EXECUTIVE SUMMARY OF ENVIRONMENTAL IMPACT ASSESSMENT 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 = 16.03.0 hectares

K. SHANMUGAM ROUGH STONE AND GRAVEL QUARRY

At

Kuppam Village, Pugalur Taluk, Karur District

ToR letter No. SEIAA-TN/F.No.9483/ToR-1419/2023 dated 30.03.2023.

NAME AND ADDRESS OF THE PROPOSED PROJECT PROPONENT

Name and Address	Extent & S.F.No.
Mr.K.Shanmugam **S/o.Karumanagounder,** **Opp to V.S.T.Petrol Bunk,** **Punnamchathiram, Pugalur Taluk,** **Karur -639136.**	**0.73.5 ha &** **76/2**

ENVIRONMENTAL CONSULTANT

GEO TECHNICAL MINING SOLUTIONS

No: 1/213-B, Ground Floor, Natesan Complex
Oddapatti, Collectorate Post office,
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NABET ACC. NO: NABET/EIA/2124/SA 0184

Valid till: Dec 31, 2023

ENVIRONMENTAL LAB

EKDANT ENVIRO SERVICES (P) LIMITED

NABL Accredited & Recognised Laboratory

No.R7/1, AVK Tower, North Main Road,

Anna Nagar, West Exten.

Chennai-600 101

Baseline Study Period – October through December 2021

CHAPTER I

INTRODUCTION

As the proposed rough stone and gravel mining project, known as P1 falls within the 500 m radius cluster of quarries with the total extent of >5 ha (**i.e.,16.03.0 ha**), 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 six proposed projects, known as P1, P2, P3, P4, P5 and P6, one existing project known as E1 and one expired project known as EX1 as shown in Table 1.2. 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 6 proposed projects 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 Kuppam Village, Pugalur Taluk, Karur District and Tamil Nadu State. It has been prepared in compliance with ToR issued vide Lr. No. SEIAA-TN/F.No.9483/ToR-1419/2023 dated 30.03.2023 for the proposed project by conducting baseline study during the period of October to December 2021. 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 1.1 Details of Project Proponent

Name of the Project Proponent	**Mr.K.Shanmugam**
Address	S/o.Karumanagounder, Opp to V.S.T.Petrol Bunk,Punnamchathiram, Pugalur Taluk,Karur District-639136. Mobile:8940003470
Status	Proprietor

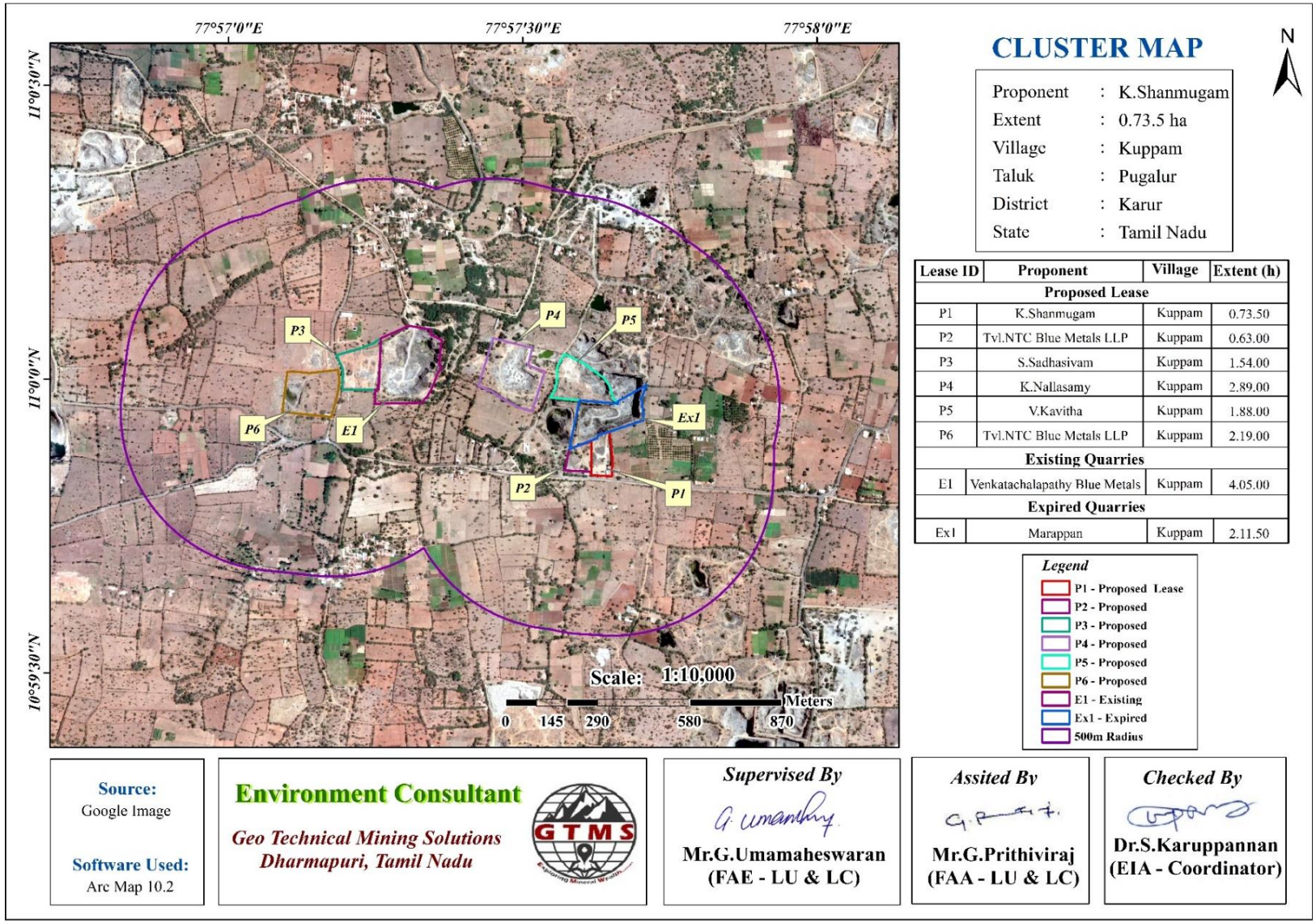
Table 1.2 Details of Quarries within the Cluster Area of 500 m Radius

Proposed Quarries				
Code	**Name of the Owner**	**S.F.Nos/Village**	**Extent (ha)**	**Lease Period/ Remarks**
P1	K. Shanmugam	76/2 Kuppam	0.73.5	Proposed Area
P2	Tvl. NTC Blue Metals LLP	76/1(p) Kuppam	0.63.0	
P3	Thiru. S. Sadhasivam	211/1, 211/2 Kuppam	1.54.0	
P4	K. Nallasamy	226/1(P) Kuppam	2.89.0	
P5	V. Kavitha	75/1A,75/1B & 75/2 Kuppam	1.88.0	
P6	Tvl. NTC Blue Metals LLP	362/2(p) Kuppam	2.19.0	
Existing Quarries				
E1	Tvl. Venkatachalapathi	213/1,214/2A, 214/2B,214/2C, 220/3P,221/P Kuppam	4.05.0	23.06.2017 To 22.06.2022
Expired Quarries				
EX1	Thiru. P. Marappan	74,75/3B Kuppam	2.11.5	14.10.2016 To 13.10.2021
	Total Cluster Extent		**16.03.0**	

Source:

DD Letter: Rc.No.311/Mines/2021, Dated:16.09.2022.

Note: *Cluster area is calculated as per MoEF & CC Notification-S.O.2269(E) Dated:01.07.2016.*



Lease ID	Proponent	Village	Extent (h)
Proposed Lease			
P1	K.Shanmugam	Kuppam	0.73.50
P2	Tvl.NTC Blue Metals LLP	Kuppam	0.63.00
P3	S.Sadhasivam	Kuppam	1.54.00
P4	K.Nallasamy	Kuppam	2.89.00
P5	V.Kavitha	Kuppam	1.88.00
P6	Tvl.NTC Blue Metals LLP	Kuppam	2.19.00
Existing Quarries			
E1	Venkatachalapathy Blue Metals	Kuppam	4.05.00
Expired Quarries			
Ex1	Marappan	Kuppam	2.11.50

Figure 1.1 Google earth image showing 500m radius limits and the proposed project and existing quarries within the limit

CHAPTER II

PROJECT DESCRIPTION

2.1 INTRODUCTION

The proposed project deals with excavation of rough stone which is primarily used in construction projects. The method adopted for rough stone excavation is a manual open cast mining method involving formation of benches with 5 m height and 5 m width and secondary blasting. The proposed project area is located between latitudes from 10°59'50.08" N to 10°59'54.61" N and Longitudes from 77°57'36.96" E to 77°57'39.16" E in Kuppam Village, Pugalur Taluk, Karur District and Tamilnadu state. The project site is fall in patta land with the extent of 0.73.5 ha leased for the project proponent **Mr.K.Shanmugam**. The proponent had applied for quarry lease on 29.07.2021 to extract rough stone and gravel. The proponent obtained the precise area communication letter issued by Department of Geology and Mining, Karur vide Rc.No.311/Mines/2021, dated 12.08.2022. Based on the precise area communication letter, mining plan was prepared. The mining plan thus prepared was approved by Deputy Director of Geology and Mining, Karur (Rc.No.311/Mines/2021 dated 01.09.2022).

According to the approved mining plan, about 22660 m^3 of rough stone and about 9315 m^3 of gravel will be mined up to the depth of 20 m BGL in the first five years. It is the quantity that has been mentioned in this EIA report. To achieve the estimated production, 2 jack hammers, 1 compressor, 1 excavator with bucket/rock breaker, and 1 tipper will be deployed. To operate the machineries and to break the rough stone to preferred dimension, about 14 persons will be employed. At the end of the quarry life, the dimension of the ultimate pit will be 69m*45m*20 m and about 0.34.10 ha of land will have been utilized for quarrying, 0.03.0 ha for infrastructures, 0.02.00 ha for roads, 0.03.10 ha for drainage and settling tank 0.30.10 ha for green belt development, and the remaining 0.01.20 ha will have been left as unutilized area. The final mine closure plan shows that about Rs. 249900 with the annual recurring cost of Rs. 22050 will be spent towards mine closure.

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 has been overlaid on Google earth image, as shown in Figure 2.1.

Table 2.1 Corner Geographic Coordinates of Proposed Project

Pillar ID	Latitude	Longitude
1	10° 59'54.61"N	77°57'38.81"E
2	10° 59'51.90"N	77°57'39.16"E
3	10° 59'50.08"N	77°57'39.07"E
4	10° 59'50.21"N	77°57'36.96"E
5	10°59'53.72"N	77°57'36.98"E
6	10°59'53.96"N	77°57'37.59"E
7	10°59'54.34"N	77°57'37.72"E

Table 2.2 Site Connectivity to the Project Area

Nearest Roadway	Karur-Erode (SH-84)	4.78Km E
Nearest Rail Head	Karur	14.0 Km E
Nearest Port Facility	Tuticorin	253.0 Km S
Nearest Airport	Coimbatore	100 Km NW
Nearest Town	K. Paramathi	7.0 Km SW
Nearest Villages	Nochikattur	0.310Km NE
	Talaiyuttuppatti	0.66Km SW
	Pullaiyampalayam	1.12Km NE
	Kuppam	4.0Km W

2.2 DETAILS OF RESERVES

Reserves were calculated using cross-section method after leaving the safety distance, as shown in Figures 2.1 and 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

Resource Type	Rough Stone in m^3	Topsoil in m^3
Geological Resource in m^3	124440	21960
Mineable Reserves in m^3	25585	9315
Proposed production for 5 years	22660	9315

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

Table 2.4 Year-Wise Production Details

Year	Rough Stone (m^3)	Gravel (m^3)
I	4500	9315
II	4335	…
III	4375	…
IV	6450	…
V	3000	…
Total	**22660**	**9315**

2.3 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 Area (ha)	Area at the end of life of quarry (ha)
Area under quarry	Nil	0.34.10
Infrastructure	Nil	0.03.00
Roads	Nil	0.02.00
Drainage and Settling Tank	Nil	0.03.10
Green Belt	Nil	0.30.10
Unutilized area	0.73.50	0.01.20
Total	**0.73.50**	**0.73.50**

Source: Approved mining plan

2.4 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, blasting design and fuel requirement and capital proposed for this project have been given in Tables 2.6- 2.8.

Table 2.6 Machinery Details

S. No.	Type	No. of Unit	Size/Capacity	Make	Motive Power
1	Jack Hammer	2	Hand held	-	Diesel
2	Excavator	1	--	-	Diesel Drive
3	Compressor	1	Air	--	Diesel Drive
4	Tipper	1	30 MT	TATA	Diesel Drive

Table 2.7 Conceptual Blasting Design

Blasthole Diameter (D) in mm	32
Burden (B) in m	2
Spacing (S) in m	1.45
Subdrill in m	0.6
Charge length (C) in m	0.30
Stemming	2
Hole Length (L) in m	2.9
Bench Height (BH) in m	2.3
Mass of explosive/hole in g	187.5
Stemming material size in mm	3.2
Burden stiffness ratio	1.15
Blast volume/hole in m3	6.67
Production of rough stone/day in m3	17
Number of blastholes/day	3
Blasthole pattern	Staggered / Rectangular
Mass of explosive /day in kg	0.47
Powder factor in kg/m3	0.03
Loading density	0.63
Type of explosives	Slurry
Diameter of packaging in mm	25
Initiation system	NONEL
Fly rock distance in m	18

Table 2.8 Fuel Requirement Details

Fuel Requirement for Excavator			
Details	**Rough Stone (22660 m^3)**	**Gravel (9315 m^3)**	**Total Diesel in litters**
Average Rate of Fuel Consumption (l/hr)	16	10	---
Working Capacity (m^3/hr)	20	60	---
Time Required (hours)	1133	155	---
Total Diesel Consumption for 5 years (litre)	18128	1553	**19681**
Fuel Requirement for Compressor			
Average Rate of Fuel Consumption/hole (litre)	0.4	---	---
Number of Drillholes/day	3	---	---
Total Diesel Consumption for 5 years (litre)	1620	---	**1620**
Fuel Requirement for Tipper			
Average Rate of Fuel Consumption/Trip (litre)	20	20	---
Carrying Capacity in m^3	6	6	---
Number of Trips / days	3	1*	---
Number of Trips / 5 years	3777	1553	---
Total Diesel Consumption for 5 years (litre)	75533	31050	**106583**
Total Diesel Consumption by Excavator, Compressor and Tipper			**127884**

** Number of truck loads for gravel has been normalized for 5 years.*

Table 2.9 Capital Requirement Details

S. No.	**Description**	**Cost (Rs.)**
1	Fixed Asset Cost	10,67,100
2	Machinery Cost	10,00,000
3	EMP Cost	22,32,400
Total Project Cost		**42,99,500/-**

Source: Approved Mining Plan

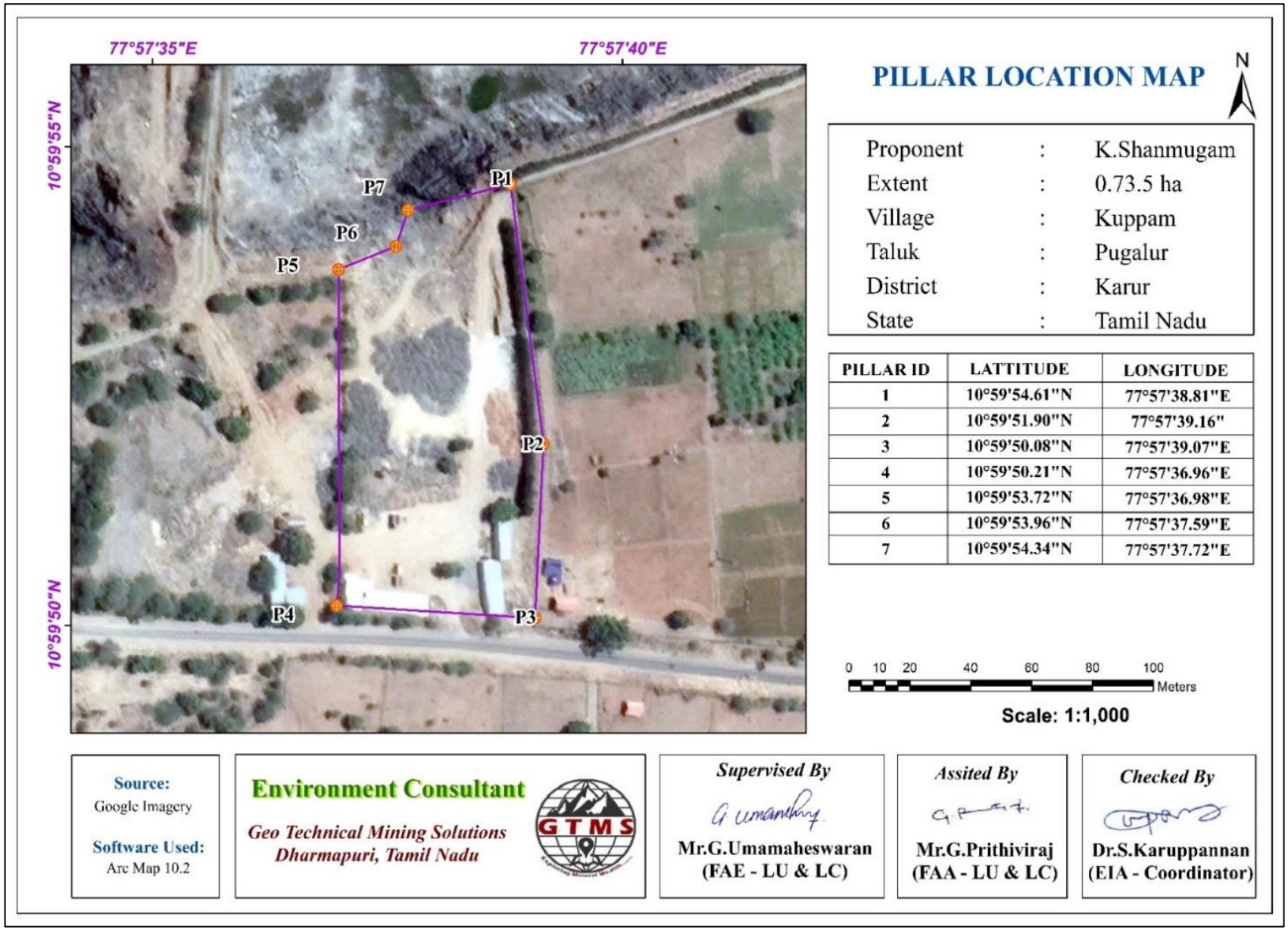


Figure 2.1 Google Earth Image Showing Lease Area with Pillars

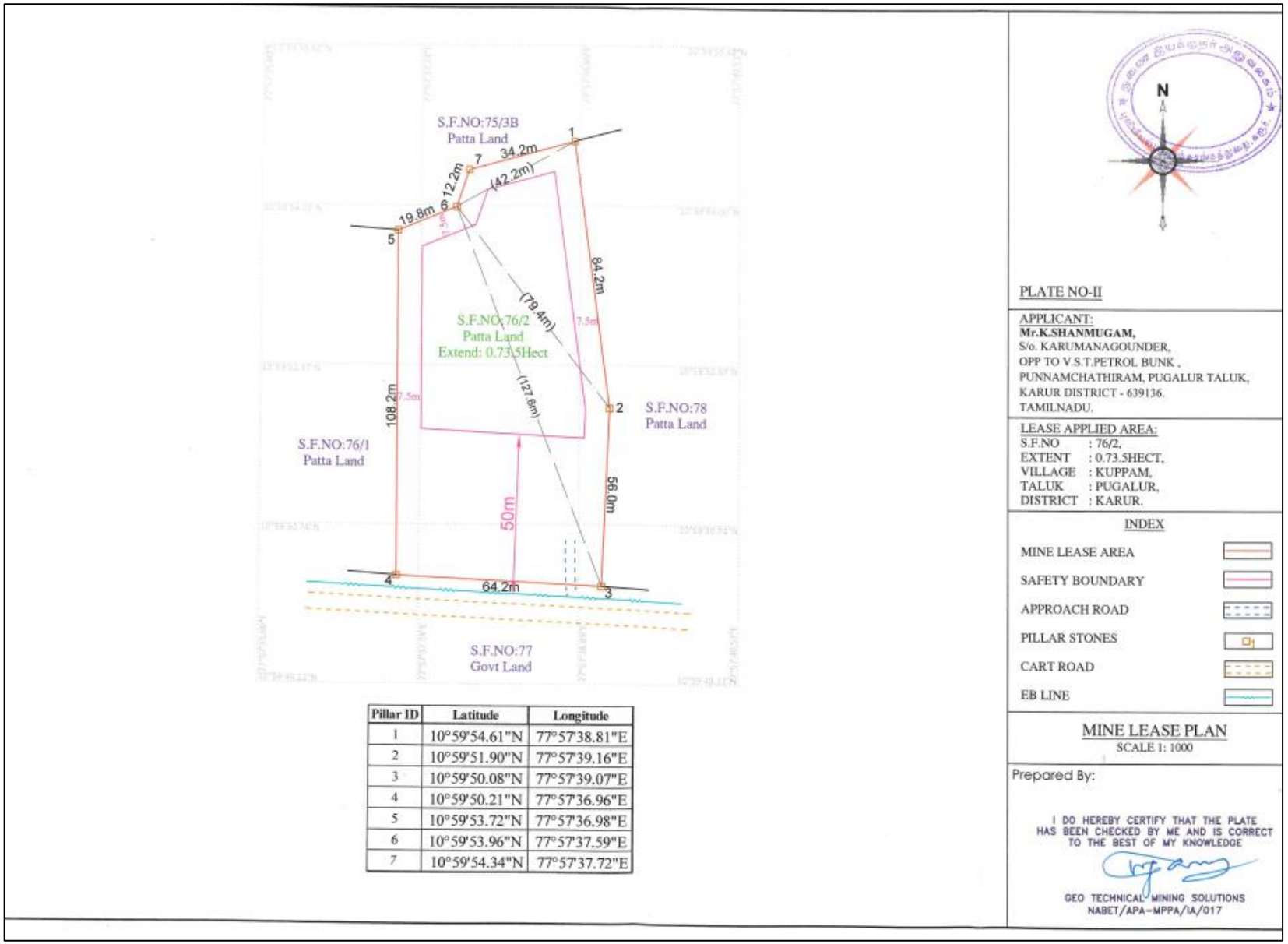


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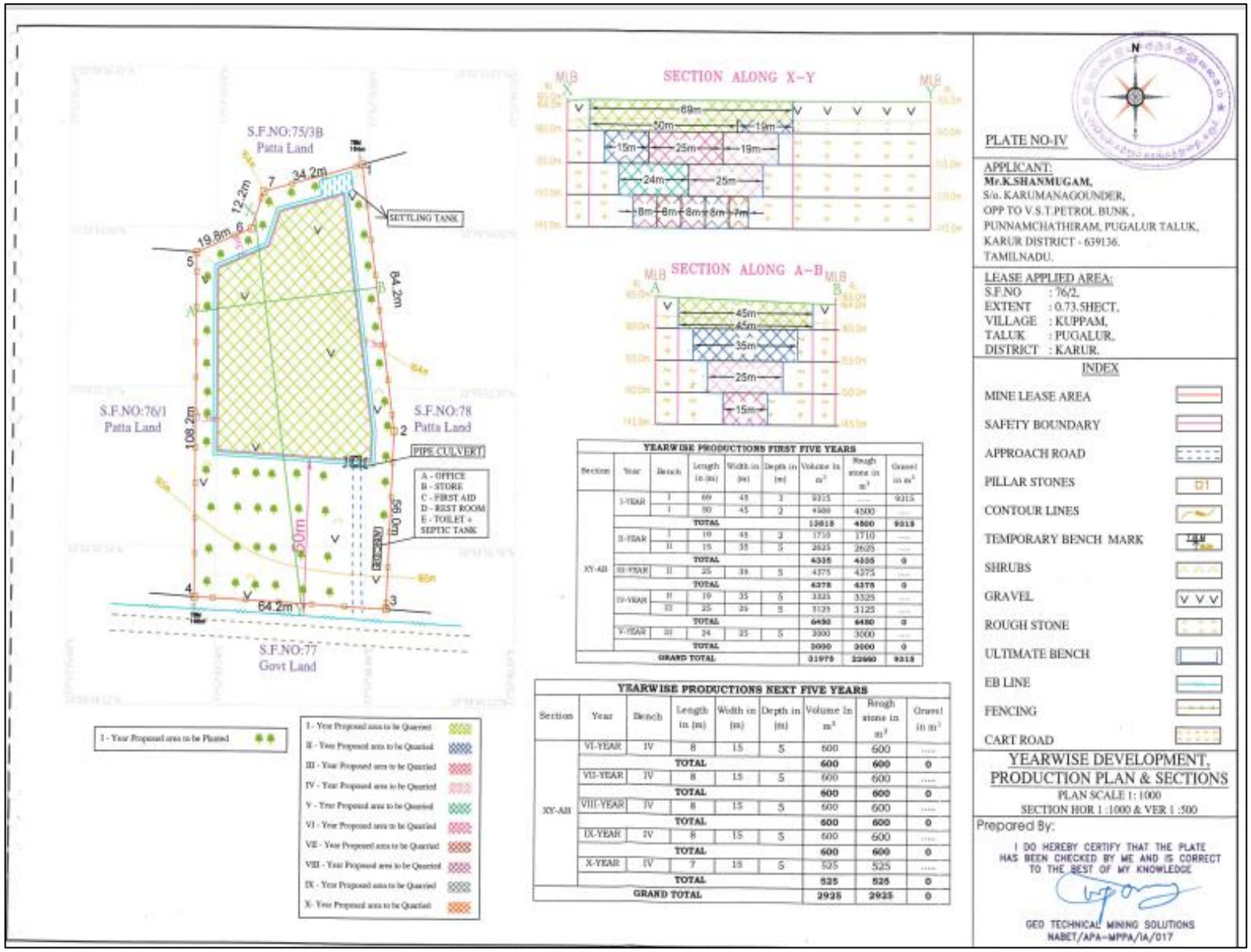
Figure 2.2 Mine Lease Plan



YEARWISE PRODUCTIONS FIRST FIVE YEARS

Section	Year	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in m^3	Rough stone in m^3	Gravel in m^3
XY-AB	I-YEAR	I	69	45	3	9315	.....	9315
		I	50	45	2	4500	4500	.....
			TOTAL			**13815**	**4500**	**9315**
	II-YEAR	I	19	45	2	1710	1710	.....
		II	15	35	5	2625	2625	.....
			TOTAL			**4335**	**4335**	**0**
	III-YEAR	II	25	35	5	4375	4375	.....
			TOTAL			**4375**	**4375**	**0**
	IV-YEAR	II	19	35	5	3325	3325	.....
		III	25	35	5	3125	3125	.....
			TOTAL			**6450**	**6450**	**0**
	V-YEAR	III	24	25	5	3000	3000	.....
			TOTAL			**3000**	**3000**	**0**
			GRAND TOTAL			**31975**	**22660**	**9315**

YEARWISE PRODUCTIONS NEXT FIVE YEARS

Section	Year	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume in m^3	Rough stone in m^3	Gravel in m^3
XY-AB	VI-YEAR	IV	8	15	5	600	600	.....
			TOTAL			**600**	**600**	**0**
	VII-YEAR	IV	8	15	5	600	600	.....
			TOTAL			**600**	**600**	**0**
	VIII-YEAR	IV	8	15	5	600	600	.....
			TOTAL			**600**	**600**	**0**
	IX-YEAR	IV	8	15	5	600	600	.....
			TOTAL			**600**	**600**	**0**
	X-YEAR	IV	7	15	5	525	525	.....
			TOTAL			**525**	**525**	**0**
			GRAND TOTAL			**2925**	**2925**	**0**

Figure 2.3 Year-Wise Development & Production Plan and Sections

2.5 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 human's 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 (Rs.)	Recurring Cost/Annum (Rs.)
147 plants inside the lease area	29400	4410
221 plants outside the lease area	66150	6615
Wire Fencing	147000	7350
Renovation of Garland Drain	7350	3675
Total	**249900**	**22050**

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 **October through December-2021** 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, by an NABL accredited and MoEF notified Ekdant Enviro Services (P) Ltd Laboratory for ambient air and by FAEs 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 satellite imagery. LULC types and their extent are given in Table 3.1.

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

S. No.	Classification	Area (Hectare)	Area (%)
1	Crop Land	6790.2	89.8
2	Dense Forest	79	1.0
3	Fallow Land	176.0	2.3
4	Mining/Industrial lands	236.4	3.1
5	Plantations	275.1	3.6
6	Settlements	5.3	0.1
Total		**7562**	**100**

Source: Sentinel II Satellite Imagery

3.2 SOIL ENVIRONMENT

Ten locations were selected for soil sampling on the basis of soil types, vegetative cover, and industrial and residential activities to assess the existing soil conditions such as physical and chemical properties in and around the project site.

Physical Characteristics

The soil samples in the study area show loamy textures varying between clay loam and sandy loam. PH of the soil varies from 6.98 to 8.01 indicating slightly alkaline nature. Electrical conductivity of the soil varies from 399 to 432 µs/cm. The water content varies from 2.18 and 3.8 g/cm^3.

Chemical Characteristics

Nitrogen ranges between 76 and 136 mg/kg. Phosphate ranges between 0.89 and 1.9 %. Potassium ranges between 240.3 and 334.9 %. Calcium ranges between 124 and 182 mg/kg. Organic matter content ranges between 1.01 and 9.8 %.

3.3 WATER ENVIRONMENT

The water resources, both surface and groundwater play a significant role in the development of the area. The purpose of this study is to assess the critical water quality parameters and evaluate the impacts on agricultural productivity, domestic community usage, recreational resources and aesthetics in the vicinity.

Surface Water Resources

There are no surface water bodies present within the study area. Hence, data on surface water bodies are not collected for this project.

Ground Water Resources

Eight groundwater samples, known as GW01, GW02, GW03, GW04, GW05, GW06, GW07 and GW08 were collected from dug and bore well to analyzed for physico-chemical conditions, heavy metals and bacteriological contents in order to assess baseline quality of ground water. 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 October through December, 2021 (Post-Monsoon) and March through May, 2022 (Pre-Monsoon) season, average depths to the static water table in open wells range from 14.4 to 17.2 m BGL in post monsoon and from 10.6 to 14.1 m BGL in pre monsoon. The average depths to static potentiometric surface in borewells for the period of October through December 2021 (Post Monsoon Season) is 63.4 to 70.7 m and for the period of March through May, 2022 (Pre-Monsoon Season) is 62.3 to 67.3 m. the open well groundwater for the post- and pre-monsoon seasons flows towards the open well number 7 located in NW of the proposed project sites and that most of the borewell groundwater for the two monsoon seasons flows towards the bore well number 2 located in NNW of the proposed project site.

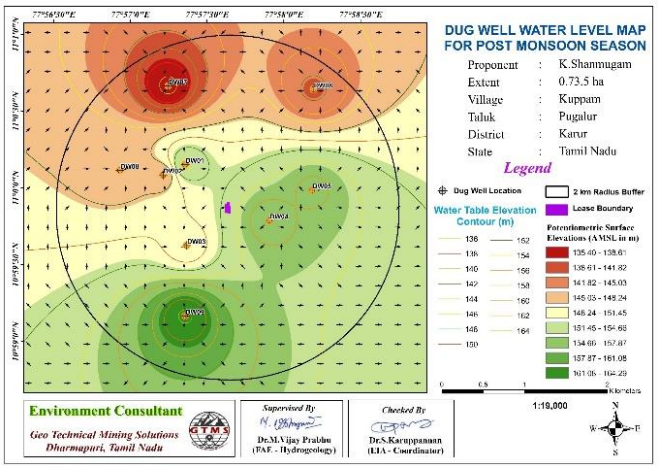


Figure 3.1 Open well static groundwater elevation map showing the direction of groundwater flow during post-monsoon season

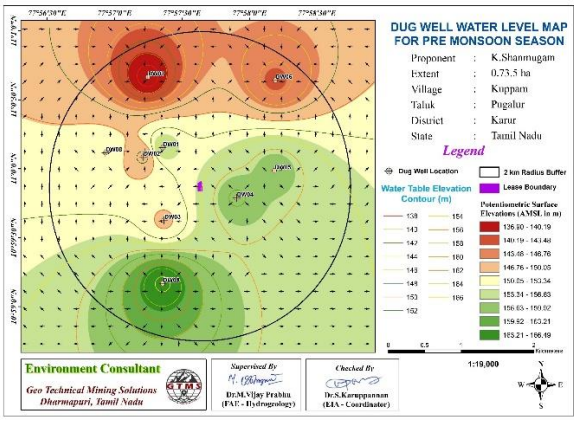


Figure 3.2 Open well static groundwater elevation map showing the direction of groundwater flow during pre-monsoon season

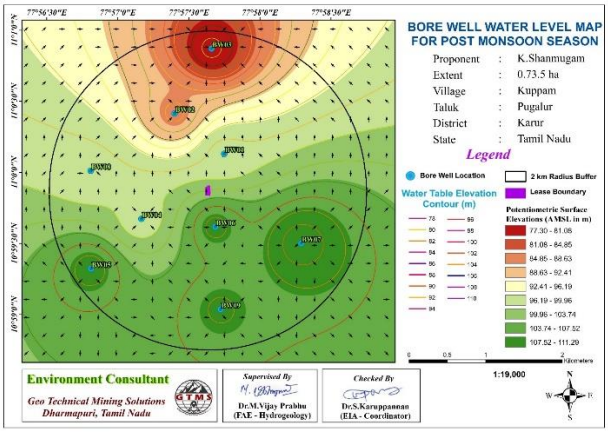


Figure 3.3 Borewell static groundwater elevation map showing the direction of groundwater flow during post-monsoon season

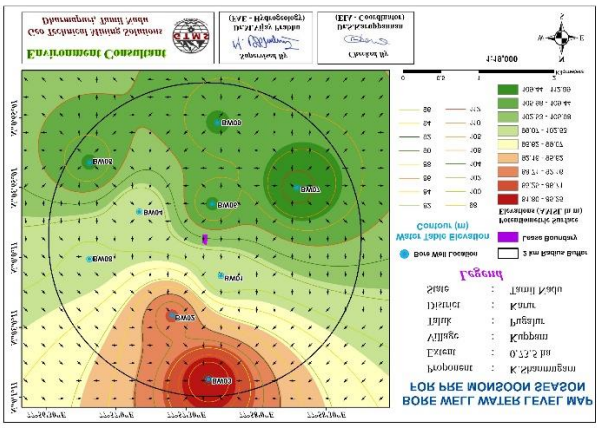


Figure 3.4 Borewell static groundwater elevation map showing the direction of groundwater flow during pre-monsoon season

3.4 AIR ENVIRONMENT

As per the monitoring data, PM2.5 ranges from 20.66 µg/m3 to 23.58 µg/m3; PM10 from 41.36 µg/m3 to 44.98 µg/m3; SO2 from 6.04 µg/m3 to 7.96 µg/m3; NOX from 24.11 µg/m3 to 27.14 µg/m3. The concentration levels of the pollutants fall within the acceptable limits of NAAQS prescribed by CPCB.

3.5 NOISE ENVIRONMENT

Ambient noise levels were measured at 08 locations around the proposed project area. The noise level results in Table 3.18 show that noise levels in core zone was 46.0 dB (A) Leq. during day time and 39.1 dB (A) Leq. during night time and that noise levels in buffer zone varied from 40.1 to 47.2 dB (A) Leq. during day time and from 36.5 to 39.3 dB (A) Leq. during night time. Thus, the noise level for industrial and residential area meets the requirements of CPCB.

3.6 BIOLOGICAL ENVIRONMENT

The main objective of biological study is to collect the baseline data regarding flora and fauna in the study area and identify ecologically sensitive areas and whether there are any rare, endangered, endemic or threatened (REET) species of flora and fauna in the core zone as well as buffer zone. The study has also been designed to suggest suitable mitigation measures, if necessary, to protect wildlife habitats and conservation of REET species if any.

From the study of biological environment, it is concluded that there was no schedule I species of animals observed within study area as per Wildlife Protection Act, 1972 and no species were found in vulnerable, endangered or threatened category as per IUCN and that there is no endangered red list species found in the study area. 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

Socio-economic study is an essential part of environmental study. It includes demographic structure of the area, provision of basic amenities viz., housing, education, health and medical services, occupation, water supply, sanitation, communication, transportation, prevailing diseases pattern as well as features like temples, historical monuments etc., at the baseline level. This will help in visualizing and predicting the possible impact depending upon the nature and magnitude of the project. It is expected that the socio-economic status of the area will substantially improve because of this proposed project. As the proposed project will provide direct and indirect employment and improve the infrastructural facilities in that area, thus leading to the improvement of their standard of living.

3.8 TRAFFIC ENVIRONMENT

Table 3.2 Traffic Survey Locations

Station Code	Road Name	Distance and Direction	Type of Road
TS1	Village Road	0.1 km-S	Village Road
TS2	Erode to Karur Road (SH)	2.44 km-NE	Erode to Karur Road (SH84)
TS3	Vellakoil to Karur Road (NH)	6.76 km-SW	Vellakoil to Karur Road (NH67)

Source: On-site monitoring by GTMS FAE & TM

Table 3.3 Existing Traffic Volume

Station code	HMV		LMV		2/3 Wheelers		Total PCU
	No	PCU	No	PCU	No	PCU	
TS1	35	105	38	38	68	34	177
TS2	114	342	45	45	101	51	438
TS3	181	543	55	55	117	59	657

Source: On-site monitoring by GTMS FAE & TM

3.9 SITE SPECIFIC FEATURES

Table 3.4 Details of Environmentally Sensitive Ecological Features in the Study Area

S. No.	Sensitive Ecological Features	Name	Areal Distance in km	Direction
1	National Park / Wild life Sanctuaries	None	Nil within 10 km radius	--

2	Reserve Forest	Thathampalayam R.F.	7.79 km	SE
3	Lakes/Reservoirs/ Dams/Streams/Rivers	Cauvery river	7.21 km	N
		Noyyal river	8.84 km	NW
		Amaravathi river	9.1 km	SE
4	Tiger Reserve/Elephant Reserve/ Biosphere Reserve	None	Nil within 10 km radius	--
5	Critically Polluted Areas	None	Nil within 10 km radius	--
6	Mangroves	None	Nil within 10 km radius	--
7	Mountains/Hills	None	Nil within 10 km radius	
8	Notified Archaeological Sites	None	Nil within 10 km radius	--
9	Industries/ Thermal Power Plants	TNPL Paper Mill	7.2 km NE	NE
10	Defence Installation	None	Nil within 10 km radius	--

Source: Survey of India Toposheet

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

Anticipated Impact

- Permanent impact on mineral resources due to removal of 22660 m^3 of rough stone. and 9315 m^3 of gravel.
- Permanent or temporary change on land use and land cover.
- Change in topography of the mine lease area will change at the end of the life of the mine.

- Problems to agricultural land and human habitations due to dust, and noise caused by movement of heavy vehicles
- Degradation of the aesthetic environment of the core zone due to quarrying
- 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

- The mining activity will be gradual confined in blocks and excavation will be undertaken progressively along with other mitigative measures like phase wise development of greenbelt etc.
- Construction of garland drains all around the quarry pits and construction of check dam at strategic location in lower elevations to prevent erosion due to surface runoff during rainfall and also to collect the storm water for various uses within the proposed area.
- Green belt development along the boundary within safety zone. The small quantity of water stored in the mined-out pit will be used for greenbelt
- Thick plantation will be carried out on unutilized area, top benches of mined out pits, on safety barrier, etc.,
- At conceptual stage, the land use pattern of the quarry will be changed into Greenbelt area and temporary reservoir.
- In terms of aesthetics, natural vegetation surrounding the quarry will be retained (such as in a buffer area i.e., 7.5 m safety barrier and other safety provided) so as to help minimize dust emissions.
- Proper fencing will be carried out 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

This project does not result in any impact on the soil of the project site, as topsoil is neither removed from the project site nor preserved in the safety margin area. However, some of the common mitigation measures have been discussed in the following sections to protect the immediate soil environment surrounding the lease area.

Soil Erosion

Soil erosion map was prepared to evaluate the degree of soil erosion in the study area of 5 km radius. The map shows that:

- Soil erosion is very low inside the lease area, whereas low to moderate soil erosion occurs along the northern boundary of the lease area.

Common Mitigation Measures from proposed project

- Run-off diversion – Garland drains will be constructed around the project boundary to prevent surface flows from entering the quarry works areas and will be discharged into vegetated natural drainage lines, or as distributed flow across an area stabilised against soil erosion.
- Sedimentation ponds - Run-off from working areas will be routed towards sedimentation ponds. These trap sediment and reduce suspended sediment loads before runoff is discharged from the quarry site. Sedimentation ponds should be designed based on runoff, retention times, and soil characteristics. There may be a need to provide a series of sedimentation ponds to achieve the desired outcome.
- Retain vegetation – Retain existing or re-plant the vegetation at the site wherever possible.
- Monitoring and maintenance – Weekly monitoring and daily maintenance of soil erosion control systems so that they perform as specified specially during rainy season.

4.3 WATER ENVIRONMENT

Anticipated Impact

- As the proposed project acquires 2.7 KLD of water from water vendors, it will not extract water by developing abstraction structures in the lease area. Therefore, the project will not deplete aquifer beneath the lease area.
- The impact of mining on the water quality is insignificant because of no use of chemicals or hazardous substances during quarrying process.
- The quarrying activity will not intersect ground water table as the proposed depth is 20 m below ground level and water table is found at depths of 60 m below ground level.
- There is no intersection of surface water bodies in the project area.
- As there is no proposal for rough stone processing or workshop within the project area there will be no effluent anticipated from the mines.

Mitigation Measures

- Rainwater will be collected in the mining pit and the water will be pumped out to surface settling tank of the dimension of 15m x 10m x 3m to remove suspended solids if any. The water stored in the settling tank will be used for dust suppression, greenbelt development and rainwater harvesting.
- A drainage network, known as garland drains will be constructed to divert surface run-off into the quarrying area.
- The quality of water in the quarry will be analysed periodically.

- ❖ Domestic sewage from site office and latrines in the mining site will be discharged to septic tanks followed by soak pits.
- ❖ Wastewater from the mining site will be treated in settling tanks before using it for dust suppression and tree plantation purposes.
- ❖ Desilting will be carried out before and immediately after the monsoon season.
- ❖ The quality of water in open and bore wells, and surface water bodies will be monitored regularly.

4.4 AIR ENVIRONMENT

Anticipated Impact

Table 4.1 Incremental & Resultant GLC of PM_{10}

Station ID	Distance to core area (km)	Direction	PM_{10} Concentrations ($\mu g/m^3$)			Comparison against air quality standard (100 $\mu g/m^3$)	Magnitude Of change (%)	Significance
			Base line	Predicted	Total			
AAQ1	0.29	W	45.19	5.84	51.03	Below Standard	12.92	Not Significant
AAQ2	4.20	NW	40.00	0.5	40.5		1.25	
AAQ3	2.73	NE	46.74	0.5	47.24		1.07	
AAQ4	0.78	SW	41.98	5	46.98		11.91	
AAQ5	2.49	SW	43.74	0.5	44.24		1.14	
AAQ6	3.99	SW	41.02	0.5	41.52		1.22	
AAQ7	3.97	S	44.98	0.5	45.48		1.11	
AAQ8	3.75	E	41.50	0.5	42		1.20	

Table 4.2 Incremental and Resultant GLC of $PM_{2.5}$

Station ID	Distance to core area (km)	Direction	$PM_{2.5}$ Concentrations ($\mu g/m^3$)			Comparison against air quality standard (60 $\mu g/m^3$)	Magnitude of change (%)	Significance
			Base line	Predicted	Total			
AAQ1	0.29	W	23.95	3.83	27.78	Below Standard	15.99	Not Significant
AAQ2	4.20	NW	20.02	0.5	20.52		2.50	
AAQ3	2.73	NE	25.25	1	26.25		3.96	
AAQ4	0.78	SW	20.96	1	21.96		4.77	
AAQ5	2.49	SW	22.14	0.5	22.64		2.26	
AAQ6	3.99	SW	19.34	0.1	19.44		0.52	
AAQ7	3.97	S	23.07	0.5	23.57		2.17	
AAQ8	3.75	E	20.67	0.5	21.17		2.42	

Table 4.3 Incremental & Resultant GLC of SO_2

Station ID	Distance to core area (km)	Direction	SO_2 Concentrations ($\mu g/m^3$)			Comparison against air quality standard (80 $\mu g/m^3$)	Magnitude of change (%)	Significance
			Base line	Predicted	Total			
AAQ1	0.29	W	8.57	2.54	11.11	Below Standard	29.64	Not Significant
AAQ2	4.20	NW	8.40	0.5	8.9		5.95	
AAQ3	2.73	NE	9.07	0.5	9.57		5.51	
AAQ4	0.78	SW	6.97	0.5	7.47		7.17	
AAQ5	2.49	SW	5.69	0.5	6.19		8.79	
AAQ6	3.99	SW	5.74	0	5.74		0.00	
AAQ7	3.97	S	5.73	0.1	5.83		1.75	
AAQ8	3.75	E	5.49	0.5	5.99		9.11	

Table 4.4 Incremental & Resultant GLC of NO_X

Station ID	Distance to core area (km)	Direction	NOx Concentrations ($\mu g/m^3$)			Comparison against air quality standard (80 $\mu g/m^3$)	Magnitude of change (%)	Significance
			Base line	Predicted	Total			
AAQ1	0.29	W	25.88	2.74	28.62	Below Standard	10.59	Not Significant
AAQ2	4.20	NW	25.86	0.5	26.36		1.93	
AAQ3	2.73	NE	26.58	0.5	27.08		1.88	
AAQ4	0.78	SW	25.61	0.5	26.11		1.95	
AAQ5	2.49	SW	26.43	0.5	26.93		1.89	
AAQ6	3.99	SW	25.76	0.1	25.86		0.39	
AAQ7	3.97	S	24.72	0.1	24.82		0.40	
AAQ8	3.75	E	25.10	0.5	25.6		1.99	

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

- Water will be sprinkled on haul roads twice a day to avoid dust generation during transportation.

- ❖ Rough stone will be properly covered with tarpaulin and transported during the day time.
- ❖ The speed of tippers plying on the haul road will be limited to 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 vehicles and other machines will be done to improve combustion process and reduce the emission of pollutants.
- ❖ The 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 (Pollution Under Control) certificate.

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 Zone	220	46.0	32.53	46.19
Nochikattur	460	40.2	26.12	40.37
Punnam Chatram	2650	46.8	10.91	46.80
Thalaiyeethupatti	830	47.0	21.00	47.01
Salipalaiyam	2540	46.8	11.28	46.80
Velayudampalaiyam	4020	47.2	7.30	47.20
Karudaiyampalaiyam	4010	40.1	7.32	40.10
Pavitram	4450	46.3	6.41	46.30
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.

Table 4.6 Predicted PPV Values due to Blasting

Location ID	Maximum Charge in kgs	Nearest Habitation in m	PPV in mm/s	Fly rock distance in m	Air Blast	
					Pressure (kPa)	Sound Level (dB)
P1	0.47	460	0.015	18	0.001	93

Table 4.7 Predicted PPV Values due to Blasting at 100-500 m radius

Location ID	Maximum Charge in kgs	Radial Distance in m	PPV in mm/s	Fly rock distance in m	Air Blast	
					Pressure (kPa)	Sound Level (dB)
P1	0.47	100	0.173	18	0.0057	109
		200	0.057		0.0025	102
		300	0.03		0.0015	98
		400	0.019		0.0011	95
		500	0.013		0.0008	92

The peak particle velocity produced by the charge of 0.47 kg is well below that of 8 mm/s as per Directorate General of Mines Safety for safe level criteria through Circular No. 7 dated 29/8/1997.

Mitigation Measures

- The blasting operations in the cluster quarries are carried out without deep hole drilling and blasting using delay detonators which reduce the ground vibrations
- Proper quantity of explosives, suitable stemming materials and appropriate delay system will be adopted to avoid overcharging and for safe blasting
- Adequate safe distance from blasting will be maintained as per DGMS guidelines
- Blasting shelter will be provided as per DGMS guidelines
- Blasting operations will be carried out only during day time
- The charge per delay will be minimized and preferably a greater number of delays will be used per blasts
- During blasting, other activities in the immediate vicinity will be temporarily stopped
- Drilling parameters like depth, diameter and spacing will be properly designed to give proper blast
- A fully trained explosives blast man (Mining Mate, Mines Foreman, 2nd Class Mines Manager/ 1st Class Mines Manager) will be appointed

- ❖ A set of shot firing rules will be drawn up and blasting shall commence outlining the detailed operating procedures that will be followed to ensure that shot firing operations on site take place without endangering the workforce or public
- ❖ Sufficient angular stemming material will be used to confine the explosive force and minimise environmental disturbance caused by venting / misfire
- ❖ The detonators will be connected in a predetermined sequence to ensure that only one charge is detonated at any one time and a NONEL or similar type initiation system will be used
- ❖ The detonation delay sequence shall be designed so as to ensure that firing of the holes is in the direction of free faces so as to minimise vibration effects
- ❖ Appropriate blasting techniques shall be adopted in such a way that the predicted peak particle velocity shall not exceed 0.251mm/s
- ❖ Vibration monitoring will be carried out every 6 months to check the efficacy of blasting practices.

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 254kg per day, 68546 kg per year and 342729 kg over five years.

Table 4.11 Carbon Released During Five Years of Rough Stone and Gravel Production

	Per day	**Per year**	**Per five years**
Fuel consumption of excavator	15	3936	19681
Fuel consumption of compressor	1.2	324	1620
Fuel consumption of tipper	79	21317	106583
Total fuel consumption in liters	95	25577	127884
Co_2 emission in kg	254	68546	342729

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 2501 trees will be planted within three months from the beginning of mining. These trees, when grown up would sequester carbon of about 33 kg of the total carbon.

Table 4.12 CO_2 Sequestration

CO_2 sequestration in kg	33	8811	44056
Remaining CO_2 not sequestered in kg	221	59735	298673
Trees required for environmental compensation	2489		
area required for environmental compensation in hectares	5		

4.7 SOCIO ECONOMIC ENVIRONMENT

Anticipated Impact

- Dust generation from mining activity can have negative impact on the health of the workers and people in the nearby area.
- Approach roads can be damaged by the movement of tippers
- Increase in Employment opportunities both direct and indirect thereby increasing economic status of people of the region.

Mitigation Measures

- Good maintenance practices will be adopted for all 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

6.1 PURPOSE

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 & 1 Buffer)	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 m BGL
5	Noise	2 Locations (1 Core & 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 six 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	-	Rs.1,50,000/-
8	Green belt	-	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 holding certificate of competency to manage a metalliferous mine granted by the DGMS, Dhanbad for proposed project.

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 three 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.
- As all the proposed projects and existing project are intended for producing dimension stone, the projects will use a small quantity of explosives to create fractures in the massive rock and will produce a negligible magnitude of ground vibrations on the surrounding area. Therefore, cumulative PPV was not calculated and added in this report.
- The Six proposed projects will allocate Rs. 30,00,000/- towards CER as recommended by SEAC.
- The Six proposed projects will directly provide jobs to 130 local people, in addition to indirect jobs.
- The Six proposed projects will plant about 4933 trees in and around the lease area.
- The Six proposed projects will add 195 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.

Table 7.1 Action Plan to Manage Plastic Waste

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 14 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 Kuppam Village. CSR budget is allocated as 2.5% of the profit.
- Rs. 5,00,000 will be allocated for CER.

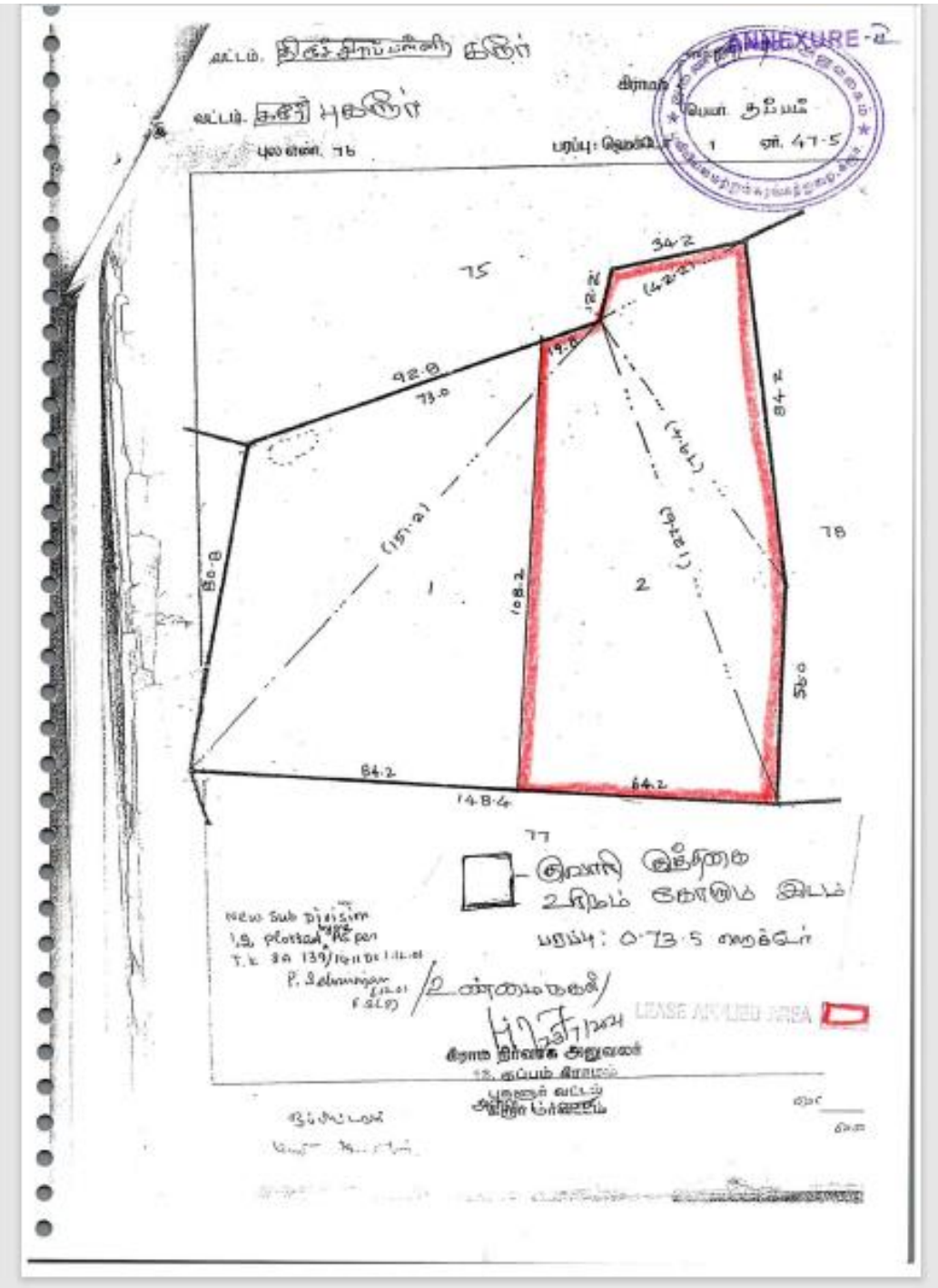
CHAPTER X

ENVIRONMENT MANAGEMENT PLAN

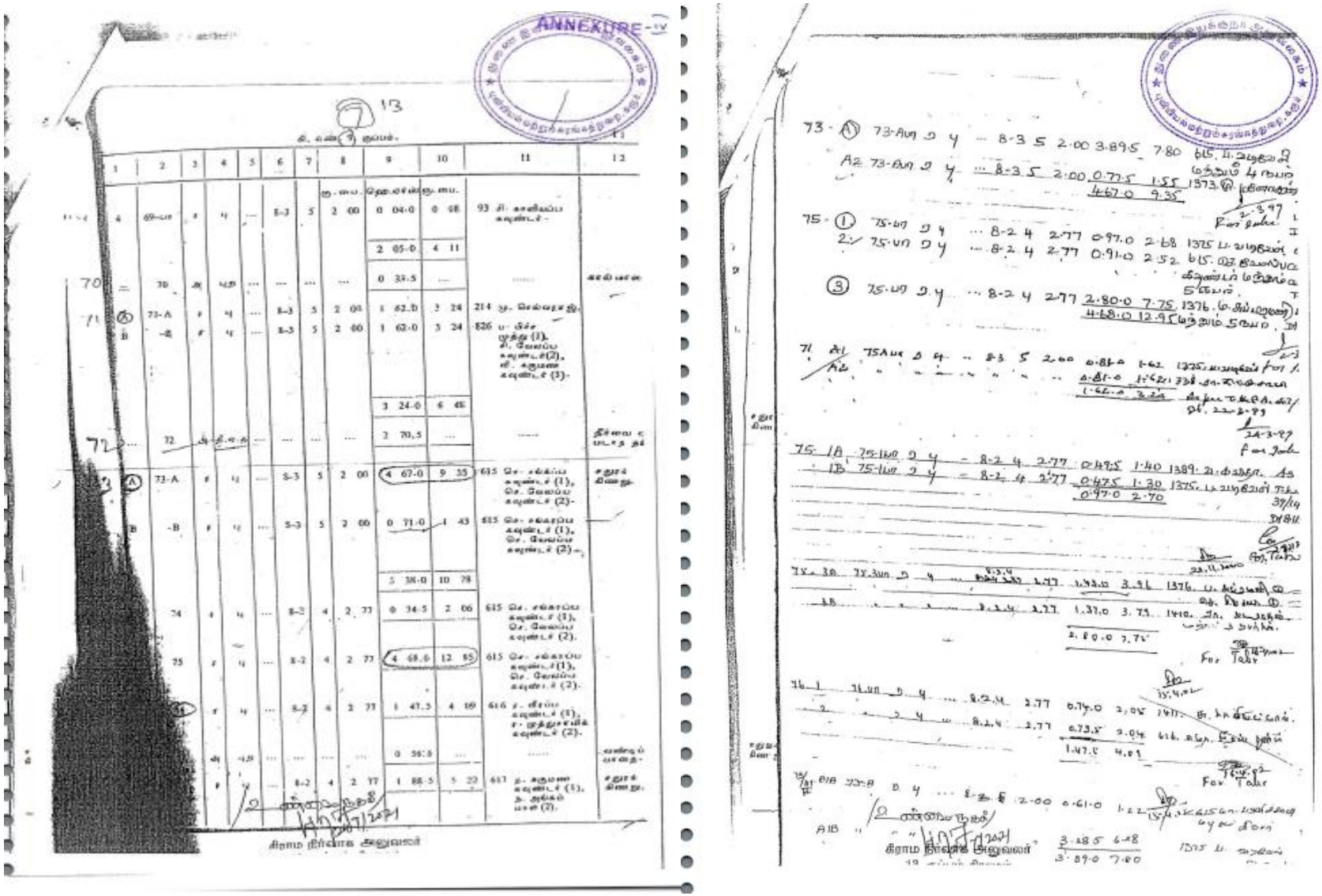
In order to implement the environmental protection measures, an amount of **Rs. 1549434** as capital cost and recurring cost as **Rs. 1104088** as recurring cost/annum is proposed considering present market price considering present market scenario for the proposed project. After the adjustment of 5% inflation per year, the overall EMP cost for 5 years will be **Rs. 76,75,207.**

LAND DOCUMENTS

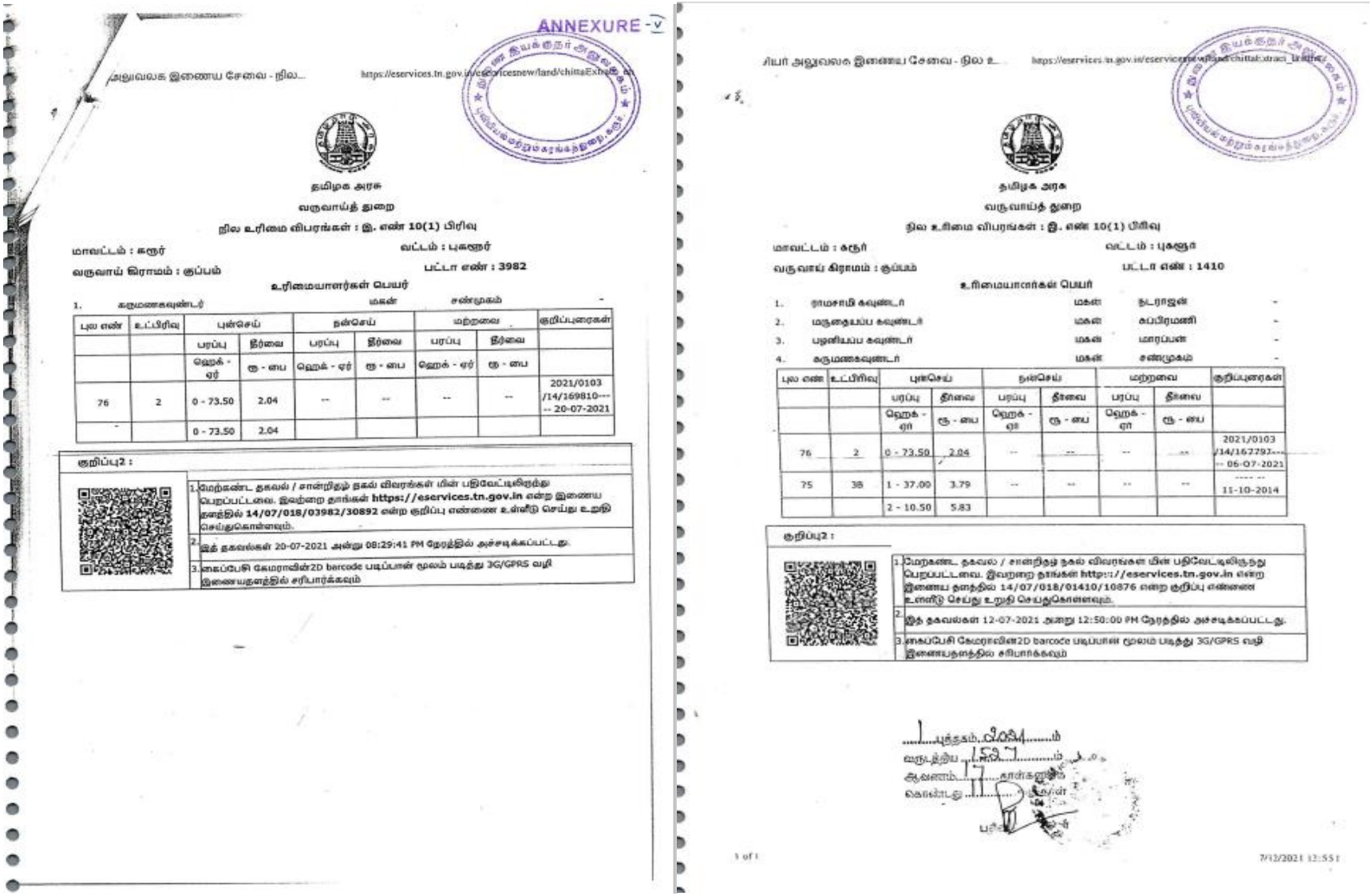
Some of the important land related documents are shown in below.



An EMP Sketch Showing Proposed Lease Area in Red Colour



A Register Document



ANNEXURE -V

அலுவலக இணைய சேவை - நில... https://eserviceservices.tn.gov.in/eservicesnew/land/chittaExtract_html.html

தமிழக அரசு

வருவாய்த் துறை

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

மாவட்டம் : கரூர் வட்டம் : புகளூர்

வருவாய் கிராமம் : குப்பம் பட்டா எண் : 3982

உரிமையாளர்கள் பெயர்

1. கருமணகவுண்டர் மகன் சண்முகம் -

புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக் - ஏ	ரூ - பை	ஹெக் - ஏ	ரூ - பை	ஹெக் - ஏ	ரூ - பை	
76	2	0 - 73.50	2.04	--	--	--	--	2021/0103 /14/169810--- -- 20-07-2021
-		0 - 73.50	2.04					

குறிப்பு2 :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் https://eservices.tn.gov.in என்ற இணைய தளத்தில் 14/07/018/03982/30892 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 20-07-2021 அன்று 08:29:41 PM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

சிபா அலுவலக இணைய சேவை - நில உ... https://eservices.tn.gov.in/eservicesnew/land/chittaExtract_html.html

தமிழக அரசு

வருவாய்த் துறை

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

மாவட்டம் : கரூர் வட்டம் : புகளூர்

வருவாய் கிராமம் : குப்பம் பட்டா எண் : 1410

உரிமையாளர்கள் பெயர்

1. ராமசாமி கவுண்டர் மகன் நடராஜன் -
2. மருதைப்ப கவுண்டர் மகன் சுப்பிரமணி -
3. பழனியப்ப கவுண்டர் மகன் மாரப்பன் -
4. கருமணகவுண்டர் மகன் சண்முகம் -

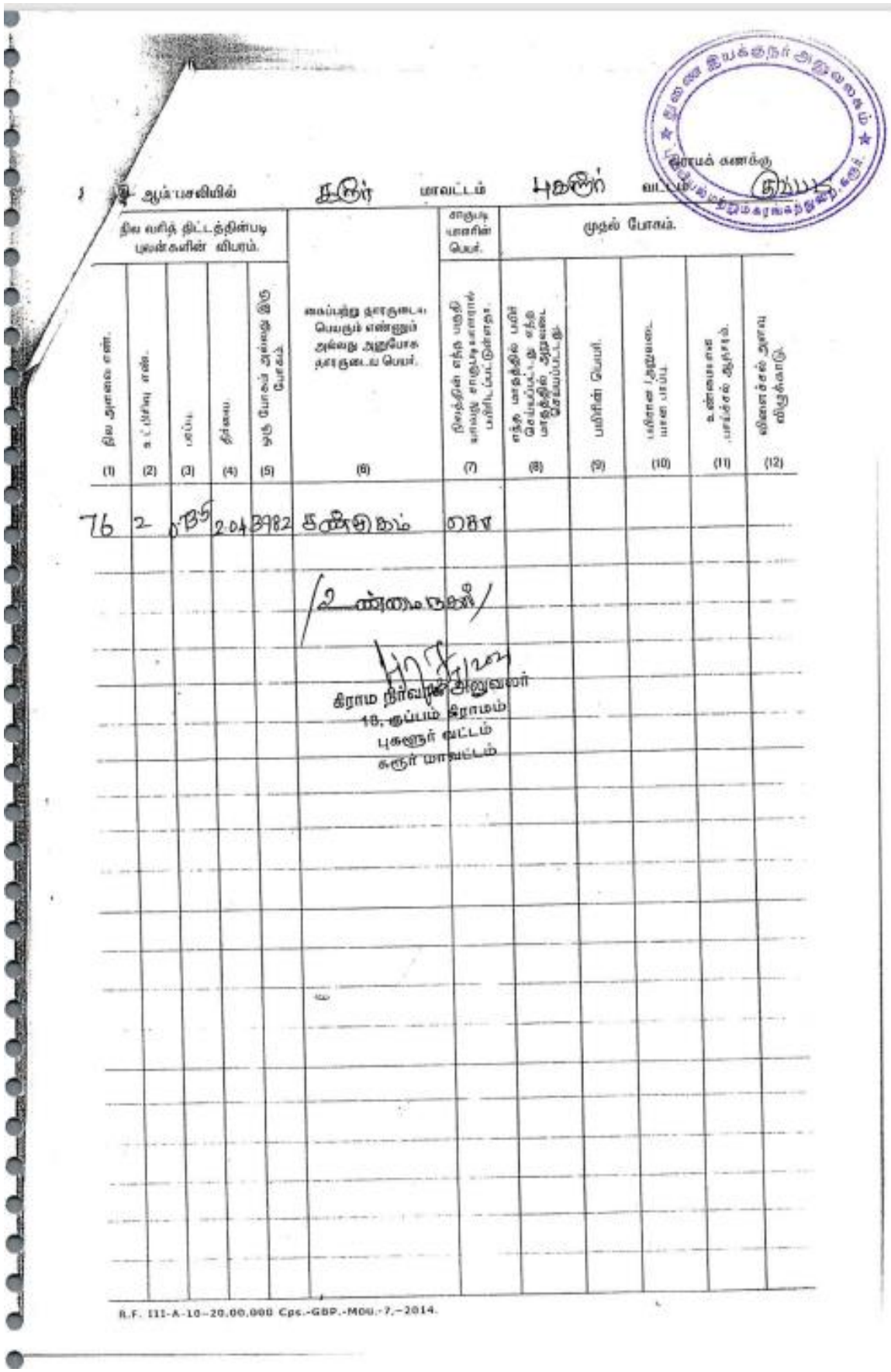
புல எண்	உட்பிரிவு	புன்செய்		நன்செய்		மற்றவை		குறிப்புரைகள்
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை	
		ஹெக் - ஏ	ரூ - பை	ஹெக் - ஏ	ரூ - பை	ஹெக் - ஏ	ரூ - பை	
76	2	0 - 73.50	2.04	--	--	--	--	2021/0103 /14/167293--- -- 06-07-2021
75	3B	1 - 37.00	3.79	--	--	--	--	---- -- 11-10-2014
		2 - 10.50	5.83					

குறிப்பு2 :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் http://eservices.tn.gov.in என்ற இணைய தளத்தில் 14/07/018/01410/10876 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 12-07-2021 அன்று 12:50:00 PM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

1 of 1 7/12/2021 12:55:1

Copy of Patta Chitta Documents



ஆம்பசமியில் திருச்சி மாவட்டம் புதுக்கோட்டை வட்டம் திருப்பூர்

நில வரித் திட்டத்தின்படி புலன்களின் விபரம்.					கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அநுபோக தாரருடைய பெயர்.	சாகுபடி பாசனின் பெயர்.	முதல் போகம்.				
நில அளவை எண்.	உட்பிரிவு எண்.	பரப்பு	தீர்வை	ஒரு போகம் அல்லது இரு போகம்		நிலத்தின் எந்த பகுதி வாய்ந்து சாகுபடியாளரால் பயிரிடப்பட்டுள்ளதோ.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது அல்லது செய்யப்பட்டது.	பயிரின் பெயர்.	பயிரை அழுவை பாசன பரப்பு	உண்மையாக பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விபரம்.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
76	2	0.35	2.04	3782	தனிநபர்	எதிர					

/உண்மை நகல்/

கிராம நிர்வாக அலுவலர்
18, குப்பம் கிராமம்
புகளூர் வட்டம்
கரூர் மாவட்டம்

R.F. III-A-10-20,00,000 Cps.-GBP.-Mou.-7.-2014.

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