

**EXECUTIVE SUMMARY OF
DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT
AND
ENVIRONMENT MANAGEMENT PLAN
FOR OBTAINING**

**Environmental Clearance under EIA Notification – 2006
Schedule Sl. No. 1 (a) (i): Mining Project**

**“B1” CATEGORY – MINOR MINERAL – CLUSTER – NON-FOREST LAND
CLUSTER EXTENT = 12.02.5 hectares**

M/s. Dahlia Granites Private Limited

At

K.Pitchampatti Village, Karur Taluk, Karur District

**ToR issued vide Letter No. SEIAA-TN/E.No.9654/SEAC/ToR-1394/2022
dated 16.02.2023**

Name and Address	Extent & S.F.No.
M/s.Dahlia Granites Pvt Ltd K.Pitchampatti Village, Karur Taluk, Karur District	2.65.0 ha & S. F. No. 417/2, 417/5, 417/7 (P), 454/2

ENVIRONMENTAL CONSULTANT

GEO TECHNICAL MINING SOLUTIONS



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**ENVIRONMENTAL LAB
EXCELLENCE LABORATORY**

NABET ACC. NO: NABET/EIA/2124/SA 0184

Valid till : Dec 31. 2023

Baseline Study Period – December 2022 to February 2023

CHAPTER I
INTRODUCTION

As the proposed multicolour granite mining project, known as P1 falls within the 500 m radius cluster of quarries with the total extent of >5 ha (i.e.,2.30.0ha), it is classified under category “B1” and requires submission of EIA report for grant of Environmental Clearance (EC) after conducting public hearing. The cluster contains only one proposed project, known as P1. All the projects mentioned above have been taken for cluster extent calculation as per MoEF & CC Notification S.O. 2269 (E) Dated 1st July 2016, as shown in Figure 1.1. This EIA draft discusses the cumulative impacts of 1 proposed project in a cluster on the environment and provides a detailed Environmental Management Plan (EMP) to minimize the adverse impacts of those projects situated in the cluster falling in K. Pitchampatti Village, Karur Taluk, Karur District and Tamil Nadu. It has been prepared in compliance with ToR issued vide Letter No: SEIAA-TN/F.No.9654/SEAC/ToR-1394/2022 dated 16.02.2023 for the proposed project by conducting baseline study during the period of **December 2022 – February 2023**. Details of the project proponent and the list of quarries within the cluster of 500 m radius have been provided in Tables 1.1 and 1.2, respectively.

Table 1.2 Details of Project Proponent

Name of the Project Proponent	M/s. Dahlia Granites Private Limited
Address	S.F.No.468/1A, R.Vellagoundanpatti, K.Pitchampatti, Karur - 639118
Status	Proprietor

Table 1.2 Details of Quarries within the cluster area of 500 m radius

Proposed Quarry				
Code	Name of the Lessee	Village / S.F.No	Extent in (ha)	Lease Period
P1	M/s. Dahlia Granites Pvt ltd	417/2, 417/5, 417/7 (P), 454/2 K.Pitchampatti	2.65.0	Proposed Area
Existing Quarry				

E1	Thiru.K.S.Raja	423/17, 423/3, 423/4, 423/5, 423/6, 423/7B, 452/15, 452/16, 452/17, 452/22B K.Pitchampatti	2.29.0	14.06.2010 to 13.06.2030
E2	Thiru. P.Ramachandran.	407/1, 407/2, 407/3, 407/4, 408/3, 408/4 K.Pitchampatti	2.84.5	05.08.2016 to 04.08.2036
E3	Tvl. Ananta Granites LLP	468/1B, 417/8, 468/2 K.Pitchampatti	2.22.5	21.08.2017 to 20.08.2037
E4	M/s. Colonial Granites	417/3, 417/4(P) 417/6(P) K.Pitchampatti	2.01.5	13.06.2022 to 12.06.2042
Total Cluster Extent			12.02.5	---

Source: DD Letter – Rc.No.135/Mines/2021, Dated: 05.12.2022

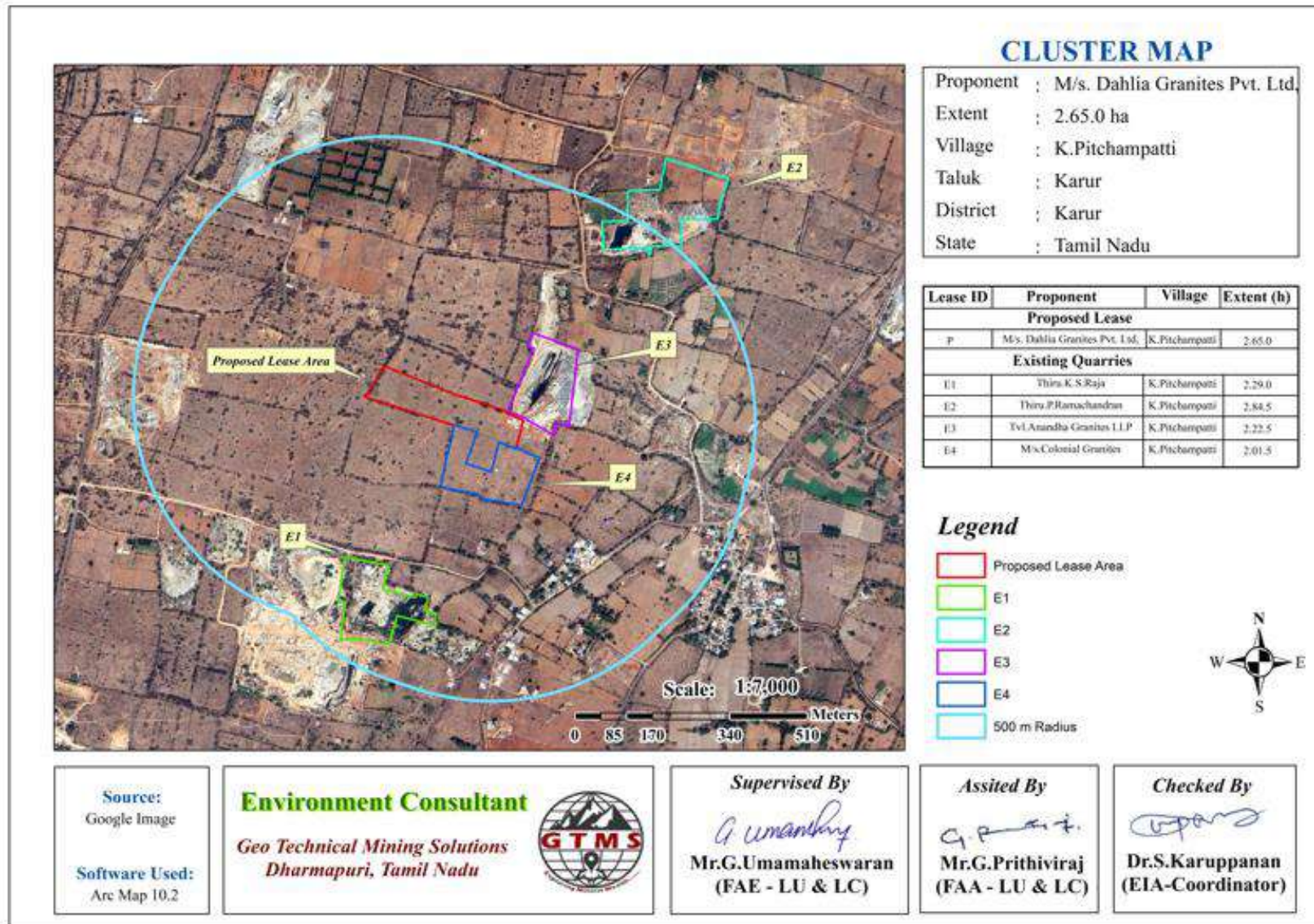


Figure 1.1 Location of Proposed and Existing Multi-Coloured Granite Quarries in the Cluster of 500m Radius.

CHAPTER II

PROJECT DESCRIPTION

The proposed project deals with excavation of multi colour granite which is primarily used as flooring stone in construction projects. The method adopted for granite excavation is a mechanized open cast mining method involving formation of benches with 5 m height and 5 m width. The proposed project area is located between latitudes from 10°46'32.82782"N to 10°46'40.35742"N and longitudes from 78°03'49.61142"E to 78°04'0.85412"E in K. Pitchampatti Village, Karur Taluk, Karur District and Tamil Nadu. The project site is a patta land with the extent of 2.65.0 ha leased for the project proponent, M/s. Dahlia Granites Private Limited. The proponent had applied for quarry lease on 18.03.2021 to extract granite and obtained the precise area communication letter issued by Industries (MME.2) Department, Secretariat Chennai Rc.no.2934330/MMB.2/2022-1, dated.10.10.2022. Based on the precise area communication letter, mining plan was prepared. The mining plan thus prepared was approved by Director of Geology and Mining, Chennai (Rc.No.5764/MM2/2021, dated:22.11.2022).

According to the approved mining plan, about 13819 m³ of granite will be mined up to the depth of 25 m BGL in the first five years. Of the total quantity, 6222 m³ of granite is marketable and the rest is stockpiled as wastes. To achieve the estimated production, 4 jack hammers, 2 compressors, 2 diamond wire saws, 1 crawler crane, 1 excavator and 2 tippers will be deployed. To operate the machineries and to extract the granite, about 27 persons will be employed. At the end of the quarry life, the dimension of the ultimate pit will be 101 m* 61 m* 25 m and about 0.30.0 ha of land would have been utilized for quarrying, 0.21.7 ha of land for waste dump, 0.02.0 ha for infrastructures, 0.09.3ha for garland drainage and settling tank, 0.07.0 ha for roads, 0.70.0 ha for green belt development, and the remaining 1.25.0 ha would have been left as unutilized area. Boundary coordinates of corner pillars of the project site and accessibility details to the location of the project site are given in Tables 2.1 & 2.2, respectively. The lease area of the project site overlaid on Google earth image is shown in Figure 2.1.

Table 2.1 Corner Geographic Coordinates of Proposed Project

Pillar ID	Latitude	Longitude	Pillar ID	Latitude	Longitude
1	10°46'36.49000" N	78° 04' 0.85412"E	15	10°46'37.62402" N	78°03'51.25293"E
2	10°46'34.91501"N	78°04'0.44591"E	16	10°46'38.12100" N	78°03'49.68725"E
3	10°46'34.45513"N	78°04'0.32675"E	17	10°46'38.14472" N	78°03'49.61142"E

4	10°46'34.95553"N	78°03'59.11963"E	18	10°46'39.53821"N	78°03'50.45923"E
5	10°46'33.38184"N	78°03'58.70672"E	19	10°46'40.35742" N	78°03'50.95761"E
6	10°46'32.82782"N	78°03'58.56134"E	20	10°46'39.74291" N	78°03'52.48001"E
7	10°46'33.34524"N	78°03'57.00252"E	21	10°46'39.12842" N	78°03'54.00241"E
8	10°46'33.42181"N	78°03'56.77181"E	22	10°46'38.51393" N	78°03'55.52483"E
9	10°46'34.95212" N	78°03'57.32722" E	23	10°46'38.17163" N	78°03'56.37272"E
10	10°46'35.67444" N	78°03'57.58933"E	24	10°46'38.21610"N	78°03'56.38241"E
11	10°46'36.11112" N	78°03'56.00544" E	25	10°46'37.69963" N	78°03'57.94152"E
12	10°46'36.13321" N	78°03'55.94931"E	26	10°46'37.18300" N	78°03'59.50071"E
13	10°46'36.63000" N	78°03'54.38422"E	27	10°46'37.12100" N	78°03'59.68783"E
14	10°46'37.12701" N	78°03'52.81854"E	28	10°46'37.02662" N	78°03'59.66300" E

Table 2.2 Site Connectivity to the Project Area

Nearest Village	Alamarathupatty	1.76 km	N
	Kollapatti	2.7 km	S
	R.Vellagoundanpatti	0.27 km	E
	Kalapatti	4.2 km	W
Nearest Railway Station	Vellianai	8.8 km	NE
Nearest Town	Vellianai	10.18km	NE
Nearest Airport	Trichy	69.7km	E
Nearest Port	Thoothukudi	221.5 km	SE

2.3 DETAILS OF RESERVES

Reserves were calculated using cross-section method after leaving the safety distance as shown in Figure 2.2. Details of resources and reserves of the project are given in Table 2.3.

Table 2.3 Estimated Resources and Reserves of the Project

Description	ROM in (m ³)	Granite recovery @ 60% (m ³)	Granite waste @ 40% recovery(m ³)	Top Soil (m ³)	Weathered Rock (m ³)
Geological Resources	669596	124766	83178	53448	26724
Mineable Reserves	133775	55303	36869	17202	8601

Based on the year wise development and production plan and sections, as shown in Figures 2.3 & 2.3a, the year wise production results are given in Table 2.4.

Table 2.4 Year wise Production Details

Year	ROM in m ³	Granite Recovery @ 60 % in m ³	Granite Waste @ 40 % in m ³	Topsoil in m ³	Weathered Rock in m ³
I	4704	2822	1882	2244	1122
II	4605	2763	1842	1530	765
III	4605	2763	1842	1530	765
IV	4623	2774	1849	918	459
V	4495	2697	1798	---	---
Total	23032	13819	9213	6222	3111

Source: Approved Mining plans

2.4 LAND USE PATTERN

Land use and land cover information for the proposed project site has been given in Table 2.5.

Table 2.5 Land use data at present, during scheme of mining, and at the end of mine life

Description	Present Land Use Area (ha)	Land Use Area at the end of mine life (ha)
Area under quarry	Nil	0.30.0
Infrastructure	Nil	0.02.0
Roads	Nil	0.07.0
Unutilized	2.53.5	1.25.0
Waste Dump	Nil	0.21.7
Green Belt	0.11.5	0.70.0
Drainage & Settling tank	--	0.09.3
Total	2.65.0	2.65.0

Source: Approved mining plan

2.5 METHOD OF MINING

The quarrying operation is proposed to be carried out by opencast semi mechanized mining method involving drilling, blasting, and formation of benches. Machineries proposed for this project have been given in Table 2.6.

2.6 PROPOSED MACHINERY DEPLOYMENT

List of machineries proposed for the quarrying operation is given in Table 2.6.

Table 2.6 Proposed Machinery Deployments

Drilling Equipment					
Type	No. of Unit	Dia. of Hole (mm)	Size capacity	Make	Motive Power
Compressor	2	-	-	Atlas Capco	Diesel Drive
Jack Hammer	4	32	-	Atlas Copco	Compressed air
Loading Equipment					
Excavator	1	-	300	Tata Hitachi	Diesel Drive
Haulage & Transport Equipment					
Tipper	2	-	20 tons	Tata	Diesel Drive

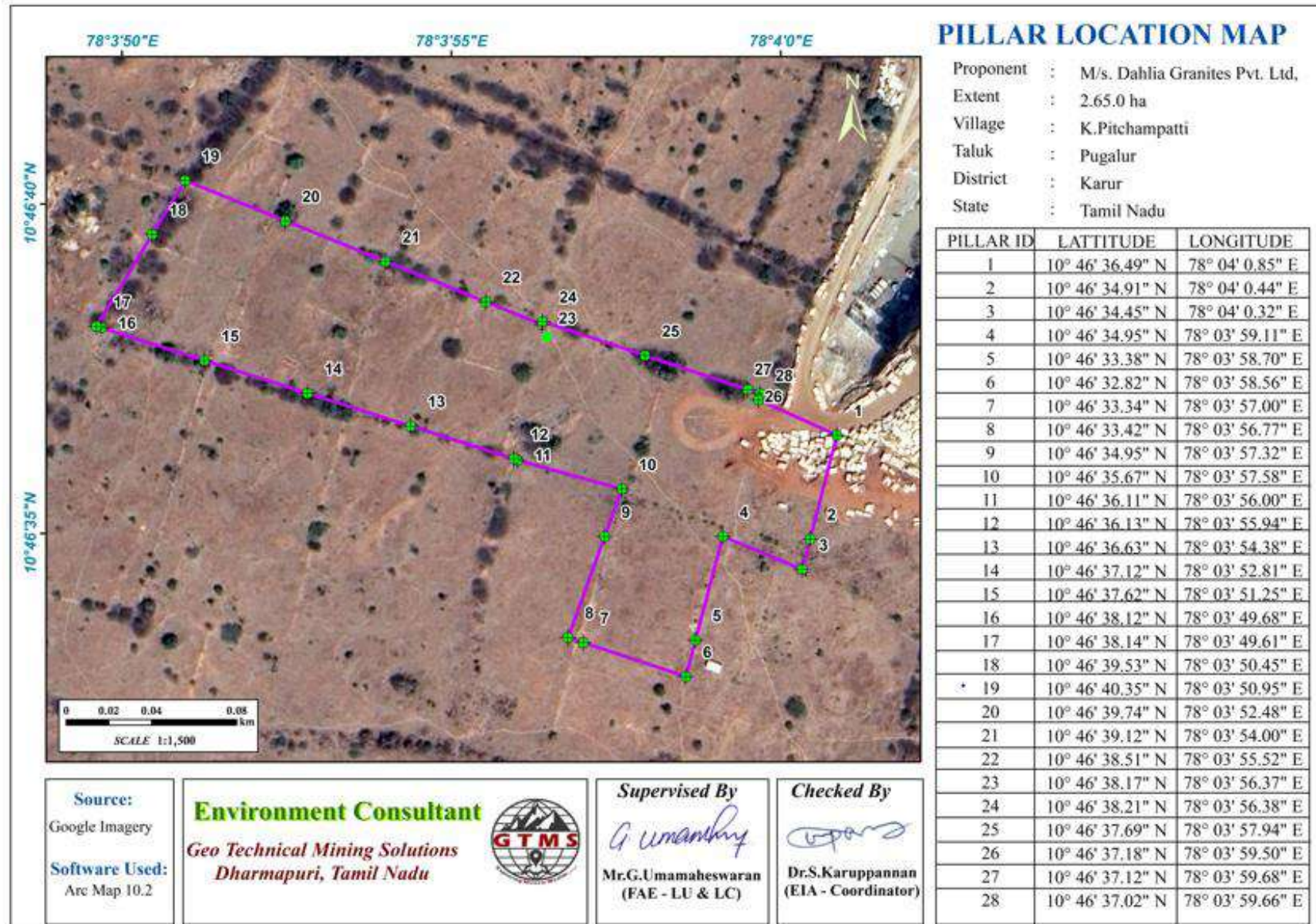


Figure 2.1 Google Earth Image Showing Lease Area with Pillars

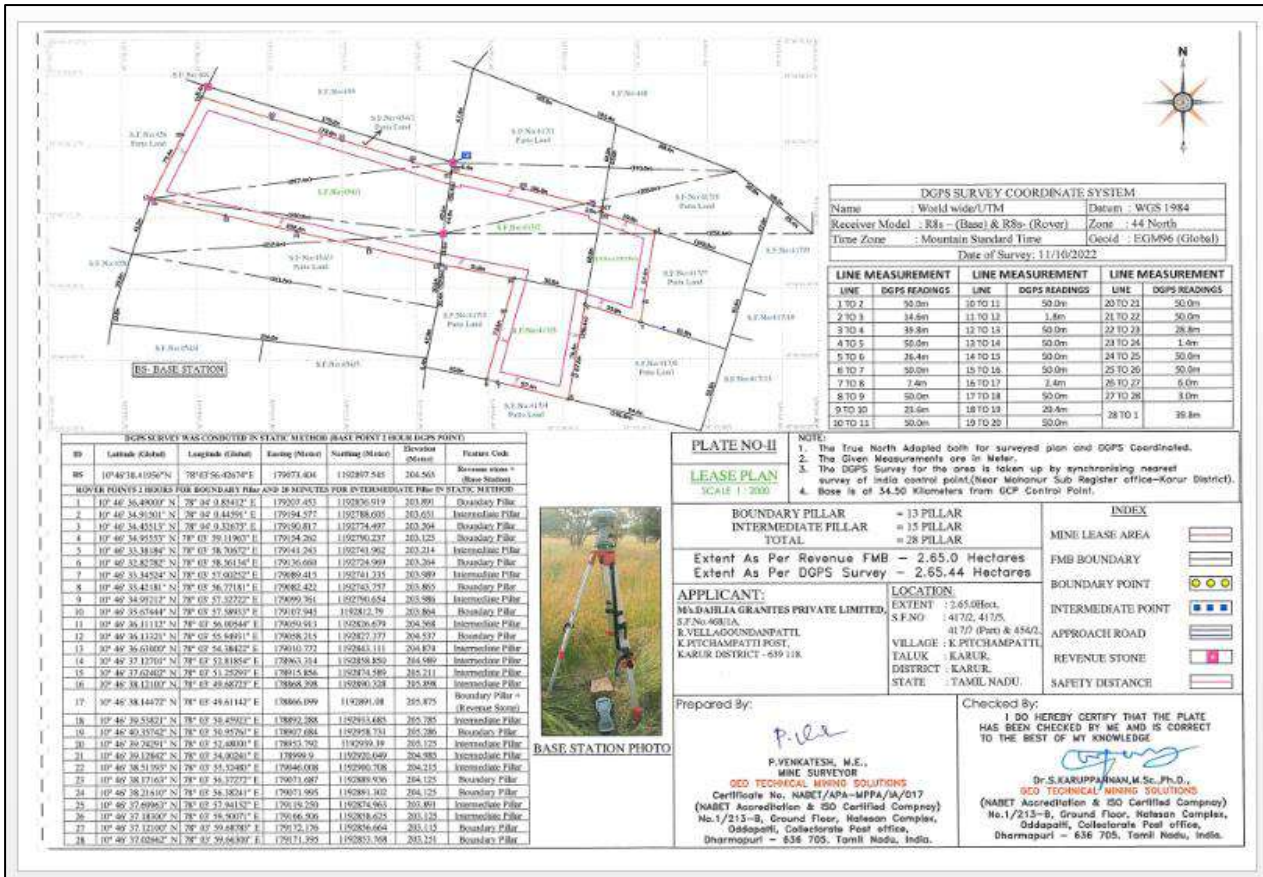


Figure 2.2 Mine Lease Plan

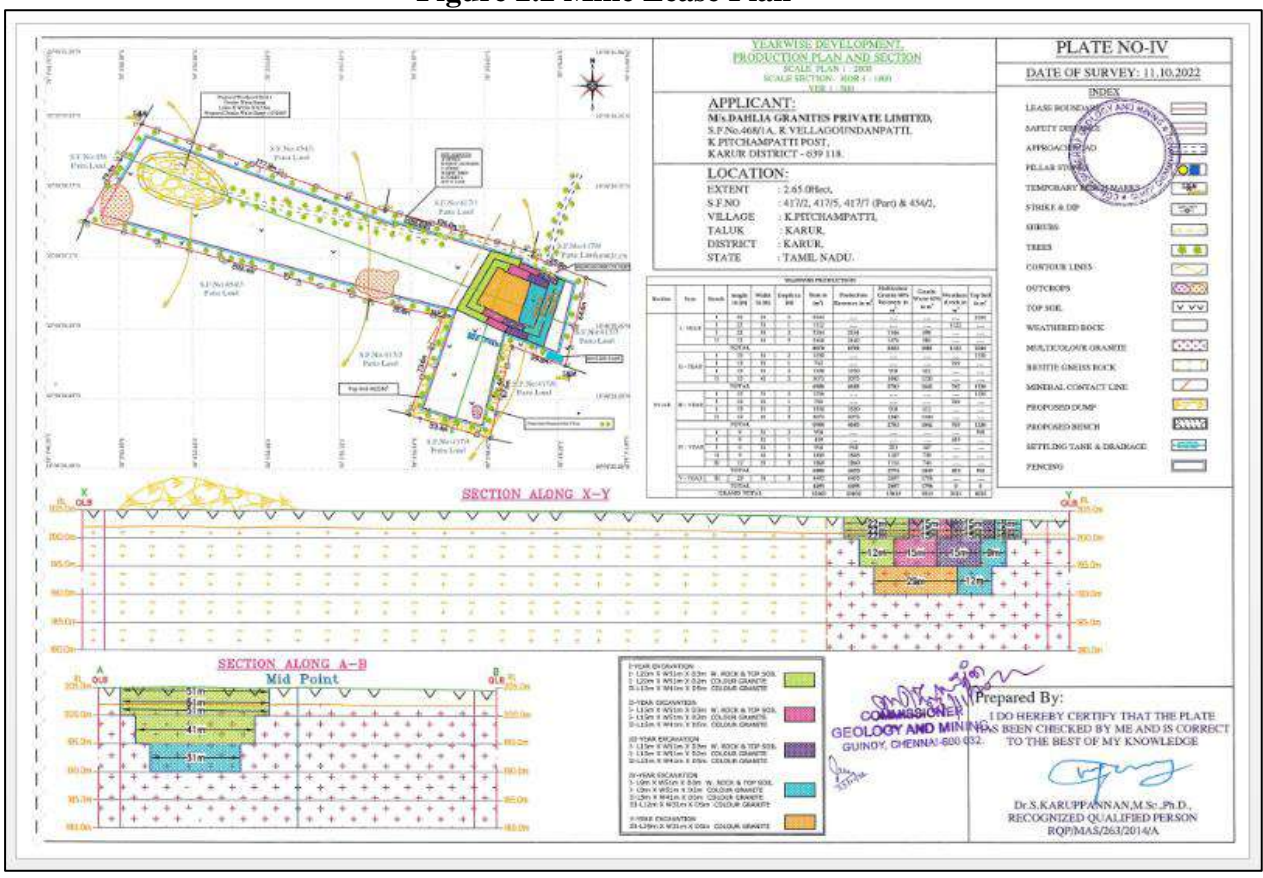


Figure 2.3 Yearwise development production plan production plan sections

2.7 CONCEPTUAL MINE CLOSURE PLAN

- ❖ Mine closure is a process of returning a disturbed site to its natural state for other productive uses to minimize adverse effects on the environment or threats to humans' health and safety.
- ❖ The objective of the mine closure plan is to transform quarries to be physically safe to humans and animals, geo-technically stable, geo-chemically non-polluting, and non-contaminating.
- ❖ At the end of mining life, the mine pit will act as an artificial reservoir for collecting rain water and will help to meet the water demand during drought season.
- ❖ After mine closure, the greenbelt will be developed along the safety barrier and over top benches. Water from the pit will be used to the greenbelt development and maintenance. Budgetary provision for mine closure is provided in Table 2.7.

Table 2.7 Mine Closure Budget

Activity	Capital Cost	Recurring Cost/Annum
530 plants inside the lease area	106000	15900
795 plants outside the lease area	238500	23850
Wire Fencing	530000	26500
Garland Drain	26500	13250
Total	901000	79500

CHAPTER III
DESCRIPTION OF THE ENVIRONMENT

3.0 INTRODUCTION

Field monitoring studies were carried out to evaluate the existing environmental condition of the project site during **December 2022 – February 2023** as per CPCB guidelines. Environmental baseline data were collected by an NABL accredited and MoEF notified **Excellence Laboratory** for the environmental attributes including soil, water, noise, air and by FAE's for ecology and biodiversity, traffic and socio-economy.

3.1 LAND ENVIRONMENT

Land use pattern of the area of 5 km radius was studied using Sentinel II imagery. LULC types and their extent are given in Table 3.1.

Table 3.1 Land Use / Land Cover Statistics for the Area of 5 km Radius

S. No	Classification	Area (ha)	Area (%)
1	Barren Rocky/Stone Waste	141.45	1.81
2	Crop Land	2488.23	31.89
3	Fallow Land	4761.88	61.03
4	Land with or without scrub	283.74	3.64
5	Mining / Industrial lands	16.97	0.22
6	Plantations	20.35	0.26
7	Settlements	89.72	1.15
Total		7802.33	100.0

Source: Sentinel II Satellite Imagery

3.2 SOIL ENVIRONMENT

Seven locations were selected for soil sampling based on soil types, vegetative cover, and industrial & residential activities including infrastructure facilities. The physical and chemical characteristic results of soil samples are provided below.

Physical Characteristics

The soil samples in the study area show loamy textures varying between silty clay loam, silty loam and sandy loam. pH of the soil varies from 6.4 to 7.5 indicating slightly acidic to slightly alkaline nature. Electrical conductivity of the soil varies from 426 to 1188 $\mu\text{s}/\text{cm}$. Bulk density ranges between 1.4 and 5.7 g/cm^3 .

Chemical Characteristics

Nitrogen ranges between 0.87 and 1.7 %. Phosphate ranges between 0.63 and 2.6 %. Potassium ranges between 0.104 and 0.253 % Chloride ranges between 189 and 473 mg/kg. Organic matter content ranges between 1.5 and 4.2 %.

3.3 WATER ENVIRONMENT

Surface Water

K. Pichampatti pond is the prominent surface water resources present in the study area. These are ephemeral in nature, which convey water only after rainfall events. Surface water sample, known as SW01 was collected from a pond near K. Pichampatti to assess the baseline water quality.

Results for surface water sample indicate that the physical, chemical and biological parameters, and heavy metals are within permissible limits in comparison with standards of IS10500:2012.

Ground Water Resources

Groundwater in the study area occurs in the Peninsular Gneiss and Charnockite Gneiss. The movement of the groundwater is controlled by the intensity of weathering and fracturing of crystalline rocks. Dug wells and bore wells are the most common ground water abstraction structures in the area. However, in dry season, people in the study area heavily rely on bore wells for their domestic and agriculture purpose.

Seven groundwater samples, known as OW01, OW02, BW01, BW02, BW03, BW04 and BW05 were collected from open well and bore well and analyzed for physico-chemical conditions, heavy metals and bacteriological contents in order to assess baseline quality of ground water.

Results for ground water samples indicate that the physical, chemical and biological parameters, and heavy metals are within permissible limits in comparison with standards of IS10500:2012.

Groundwater Levels and Flow Direction

Data regarding groundwater elevations were collected from 9 open wells and 9 bore wells at various locations within 2 km radius around the proposed project sites for the period from March through May, 2022 (Pre-Monsoon Season) and from October through December, 2022 (Post Monsoon Season). average depths to the static water table in open wells range from 10.6 to 12.90 m BGL in pre monsoon and 9.37to 11.90 m BGL in post monsoon. The average depths to static potentiometric surface in bore wells for the period of October through December 2022 (Post-Monsoon Season) vary from 70.53 to 75.03 m and from 71.47 to 75.40 m for the period of March through May, 2022 (Pre-Monsoon Season). Data on the depths to static water table and potentiometric surface were used to draw contour lines connecting groundwater elevation (also known as equipotential hydraulic head) to determine the groundwater flow direction perpendicular to the contour lines.

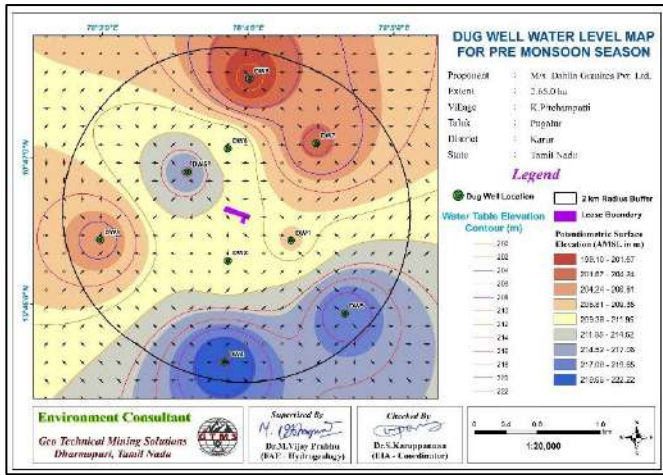


Figure 3.1 Open well static groundwater elevation map showing the direction of groundwater flow during pre-monsoon season

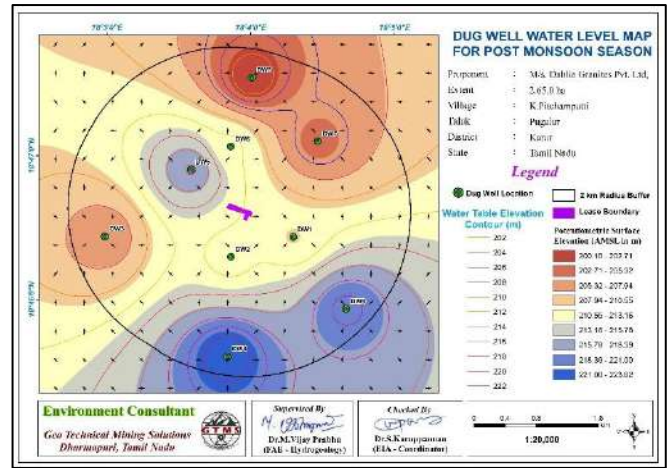


Figure 3.2 Open well static groundwater elevation map showing the direction of groundwater flow during post-monsoon season

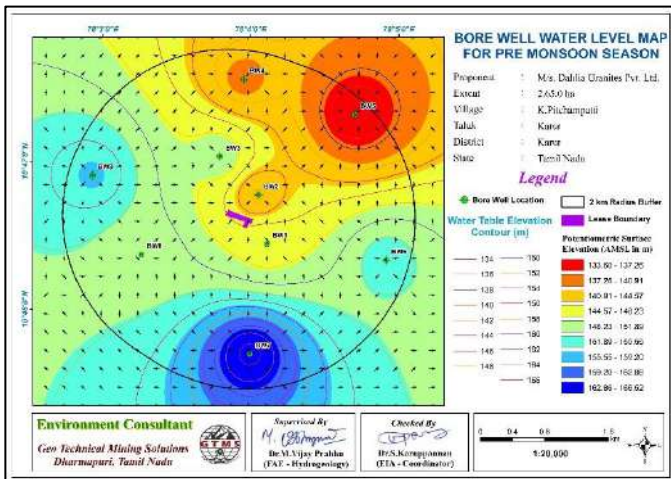


Figure 3.3 Borewell static groundwater elevation map showing the direction of groundwater flow during pre-monsoon season

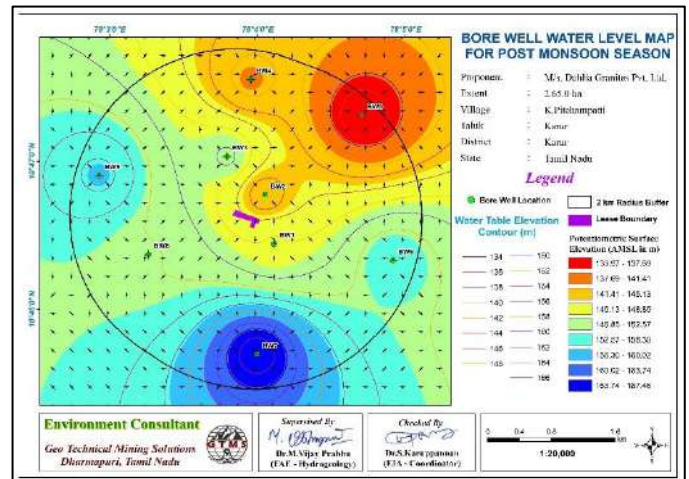


Figure 3.4 Borewell static groundwater elevation map showing the direction of groundwater flow during post-monsoon season

3.4 AIR ENVIRONMENT

The existing ambient air quality of the area is important for evaluating the impact of mining activities on the ambient air quality. The baseline studies on air environment include identification of specific air pollutants and their existing levels in ambient air. The ambient air quality in the study area of 5 km radius around the proposed quarry sites provides the baseline ambient air quality information.

Ambient Air Quality

As per the monitoring data, PM_{2.5} ranges from 14.6 µg/m³ to 19.0 µg/m³; PM₁₀ from 32.3 µg/m³ to 37.7 µg/m³; SO₂ from 5.7 µg/m³ to 9.2 µg/m³; NO_x from 12.7 µg/m³ to 19.4 µg/m³. The concentration levels of the pollutants fall within the acceptable limits of NAAQS prescribed by CPCB.

3.5 NOISE ENVIRONMENT

Noise level in core zone was 42.2 dB (A) Leq during day time and 38.2 dB (A) Leq during night time. Noise levels recorded in buffer zone during day time varied from 38.7 to 42.4 dB (A) Leq and during night time from 34.3 to 38.2 dB (A) Leq. Thus, the noise level for industrial and residential area meets the requirements of CPCB.

3.6 BIOLOGICAL ENVIRONMENT

Biological assessment of the site was done to identify ecologically sensitive areas and whether there are any rare, endangered, endemic or threatened (REET) species of flora & fauna in the core area as well its buffer zone to be impacted. The study has also been designed to suggest suitable mitigation measures, if necessary, for protection of wildlife habitats and conservation of REET species if any. The study found that there is no endemic, endangered migratory fauna found in the area. This area is not also a migratory path of any faunal species. Hence, this small mining operation over short period of time will not have any significant impact on the surrounding flora and fauna.

3.7 SOCIO ECONOMIC ENVIRONMENT

The socio-economic study in the study area gives a clear picture of its population, average household size, literacy rate and sex ratio etc. It is also found that a part of population is suffering from a lack of permanent job to run their day-to-day life. Their expectation is to earn some income for their sustainability on a long-term basis. The proposed project will aim to provide preferential employment to the local people there by improving the employment opportunity in the area and in turn the social standards will improve the social standards.

CHAPTER IV

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES 4.0 INTRODUCTION

In order to maintain the environmental commensuration with the mining operation, it is essential to undertake studies on the existing environmental scenario and assess the impact on different environmental components. This would help in formulating suitable management plans for sustainable resource extraction.

4.1 LAND ENVIRONMENT

Of the total area, mining area covers only 16.97 ha accounting for 0.22, of which lease area of 2.56.0 ha contributes only about 0.033%. Some of the impacts are anticipated due to the mining as discussed below.

Anticipated Impact

- ❖ Destruction of unique geological resources to the extent of about 124766 m³ of multi coloured granite, 26724 m³ of weathered rock and 53448 m³ of topsoil in the five years.
- ❖ Substantial change to topographic features or significant change in surface relief
- ❖ Permanent or temporary change on land use and land cover.
- ❖ Problems to agricultural land and human habitations due to dust, and noise caused by movement of heavy vehicles
- ❖ Soil erosion and sediment deposition in the nearby water bodies due to earthworks during the rainy season
- ❖ Siltation of water course due to wash off from the exposed working area

Mitigation Measures

In order to minimize the adverse effects, the following control measures will be implemented:

- ❖ After completion of the quarrying operation, the land will be partially backfilled with dumped material and part of the area will be allowed to collect rainwater which will act as temporary reservoir
- ❖ Topsoil will be utilized for greenbelt development in the safety barrier to prevent noise and sound propagation to the nearby lands
- ❖ Garland drains will be constructed all around the quarry pit and check dams will be constructed at suitable locations in lower elevations to prevent soil erosion due to surface runoff during rainfall and also to collect the storm water within the proposed area
- ❖ Barbed wire fencing will be reconstructed at the conceptual stage
- ❖ Security will be posted round the clock, to prevent inherent entry of the public and cattle

4.2 SOIL ENVIRONMENT

Anticipated Impact

- ❖ The proposed project would cause loss of about 53448 m³ of topsoil from the lease area in the five years. The topsoil removal will affect the soil structure and its productivity even if it is stockpiled and reused after reclamation.
- ❖ As the proposed project produces solid waste in the form of granite waste and weathered rock, the topsoil in the site allocated for dumps will be removed. As there is neither a toxic effluent nor solid waste from the mine, quality of soil around the project area is not expected to be adversely affected.

Mitigation Measures

- ❖ The top soil will be preserved in the safety barrier and kept in moisture condition. The preserved topsoil will be utilized for greenbelt development in the safety barrier and utilized for plantation on the top bench
- ❖ Garland drains will be constructed around the project area to arrest any soil from the quarry area being carried away by the rainwater. This will also avoid the soil erosion and siltation in the mining pits and maintaining the stability of the benches
- ❖ Retaining wall with weep hole, garland drain will be provided around the dump areas
- ❖ Proper angle of repose will be maintained
- ❖ Grasses will be grown over the dump areas for stability.

4.3 WATER ENVIRONMENT

Anticipated Impact

- ❖ As the water required for the mining operations, as given in Table 2.10 is obtained from the approved water supplying agency, the project does not develop any abstraction structures in the lease area. Therefore, no impact responsible for the water table declination is anticipated.
- ❖ Surface and ground water resources may be contaminated due to mine pit water discharge, domestic sewage, waste water from vehicle washing, washouts from surface exposure or working areas, discharge of oil & grease, and suspended solids due to waste from washing of machineries. To address this impact, some of the important mitigation measures is provided as below.

Mitigation Measures

- ❖ Garland drainage system and settling tank will be constructed along the proposed mining lease area. The garland drainage will be connected to settling tank and sediments will be trapped in the settling tanks and only clear water will be discharged to the natural drainage
- ❖ Rainwater from the mining pits will be collected in sump and will be allowed to store and pumped out to surface settling tank of 15 m x 10 m x 3 m to remove suspended solids if any. This collected water will be judiciously used for dust suppression and such sites where dust likely to be generated and for developing green belt. The proponent will collect and judiciously utilize the rainwater as part of rainwater harvesting system
- ❖ Benches will be provided with inner slopes and through a system of drains and channels, rain water will be allowed to descent into surrounding drains to minimize the effects of erosion and water logging arising out of uncontrolled descent of water
- ❖ The water collected will be reused during storm for dust suppression and greenbelt development within the mines
- ❖ Interceptor traps/oil separators will be installed to remove oils and greases. Water from the tipper wash-down facility and machinery maintenance yard will be passed through interceptor traps/oil separators prior to its reuse
- ❖ Flocculating or coagulating agents will be used to assist in the settling of suspended solids during monsoon seasons
- ❖ Periodic (every 6 month once) analysis of ground water quality of quarry pit water and ground water of nearby villages will be conducted.
- ❖ Domestic sewage from site office and urinals/latrines provided in ML is discharged in septic tank followed by soak pits
- ❖ Waste water discharge from mine will be treated in settling tanks before using for dust suppression and tree plantation purposes
- ❖ De-silting will be carried out before and immediately after the monsoon season
- ❖ Regular monitoring (once every 6 months) and analysing the quality of water in open well, bore wells and surface water

4.4 AIR ENVIRONMENT

Anticipated Impact

- ❖ Emission of air pollutants such as particular matter (PM), gases such as sulphur dioxide, oxides of nitrogen at various stages of activities such as excavation, drilling and

transportation of materials. The rate of emission and the incremental concentration of pollutants is estimated in the following sections before providing mitigation measures.

Table 4.1 Incremental and Resultant PM_{2.5}

Station ID	Distance to core area (km)	Direction	PM _{2.5} concentrations(µg/m ³)			Comparison against air quality standard (60 µg/m ³)	Magnitude of change (%)	Significance
			Baseline	Predicted	Total			
AAQ1	--	--	20.7	6.20	26.9	Below standard	29.95	Not significant
AAQ2	1.56	SW	16.7	0.5	17.2		2.99	
AAQ3	4.06	W	16.8	0	16.8		0.00	
AAQ4	4.69	SW	15.8	0	15.8		0.00	
AAQ5	2.96	NE	17.6	0	17.6		0.00	
AAQ6	4.50	NW	14.8	0.5	15.3		3.38	
AAQ7	2.64	SSW	15.4	0	15.4		0.00	
AAQ8	0.48	SE	17.4	0.5	17.9		2.87	
AAQ9	4.34	ESE	16.1	0	16.1		0.00	

Table 4.2 Incremental and Resultant PM₁₀

Station ID	Distance to core area (km)	Direction	PM ₁₀ concentrations(µg/m ³)			Comparison against air quality standard (100 µg/m ³)	Magnitude of change (%)	Significance
			Baseline	Predicted	Total			
AAQ1	--	--	38.6	13.6	52.2	Below standard	35.23	Not significant
AAQ2	1.56	SW	34.2	0.5	34.7		1.46	
AAQ3	4.06	W	35.9	0	35.9		0.00	
AAQ4	4.69	SW	34.3	0	34.3		0.00	
AAQ5	2.96	NE	38.2	0	38.2		0.00	
AAQ6	4.50	NW	31.2	0.5	31.7		1.60	
AAQ7	2.64	SSW	33.7	0	33.7		0.00	
AAQ8	0.48	SE	36.1	0.5	36.6		1.39	
AAQ9	4.34	ESE	34.4	0	34.4		0.00	

Table 4.3 Incremental & Resultant SO₂

Station ID	Distance to core area (km)	Direction	SO ₂ concentrations(µg/m ³)			Comparison against air quality standard (80 µg/m ³)	Magnitude of change (%)	Significance
			Baseline	Predicted	Total			
AAQ1	--	--	9.0	5.58	14.58	Below standard	62.00	Not significant
AAQ2	1.56	SW	7.5	0.5	8		6.67	
AAQ3	4.06	W	7.4	0	7.4		0.00	
AAQ4	4.69	SW	6.6	0	6.6		0.00	
AAQ5	2.96	NE	8.5	0	8.5		0.00	
AAQ6	4.50	NW	5.6	0	5.6		0.00	
AAQ7	2.64	SSW	6.5	0	6.5		0.00	
AAQ8	0.48	SE	8.3	0.5	8.8		6.02	
AAQ9	4.34	ESE	7.7	0	7.7		0.00	

Table 4.4 Incremental & Resultant NO_x

Station ID	Distance to core area (km)	Direction	NO _x concentrations(µg/m ³)			Comparison against air quality standard (80 µg/m ³)	Magnitude of change (%)	Significance
			Baseline	Predicted	Total			
AAQ1	--	--	18.3	5.40	23.7	Below standard	29.51	Not significant
AAQ2	1.56	SW	16.7	0.5	17.2		2.99	
AAQ3	4.06	W	16.9	0	16.9		0.00	
AAQ4	4.69	SW	15.9	0	15.9		0.00	
AAQ5	2.96	NE	18.0	0	18		0.00	
AAQ6	4.50	NW	14.8	0.5	15.3		3.38	
AAQ7	2.64	SSW	15.0	0	15		0.00	
AAQ8	0.48	SE	16.9	0.5	17.4		2.96	
AAQ9	4.34	ESE	16.1	0	16.1		0.00	

The values of cumulative concentration i.e., background + incremental concentration of pollutant in all the receptor locations are still within the prescribed NAAQ limits without effective mitigation measures. By adopting suitable mitigation measures, the pollutant levels in the atmosphere can be controlled further.

Mitigation Measures

Drilling

To control dust at source, wet drilling will be practiced. Where there is a scarcity of water, suitably designed dust extractor will be provided for dry drilling along with dust hood at the mouth of the drill-hole collar.

Haul Road & Transportation

- ❖ Water will be sprinkled on haul roads, Loading Points twice a day to avoid dust generation during transportation
- ❖ Transportation of material will be carried out during day time and material will be covered with tarpaulin
- ❖ The speed of tippers plying on the haul road will be limited below 20 km/hr to avoid generation of dust.
- ❖ Main source of gaseous pollution will be from vehicle used for transportation of mineral; therefore, weekly maintenance of machines improves combustion process & makes reduction in the pollution.
- ❖ The un-metalled haul roads will be compacted weekly before being put into use.
- ❖ Over loading of tippers will be avoided to prevent spillage.
- ❖ It will be ensured that all transportation vehicles carry a valid PUC certificate.
- ❖ Grading of haul roads and service roads to clear accumulation of loose materials.

Green Belt

- ❖ Planting of trees all along main mine haul road and regular grading of haul roads will be practiced to prevent the generation of dust due to movement of dumpers/trucks
- ❖ Green belt of adequate width will be developed around the project area

Occupational Health

- ❖ Dust mask will be provided to the workers and their use will be strictly monitored
- ❖ Annual medical check-ups, trainings and campaigns will be arranged to ensure awareness about importance of wearing dust masks among all mine workers & tipper drivers

Ambient Air Quality Monitoring will be conducted six months once to assess effectiveness of mitigation measures proposed

4.5 NOISE ENVIRONMENT

Anticipated Impact

Table 4.5 Predicted Noise Incremental Values

Noise Monitoring Location	Distance From Project Site (m)	Baseline Noise Level (dBA) m During Day Time	Predicted Noise Level (dBA)	Total (dBA)
Core	100	42.2	39.38	44.03
R. Vellagoundanpatti	300	41.2	29.84	41.51
Papanayakanoor	1580	39.6	15.41	39.62
Kalapatti	4270	40.0	6.77	40.00
Edayapatti	4740	41.5	5.86	41.50
K.Pitchampatti	2980	42.4	9.90	42.40
Varikappatti	4470	39.8	6.37	39.80
Chatrapatti	2630	39.6	10.98	39.61
Thirumakkampatti	4370	38.7	6.57	38.70
NAAQ Standards	Industrial Day Time - 75 dB (A) & Night Time- 70 dB (A) Residential Day Time -55 dB (A) & Night Time- 45 dB (A)			

Total noise level in all the sampling areas is well below the CPCB standards for industrial and residential areas. By adopting suitable mitigation measures, the noise levels due to the project can be controlled further.

Mitigation Measures

The following noise mitigation measures are proposed for control of Noise

- ❖ Usage of sharp drill bits while drilling which will help in reducing noise;
- ❖ Proper maintenance, oiling and greasing of machines will be done every week to reduce generation of noise;
- ❖ Provision of sound insulated chambers for the workers working on machines (HEMM) producing higher levels of noise;
- ❖ Silencers / mufflers will be installed in all machineries;
- ❖ Green Belt will be developed around the project areas and along the haul roads. The plantation minimizes propagation of noise;
- ❖ Personal Protective Equipment (PPE) like ear muffs/ear plugs will be provided to the operators of HEMM and persons working near HEMM and their use will be ensured through training and awareness.
- ❖ Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects

4.6 BIOLOGICAL ENVIRONMENT

Anticipated Impact

- ❖ There shall be negligible air emissions or effluents from the project site. During loading the truck, dust generation will be likely. This shall be a temporary effect and not anticipated to affect the surrounding vegetation significantly
- ❖ Most of the land in the buffer area is undulating terrain with crop lands, grass patches and small shrubs. Hence, there will be no effect on flora of the region.
- ❖ Carbon released from quarrying machineries and tippers during quarrying would be 480kg per day, 129624 kg per year and 648123 kg over five years, as provided in Table 4.6.

Table 4.6 Carbon Released During Five Years of Multi -Colour Granite Production

	Per day	Per year	Per five years
Fuel consumption of excavator	33	8870	44351
Fuel consumption of compressor	13	3402	17010
Fuel consumption of tipper	134	36095	180476
Total fuel consumption in liters	179	48367	241837
CO ₂ emission in kg	480	129624	648123

Mitigation Measures

- ❖ During conceptual stage, the top bench will be re-vegetated by planting local /native species and lower benches will be converted into rainwater harvesting structure following completion of mining activities, which will replace habitat resources for fauna species in this locality over a longer time.
- ❖ Existing roads will be used; new roads will not be constructed to reduce impact on flora.

Carbon Sequestration

- ❖ To mitigate carbon emission due to mining activities, we recommend planting trees around the quarry to offset the carbon emission during quarrying. A tree can sequester 24 kg of carbon per year. Therefore, we recommend planting large number of trees around the quarry and near school campuses, government wasteland, roadsides etc.
- ❖ As per the greenbelt development plan as recommended by SEAC, about 47trees will be planted within three months from the beginning of mining. These trees, when grown up would sequester carbon of about 118 kg of the total carbon, as provided in Table 4.7.

Table 4.7 CO₂ Sequestration

CO ₂ sequestration in kg	118	31768	158841
Remaining CO ₂ not sequestered in kg	4	1140	5699
Trees required for environmental compensation	47		
Area required for environmental compensation in hectares	0		

Greenbelt Development

The main objective of the green belt is to provide a barrier between the source of pollution and the surrounding areas. In order to compensate the loss of vegetation cover, it is suggested to carry out afforestation program mainly inside and outside of the lease area in different phases. This habitat improvement program would ensure the faunal species to re-colonize and improve the abundance status in the core zone. For greenbelt development, species are recommended, as shown in Table 4.8 on the basis of:

- ❖ Natural growth of existing species and survival rate of various species.
- ❖ Suitability of a particular plant species for a particular type of area.
- ❖ Creating of biodiversity.
- ❖ Fast growing, thick canopy copy, perennial and evergreen large leaf area.
- ❖ Efficient in absorbing pollutants without major effects of natural growth.

Table 4.8 Greenbelt Development Plan

	No. of trees proposed for plantation	No. of trees expected to survive @ 80%	Area to be covered(m²)
Plantation in the construction phase (3 months)	Number of plants inside the mine lease area		
	530	424	4770
	Number of plants outside the mine lease area		
	735	636	7155
Total	1325	1060	11925

4.7 SOCIO ECONOMIC ENVIRONMENT

Anticipated 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.

Mitigation Measures

- ❖ Good maintenance practices will be adopted for plant machinery and equipment, which will help to avert potential noise problems.
- ❖ Green belt will be developed in and around the project site as per Central Pollution Control Board (CPCB) guidelines

- ❖ Air pollution control measure will be taken to minimize the environmental impact within the core zone
- ❖ For the safety of workers, personal protective appliances like hand gloves, helmets, safety shoes, goggles, aprons, nose masks and ear protecting devices will be provided as per mines act and rules
- ❖ Benefit to the State and the Central governments through financial revenues by way of royalty, tax, duties, etc., from this project directly and indirectly
- ❖ From above details, the quarry operations will have highly beneficial positive impact in the area

4.8 OCCUPATIONAL HEALTH MEASURES

All the persons will undergo pre-employment and periodic medical examination. Employees will be monitored for occupational diseases by conducting the following tests

- ❖ General physical tests.
- ❖ Audiometric tests.
- ❖ Full chest, X-ray, Lung function tests, Spiro metric tests.
- ❖ Periodic medical examination – yearly.
- ❖ Lung function test – yearly, those who are exposed to dust.
- ❖ Eye test.

Essential medicines will be provided at the site. The medicines and other test facilities will be provided at free of cost. The first aid box will be made available at the mine for immediate treatment. First aid training will be imparted to the selected employees regularly. The lists of first aid trained members shall be displayed at strategic places.

CHAPTER V

ANALYSIS OF ALTERNATIVES (TECHNOLOGY AND SITE)

The mineral deposits are site specific in nature; hence question of seeking alternate sites do not arise for the projects.

CHAPTER VI

ENVIRONMENT MONITORING PROGRAM

Regular monitoring program of environmental components is essential to take into account the changes in the environmental components as shown in Table 6.1. The Objectives of monitoring is:

- ❖ To check or assess the efficiency of the controlling measures;
- ❖ To establish a data base for future impact assessment studies.

Table 6.1 Post Environmental Clearance Monitoring Schedule

S. No.	Environment Attributes	Location	Monitoring		Parameters
			Duration	Frequency	
1	Air Quality	2 locations (1 core & 1buffer)	24 hours	Once in 6 months	Fugitive dust, PM _{2.5} , PM ₁₀ , SO ₂ and NO _x .
2	Meteorology	At mine site before start of Air Quality Monitoring & IMD Secondary Data	Hourly / Daily	Continuous online monitoring	Wind speed, Wind direction, Temperature, Relative humidity and Rainfall
3	Water Quality Monitoring	2 locations (1SW & 1 GW)	-	Once in 6 months	Parameters specified under IS:10500, 1993 & CPCB Norms
4	Hydrology	Water level in open wells in buffer zone around 1 km at specific wells	-	Once in 6 months	Depth in BGL
5	Noise	2 locations (1Core & 1 Buffer)	Hourly – 1 Day	Once in 6 months	Leq, Lmax, Lmin, Leq Day & Leq Night
6	Vibration	At the nearest habitation (in case of reporting)	–	During blasting Operation	Peak Particle Velocity
7	Soil	2 locations (1 core & 1 Buffer)	–	Once in 6 months	Physical and Chemical Characteristics
8	Greenbelt	Within the Project Area	Daily	Monthly	Maintenance

Source: Guidance of manual for mining of minerals, February 2010

6.2 BUDGETARY PROVISION FOR EMP

The cost in respect of monitoring of environmental components has been shown in Table 6.2.

Table 6.2 Environment Monitoring Budget

S. No.	Parameter	Capital Cost	Recurring Cost per annum
1	Air Quality	-	Rs 60,000/-
2	Meteorology	-	Rs 15,000/-
3	Water Quality	-	Rs 20,000/-
4	Water Level Monitoring		Rs 10,000/-
5	Soil Quality	-	Rs 20,000/-
6	Noise Quality	-	Rs 10,000/-
7	Vibration Study	-	Rs1,50,000/-
8	Greenbelt	-	Rs 10,000/-
Total		-	Rs 2,95,000 /-

Source: Field Data

CHAPTER VII

ADDITIONAL STUDIES

7.1 RISK ASSESSMENT

Risk assessment is all about prevention of accidents and to take necessary steps to prevent it from happening. The methodology for the risk assessment is based on the specific risk assessment guidance issued by the Directorate General of Mine Safety (DGMS), Dhanbad vide circular no.13 of 2002 dated 31st December 2002. The DGMS risk assessment process is intended to identify existing and probable hazards in the work environment and assess the risk levels of those hazards in order to prioritize those that need an immediate attention. Further, mechanisms responsible for these hazards are identified and control measures are recorded along with pinpointed responsibilities. The whole quarry operation will be carried out under the direction of a qualified competent mine manager certified by the DGMS, Dhanbad.

7.2 DISASTER MANAGEMENT PLAN

The objective of the disaster management plan is to make use of the combined resources of the mine and the outside services to:

- ❖ Rescue and treat casualties;
- ❖ Safeguard other people;
- ❖ Minimize damage to property and the environment;
- ❖ Initially contain and ultimately bring the incident under control;

- ❖ Secure the safe rehabilitation of affected area; and
- ❖ Preserve relevant records and equipment for the subsequent inquiry into the cause and circumstances of the emergency.

7.3 CUMULATIVE IMPACT STUDY

- The results on the cumulative impact of the two proposed projects on air environment of the cluster do not exceed the permissible limits set by CPCB for air pollutants.
- The cumulative results of noise for the habitation in consideration do not exceed the limit set by CPCB for residential areas for day time.
- PPV resulting from two proposed projects is well below the permissible limit of Peak Particle Velocity of 8 mm/s.
- The proposed project will allocate Rs.10,00,000/- towards CER as recommended by SEAC.
- The proposed projects will directly provide jobs to about 27 local people.
- The proposed projects will plant about 1325 saplings in and around the lease area.
- The proposed projects will add 18 PCU per day to the nearby roads.

7.4 PLASTIC WASTE MANAGEMENT PLAN

The Project Proponent shall comply with Tamil Nadu Government Order (Ms) No. 84 Environment and Forest (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.

Objective

- ❖ To investigate the actual supply chain network of plastic waste.
- ❖ To identify and propose a sustainable plastic waste management by installing bins for collection of recyclables with all the plastic waste
- ❖ Preparation of a system design layout, and necessary modalities for implementation and monitoring.

S. No.	Activity	Responsibility
1	Framing of Layout Design by incorporating provision of the Rules, user fee to be charged from waste generators for plastic waste management, penalties/fines for littering, burning plastic waste or committing any other acts of public nuisance	Mines Manager
2	Enforcing waste generators to practice segregation of bio-degradable, recyclable and domestic hazardous waste	Mines Manager

3	Collection of plastic waste	Mines Foreman
4	Setting up of Material Recovery Facilities	Mines Manager
5	Segregation of Recyclable and Non-Recyclable plastic waste at Material Recovery Facilities	Mines Foreman
6	Channelization of Recyclable Plastic Waste to registered recyclers	Mines Foreman
7	Channelization of Non-Recyclable Plastic Waste for use either in Cement kilns, in Road Construction	Mines Foreman
8	Creating awareness among all the stakeholders about their responsibility	Mines Manager
9	Surprise checking's of littering, open burning of plastic waste or committing any other acts of public nuisance	Mine Owner

CHAPTER VIII PROJECT BENEFITS

Various benefits are envisaged due to the proposed mine and benefits anticipated from the proposed project to the locality, neighbourhood, region and nation as a whole are:

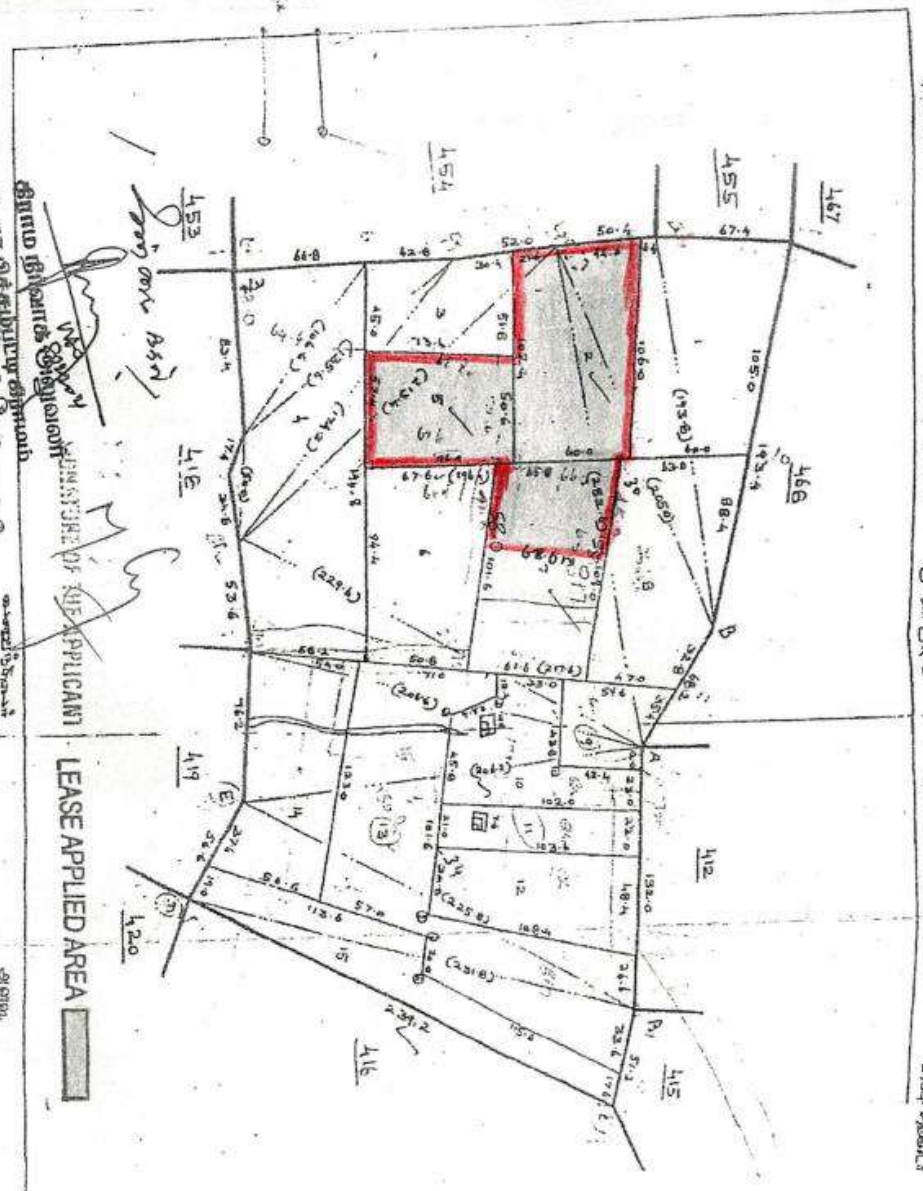
- ❖ Direct employment to 27 local people.
- ❖ Rain water harvesting structures to augment the water availability for irrigation and plantation and ground water recharge.
- ❖ Creation of community assets (infrastructure) like school buildings, village roads/ linked roads, dispensary & health Centre, community Centre, market place etc.,
- ❖ Strengthening of existing community facilities through the Community Development Program.
- ❖ Skill development & capacity building like vocational training.
- ❖ Awareness program and community activities, like health camps, medical aids, sports & cultural activities, plantation etc.,
- ❖ CSR activities mainly contributing to education, health, training of women self-help groups and infrastructure etc., will be taken up in the K. Pitchampatti Village. CSR budget is allocated as 2.5% of the profit.
- ❖ Rs. 10,00,000 will be allocated for CER.

CHAPTER IX ENVIRONMENT MANAGEMENT PLAN

In order to implement the environmental protection measures, an amount of **Rs.22,58,000** as capital cost and recurring cost as **Rs.11,81,600** as recurring cost/annum is proposed considering present market price considering present market scenario for the proposed project. After the adjustment of 5% inflation per year, the overall EMP cost for 5 years will be **Rs.87,87,086**.

CHAPTER X CONCLUSION

Various aspects of mining activities were considered and related impacts were evaluated. Considering all the possible ways to mitigate the environmental issues, environmental management plan (EMP) was prepared and fund has been allocated for the same. 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. Senior management responsible for the project will conduct a review of EMP and its implementation to ensure that the EMP remains effective and appropriate. 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.



Sl. No.	Area (Acres)	Area (Sq. Ft.)	Remarks
1	4.2	182,000	
2	7.74	337,000	
3	71.6	3,110,000	
4	70.2	3,030,000	
5	25.4	1,100,000	
6	12.0	518,000	
7	22.4	950,000	
8	17.8	760,000	
9	1.7	72,000	
10	1.0	42,000	
11	1.0	42,000	
12	1.0	42,000	
13	1.0	42,000	
14	1.0	42,000	
15	1.0	42,000	
16	1.0	42,000	
17	1.0	42,000	
18	1.0	42,000	
19	1.0	42,000	
20	1.0	42,000	

LEASE APPLIED AREA

[Handwritten signature]

An FMP Sketch Showing Proposed Lease Area in Red Colour

ANNEXURE - IV

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1	2	3	4	5	6	7	8	9	10	11	
453	2	453-பா	ப	4	...	8-4	6	1 38	2 06.0	2 84	1206 மெ. பா. சாமி.
									3 90.0	5 38	
454	1	454-பா	ப	4	...	8-4	6	1 38	0 14.0	0 20	79 மெ. பா. சாமி.
									1 33.0	1 85	498 மெ. பா. சாமி.
	3	-பா	ப	4	...	8-4	6	1 38	1 67.0	2 32	1089 மெ. பா. சாமி.
	4	-பா	ப	4	...	8-4	6	1 38	0 91.0	1 25	856 மெ. பா. சாமி.
	5	-பா	ப	4	...	8-4	6	1 38	0 87.0	1 19	801 மெ. பா. சாமி.
									4 92.0	6 81	
455	...	455	ப	4	...	8-3	5	2 00	1 16.0	2 32	79 மெ. பா. சாமி.
456	1	456-பா	ப	4	...	8-3	5	2 00	0 45.5	0 87	460 மெ. பா. சாமி.
	2	-பா	ப	4	...	8-3	5	2 00	0 55.5	1 11	1091 மெ. பா. சாமி.
	3	-பா	ப	4	...	8-3	5	2 00	0 91.0	1 83	899 மெ. பா. சாமி.
									1 90.0	3 81	
457	1	457-பா	ப	4	...	8-3	5	2 00	1 23.0	2 46	460 மெ. பா. சாமி.
	2	-பா	ப	4	...	8-3	5	2 00	0 94.0	1 88	1091 மெ. பா. சாமி.
	3	-பா	ப	4	...	8-3	5	2 00	2 06.0	4 12	899 மெ. பா. சாமி.
									4 23.0	8 46	
458	...	458	ப	4	...	8-3	5	2 00	5 53.0	11 06	1821 மெ. பா. சாமி.
459	1	459-பா	ப	4	...	8-4	6	1 38	1 50.0	2 07	1206 மெ. பா. சாமி.
	(2)	-பா	ப	4	...	8-4	6	1 38	2 05.0	2 84	326 மெ. பா. சாமி.
									3 55.0	4 91	
460	A	460-A	ப	4	...	8-4	6	1 38	2 39.5	3 32	1207 மெ. பா. சாமி.



திராவிட கிராமம் திருவள்ளூர்
18-கா.பி.செ.ம.ப.ப.ப. கிராமம்
கருநர் வட்டம்.

1	2	3	4	5	6	7	8	9	10		
414	16	414-பா	ப	14	...	8-3	5	2 00	0 40.0	0	...
		17	-பா	ப	14	...	8-3	5	2 00	0 57.0	1 14
								8	48.5	16	57
415	A	415-A	ப	14	1 26.5
		B	-பா	ப	14	...	8-3	5	2 00	0 36.5	0 73
								1	63.0	0	73
416		416	ப	14	...	8-3	5	2 00	2 43.0	4 87	1035 மை. முத்த சாமி பின்புலம்.
417	1	417-பா	ப	14	...	8-3	5	2 00	0 75.0	1 50	79 மை. எண்ணிய பின்புலம்.
2		-பா	ப	14	...	8-3	5	2 00	0 67.5	1 35	505 மை. பின்புலம்.
3		-பா	ப	14	...	8-3	5	2 00	0 35.0	0 70	859 மை. பின்புலம்.
4		-பா	ப	14	...	8-3	5	2 00	1 19.0	2 38	1035 மை. முத்த சாமி.
5		-பா	ப	14	...	8-3	5	2 00	0 39.0	0 78	766 மை. பின்புலம்.
6		-பா	ப	14	...	8-4	5	2 00	0 56.0	1 12	859 மை. பின்புலம்.
7		-பா	ப	14	...	8-3	5	2 00	0 65.0	1 30	766 மை. பின்புலம்.
8		-பா	ப	14	...	8-4	5	2 00	0 66.0	1 32	1035 மை. முத்த சாமி.
9		-பா	ப	14	...	8-4	5	2 00	0 20.0	0 40	766 மை. பின்புலம்.
10		-பா	ப	14	...	8-4	5	2 00	0 40.0	0 80	859 மை. பின்புலம்.
11		-பா	ப	14	...	8-4	5	2 00	0 21.0	0 42	766 மை. பின்புலம்.
12		-பா	ப	14	...	8-3	5	2 00	0 46.0	0 92	859 மை. பின்புலம்.
13		-பா	ப	14	...	8-3	5	2 00	1 20.0	2 40	766 மை. பின்புலம்.
14		-பா	ப	14	...	8-3	5	2 00	0 60.5	1 22	859 மை. பின்புலம்.
15		-பா	ப	14	...	8-3	5	2 00	0 54.0	1 08	1035 மை. முத்த சாமி.
								8	84.0	17	69



Signature
 கிராம நிர்வாக அலுவலர்
 18-கா.பி.செய்யாடி கிராமம்
 வேலூர் வட்டம்.



தமிழக அரசு
வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : கரூர்

வட்டம் : கரூர்

வருவாய் இராமை : க.பிச்சம்பட்டி

பட்டா எண் : 3245

உரிமையாளர்கள் பெயர்

1. டொலெதிர பிரசாத் நெல்லூர்

மனை

பிரமாத்த

புல எண்	உட்பிரிவு	புன்செய்		நுன்செய்		மற்றவை		குறிப்புகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	
417	2	0 - 67.50	1.35	--	--	--	--	2020/0103/14/148546-- -- 10-12-2020
454	2	1 - 33.00	1.65	--	--	--	--	2020/0103/14/148548-- -- 10-12-2020
		2 - 0.50	3.20					

குறிப்பு 2 :



1. கமற்கண்ட தகவல் / சான்றிதழ் தகவல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 14/01/044/03245/30464 என்ற குறிப்பு எண்ணை உள்ளிடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 14-10-2022 அன்று 11:47:09 AM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின் 2D barcode படப்படும் மூலம் படித்து 3G/GPRS வழி இணையத்தளத்தில் சரிபார்க்கவும்.



ANNEXURE - V



தமிழக அரசு
வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : கரூர்

வட்டம் : கரூர்

வருவாய் இராமை : க.பிச்சம்பட்டி

பட்டா எண் : 3156

உரிமையாளர்கள் பெயர்

காந்தலாட்டி செஞ்சலமா

1. கப்பா ராவ்

மனை

புல எண்	உட்பிரிவு	புன்செய்		நுன்செய்		மற்றவை		குறிப்புகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	ஹெக்ட - ஏர்	ரூ - பை	
417	5	0 - 39.00	0.78	--	--	--	--	2019/0103/14/091590-- -- 16-06-2019
417	7	0 - 65.00	1.30	--	--	--	--	2019/0103/14/091590-- -- 16-06-2019
454	5	0 - 87.00	1.19	--	--	--	--	2019/0103/14/091590-- -- 16-06-2019
		1 - 91.00	3.27					

குறிப்பு 2 :



1. கமற்கண்ட தகவல் / சான்றிதழ் தகவல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் <https://eservices.tn.gov.in> என்ற இணைய தளத்தில் 14/01/044/03156/30475 என்ற குறிப்பு எண்ணை உள்ளிடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 14-10-2022 அன்று 11:48:40 AM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின் 2D barcode படப்படும் மூலம் படித்து 3G/GPRS வழி இணையத்தளத்தில் சரிபார்க்கவும்.



ANNEXURE - V

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