட்டாம் தேதி, சென்னை -600 075, பம்மல், காமராஜ் தெரு, நெ.14, என்ற இல்லத்தில் குடியிருக்கும் திரு.P.R.S சரவணராஜ் அவர்களின் குமாரர் திரு.S.கோகுல்ராஜ் வயது 25 (ஆதார் எண்.5018 8617 8357), (PAN CARD NO.CPBPG4909N) (செல் நெ.9066616161) அவர்களுக்கு,

சென்னை -600 075, பம்மல், காமராஜ் தெரு, நெ.14, என்ற இல்லத்தில் குடியிருக்கும் திரு.P.ரங்கன் நாயக்கர் அவர்களின் குமாரர் திரு.P.R.S.சரவணராஜ் வயது 50 (ஆதார் எண் 2975 2348 2142), (PANCARD NO.BCHPS2018C) (செல் நெ. 9444025579) ஆகிய நான் மண்பூர்வீகமாக சம்மதித்தும் எழுதிக் கொடுத்த புஞ்சை நிலங்கள் பூராவும் மற்றும் கிணறு, மேற்படி கிணற்றங்கரையில் அமைத்துள்ள 3 HP மின்சார மோட்டார், பம்செட், சர்வீஸ் கணைக்ஷன், டெப்பாசிட் மற்றும் பைப் வகையறா உள்படவம் பொது அதிகாரப் பத்திரம் (GENERAL POWER OF ATTORNEY) என்னவென்றால்.

S.UR



நீ என்னுடைய மகன் என்ற உறவுமுறையிலும், நான் உனக்கு தந்தை என்ற உறவுமுறையிலும் கீழ்க்கண்ட சொத்து விவரத்தில் கண்டுள்ள சொத்துக்களைத் திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராமத்தில் குடியிருக்கும் திரு. P. தருமன்-1, வேலூர் மாவட்டம், மேம்பட்டம்-632 001, சர்வைமுனுசாமி முதலிதெரு, நெ.8/26/2E, என்ற இல்லத்தில் குடியிருக்கும் காலம் சென்ற துரைசாமி மந்திரி அவர்களின் குமாரர் வழக்கறிஞர் V. சந்திரகேசன்-2 ஆகியவர்கள் இருவரும் சேர்ந்து கடந்த 21-07-2008 ஆம் ஆண்டு ஒரு பாகப்பிரிவினைப்பத்திரம் எழுதிக்கொண்டார்கள். மேற்படி பாகப்பிரிவினைப்பத்திரம் திருவத்திபுரம் இணை எண் II சார்பதிவாளர் அலுவலகத்தில் 1 புத்தகம் 2008 ஆம் ஆண்டின் 4364 பத்திர எண்ணாக பதிவு செய்யப்பட்டுள்ளது. மேற்படி பாகப்பிரிவினைப்பத்திரத்தில் மேற்படி V. சந்திரகேசன் அவர்களுக்கு B-ஷெட்யூல் பாகமாக வரப்பெற்று அது முதல் மேற்படி V. சந்திரகேசன் அவர்கள் சர்வ சுதந்திரமாக ஆண்டு அனுபவித்து வந்த சொத்துக்களாகும். மற்றும்

திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், நெ.86, பல்லி கிராமத்தில் குடியிருக்கும் திரு. P. தருமன்-1, வழக்கறிஞர் V. சந்திரகேசன்-2 ஆகியவர்கள் இருவரும் சேர்ந்து கடந்த 21.07.2008 ஆம் ஆண்டு திருவண்ணாமலை மாவட்டம், செய்யாறு வட்டம், பல்லி கிராமம், கருணீசர் தெரு, நெ.45, என்ற இல்லத்தில் குடியிருக்கும் காலம் சென்ற துரைசாமி மந்திரி அவர்களின் குமாரர் திரு. D. கோபாலகிருஷ்ணன் அவர்களுக்கு கீழ்க்கண்ட சொத்து விவரத்தில் கண்டுள்ள சொத்துக்களை ஒரு தானசெட்டில்மெண்ட் பத்திரம் எழுதிக்கொடுத்துள்ளார்கள். மேற்படி தானசெட்டில்மெண்ட் பத்திரம் திருவத்திபுரம் இணை எண் II சார்பதிவாளர் அலுவலகத்தில் 1 புத்தகம் 2008 ஆம் ஆண்டின் 4381 பத்திர எண்ணாக பதிவு செய்யப்பட்டுள்ளது. அது முதல் மேற்படி திரு. D. கோபாலகிருஷ்ணன் அவர்கள் சர்வ சுதந்திரமாக ஆண்டு அனுபவித்து வந்த சொத்துக்களாகும். மற்றும்

திருவண்ணாமலை மாவட்டம், செய்யார் வட்டம், பல்லி கிராமத்தில் குடியிருக்கும் திரு. P. தருமன் அவர்கள் தன்னுடைய குமாரர் திரு. D. முத்துபச்சையப்பன் அவர்களுக்கு கடந்த 01-03-2017 ஆம் ஆண்டு கீழ்க்கண்ட சொத்து விவரத்தில் கண்டுள்ள சொத்துக்களை ஒரு செட்டில்மெண்ட் பத்திரம் எழுதிக்கொடுத்துள்ளார். மேற்படி செட்டில்மெண்ட் பத்திரம் திருவத்திபுரம் இணை எண் II சார்பதிவாளர் அலுவலகத்தில் 1 புத்தகம் 2017 ஆம் ஆண்டின் 297 பத்திர எண்ணாக பதிவு செய்யப்பட்டுள்ளது. அது முதல் மேற்படி திரு. D. முத்துபச்சையப்பன் அவர்கள் சர்வ சுதந்திரமாக ஆண்டு அனுபவித்து வந்த சொத்துக்களாகும். மற்றும்

S. CR



மேற்படி திரு.D.கோபாலகிருஷ்ணன்-1, V.சந்திரகேசன்-2, திரு.D. முத்துசையம்பன்-3, ஆகியவர்களிடமிருந்து கடந்த 18-04-2018 ஆம் ஆண்டு திரு.P.R.S.சுவாமிநாதன் கீழ்க்கண்ட சொத்துவிவரத்தில் கண்டுள்ள சொத்துக்களை சுயர்ஜிதமாய் கொள்வதற்காக வாரங்கியுள்ளேன். மேற்படி கிரையம் வாங்கிய பத்திரம் திருவத்திரம் இணை எண் II சார்பதிவாளர் தயவுசெய்து பதிவு செய்து கொள்ளுமாறு மன்றம் என 1 புத்தகம் 2018 ஆம் ஆண்டின் 911 பத்திர எண்ணாக பதிவு செய்யப்பட்டுள்ளது. மன்றம் என பெயரில் தனியப்பட்டா எண்.1466-ன்படி வரப்பெற்று அது முதல் நான் சர்வ சதந்திரமாக ஆண்டு அனுபவித்துவரும் சொத்துக்களாகும்.

மேற்படி நான் கிரையம் பெற்ற சொத்துக்கள் அனைத்தும் எனக்கு பாத்தியப்பட்டதும், எனக்கு பூரண உரிமை உள்ளதுமான சொத்துக்களை நான் தற்போது சார்பதிவாளர் அலுவலகத்தில் உரிய நேரத்தில் பதிவு செய்து கொடுக்க முடியாததினாலும், ஒரு சில காரணங்களால் அடிக்கடி வெளியூர் செல்ல இருப்பதினாலும் கீழ்க்கண்ட சொத்துக்களுக்கு நான் என் ஜெனரல் பவர் ஏஜெண்டாக தங்களை நியமிக்கிறேன். எனக்காக கீழ்க்கண்ட சொத்துக்களை பொருத்து என் முகவராகிய தாங்கள் செய்யும் அனைத்து பதிவுகளையும் அனைத்து செயல்களையும் நானே நேரில் வந்திருந்து செய்ததாக ஒப்புக்கொண்டு மேற்படி நான் என் ஜெனரல் பவர் ஏஜெண்டாக பொது அதிகார முகவராக தங்களை நியமிக்கிறேன். கீழ்க்கண்ட சொத்துக்களை பொருத்து அவ்வப்பொழுது நான் கேட்கும் சமயம் கணக்குகளை என்னிடம் ஒப்படைக்க வேண்டியது. இந்தபடிக்கு நான் மனப்பூர்வமாக சம்மதித்து எழுதிக் கொடுத்த புள்ளை நிலங்கள் பூராவும் மற்றும் கிணறு, மேற்படி கிணற்றங்கரையில் அமைந்துள்ள 3 HP மின்சார மோட்டார், பம்செட், சர்வீஸ் கணைக்ஷன், டெப்பாசிட் மற்றும் பைப் வகையறா உள்படவும் பொது அதிகாரப் பத்திரம் (GENERAL POWER OF ATTORNEY) ஆகும்.

SUR

R. J. J. J. J.

18-04-2018 A. 1466-ன்படி
கடந்த 18-04-2018
2



செயல் முறைகள்

1. எனக்காக தாங்கள் கீழ்க்கண்ட சொத்து விபரத்தில் கண்டுள்ள சொத்துக்களை கிராமியப் பேசிகிரைய அக்ரிமெண்ட் பத்திரம் எழுதி பதிவு செய்து கொடுத்து முன்பணம் பெறவும்.
2. எனக்காக கிரையம் வாங்குபவர் பெயருக்கு கிரையத் தொகைகளைப் பெற்றுக் கொண்டு உரிய சார்பதிவாளர் அலுவலகத்தில் கிரையப் பத்திரத்தை பதிவு செய்து கொடுக்கவும்.
3. பதிவுக்கு தேவையான அனைத்து நமூனாக்களிலும் (பாரங்களில்) என் சார்பாக தாங்களே கையெழுத்து செய்து உரிய அலுவலகங்களில் பதிவு செய்துக் கொடுக்கவும்.
4. கீழ்க்கண்ட சொத்துக்களைப் பொருத்து மட்டும் கிரையப் பத்திரம் என் சார்பாக தாங்களே கையெழுத்து செய்து பதிவு செய்து கொடுக்கவும்.
5. கீழ்க்கண்ட சொத்துக்களைப் பொருத்து கிரையப் பத்திரம் அடமானம், போக்கியம், குத்தகை, வாடகை, அக்ரிமெண்ட், பரிவர்த்தனை பத்திரம் மற்றும் திருத்தல் பத்திரம் போன்ற பத்திரங்களையும் என் சார்பாக தாங்களே கையெழுத்து செய்து பதிவு செய்துக் கொடுக்கவும்.
6. சொத்துக்களின் மதிப்புச் சான்று வில்லங்கச் சான்று பத்திர நகல்கள், ரெவின்யூ ரெக்கார்டுகள் போன்ற அனைத்து அலுவலகங்களிலும் செயல்பாடுகளையும் என் சார்பாக தாங்களே செய்து வரவேண்டியது.
7. கீழ்க்கண்ட சொத்து விபரத்தில் கண்டுள்ள சொத்துக்களை விற்பனை செய்யவும் நான் தங்களுக்கு முழு அதிகாரம் அளித்துள்ளேன்.
8. கீழ்க்கண்ட சொத்துக்களைப் பொருத்து அனைத்து நீதிமன்ற நடவடிக்கைகளுக்கும் தாங்கள் நேரடியாக வக்காலத்துகளில் கையெழுத்து செய்து அட்வகேட் நியமித்து வழக்காடவும். தங்களுக்கு நான் முழு அதிகாரம் அளிக்கிறேன்.
9. இந்த சொத்துக்களைப் பொருத்து நான் எந்தவிதமான கைமாற்று தொகையும் தங்களிடம் பெறவில்லை.
10. கீழ்க்கண்ட சொத்துக்களைப் பொருத்து அவ்வப்பொழுது நான் கேட்கும் சமயம் கணக்குகளை என்னிடம் ஒப்படைக்க வேண்டியது.

S. R.

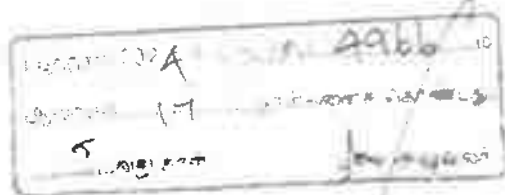
[Handwritten Signature]

1 பிப்ரவரி 2022 அ. ம. க. கிராமியப் பேசிகிரை... 4966...
 மு. க. க. கிராமியப் பேசிகிரை...
 அ. க. க. கிராமியப் பேசிகிரை...



- S.ck

Don J. Murray



கனக்கு விபரம்



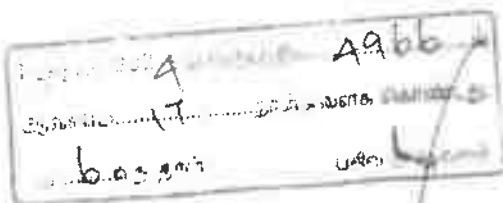
திருவண்ணாமலை மாவட்டம், செய்யாறு வட்டம், செய்யாறு பதிவு மாவட்டம்
திருவத்திபுரம் இணை எண் 11 சார்பதிவாளர் அலுவலகத்தைச் சேர்ந்த நெ.86,பல்நிலை
கிராமத்தில் மேற்சொன்ன விவரப்படி நான் சர்வ கதந்திரமாக ஆண்டு அளவித்து வரும்

பட்டா எண் 1456-என்பது

புஞ்சை சர்வே எண்.95/1	0.41.00 ஏர்ஸ்	ஏக்கர் 1.01 செண்டு பூரா
புஞ்சை சர்வே எண்.95/2	0.12.50 ஏர்ஸ்	ஏக்கர் 0.31 செண்டு பூரா
புஞ்சை சர்வே எண்.95/3	0.42.50 ஏர்ஸ்	ஏக்கர் 1.05 செண்டு பூரா
புஞ்சை சர்வே எண்.95/4	0.19.50 ஏர்ஸ்	ஏக்கர் 0.48 செண்டு பூரா
புஞ்சை சர்வே எண்.95/5	0.69.00 ஏர்ஸ்	ஏக்கர் 1.70 செண்டு பூரா
புஞ்சை சர்வே எண்.95/6	0.23.00 ஏர்ஸ்	ஏக்கர் 0.57 செண்டு பூரா
புஞ்சை சர்வே எண்.95/7	0.82.50 ஏர்ஸ்	ஏக்கர் 2.04 செண்டு பூரா
புஞ்சை சர்வே எண்.95/8	0.18.50 ஏர்ஸ்	ஏக்கர் 0.46 செண்டு பூரா
புஞ்சை சர்வே எண்.95/9	0.03.50 ஏர்ஸ்	ஏக்கர் 0.09 செண்டு பூரா
புஞ்சை சர்வே எண்.95/10	0.33.00 ஏர்ஸ்	ஏக்கர் 0.81 செண்டு பூரா

மேற்படி புஞ்சை சர்வே எண்.95/9 ல் உள்ள கிணறு, 3.HP. மின்சார மோட்டார், பம்செட்,
டெப்பாசிட் மற்றும் பைப் வகையறா உள்படவும் . மேற்படி மின் இணைப்பு எண்.AGL NO.37
உள்படவும்.

S.R



ஆக மொத்த விஸ்தீரணம் 3.45.0 ஹெக்டேர்ஸ் ஏக்கர் 8.52 (எட்டு ஏக்கர் ஐம்பதாம் இரண்டு செண்டு) உட்படவும் உள்ள சொத்துக்கள் பூராவும் இந்த பொது அதிகார சீருய்வு இலாகா பத்திரத்திற்கு சம்மந்தப்பட்டது.

மேற்படி சொத்துக்கள் பல்லி கிராம ஊராட்சி மன்றத்திற்கும், ஒன்றியத்திற்கும் சம்மந்தப்பட்டது.

மேற்படி சொத்துக்களின் தற்கால மார்கெட் மதிப்பு ரூ.24,68,600/- ஆகும்.
எழுதி வாங்குபவர் கையெழுத்து எழுதிக் கொடுப்பவர் கையெழுத்து

S.ulf

R. Haribabu

சாட்சிகள்:

1.

ஆனந்தன் த/பெ. அரிபாபு

நெ.5, கஸ்தூரிபாய் தெரு, வந்தவாசி-604 408.

ஆதார் எண்.3135 0749 5373

2.

குணசேகரன் த/பெ. வடிவேல்

நெ.181/97, பம்பல் மெயின் ரோடு, காஞ்சிபுரம்-600 075.

ஆதார் எண்.2329 7780 7666

வரைவு செய்தவர்:



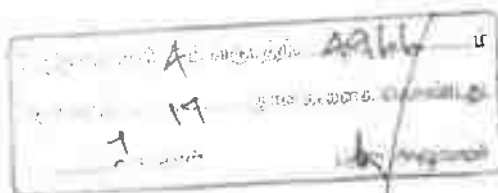
R. Haribabu, M.A., LLB.

ADVOCATE

Enrolment No. MS 1888/2013

நெ.5, கஸ்தூரிபாய் தெரு, வந்தவாசி.

Cell. 9944227201



1968-ஆம் வருடத்திய சென்னை முத்திரை மதிப்பு குறைப்புத் தடுப்பு சட்டத்தின் 3(1) விதிகளின் கீழ் ஸ்டேட்மெண்டு, செய்யாறு வட்டம், பல்லி கிராமத்தில்,

வரிசை சர்வே விஸ்தீரணம் சொத்தின் எழுதிக்கொடுப்பவரின்
எண் எண் தன்மை தீர்மானப்படி காலவரிசை

மட்டம் எண் 1466-ஆம் படி

- 1.) புஞ்சை சர்வே எண்.95/1 0.41.00 ஏர்ஸ் ஏக்கர் 1.01 செண்டு பூரா மதிப்பு ரூ.2,82,800/-
- 2.) புஞ்சை சர்வே எண்.95/2 0.12.50 ஏர்ஸ் ஏக்கர் 0.31 செண்டு பூரா மதிப்பு ரூ. 86,800/-
- 3.) புஞ்சை சர்வே எண்.95/3 0.42.50 ஏர்ஸ் ஏக்கர் 1.05 செண்டு பூரா மதிப்பு ரூ.2,94,000/-
- 4.) புஞ்சை சர்வே எண்.95/4 0.19.50 ஏர்ஸ் ஏக்கர் 0.48 செண்டு பூரா மதிப்பு ரூ.1,34,400/-
- 5.) புஞ்சை சர்வே எண்.95/5 0.69.00 ஏர்ஸ் ஏக்கர் 1.70 செண்டு பூரா மதிப்பு ரூ.4,76,000/-
- 6.) புஞ்சை சர்வே எண்.95/6 0.23.00 ஏர்ஸ் ஏக்கர் 0.57 செண்டு பூரா மதிப்பு ரூ.1,59,600/-
- 7.) புஞ்சை சர்வே எண்.95/7 0.82.50 ஏர்ஸ் ஏக்கர் 2.04 செண்டு பூரா மதிப்பு ரூ.5,71,200/-
- 8.) புஞ்சை சர்வே எண்.95/8 0.18.50 ஏர்ஸ் ஏக்கர் 0.46 செண்டு பூரா மதிப்பு ரூ.1,28,800/-
- 9.) புஞ்சை சர்வே எண்.95/9 0.03.50 ஏர்ஸ் ஏக்கர் 0.09 செண்டு பூரா மதிப்பு ரூ. 25,200/-
- 10.) புஞ்சை சர்வே எண்.95/10 0.33.00 ஏர்ஸ் ஏக்கர் 0.81 செண்டு பூரா மதிப்பு ரூ.2,26,800/-
- 11.) மேற்படி சர்வே எண்.95/9 ல் உள்ள கிணறு பூரா மதிப்பு ரூ. 50,000/-
- 12.) மேற்படி கிணற்றங்கரையில் அமைந்துள்ள 3.HP மின்சார மோட்டார், பம்செட், மின் இளைணப்பு, மதிப்பு ரூ. 30,000/-
- 13.) மேற்படி டெப்பாசிட் மதிப்பு ரூ. 3,000/-

ஆக மொத்த விஸ்தீரணம் 3.45.0 ஹெட்டேர்ஸ்

8.52 (எட்டு ஏக்கர் ஐம்பத்தி இரண்டு செண்டு) மதிப்பு

8,600/-

S.W.R

1. புஞ்சை 1466 4ம் வருடத்திய 4966 க்
2. 17
3. 8
4. கொண்டது
5. 6



for [Signature]



தமிழ்நாடு அரசு

வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : திருவண்ணாமலை

வட்டம் : செய்யார்

வருவாய் கிராமம் : பல்னி

பட்டா எண் : 1466

உரிமையாளர்கள் பெயர்

1. ரங்கன்

மகன்

சரவணராஜ்

புல எண் - உட்பிரிவு		புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு ஹெக்டே - ஏர்	தீர்வை ரூ - பை	பரப்பு ஹெக்டே - ஏர்	தீர்வை ரூ - பை	பரப்பு ஹெக்டே - ஏர்	தீர்வை ரூ - பை	
95	1	0 - 41.00	1.05	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	10	0 - 33.00	0.85	--	--	--	--	2018/0103/06/074600--- --WELL,SET----- 29-05-2018
95	2	0 - 12.50	0.35	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	3	0 - 42.50	1.10	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	4	0 - 19.50	0.50	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	5	0 - 69.00	1.80	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	6	0 - 23.00	0.60	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	7	0 - 82.50	2.15	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	8	0 - 18.50	0.50	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
95	9	0 - 3.50	0.10	--	--	--	--	2018/0103/06/074600--- ----- 29-05-2018
		3 - 45.00	9.00					

குறிப்பு :



மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டில் உள்ளது.

1. பெறப்பட்டவை, இவற்றை தாங்கள் <https://eservices.tn.gov.in> இணைய தளத்தில் 06/04/086/01466/30607 என்ற குறிப்பு எண்ணுடன் சேர்த்துச் செய்து கொள்ளவும்.

2. இத் தகவல்கள் 18-11-2024 அன்று 12:49:56 PM நேரத்தில் அச்சு செய்யப்பட்டன.

3. கைப்பேசி கேமராவின் 2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வலி இணையதளத்தில் சரிபார்க்கவும்.

S.W.R

for Jmmmy

आयकर विभाग - भारत सरकार
INCOME TAX DEPARTMENT - GOVT OF INDIA

आधार कार्ड
Permanent Account Number Card
CP6PG4909N

संलग्न चित्रित व्यक्ति का
Name of the person whose photo is attached
SUDHAKAR RAO S

आधार नं. आधार कार्ड
Aadhaar No. / Aadhaar Card
5018 8617 8357

आधार कार्ड के साथ ही एक प्रमाणित प्रतिलिपि
Along with the Aadhaar Card, a certified copy
of the same is also provided.

आधार कार्ड का उपयोग
Aadhaar Card is used for
various services like PAN card, etc.

आधार कार्ड का उपयोग
Aadhaar Card is used for
various services like PAN card, etc.

आधार कार्ड
Aadhaar Card

आधार नं. आधार कार्ड
Aadhaar No. / Aadhaar Card
5018 8617 8357

मेरा आधार, मेरी पहचान
My Aadhaar, My Identity

आधार कार्ड
Aadhaar Card

आधार नं. आधार कार्ड
Aadhaar No. / Aadhaar Card
5018 8617 8357

मेरा आधार, मेरी पहचान
My Aadhaar, My Identity

S.W.

1. तारीख 2024 2. पृष्ठ संख्या 4966
3. पृष्ठ संख्या 17 4. पृष्ठ संख्या 10




சரவணராஜ் ரங்கன்
Saravanasaj Rangan
 பிறந்த நாள் : DOB 28/09/1972
 ஆண் / MALE

2975 2348 2142

मेरा अधिकार, मेरी पहचान


சரவண ரங்கன்
Saravanasaj Rangan
 பிறந்த நாள் : DOB 28/09/1972
 ஆண் / MALE

2975 2348 2142

www.pdsd.gov.in

Saravanasaj Rangan

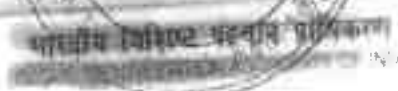
आयकर विभाग
INCOME TAX DEPARTMENT
भारत सरकार
GOVT. OF INDIA
P R S SARAVANARAJ
RANGAN
28/09/1972
BCHP52018C



आयकर विभाग
INCOME TAX DEPARTMENT
भारत सरकार
GOVT. OF INDIA
P R S SARAVANARAJ
RANGAN
28/09/1972
BCHP52018C

11/05/2024 10:10:00 4966
 11/05/2024 10:10:00 4966
 11/05/2024 10:10:00 4966



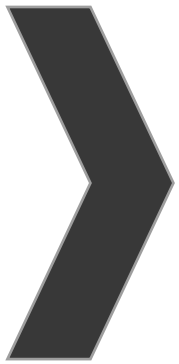


Address:
B/O. Vadivel, 181/57, PANGAL
MAIN ROAD, PANGAL, Perambal
Kanchipuram,
Tamil Nadu - 602008

2329 7780 7668



12



ANNEXURE-7



Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045
Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/3489	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3489	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	04.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

END OF THE REPORT

Please Contact:

For any Technical Issues&Complaints: technical@shrientanalytical.com

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045
Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/3490	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

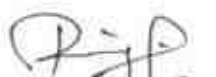
Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3490	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	04.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	47.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


Verified



END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: technical@shrientanalytical.com

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045
Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
www.shrientanalytical.com

TEST REPORT

Report No.	SARL/25/3491	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3491	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	05.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3492	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3492	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	05.03.2025	Test Completed on	17.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	45.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	18.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3493	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3493	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	06.03.2025	Test Completed on	17.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	43.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	6.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3494	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

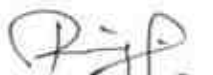
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3494	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	06.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	47.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/3495	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

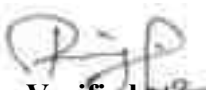
Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3495	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	07.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	45.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	19.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

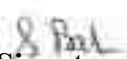
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3496	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3496	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	07.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	19.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3497	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3497	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3498	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3498	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3499	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3499	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	08.03.2025	Test Completed on	17.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3500	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3500	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3501	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3501	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3502	Report Date.	17.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3502	Sample Received on	10.03.2025
Sample Collected by	LABORATORY	Test Commenced on	10.03.2025
Sample Collected on	09.03.2025	Test Completed on	17.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3531	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3531	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	63.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3532	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

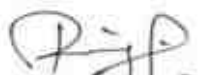
Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3532	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	57.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3533	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3533	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	57.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3534	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3534	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	12.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	60.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3535	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3535	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	12.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	62.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
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TEST REPORT

Report No.	SARL/25/3536	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3536	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	11.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	63.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3537	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3537	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	13.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	44.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3538	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3538	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	13.03.2025	Test Completed on	24.03.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

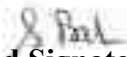
S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3539	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3539	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	14.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	43.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3540	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3540	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	14.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/3541	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3541	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	15.03.2025	Test Completed on	24.03.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	64.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3542	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3542	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	15.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	43.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3543	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3543	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	16.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	67.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

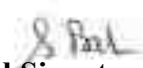
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3544	Report Date.	24.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

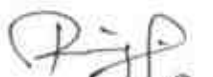
Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3544	Sample Received on	17.03.2025
Sample Collected by	LABORATORY	Test Commenced on	17.03.2025
Sample Collected on	16.03.2025	Test Completed on	24.03.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3573	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3573	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	18.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	71.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	33.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

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TEST REPORT

Report No.	SARL/25/3574	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3574	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	18.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3575	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3575	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	19.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	65.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3576	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-357	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	19.03.2025	Test Completed on	31.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	40.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	19.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3577	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3577	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	20.03.2025	Test Completed on	31.03.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	46.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3578	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

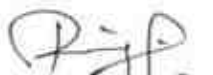
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3578	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	20.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	60.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/3579	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

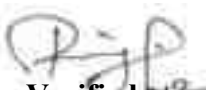
Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3579	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	21.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	44.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	19.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

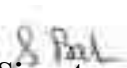
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/3580	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3580	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	21.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3581	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3581	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	54.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3582	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3582	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3583	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3583	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	22.03.2025	Test Completed on	31.03.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3584	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3584	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3585	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3585	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	57.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3586	Report Date.	31.03.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3586	Sample Received on	24.03.2025
Sample Collected by	LABORATORY	Test Commenced on	24.03.2025
Sample Collected on	23.03.2025	Test Completed on	31.03.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	12.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3615	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3615	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3616	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

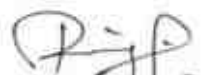
Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3616	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3617	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3617	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	25.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

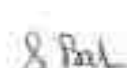
S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3618	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3618	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
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TEST REPORT

Report No.	SARL/25/3619	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3619	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3620	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3620	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	26.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3621	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3621	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	27.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	43.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

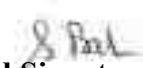
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3622	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

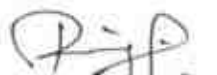
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3622	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	27.03.2025	Test Completed on	07.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

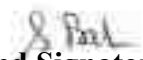
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3623	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3623	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	28.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	45.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

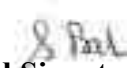
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3624	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

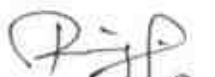
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3624	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	28.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/3625	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3625	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	29.03.2025	Test Completed on	07.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3626	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3626	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	29.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	46.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/3627	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3627	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	30.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	57.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

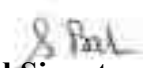
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3628	Report Date.	07.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulra j At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

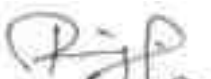
Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3628	Sample Received on	31.03.2025
Sample Collected by	LABORATORY	Test Commenced on	31.03.2025
Sample Collected on	30.03.2025	Test Completed on	07.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	41.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3657	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3657	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	01.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	56.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3658	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3658	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	01.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	49.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3659	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3659	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	02.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	61.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3660	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3660	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	02.04.2025	Test Completed on	14.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	43.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	19.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3661	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3661	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	03.04.2025	Test Completed on	14.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	46.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3662	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

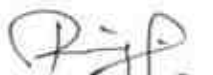
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3662	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	03.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	47.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.32	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3663	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3663	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	04.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	43.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3664	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3664	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	04.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3665	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3665	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3666	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3666	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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Report No.	SARL/25/3667	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3667	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	05.04.2025	Test Completed on	14.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	59.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3668	Report Date.	14.04.2025

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3668	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3669	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3669	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	54.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3670	Report Date.	14.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3670	Sample Received on	07.04.2025
Sample Collected by	LABORATORY	Test Commenced on	07.04.2025
Sample Collected on	06.04.2025	Test Completed on	14.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3699	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3699	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3700	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3700	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	56.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
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TEST REPORT

Report No.	SARL/25/3701	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3701	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	08.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	56.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3702	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3702	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3703	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3703	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	54.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3704	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3704	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	09.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3705	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3705	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	10.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	45.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3706	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

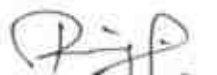
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3706	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	10.04.2025	Test Completed on	21.04.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3707	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3707	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	11.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	6.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3708	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

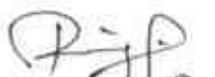
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3708	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	11.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3709	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3709	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	12.04.2025	Test Completed on	21.04.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	72.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	33.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	12.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



END OF THE REPORT

Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: technical@shrientanalytical.com

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TEST REPORT

Report No.	SARL/25/3710	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3710	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	12.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/3711	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3711	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	13.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	68.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	32.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

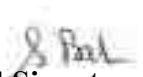
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3712	Report Date.	21.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

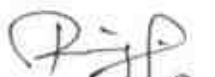
Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3712	Sample Received on	14.04.2025
Sample Collected by	LABORATORY	Test Commenced on	14.04.2025
Sample Collected on	13.04.2025	Test Completed on	21.04.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3741	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3741	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	15.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	59.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3742	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3742	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	15.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	43.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3743	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3743	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	16.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

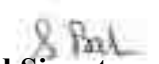
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3744	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3744	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	16.04.2025	Test Completed on	28.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

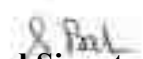
S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3745	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3745	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	17.04.2025	Test Completed on	28.04.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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S. BALAMURUGAN
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TEST REPORT

Report No.	SARL/25/3746	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

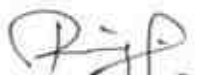
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3746	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	17.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3747	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

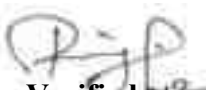
Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3747	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	18.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

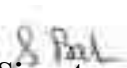
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3748	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3748	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	18.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3749	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3749	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3750	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3750	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3751	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3751	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	19.04.2025	Test Completed on	28.04.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3752	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3752	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3753	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3753	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3754	Report Date.	28.04.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3754	Sample Received on	21.04.2025
Sample Collected by	LABORATORY	Test Commenced on	21.04.2025
Sample Collected on	20.04.2025	Test Completed on	28.04.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	59.1	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3783	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3783	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	60.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3784	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3784	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/3785	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3785	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	22.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	54.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3786	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3786	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3787	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3787	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3788	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3788	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	23.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3789	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3789	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	24.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	49.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3790	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

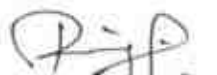
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3790	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	24.04.2025	Test Completed on	05.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3791	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3791	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	25.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	46.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	6.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

Please Contact:

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TEST REPORT

Report No.	SARL/25/3792	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3792	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	25.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3793	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3793	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	26.04.2025	Test Completed on	05.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	67.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	12.2	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

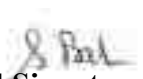
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3794	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3794	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	26.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	44.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	20.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3795	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3795	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	27.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	69.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	32.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

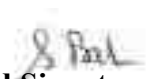
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3796	Report Date.	05.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

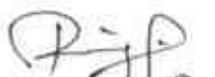
Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3796	Sample Received on	29.04.2025
Sample Collected by	LABORATORY	Test Commenced on	29.04.2025
Sample Collected on	27.04.2025	Test Completed on	05.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3824	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3824	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	29.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	60.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3825	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3825	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	29.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	49.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3826	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3826	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	30.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	56.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

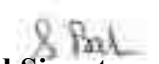
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3827	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3827	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	30.04.2025	Test Completed on	12.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3828	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3828	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	01.05.2025	Test Completed on	12.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3829	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

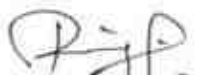
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3829	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	01.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	47.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3830	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3830	Sample Received on	05.05.2025
Sample Collected by	02.05.2025	Test Commenced on	05.05.2025
Sample Collected on	18.04.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3831	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3831	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	02.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3832	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3832	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	56.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3833	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3833	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3834	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3834	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	03.05.2025	Test Completed on	12.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3835	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3835	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	12.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3836	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3836	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3837	Report Date.	12.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3837	Sample Received on	05.05.2025
Sample Collected by	LABORATORY	Test Commenced on	05.05.2025
Sample Collected on	04.05.2025	Test Completed on	12.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3866	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3866	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	60.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.6	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3867	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3867	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3868	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3868	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	06.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3869	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3869	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	57.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3870	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3870	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3871	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3871	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	07.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	54.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3872	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3872	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	08.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	54.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3873	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

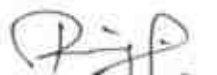
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3873	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	08.05.2025	Test Completed on	19.05.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	46.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3874	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3874	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	09.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3875	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

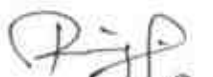
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3875	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	09.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3876	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

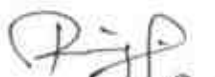
Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3876	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	10.05.2025	Test Completed on	19.05.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	66.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.1	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3877	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3877	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	10.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

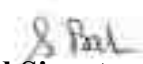
S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3878	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3878	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	11.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	62.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3879	Report Date.	19.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

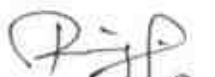
Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3879	Sample Received on	12.05.2025
Sample Collected by	LABORATORY	Test Commenced on	12.05.2025
Sample Collected on	11.05.2025	Test Completed on	19.05.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.9	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3908	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3908	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	13.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	66.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.0	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL(D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3909	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3909	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	13.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	25%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	49.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	28.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3910	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3910	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	14.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	68.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	12.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3911	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3911	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	14.05.2025	Test Completed on	26.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	44.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	18.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3912	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3912	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	15.05.2025	Test Completed on	26.05.2025
Temperature	34°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3913	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

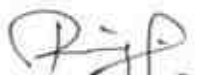
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3913	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	15.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	46.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	26.8	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.1	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.5	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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TEST REPORT

Report No.	SARL/25/3914	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3914	Sample Received on	19.05.2025
Sample Collected by	02.05.2025	Test Commenced on	19.05.2025
Sample Collected on	16.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	27%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.7	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3915	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3915	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	16.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	24.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3916	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3916	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	26%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	60.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	30.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3917	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3917	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
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TEST REPORT

Report No.	SARL/25/3918	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3918	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	17.05.2025	Test Completed on	26.05.2025
Temperature	36°C	Relative Humidity	28%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3919	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3919	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	55.7	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	27.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.0	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

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TEST REPORT

Report No.	SARL/25/3920	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3920	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	64.4	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	35.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3921	Report Date.	26.05.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3921	Sample Received on	19.05.2025
Sample Collected by	LABORATORY	Test Commenced on	19.05.2025
Sample Collected on	18.05.2025	Test Completed on	26.05.2025
Temperature	35°C	Relative Humidity	32%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	65.0	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	35.6	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.6	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	10.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3950	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3950	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	58.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3951	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3951	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	60.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3952	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

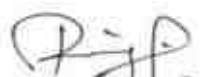
Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3952	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	20.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	60.9	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3953	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A5-Vadaelapakkam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3953	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	53.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.4	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3954	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A6 -Perumbulimedu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3954	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	56.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.2	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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TEST REPORT

Report No.	SARL/25/3955	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A7-Vadapoondipattu
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3955	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	21.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	21%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	56.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	29.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	6.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	9.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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Please Contact:

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Phone Number +91 82208 36377 Email: -info@shrientanalytical.com
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TEST REPORT

Report No.	SARL/25/3956	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3956	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	22.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	45.3	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3957	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

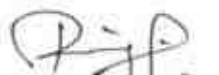
Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3957	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	22.05.2025	Test Completed on	02.06.2025
Temperature	37°C	Relative Humidity	23%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	48.8	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	21.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	5.2	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.0	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3958	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A3-Cholavaram
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3958	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	23.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	51.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.1	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3959	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A4-Mangalam
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3959	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	23.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	49.2	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	25.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.4	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

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TEST REPORT

Report No.	SARL/25/3960	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

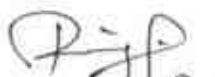
Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3960	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	24.05.2025	Test Completed on	02.06.2025
Temperature	36°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	72.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	33.3	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	8.7	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	12.9	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3961	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3961	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	24.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	50.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	23.5	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	3.8	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	7.7	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

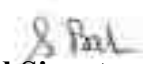
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3962	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

Sample Location	A1a-Within Mine Lease area
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3962	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	70.5	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	31.9	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	7.5	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	11.8	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

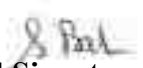
Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3963	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	AMBIENT AIR QUALITY
Sampling Procedure	IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines

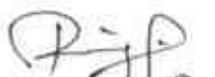
Sample Location	A2-Palli
Positioned height of Sampler	1.5 M above Ground Level

Customer Reference	By Mail	Sampling Duration	24 hrs
Sample Reference No	SARL/A/CHE-3963	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Temperature	35°C	Relative Humidity	30%
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results	*Limits
1	Particulate Matter less than 10micron size (PM ₁₀)	IS:5182: Part 23:2006	µg/m ³	52.6	100
2	Particulate Matter less than 2.5micron size (PM _{2.5})	IS 5182 (Part 24):2019	µg/m ³	22.4	60
3	Sulphur dioxide (SO ₂)	IS:5182: Part 02:2001	µg/m ³	4.3	80
4	Nitrogen Dioxide (NO ₂)	IS:5182: Part 06:2006	µg/m ³	8.3	80
5	Carbon monoxide (CO)	SARL/IOP/013 (Issue No:01, Issue Date – 01.03.2023)	mg/m ³	BDL (D.L – 1.1)	-

Remarks: Limits: *National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd


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Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3964	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	GW 1a - Within Mine Lease area

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3964	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	Physical parameters				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.36	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	1024	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	615	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	430	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	81.6	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	54.2	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	204	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	226	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	316	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	80.4	1000



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TEST REPORT

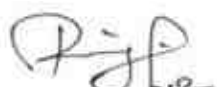
Report No.	SARL/25/3964

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result	*Limits
					Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	120	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.07	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	2.45	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.34	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/3965	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	GW 2- Palli

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3965	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	Physical parameters				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.88	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	402.5	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	242	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	172	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	43.6	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	15.1	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	109	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	63	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	148	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	32.5	1000



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TEST REPORT

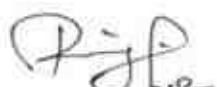
Report No.	SARL/25/3965

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result	*Limits
					Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	14.2	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.05	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	BDL(D.L-1.0)	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.25	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3966	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	GW 3 - Cholavaram

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3966	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	Physical parameters				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H ⁺ B: 2023	-	6.96	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	716.8	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	430	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	234	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	56.8	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	22.1	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	142	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	92	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	159	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	160	1000



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TEST REPORT

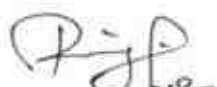
Report No.	SARL/25/3966

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result	*Limits
					Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO ₄ ²⁻)	APHA 24th Edition 4500 SO ₄ ²⁻ E: 2023	mg/L	73.5	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.05	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	3.65	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.27	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/3967	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	GW 4 - Mangalam

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3967	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	Physical parameters				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H ⁺ B: 2023	-	7.41	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	1680	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1010	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	350	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	65.6	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	44.6	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	164.0	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	186	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	320	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	332	1000



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TEST REPORT

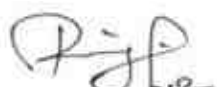
Report No.	SARL/25/3967

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result	*Limits
					Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	208	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.09	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	2.15	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.38	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/3968	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	GW 5- Vadaelapakkam

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3968	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	Physical parameters				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H ⁺ B: 2023	-	7.32	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	1002	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	602	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	405	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	76	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	51.6	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	190	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	215	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	254	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	115	1000



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TEST REPORT

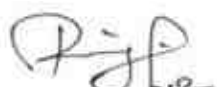
Report No.	SARL/25/3968

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result	*Limits
					Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	114	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	0.07	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	2.78	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.27	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3969	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	GW 6- Perumbulimedu

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3969	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	Physical parameters				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H ⁺ B: 2023	-	7.56	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	1156	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	695	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	330	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	72.8	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	35.5	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	182	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	148	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	256	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	180	1000



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TEST REPORT

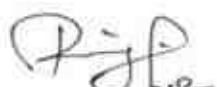
Report No.	SARL/25/3969

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result	*Limits
					Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	212	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL(D.L - 0.01)	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	2.02	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.56	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/3940	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	GW 7-Vadapoondipattu

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3940	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result	*Limits
					Permissible
A.	Physical parameters				
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0	5.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.38	6.50-8.50
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	1864	-
B.	Chemical parameters				
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	1120	2000
6	Total hardness (as CaCO3)	APHA 24th Edition 2340 C: 2023	mg/L	436	600
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	74.4	200
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	60.0	100
9	Calcium Hardness (as CaCO3)	APHA 24th Edition 3500 Ca B: 2023	mg/L	186	-
10	Magnesium Hardness (as CaCO3)	APHA 24th Edition 3500 Mg B: 2023	mg/L	250	-
11	Total alkalinity (as CaCO3)	APHA 24th Edition 2320 B: 2023	mg/L	305	600
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	354	1000



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TEST REPORT

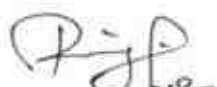
Report No.	SARL/25/3940

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result	*Limits
					Permissible
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)	1.0
14	Sulphate as (SO ₄ 2-)	APHA 24th Edition 4500 SO ₄ 2- E: 2023	mg/L	355	400
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL(D.L - 0.01)	0.3
16	Nitrate (as NO ₃)	IS 3025 (Part 34): 1988	mg/L	3.63	45
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.64	1.5
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL (D.L - 0.05)	0.3

Remarks: *Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3971

Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	SW 1-Cheyyar River up stream

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3971	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.06.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result
A.	Physical parameters			
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.72
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	252
B.	Chemical parameters			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	152
6	Total hardness (as CaCO ₃)	APHA 24th Edition 2340 C: 2023	mg/L	94.2
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	23.4
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	8.57
9	Calcium Hardness (as CaCO ₃)	APHA 24th Edition 3500 Ca B: 2023	mg/L	58.5
10	Magnesium Hardness (as CaCO ₃)	APHA 24th Edition 3500 Mg B: 2023	mg/L	35.7
11	Total alkalinity (as CaCO ₃)	APHA 24th Edition 2320 B: 2023	mg/L	35.6
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	142



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TEST REPORT

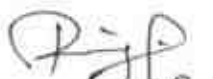
Report No.	SARL/25/3971

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	15.6
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL (D.L - 0.01)
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	BDL (D.L - 1.0)
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.28
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL(D.L-0.05)
19	Chemical Oxygen Demand	APHA 24th Edition 5220 B: 2023	mg/L	BDL (D.L – 4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27°C	IS 3025 (Part 44): 1993	mg/L	BDL (D.L – 2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	BDL (D.L – 2.0)
22	Dissolved Oxygen	IS 3025 (Part 38): 1989	mg/L	6.2

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3972

Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	WATER
Sample Mark	SW 2 -Cheyyar River down stream

Customer Reference	By Mail	Sampling Procedure	IS 17614: Part 14: 2021
Sample Reference No	SARL/W/CHE-3972	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.06.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

Sl. No.	Parameters	Protocol	Unit	Result
A.	Physical parameters			
1	Odour	IS 3025 (Part 5): 2018	-	Agreeable
2	Turbidity	APHA 24 th Edition 2130 B: 2023	NTU	<1.0
3	pH at 25 °C	APHA 24 th Edition 4500 – H+ B: 2023	-	7.89
4	Electrical Conductivity	APHA 24 th Edition 2510 B: 2023	(µS/cm)	243
B.	Chemical parameters			
5	Total Dissolved Solids	APHA 24th Edition 2540-C: 2023	mg/L	146
6	Total hardness (as CaCO ₃)	APHA 24th Edition 2340 C: 2023	mg/L	92.2
7	Calcium (as Ca)	IS 3025 (Part 40): 1991	mg/L	22.2
8	Magnesium (as Mg)	IS 3025 (Part 46): 1994	mg/L	8.81
9	Calcium Hardness (as CaCO ₃)	APHA 24th Edition 3500 Ca B: 2023	mg/L	55.5
10	Magnesium Hardness (as CaCO ₃)	APHA 24th Edition 3500 Mg B: 2023	mg/L	36.7
11	Total alkalinity (as CaCO ₃)	APHA 24th Edition 2320 B: 2023	mg/L	35.1
12	Chloride (as Cl)	APHA 24th Edition 4500 Cl- B: 2023	mg/L	138



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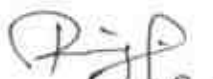
Report No.	SARL/25/3972

Report Date.	02.06.2025

Sl. No	Parameters	Protocol	Unit	Result
13	Free Residual chlorine	APHA 24th Edition 4500 Cl- B: 2023	mg/L	BDL (D.L - 0.2)
14	Sulphate as (SO42-)	APHA 24th Edition 4500 SO42- E: 2023	mg/L	18.9
15	Iron (as Fe)	APHA 24th Edition 3500 Fe B: 2023	mg/L	BDL(D.L - 0.01)
16	Nitrate (as NO3)	IS 3025 (Part 34): 1988	mg/L	BDL(DL-1.0)
17	Fluoride (as F)	APHA 24th Edition 4500 F- D: 2023	mg/L	0.32
18	Manganese (as Mn)	APHA 24th Edition 3500 Mn B: 2023	mg/L	BDL(D.L-0.05)
19	Chemical Oxygen Demand	APHA 24th Edition 5220 B: 2023	mg/L	BDL (D.L – 4.0)
20	Bio Chemical Oxygen Demand 3 Days at 27°C	IS 3025 (Part 44): 1993	mg/L	BDL (D.L – 2.0)
21	Total Suspended Solids	APHA 24th Edition 2540 D: 2023	mg/L	BDL (D.L – 2.0)
22	Dissolved Oxygen	IS 3025 (Part 38): 1989	mg/L	6.3

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd


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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

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TEST REPORT

Report No.	SARL/25/3974	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	SOIL
Sample Mark	S1a-Within Mine Lease area

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3974	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.54
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	72.32
3	Dry matter content	IS 15106: 2002	%	97.54
4	Water Content	IS 15106: 2002	%	2.46
5	Organic Matter	IS 2720: Part 22: 1972	%	0.52
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	184
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	LOAM
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	50.21
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	28.99
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	20.8
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.36
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	670
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	356
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	19.5
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	42

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3975	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	SOIL
Sample Mark	S2- Palli

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3975	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	6.87
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	46.65
3	Dry matter content	IS 15106: 2002	%	97.44
4	Water Content	IS 15106: 2002	%	2.56
5	Organic Matter	IS 2720: Part 22: 1972	%	0.74
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	145
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Loam
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	48.65
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	31.66
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	19.69
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.65
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	432
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	632
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	20.7
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	40

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3976	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	SOIL
Sample Mark	S3- Cholvaram

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3976	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	6.95
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	60.97
3	Dry matter content	IS 15106: 2002	%	96.57
4	Water Content	IS 15106: 2002	%	3.43
5	Organic Matter	IS 2720: Part 22: 1972	%	0.81
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	182
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Loam
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	34.45
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	45.49
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	20.06
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.22
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	389
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	589
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	22.2
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	42

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

END OF THE REPORT

Please Contact:

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TEST REPORT

Report No.	SARL/25/3977	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	SOIL
Sample Mark	S4- Mangalam

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3977	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.01
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	42.58
3	Dry matter content	IS 15106: 2002	%	97.05
4	Water Content	IS 15106: 2002	%	2.95
5	Organic Matter	IS 2720: Part 22: 1972	%	1.18
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	232
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Loam
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	40.06
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	36.55
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	23.39
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	2.1
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	4.23
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	6.58
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	24.1
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	44

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 1 of 1



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TEST REPORT

Report No.	SARL/25/3978	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	SOIL
Sample Mark	S5- Vadaelapakkam

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3978	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.44
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	132
3	Dry matter content	IS 15106: 2002	%	95.57
4	Water Content	IS 15106: 2002	%	4.43
5	Organic Matter	IS 2720: Part 22: 1972	%	0.98
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	164
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Loam
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	66.72
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	23.76
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	9.52
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.98
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	475
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	295
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	20.9
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	41

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3979	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	SOIL
Sample Mark	S6- Perumbulimedu

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3979	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	6.92
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	48.95
3	Dry matter content	IS 15106: 2002	%	97.32
4	Water Content	IS 15106: 2002	%	2.68
5	Organic Matter	IS 2720: Part 22: 1972	%	0.76
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	149
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Loam
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	49.55
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	31.69
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	18.76
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.24
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	432
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	630
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	22.6
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	40

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3980	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone And Gravel Quarry Of Thiru.S. Gokulraj At S.F.Nos. 95/1, 95/2, 95/3, 95/4, 95/5, 95/6, 95/7, 95/8, 95/9 And 95/10 Of Palli Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu State
Sample Description	SOIL
Sample Mark	S7- Vadapoondipattu

Customer Reference	By Mail	Sampling Procedure	-
Sample Reference No	SARL/SO/CHE-3980	Sample Received on	26.05.2025
Sample Collected by	LABORATORY	Test Commenced on	26.05.2025
Sample Collected on	25.05.2025	Test Completed on	02.06.2025
Sample Condition	Fit for Analysis		

S. No.	Parameters	Protocol	Unit	Results
1	pH at 25 °C	IS 2720: Part 26: 1987	-	7.86
2	Electrical Conductivity	IS 14767: 2000	µmhos/cm	59.58
3	Dry matter content	IS 15106: 2002	%	95.29
4	Water Content	IS 15106: 2002	%	4.71
5	Organic Matter	IS 2720: Part 22: 1972	%	1.05
6	Nitrogen and Nitrogenous compounds	IS 14684: 1999	mg/kg	302
7	Soil Texture	Methods Manual - Soil testing in India - P. No-67: 2011	%	Silty Clay Loam
8	<u>Grain Size Distribution</u>	Methods Manual - Soil testing in India - P. No-67: 2011	%	6.75
	i. Sand	Methods Manual - Soil testing in India - P. No-67: 2011	%	62.09
	ii. Silt	Methods Manual - Soil testing in India - P. No-67: 2011	%	31.16
	iii. Clay	Methods Manual - Soil testing in India - P. No-67: 2011	%	BDL (D.L.0.02)
9	Phosphorus as P	IS 10158: 1982	mg/kg	1.23
10	Sodium as Na	USEPA 3050 B: 1996	mg/kg	796
11	Potassium as K	USEPA 3050 B: 1996	mg/kg	405
12	Total soluble sulphates	IS 2720: Part 27: 1977	%	BDL (D.L.0.02)
13	Porosity	SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023	%	20.5
14	Water holding capacity	Methods Manual - Soil testing in India - P. No-76: 2011	Inches/foot	38

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

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S. BALAMURUGAN
Asst. Technical Manager

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TEST REPORT

Report No.	SARL/25/3981	Report Date.	02.06.2025

Customer Name & Address	Proposed Rough Stone & Gravel Quarry At Tmt.R.Chitra S.F.Nos. 7/10a, 7/10b, 7/11, 7/12, 7/3, 7/4 & 7/5, Achankulam Village, Kallikkudi Taluk, Madurai District, Tamil Nadu State. (1.58.50 Ha)
Sample Description	NOISE LEVEL DATA

Customer Reference	As per work order	Sampling Method	SARL/IOP/023
Sample Reference No	SARL/NO/CHE-3981	Date of Monitoring	24.03.2025/ 25.03.2025
Sample Collected by	LABORATORY		

Time in hrs	N1	N2	N3	N4	N5	N6	N7
06.00	43.4	40.0	41.7	42.2	39.9	41.7	38.3
07.00	45.5	47.4	44.3	50.1	42.2	43.8	45.7
08.00	47.7	51.4	47.2	48.9	48.4	46.0	49.7
09.00	49.2	52.8	49.1	50.6	52.0	47.5	51.1
10.00	50.5	50.1	50.3	42.8	53.8	48.8	48.4
11.00	46.8	53.1	49.2	46.1	51.0	45.1	51.4
12.00	48.7	47.3	50.1	47.2	50.1	47.0	45.6
13.00	47.2	48.1	50.7	45.4	49.5	45.5	46.3
14.00	47.4	51.1	48.8	48.3	52.9	45.7	49.4
15.00	45.8	50.2	46.1	44.5	53.2	44.1	48.6
16.00	47.2	50.0	49.2	46.7	52.5	45.5	48.3
17.00	44.8	45.1	45.4	48.2	51.5	43.1	43.4
18.00	43.5	43.0	45.8	47.1	48.9	41.8	41.3
19.00	41.3	42.3	47.2	44.7	47.4	39.6	40.6
20.00	40.2	41.1	42.9	42.2	45.2	38.5	39.4
21.00	41.8	43.0	44.0	40.2	44.2	40.1	41.3
22.00	41.0	39.2	42.1	38.3	40.7	39.3	37.5
23.00	41.4	37.8	41.2	38.8	40.1	39.7	36.1
24.00	38.0	40.0	39.7	39.5	39.2	36.3	38.3
01.00	38.5	38.4	40.1	38.4	38.4	36.8	36.7
02.00	37.2	39.2	39.5	39.8	40.2	35.5	37.5
03.00	37.8	40.5	40.2	38.9	40.8	36.1	38.8
04.00	38.5	38.4	41.0	39.1	41.3	36.8	36.7
05.00	40.3	42.1	40.0	39.9	40.8	38.6	40.4



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TEST REPORT

Report No.	SARL/25/3981

Report Date.	02.06.2025

	N1	N2	N3	N4	N5	N6	N7
DAY EQUIVALENT	46.6	48.9	47.8	46.8	50.3	44.9	47.2
NIGHT EQUIVALENT	39.3	39.7	40.6	39.1	40.3	37.6	38.0
DAY & NIGHT EQUIVALENT	45.2	47.4	46.4	45.4	48.8	43.5	45.7

Remarks:

LOCATIONS:

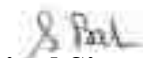
- N1a-Within Mine Lease area
- N2- Palli
- N3- Cholavaram
- N4- Mangalam
- N5- Vadaelapakkam
- N6- Perumbulimedu
- N7- Vadapoondipattu

For Shrient Analytical and Research Labs Pvt. Ltd


Verified



END OF THE REPORT


Authorized Signatory
S. BALAMURUGAN
Asst. Technical Manager

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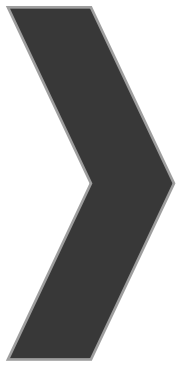
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CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



ANNEXURE-8



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

**SHRIENT ANALYTICAL & RESEARCH LABS PRIVATE
LIMITED**

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

416/15, DHARGAS ROAD, PERUNGALATHUR, WEST TAMBARAM, CHENNAI, KANCHIPURAM, TAMIL
NADU, INDIA

in the field of

TESTING

Certificate Number: TC-12339

Issue Date: 30/09/2023

Valid Until: 29/09/2025

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued
satisfactory compliance to the above standard & the relevant requirements of NABL.

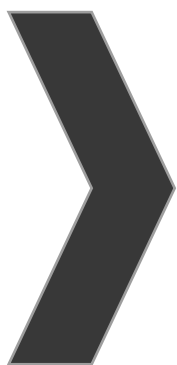
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: SHRIENT ANALYTICAL AND RESEARCH LABS PRIVATE LIMITED

Signed for and on behalf of NABL



N. Venkateswaran
Chief Executive Officer



ANNEXURE-9

விடுதலை

திரு. ச. அன்பழகன், MSc, MA, MA, MEd, MPhil

தலைமை ஆசிரியர்

அரசு மேல்நிலைப் பள்ளி, பல்லி.

பெறுநர்

எஸ். கோகுல் ராஜ்

எண். 14 காமராஜர் தெரு

பம்மல்,

சென்னை - 600075.

புது,

பொருள்: கல்வி மேற்பாட்டிற்கான உபகரணங்கள் வழங்குமாறு கோருதல்

திருவண்ணாமலை மாவட்டம், செய்யாறு வட்டம், பல்லி, அரசு மேல்நிலைப் பள்ளியில் 2025-2026 ஆம் கல்வி ஆண்டில் சுமார் 600 மாணவர்கள் பயின்று வருகின்றனர் இப்பள்ளியை சுற்றியுள்ள 20 கிராமங்களில் இருந்து வந்து இங்கு மாணவர்கள் பயின்று வருகின்றனர் மேலும் 10 ஆண்டுகளாக தொடர்ந்து 100% சதவீதம் தேர்ச்சியும் உயர்மதிப்பெண்களும் மாணவர்கள் பெற்று வருகின்றனர். மாணவர்களின் கற்றல் திறன் மேலும் அதிகரிக்க கீழ்க்காணும் கல்வி மேம்பாட்டு உபகரணங்கள் தந்து உதவிடுமாறு கேட்டுக்கொள்கிறேன்

1. Computer set . 2 Nos
2. Xerox Machine . 1 Nos
3. Plastic Chairs . 50 Nos
4. Green Board . 5 Nos

திரு. ச. அன்பழகன்
25/6/24
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