

Nov 2022

Application Form (Draft EIA Report)

For

Proposed Rough stone Quarry – 2.40.0 Ha

at

**S.F.No. 232/2 (Part) of Mugalur Village, Shoolagiri Taluk,
Krishnagiri District, Tamilnadu State**

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

Category of the Project: B1 Cluster Mining

Baseline Period: May, June & July 2022

Environmental Consultant

& Laboratory details:

Ecotech Labs Pvt Ltd,



No 48, 2nd Main road,
South extension
Ram nagar, Pallikaranai,
Chennai -600100.

Proponent details:

M/s.R.V.Enterprises,

Partner-M.Ramamoorthy,

S/o. Muthappa,

No.1/16, Machinayakanapalli

Viilage,

Panchakshipuram Post,

Hosur Taluk,

Krishnagiri District - 622 003

Date:

From

M/s.R.V.Enterprises,
Partner M.Ramamoorthy,
S/o. Muthappa
No.1/16, Machiyakanpalli village,
Panchakshipuram post, Hosur Taluk,
Krishnagiri district– 635110

To

The District Environmental Engineer

Tamilnadu Pollution Control Board,
Plot No:140A, SIPCOT Industrial Complex,
Hosur – 635 126

Sir,

Sub: Request to conduct Public Hearing – Environmental Clearance for the M/s.R.V.Enterprises Rough Stone Quarry over a total extent of 2.40.0 Ha at S.F.No. 232/2 (Part) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State – Regarding.

Ref: Letter No. SEIAA-TN/F. No. 9253/ ToR-1202/2022 Dated: 14.07.2022

Please find enclosed herewith the application of Draft EIA Report along with necessary enclosures towards seeking environmental clearance for the M/s.R.V.Enterprises Rough Stone Quarry over a total extent of 2.40.0 Ha at S.F.No. 232/2 (Part) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State. In this regard, we had obtained the Terms of Reference from State Environmental Impact Assessment Authority (SEIAA) Tamil Nadu; vide reference mentioned above for conducting EIA studies. We wish to inform that the draft EIA report complying with all the conditions mentioned in the TOR has been prepared and the copies of the same are enclosed with this letter. With reference to the above, we kindly request the TNPCB to make the necessary arrangements for **conducting the public hearing for the Rough Stone Quarry**. With the above, we request the TNPCB to accept and process our application for conducting the Public Hearing at the earliest.

Thanking you

Yours Sincerely

Authorized Signatory

Enclosures: Draft EIA report

M/s. R.V Enterprises,
Partner M.Ramamoorthy,
S/O. Muthappa,
No.1/16, Machiyakanpalli village,
Panchakshipuram post, Hosur Taluk,
Krishnagiri district– 635110.

UNDERTAKING

We, M/s. R.V. Enterprises, Partner M.Ramamoorthy undertaking that the Draft Environmental Impact Assessment (EIA) Report for Rough Stone Quarry over an extent of 2.40.0 Ha at S.F.No. 232/2 (Part) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State under project category B1 and Schedule S.No.1(a)

TOR issued by the State Expert Appraisal Committee, TN vide Letter No. SEIAA-TN/F. No. 9253/ ToR-1202/2022 Dated: 14.07.2022.

We, hereby assure that all the information and data provided in the EIA report is accurate, true and correct and owns responsibility for the same.

Place: Krishnagiri

Date:

Yours faithfully

M/s.R.V.Enterprises,
Partner M.Ramamoorthy

Plot No.48A, 2nd Main Road,
Ram Nagar, South Extension,
Pallikarantal, Chennai - 600 100.
GST NO. 33AADCE6103A22H
PAN NO: AADCE6103A



Eco Tech Labs Pvt Ltd

Cell No: 98400 87542
Email : info@ecotechlabs.in
Website : www.ecotechlabs.in
CIN : U74900TN2014PTC094895

UNDERTAKING

I, Dr. A. Dhamodharan, Managing Director confirms that this Draft EIA Report of Rough Stone Quarry over an extent of 2.40.0 Ha at S.F.No. 232/2 (Part) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State has been prepared at M/s. Ecotech Labs Pvt. Ltd., Chennai.

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

Signature:

Name: Dr. A. Dhamodharan

Designation: Managing Director

Name of the EIA Consultant Organization: M/s. Ecotech Labs Pvt Ltd., Chennai.

NABET Certificate No: NABET/EIA/2124/SA 0147

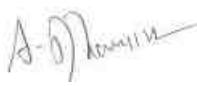
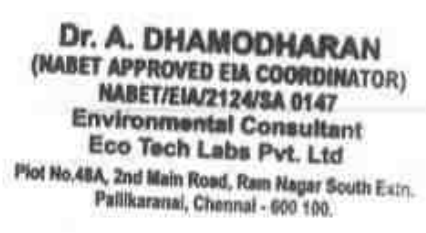
Date:

Place: Chennai

Declaration of Experts contributing to the EIA



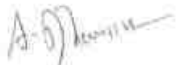
Declaration by experts contributing to the EIA report for Rough Stone Quarry (minor mineral) mining project of M/s. R.V Enterprises, Partner M.Ramamoorthy Rough Stone Quarry over a total extent of 2.40.0 Ha at S.F.No. 232/2 (Part) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State.





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

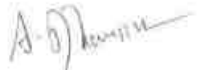

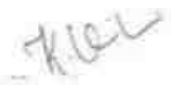

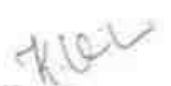
Project	Rough Stone Quarry - 2.40.0 Ha
Type & Category	1 (a) Mining of Minerals
Project Proponent	M/s. R.V. Enterprises, Partner M.Ramamoorthy
Environment Consultant with their Accreditation Status	M/s. Eco Tech Labs Pvt. Ltd., QCI Accredited
NABET Certificate No.	NABET/ EIA/2124/ SA 0147
EIA Coordinator Name Signature	Dr. A. Dhamodharan (Mining of Minerals)  
Period of Involvement	June to August 2022
Contact Information	M/s. Eco Tech Labs Pvt. Ltd. No. 48, 2nd Main Road, Ram Nagar South Extension Pallikaranai, Chennai - 600 100 Mobile: +91 9789906200 E-mail: dhamo@ecotechlabs.in

Functional Area Experts

The basic fact division that environment and laboratory are accredited by NABL and Ministry of Environment and Forests, India and by other international bodies, stand testimony to its emphasis.

S. No.	Functional areas	Name of the experts	Involvement (period and task)	Signature and date
1	AP	Mrs. K. Vijayalakshmi	<p>1. Selection of Baseline Monitoring stations based on the wind direction</p> <p>2. Interpretation of Baseline data by comparing it with standards prescribed by CPCB against the type of area</p> <p>3. Identification of sources of air pollution and suggesting mitigation measures to minimize impact</p> <p>Period: March 2022 – Till now</p>	
2	WP	Dr. A. Dhamodharan	<p>1. Selection of baseline Monitoring Locations for Ground water analysis and also identifying nearest surface water to be studied.</p> <p>2. Interpretation of baseline data collected</p> <p>3. Identification of impacts based on the baseline study conducted and also to the ground water and nearby surface water due to the proposed project</p> <p>4. Preparation of suitable and appropriate mitigation plan.</p> <p>Period: March 2022 – Till now</p>	
3	SHW	Dr. A. Dhamodharan	<p>1. Identification of nature of solid waste generated</p> <p>2. Categorization of the generated waste and estimating the quantity of waste to be generated based on the per capita basis. Identification of impacts of SHW on Environment</p> <p>3. Suggesting suitable mitigation measures by recommending appropriate disposal method for each category of waste generated</p> <p>4. Top soil and refuse management</p> <p>Period: March 2022 – Till now</p>	

4	SE	Mr. S. Pandian	<p>1. Primary data collection through the census questionnaire</p> <p>2. Obtaining Secondary data from authenticated sources and incorporating the same in EIA report.</p> <p>3. Impact assessment & proposing suitable mitigation plan</p> <p>4. CSR budget allocation by discussing with the local body and allotting the same for need based activity.</p> <p>Period: March 2022 – Till now</p> <p>*INVOLVES PUBLIC HEARING</p>	
5	EB	Dr. A. Dhamodharan	<p>1. Primary data collection through field survey and sheet observation for ecology and biodiversity</p> <p>2. Secondary Collection through various authenticated sources</p> <p>3. Prediction of anticipated impacts and suggesting appropriate mitigation measures.</p> <p>Period: March 2022 – Till now</p>	
6	HG	Dr. T. P. Natesan	<p>1. Study of existing surface drainage arrangements in the core and buffer zone, impact due to mining on these drainage courses and suggestion of mitigative measures</p> <p>2. Determination of groundwater use pattern, development of rainwater harvesting program. Storm water management through garland drainage system.</p> <p>Period: March 2022 – Till now</p>	
7	GEO	Dr. T. P. Natesan	<p>1. Field survey for assessing regional and local geology, aquifer distribution, Determination of groundwater use pattern, development of rainwater harvesting program.</p> <p>Period: March 2022 – Till now</p>	

8	SC	Dr. A. Dhamodharan	<p>1. Interpretation of baseline report</p> <p>2. Identification of possible impacts on soil, prediction of soil conservation and suggesting suitable mitigation measures.</p> <p>Period: March 2022 – Till now</p>	
9	AQ	Mrs. K. Vijayalakshmi	<p>1. Collection of Meteorological data for the baseline study period</p> <p>2. Plotting wind rose plot and thereby selecting the monitoring locations based on the wind pattern</p> <p>3. Estimation of sources of air emissions and air quality modeling is done</p> <p>4. Interpretation of the results obtained</p> <p>5. Identification of the impacts and suggesting suitable mitigation measures.</p> <p>Period: March 2022 – Till now</p>	
10	NV	Mrs. K. Vijayalakshmi	<p>1. Selection of monitoring locations</p> <p>2. Interpretation of baseline data</p> <p>3. Prediction of impacts due to noise pollution and suggestion of appropriate mitigation measures</p> <p>Period: May 2022 – Till now</p>	
11	LU	Dr. T. P. Natesan	<p>1. Collection of Remote sensing satellite data to study the land use pattern.</p> <p>2. Primary field survey and limited field verification for land categorization in the study area</p> <p>3. Preparation of Land use map using Satellite data for 10km radius around the project site.</p> <p>Period: March 2022 – Till now</p>	
12	RH	Mrs. K. Vijayalakshmi	<p>1. Identification of the risk</p> <p>2. Interpreting consequence contours</p> <p>3. Suggesting risk mitigation measures</p> <p>Period: March 2022 – Till now</p>	

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

I, Dr. A. Dhamodharan, hereby confirm that the above-mentioned experts prepared the EIA report of mining project at S.F.No. 191/5 and 191/6 of Perumanadu Village, illuppur Taluk, Pudukkottai District, Tamilnadu State

I also confirm that the consultant organization shall be fully accountable for any misleading information mentioned in this statement.

Signature:



Name: Dr.A.Dhamodharan

Designation: Managing Director

Name of the EIA consultant organization: M/s. Eco Tech Labs Private Limited

NABET Certificate No: NABET/ EIA/2124/ SA 0147

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoolagiri Taluk, Krishnagiri District	

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EXECUTIVE SUMMARY

1. Project Background:

The Proposed project total extent area is 2.40.0 Ha, Government Poramboke land in Mugalur Village of shoolagiri Taluk, krishnagiri District. The category of project is B1, It is a Rough stone quarry in Mugalur village. The area is situated on Plain terrain sloping towards Northern covered with Rough Stone which does not sustain any type of vegetation.

The quarry operation is proposed to carry out with conventional open cast mechanized mining with 7.0-meter vertical bench with a bench width of 5.0 meter. The Quarry operation involves shallow jack hammer drilling, slurry blasting, loading and transportation.

The quarry operation is proposed up to depth for 36m. The Total Geological reserve is about 1089179m³ of Rough Stone. The Mineable Reserves of Rough stone is 503487m³. The year wise production/recoverable resources of rough stone for 5 years are 427630m³.

Mining Plan was approved by The Deputy Director, Geology & Mining, Krishnagiri vide Rc.No.G.M.220/2019/Mines dated :30.07.2019. The project area does not fall in Hill Area Conservation Authority region. There is no interstate boundary, CRZ zone, Western Ghats, notified Bird sanctuaries, wildlife sanctuaries as per Wildlife protection Act 1972, within the radius of 15Km.

2. Nature & Size of the Project

The Rough Stone Quarry over an extent of 2.40.0 Hectares land is located Perumanadu Village of Illuppur Taluk, Pudukkottai District.

Mineral intends to quarry	: Rough stone
District	: Krishnagiri
Taluk	: Shoolagiri
Village	: Mugalur
S. F. Nos.	: 232/2 (Part)
Extent	: 2.40.0 Hectares

Table 1: Brief Description of the Project

S. No	Particulars	Details
1	Latitude	12°37'25.9249"N to 12°37'23.5847"N
2	Longitude	77°48'56.4872"E to 77°48'49.2256"E

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3	Site Elevation above MSL	873m from MSL
4	Topography	Plain terrain
5	Land use of the site	Government Poramboke land
6	Extent of lease area	2.40.0 Ha
7	Nearest highway	SH 17A – Hosur to Denkanikottai – 3.5 km, W
8	Nearest railway station	Hosur Railway Station – 10.40 km, NE
9	Nearest airport	Hosur Airport – 7.0 km, NW Kempegowda International Airport – 64.69km, NW
10	Nearest town / city	Town - Kelamangalam - 4.13 Km -SE City - Hosur - 12.7 Km -N District – Krishnagiri - 46.12 Km - SE E
11	Rivers / Canal	<ul style="list-style-type: none"> • Nil within 15 km radius
12	Lake	<ul style="list-style-type: none"> • Nanjappan Kodigai Eri – 4.87 km SE • Vasa Lake – 4.31 km NW • Vannama lake – 15.21 km SW • Rama Naicken lake – 11.62 km NE • Tahally lake – 11.09 km SW
13	Hills / valleys	Nil in 15 km radius
14	Archaeologically places	Nil in 15 km radius
15	National parks / Wildlife Sanctuaries	Nil in 15 Km radius
16	Reserved / Protected Forests	<ul style="list-style-type: none"> • Udedurgam R.F – 11.94 Km SE • Denkanikottai R.F – 11.04 km SE • Sanamavu Forest – 6.68 km NE • Cauvery North Wildlife Sanctuary – 22.11 Km - SW
17	Seismicity	Proposed Lease area come under Seismic zone-II (low risk area)
18	Defense Installations	Nil in 15 Km radius

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3. Need for the Project

- ❖ The mining activities as proposed are the backbone of all construction and infrastructure projects as the raw material for construction is available only from such mining. The Rough stone and Gravel extracted will be transported to be Stone crusher of district Pudukkottai.
- ❖ The raw Rough stone as well as the crushed material of stone is in high demand in real estate, construction projects as well as in building construction projects.
- ❖ Rough stone is quarried for producing crusher aggregates to the nearby building contractors, road contractors and nearby villagers.
- ❖ After quarrying the entire reserves mined out, the area will be used as water reservoir to have an artificial recharge to the nearby wells.
- ❖ No damage to the land is caused, no reclamation or back filling is required.

Figure 1: Location Map of the Project Site

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Figure 2: Google Image of the Project Site

4. Charnockite

Charnockite and granitic gneisses are extensively quarried as rough stone which is used as aggregates for construction of building, laying of roads and for preparation of value added products like hollow blocks, pillar stones, M-sand etc. Charnockite occurs as massive bodies, greyish colour, medium to coarse grained, composed quartz, feldspar and orthopyroxene. At places, metamorphic gneissic banding (alternate dark and black colour) in charnockite is noticed. Top portion, it gives gneissic appearance but 1-5m depth below it is typical charnockite of grey colour.

5. Geological Resources

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The Geological reserve of Rough Stone and Topsoil is calculated upto a depth of 50m (1.0m Topsoil + 49m Rough Stone). Total Geological reserve estimated as 1146502 Cu.m by area cross sectional method.

Table 2. Geological resources

GEOLOGICAL RESERVES								
Section	Bench	L (m)	W (m)	D (m)	Volume In M³	Geological Rough stone Reserves in m³ @ 95%	Mine waste in m³ @ 5%	Top Soil in m³
XY-AB	I	95	102	1				9690
	II	95	102	7	67830	64439	3391	
	III	95	102	7	67830	64439	3391	
	IV	95	102	7	67830	64439	3391	
	V	95	102	7	67830	64439	3391	
	VI	95	102	7	67830	64439	3391	
	VII	95	102	7	67830	64439	3391	
	VIII	95	102	7	67830	64439	3391	
TOTAL					474810	451073	23737	9690
XY-CD	I	92	149	1				13708
	II	92	149	7	95956	91158	4798	
	III	92	149	7	95956	91158	4798	
	IV	92	149	7	95956	91158	4798	
	V	92	149	7	95956	91158	4798	
	VI	92	149	7	95956	91158	4798	
	VII	92	149	7	95956	91158	4798	
	VIII	92	149	7	95956	91158	4798	
TOTAL					671692	638106	33586	13708
GRAND TOTAL					1146502	1089179	57323	23398

Table 3. Year wise Production Plan

<i>Project</i>	<i>Rough stone Quarry- 2.40.0 Ha</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>M/s.R.V.Enterprises</i>	
<i>Project Location</i>	<i>Mugalur Village, Shoolagiri Taluk, Krishnagiri District</i>	

YEARWISE DEVELOPMENT AND PRODCUTION RESERVES									
YEAR	Section	Bench	L (m)	W (m)	D (m)	Volume In m³	RESERVES in m³ @ 95%	Mine waste in m³ @ 5%	Top Soil in m³
I- YEAR	XY - AB	I	88	85	1				7480
		II	87	83	7	50547	48020	2527	
	XY - CD	I	82	132	1				10824
		II	81	130	7	73710	70025	3685	
	TOTAL						124257	118045	6212	18304
II- YEAR	XY - AB	III	82	73	7	41902	39807	2095	
	XY - CD	III	76	120	7	63840	60648	3192	
	TOTAL						105742	100455	5287
III- YEAR	XY - AB	IV	77	63	7	33957	32259	1698	
	XY - CD	IV	71	110	7	54670	51937	2733	
	TOTAL						88627	84196	4431
IV- YEAR	XY - AB	V	72	53	7	26712	25376	1336	
	XY - CD	V	66	100	7	46200	43890	2310	
	TOTAL						72912	69266	3646
V- YEAR	XY - AB	VI	67	43	7	20167	19159	1008	
	XY - CD	VI	61	90	7	38430	36509	1921	
	TOTAL						89957	55668	4497
GRAND TOTAL						481495	427630	24073	18304

6.Mining

Opencast mining

The quarry operation is proposed to carry out with conventional open cast mechanized mining with 7.0-meter vertical bench with a bench width of 5.0 meter. The Quarry operation involves shallow jack hammer drilling, blasting, loading and transportation.

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Process Description

- The reserves and resource are arrived based upon the Geological investigation
- Removal of Topsoil by Excavators and directly Loaded into Tippers.
- Removal of Rough Stone by Excavators by Drilling and Blasting.
- Shallow Drilling With Jackhammer of 32mm Dia.
- Minimum Blasting With Class 2 Explosives.
- Loading of Rough Stone By Excavators Into Tippers.

7. Water Requirement

Total water requirement for the mining project is 2.0 KLD. Domestic water will be sourced from nearby Kottur Village and other water will be source from nearby road tankers supply.

Table 4. Water Balance

Purpose	Quantity	Source
Drinking Water	1.0KLD	Packaged Drinking water vendors available in Kottur village which is about 1.0 km NE from the project site.
Green belt	0.5KLD	Other domestic activities through road tankers supply
Dust suppression	0.5KLD	From road tankers supply
Total	2.0 KLD	

8. Manpower

Total manpower required for the project is approximately 15 persons.

Workers will be from nearby villages.

Table 5. Man Power

	Skilled	Operator	2
		Mechanic	1
		Mines Manager/Mate	1

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	Semi skilled	Driver	2
	Unskilled	Musdoor/Labours	4
		Office boy	1
		Cleaners	2
	Management & Supervisory staff		2
Total			15 Nos

No child less than 18 years will be entertained during quarrying operations.

9. Solid Waste Management

Table. 6 Solid Waste Management

S. No	Type	Quantity	Disposal Method
1	Organic	2.7 kg/day	Municipal bin including food waste
2	Inorganic	4.05 kg/day	TNPCB authorized recyclers

As per CPCB guidelines: MSW per capita/day =0.45 kg/day

Table. 7 500m Radius Cluster Mine

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S. No	Name of the lessee	Village & Taluk	Mineral	S.F No	Extent (Ha)	G.O. No. & Date	Lease period
I. Existing Quarries							
1	Thiru.P.Nagaraja reddy, S/o.Pappi reddy, No.2/32, Balageri Village, Mudhuganapalli Post, Hosur Taluk, Krishnagiri Dist	Hosapuram Village & Denkanikottai Taluk	Rough stone	457/(P-1)	2.00.0	Roc. 111/2016/ Mines dated 08.08.2016	17.08.2016 to 16.08.2026
2	Thiru.P.Venkata Reddy, S/o. Pedha Obul Reddy, No.3/213 Periya Kodipalli Village, Kempatt, Muthur Post, Denkanikottai Taluk, Krishnagiri Dist	Hosapuram Village & Denkanikottai Taluk	Rough stone	457/(P-2)	3.70.0	Roc. 112/2016/ Mines dated 26.02.2020	26.02.2020 to 25.02.2030
3	Thiru.C.Venkatadri, Pothachandiram Village, Kundumaranapalli Post, Denkanikottai Taluk, Krishnagiri Dist	Mugalur Village & Denkanikottai Taluk	Rough stone	257/1A, 257/2A, 257/2B(P) 272/1A(P))	0.39.8 0.04.4 5 0.97.0 0.90.5 2.31.7 5	Roc.402/2017/Mines dated: 04.06.2018	13.06.2018 to 12.06.2023
II. Abandoned / Old Quarries							
S. No.	Name of the lessee	Village & Taluk	S.F No	Extent (Ha)	G.O. No. & Date	Lease period	
1	Thiru.M.R.Sivalingappa, S/o Ramaiah Perandapalli village and Post, Hosur Taluk, Krishnagiri Dist	Mugalur Village & Hosur Taluk	270 (P)	5.00.0	Roc.110/2008/ Mines-2 dated	04.09.2008 to 03.09.2018	
2	Thiru.Annaiya Reddy S/o Venkata reddy No.40, Shakambri Layout, Anekal Road, Attibele, Anekal Taluk, Krishnagiri Dist	Mugalur Village & Hosur Taluk	231/4e1	0.81.0	Roc.175/2010/ Mines-2 dated 25.12.2010	31.01.2011 to 30.01.2016	
III. Proposed Quarries							

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1	M/s.R.V.Enterprises, Partner.M.Ramamoorthy	Mugalur Village & Shoolagiri Taluk	Rough Stone	232/2 (Part)	2.40.0	Roc. No. 220/ 2019/Mine s Dt. 13.06.2019	Precise area given Instant Proposal
Total					10.41.75		

The Total extent (Cluster) of the Existing / Lease expired / Proposed quarries are **10.41.75 Ha**

10. Land Requirement

The total extent area of the project is 2.40.0 Ha, Government Poramboke land in Mugalur Village of Shoolagiri Taluk, Krishnagiri District.

Table 8 Land Use Breakup

Sl. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Area under quarrying	Nil	1.76.0
2.	Infrastructure	Nil	0.01.0
3.	Roads	0.01.0	0.01.0
4.	Green Belt	Nil	0.39.0
5.	Unutilized	2.39.0	0.23.0
	Total	2.40.0 Ha	2.40.0 Ha

11. Human Settlement

There are no habitations within 500m radius. There are villages located in this area within 5km radius of the quarry.

Table 9 Habitation

Direction	Village	Distance in Kms	Population
-----------	---------	-----------------	------------

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Northeast	Devaganapalli	2.5 Kms	320
Northwest	Koottur	1.2 Kms	240
Southeast	Nagappan Agraharam	2.2 kms	210
Southwest	Kallu Barundur	2.0 Kms	180

12. Power

Requirement

The Rough Stone Quarry project does not require huge water and electricity for the project.

16 Litre diesel per hour for excavator for mining and loading for Rough stone needed.

10 Litre diesel per hour for excavating for mining and loading for gravel needed.

13. Scope of the Baseline Study

This chapter contains information on existing environmental scenario on the following parameters.

1. Micro – Meteorology
2. Water Environment
3. Air Environment
4. Noise Environment
5. Soil / Land Environment
6. Biological Environment
7. Socio-economic Environment

13.1 Micro – Meteorology

Meteorology plays a vital role in affecting the dispersion of pollutants, once discharged into the atmosphere. Since meteorological factors show wide fluctuations with time, meaningful interpretation can be drawn only from long-term reliable data.

- i) Average Minimum Temperature : 24 to 28 °C
- ii) Average Maximum Temperature : 31 to 36 °C
- iii) Average Annual Rainfall of the area : 821 mm

13.2 Air Environment

Ambient air monitoring was carried out on monthly basis in the surrounding areas of the Mine Lease area to assess the ambient air quality at the source. To know the ambient air quality at a larger distance

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i.e., in the study area of 10 km. radius, air quality survey has been conducted at 5 locations. Major air pollutants like Particulate Matter (PM₁₀), Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂) were monitored and the results are summarized below.

The baseline levels of PM₁₀ (64-40 µg/m³), PM_{2.5} (17-31 µg/m³), SO₂(5-14 µg/m³), NO_x (30-9µg/m³), all the parameters are well within the standards prescribed by National Ambient Air Quality during the study period from May to July 2022.

13.3 Noise Environment

Ambient noise levels were measured at 5 locations around the proposed project site. The maximum Day noise and Night noise were found to be 61 dB(A) and 48 dB(A) respectively in Veera Anjanayer temple, Settupalli. The minimum Day Noise and Night noise were 43 dB(A) and 31 dB(A) respectively which was observed in Project site.

13.4 Water Environment

- The average pH ranges from 7.12 – 8.35.
- TDS value varied from 212 mg/l to 709 mg/l
- Hardness varied from 119 to 404 mg/l
- Chloride varied from 33.3 to 93.9 mg/l

13.5 Land Environment

The analysis results shows that the majority of soil in the project and surrounding area is slightly alkaline in nature and pH value ranges from 5.25 to 8.60 with organic matter 1.6 to 3.2 %. The concentration of Nitrogen, Phosphorus & Potassium has been found to be in good amount in the soil samples.

13.6 Biological Environment

The proposed Mining lease area is mostly dry barren ground with small shrubs and bushes. No specific endangered flora & fauna exist within the mining lease area.

14. Rehabilitation/ Resettlement

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The overall land of the mine is government poramboke land. There is no displacement of the population within the project area and adjacent nearby area. Social development of nearby villages will be considered in this project.

- The mine area does not cover any habitation. Hence the mining activity does not involve any displacement of human settlement.

15. Greenbelt Development

1. The development of greenbelt in the peripheral buffer zone of the mine area.
2. Green belt has been recommended as one of the major components of Environmental Management Plan, which will improve ecology, environment and quality of the surrounding area.
3. Local trees like Neem, Pungam, Naval etc. will be planted along the lease boundary and avenues as well as over non-active dumps at a rate of 250 trees per annum with interval 5m.
4. The rate of survival expected to be 70% in this area

Table.10 Plantation/ Afforestation Program

Name of species proposed	Survival	No of species
Neem, Pungam, Poovarasu, Naval, Mantharai, Arasa Maram, Magizham, Vilvam, vaagai, Marudha maram, Thandri, Poovarasu, Thethankottai maram, Manjadi, Usil, Aathi, Panai, Uzha, Illuppai, Eachai, Vanni Maram	70%	1250
Total		1250

16. Anticipated Environmental Impacts

16.1 Air Environment and Mitigation Measures

1. Water sprinkling will be done on the roads & unpaved roads.
2. Proper mitigation measures like water sprinkling will be adopted to control dust emissions.
3. Plantation will be carried out on approach roads, solid waste site & nearby mine premises.
4. To control the emissions regular preventive maintenance of equipment will be carried out.

16.2 Noise Environment and Mitigation Measures

1. Periodical monitoring of ambient noise will be done as per CPCB guidelines.

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2. No other equipment except the transportation vehicles and excavator for loading will be allowed.
3. Noise generated by this equipment shall be intermittent and does not cause much adverse impact

17. Responsibilities for Environmental Management Cell (EMC)

The responsibilities of the EMC include the following:

- i. Environmental Monitoring of the surrounding area
- ii. Developing the green belt/Plantation
- iii. Ensuring minimal use of water
- iv. Proper implementation of pollution control measures

18. Environmental Monitoring Program

A monitoring schedule with respect to Ambient Air Quality, Water & Wastewater Quality, Noise Quality as per Tamil Nadu State Pollution Control Board (TNPCB), shall be maintained.

19. Project Cost

The total project cost is **Rs 53,45,000/-** for deployment of machinery and creation of infrastructural facilities like approach road, mine office / Workers Shed, First Aid Room etc., including electrifications and water supply

Table .11 Project Cost details

S. No.	Description	Cost
1	Fixed Asset Cost	1,11,20,000/-
2	Operational Cost	30,00,000/-
3	EMP Cost	3,40,000/-
	Total	1,44,60,000/-

Total project cost: 1,44,60,000/- (One crore forty four lakhs and sixty thousands only)

20. Corporate Environmental Responsibility

The Corporate Environment Responsibility (CER) fund will be provided to the below activity.

Table 12 CER Cost

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S.No.	CER Activity	CER value (Rs)
1.	1. Government Higher Secondary School, Masinayakkanapalli – 3.05 km, SW Provision of <ul style="list-style-type: none"> ➤ CCTV Camera facility, ➤ Xerox machine, ➤ Environmental books for library (in Tamil language), ➤ Greenbelt facilities and ➤ Basic amenities such as safe drinking water, Hygienic Toilets facilities, furniture. 	5,00,000
Total		5,00,000

21. Benefits of the Project

- There is positive impact on socioeconomics of people living in the villages. Mining operations in the subject area has positive impact by providing direct and indirect jobs opportunities
- The project is environmentally compatible, financially viable and would be in the interest of construction industry thereby indirectly benefiting the masses.
- Quarrying in this area is not going to have any negative impact on the social or cultural life of the villagers in the near vicinity.

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1. Introduction

1.1. Preamble

Environment Impact Assessment (EIA) is a process used to identify the environmental, social & economic impacts of a project prior to decision making. It is a decision-making tool, which guides the project proponent in taking appropriate decisions for proposed projects. It aims to predict environmental impacts at an early stage of project planning and design, find ways and means to reduce adverse impacts, shape projects to suit the local environment and present the prediction options to the proponent. By using EIA, both environmental & economic benefits can be achieved. By considering environmental effects - prediction & mitigation, early benefits in project planning, protection of the environment, optimum utilization of resources, thus saving overall time & cost of the project. EIA also lessens conflicts by promoting community participation, informs project proponent, and helps to lay the base for environmentally sound projects.

The Ministry of Environment & Forests, Govt. of India, made environmental clearance (EC) for certain development projects mandatory through its notification of 27/01/1994 under the Environment Protection Act, 1986 and subsequently the MoEF came out with Environment Impact Notification, S.O.1533(E), and dt.14/09/2006. It has been made mandatory to obtain environmental clearance for different kinds of developmental projects (Schedule-1 of notification). The proposed project falls under item 1(a) of the EIA notification, 2006.

1.2. General Information on Mining of Minerals

Krishnagiri District is covered with wide range of metamorphic rocks of peninsular gneissic complex. These rock formations occur as massive hillocks all over the district in government lands and patta lands, and extensively weathered formations are overlined by soil / alluvium deposits with an average thickness of 1 to 5mts. Rough stone deposits suitable for the production of Jelly, cut stones and Pillar Stones are available throughout the Krishnagiri District. Rough stones are widely used in this district as building stones, boulders, cut stones and for the production of Jelly, M.Sand, Crusher Dust. The rock products which are produced not only used in the Krishnagiri District alone but also

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transported to the neighboring districts. These products enter into the market in different parts of the country.

1.3. Environmental Clearance

Notification dated 14th September 2006, vide S.O.1599(E), any project or activity specified in Category B. As per the Gazette Notification, dated 14th September 2006.

The proposed project is categorized under Category “B1” 1(a) (Cluster) - {Mining of Minerals} as the 500m radius area is more than 5 Ha including the mine lease area. Hence, the project will be considered at SEAC, Tamil Nadu.

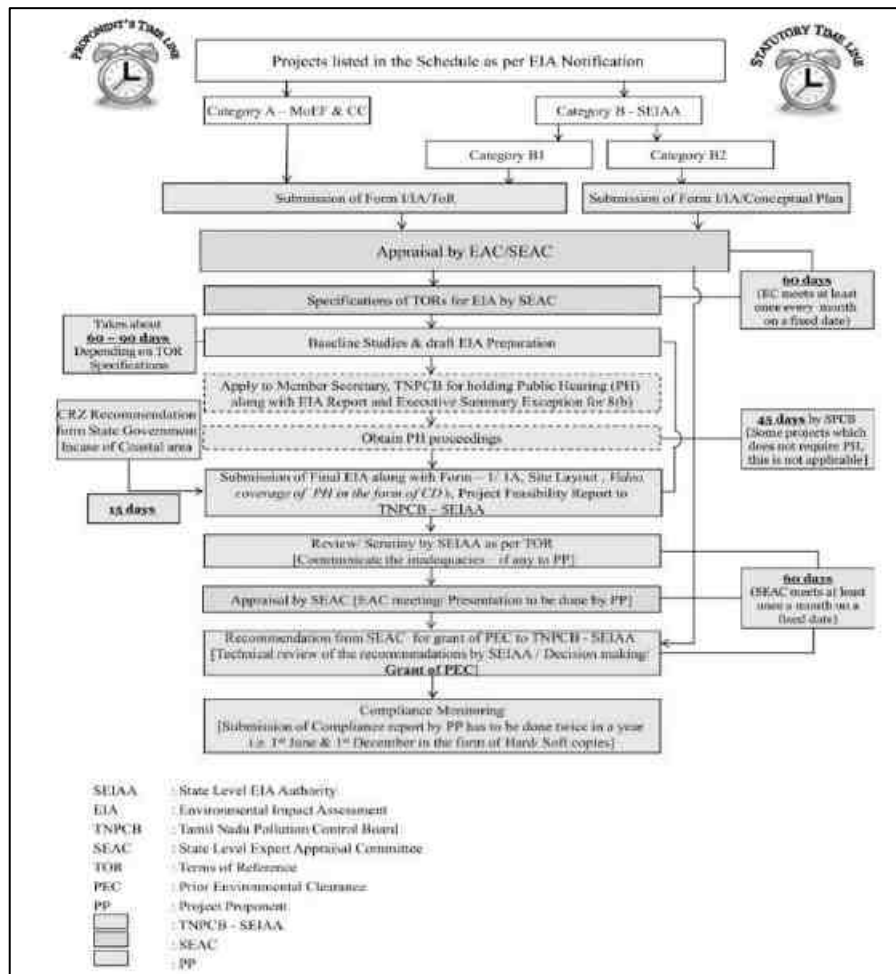


Figure 1.1 EIA – Process flow chart

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1.4. Terms of Reference (ToR)

The terms of Reference have been issued by SEAC TN vide Letter No. SEIAA-TN/F. No. 9253/ToR-1202/2022 Dated: 14.07.2022. 38 additional ToR points were recommended by SEAC TN in addition to the Standard ToR Points. The replies for the same were addressed in this report.

1.5. Post Environmental Clearance Monitoring

1.5.1. Methodology adopted

Post project monitoring will be carried out as per conditions stipulated in environmental clearance letter issued by SEIAA, consent issued by SPCB as well as according to CPCB guidelines. The lease area is considered as core zone and the area lying within 10 km radius from the lease boundary is considered as buffer zone, where some impacts may be observed on physical and biological environment. In the buffer zone slight impact may be observed and that too is occasional.

Table 1-1 **Post Environmental Clearance Monitoring**

S. No.	Description	Frequency of Monitoring
1.	Ambient Air Quality Monitoring	Quarterly/ Half Yearly
2.	Water level & Quality Monitoring	Quarterly/ Half Yearly
3.	Noise Level Monitoring	Quarterly/ Half Yearly
4.	Soil Quality Monitoring	Yearly
5.	Medical Check-up	Yearly

1.6. Generic Structure of the EIA Document

Chapter 1: Introduction This chapter contains the general information on the mining of minerals, major sources of environmental impacts in respect of mining projects and details of environmental clearance process.

Chapter 2: Project Description In this chapter the proponent should also furnish detailed description of the proposed project, such as the type of the project, need for the project, project location, layout, project activities during construction and operational phases, capacity of the project, project operation i.e., land

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availability, utilities (power and water supply) and infrastructure facilities such as roads, railways, housing and other requirements. If the project site is near a sensitive area, it is to be mentioned clearly why an alternative site could not be considered. The project implementation schedule estimated cost of development as well as operation etc should be also included.

Chapter 3: Analysis of Alternatives (Technology and Site) This chapter gives details of various alternatives both in respect of location of site and technologies to be deployed in case the initial scoping exercise considers such a need.

Chapter 4: Description of Environment This chapter should cover baseline data in the project area and study area.

Chapter 5: Impact Analysis and mitigation measures This chapter describes the anticipated impacts on the environment and mitigation measures. The method of assessment of impacts including studies carried out, modelling techniques adopted to assess the impacts where pertinent should be elaborated in this chapter. It should give the details of the impacts on the baseline parameters, both during the construction and operational phases and suggests the mitigation measures to be implemented by the proponent.

Chapter 6: Environmental Monitoring Program This chapter should cover the planned environmental monitoring program. It should also include the technical aspects of monitoring the effectiveness of mitigation measures.

Chapter 7: Additional Studies This chapter should cover the details of the additional studies required in addition to those specified in the ToR and which are necessary to cater to more specific issues applicable to the particular project.

Chapter 8: Project Benefits This chapter should cover the benefits accruing to the locality, neighbourhood, region and nation as a whole. It should bring out details of benefits by way of

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improvements in the physical infrastructure, social infrastructure, employment potential and other tangible benefits.

Chapter 9: Environmental Cost Benefit Analysis This chapter should cover on Environmental Cost Benefit Analysis of the project.

Chapter 10: Environmental Management Plan This chapter should comprehensively present the Environmental Management Plan (EMP), which includes the administrative and technical setup, summary matrix of EMP, the cost involved to implement the EMP, both during the construction and operational phase and provisions made towards the same in the cost estimates of project construction and operation. This chapter should also describe the proposed post-monitoring scheme as well as inter-organizational arrangements for effective implementation of the mitigation measures.

Chapter 11: Summary and Conclusions This chapter gives the summary of the full EIA report condensed to ten A-4 size pages at the maximum. It should provide the overall justification for implementation of the project and should explain how the adverse effects have been mitigated.

Chapter 12: Disclosure of Consultants This chapter should include the names of the consultants engaged with their brief resume and nature of consultancy rendered.

1.7. Details of Project Proponent

Project Proponent : M/s. R.V Enterprises,
Status of the Proponent : Partner M.Ramamoorthy, Government Poromboke Land
Proponent's Name & Address : S/o. Muthappa,
No.1/16, Machiyakanpalli village,
Panchakshipuram post, Hosur Taluk,
Krishnagiri district– 635110.

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Project Proponent	<i>M/s.R.V.Enterprises</i>	
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1.8. Brief Description of the Project

M/s. R.V Enterprises - Partner M.Ramamoorthy, S/o. Muthappa, residing at No.1/16, Machiyakanpalli village, Panchakshipuram post, Hosur Taluk, Krishnagiri district- 635110 has applied for the grant of quarry lease to quarry Rough Stone over an extent of 2.40.0 Hectares. of Government Poromboke Land in S.F. No. 232/2(Part) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District of Tamil Nadu State for a period of Five Years.

M/s. R.V. Enterprises - Partner M.Ramamoorthy applied for mining of rough stone in survey numbers – 232/2(Part) in Mugalur Village, Shoolagiri Taluk, Krishnagiri District and Tamil Nadu State over an extent of 2.40.0 hectares in Government Poromboke Lands for a period of 5 years.

Precise Area Communication Letter was communicated vide Letter No. Rc.No. 220/2019/Mines dated 13th June 2019 from The District Collector, Geology and Mining, Krishnagiri district, Krishnagiri for Preparation of Mining Plan and Obtaining Prior Environmental Clearance for Mining of Rough stone over an extent of 2.40.0 hectares for a period of 5 years.

1.9. Project Nature, Size & Location

As per EIA Notification, 2006 and its subsequent amendments (O.M vide No.F.No. L-11011/175/2018-IA-II(M) Govt of India MOEF&CC on December 12th, 2018) project comes under category B1 cluster & schedule 1(a) under item 1.

Proposed proposal pertains to Rough stone mining project. Excavators are operated for quarrying of Rough Stone and Tippers / Lorries are used for transportation of Rough Stone to the destination. It is a mechanized quarrying operation using shot hole drilling with the help of compressor and jack hammers, smooth blasting. Rough Stone are removed using Hydraulic excavator and loaded directly to the tippers and transported to the crushing plants for breaking into required size from 75mm jelly to 10mm chips. The project is located at Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu. It is a plain terrain. The total allotted mine lease for the proposed project is 2.40.0 Ha with their proposed production scheduled for the five years about 427630 m³ of Rough Stone.

Project	<i>Rough stone Quarry- 2.40.0 Ha</i>	<i>Draft EIA Report</i>
Project Proponent	<i>M/s.R.V.Enterprises</i>	
Project Location	<i>Mugalur Village, Shoolagiri Taluk, Krishnagiri District</i>	

2. Project Description

This chapter furnishes detailed description of the proposed project, such as the type of the project, need for the project, project location, layout, project activities during mining, capacity of the project, project operation i.e., land availability, utilities (power and water supply) and infrastructure facilities such as roads, railways, housing and other requirements. The project implementation schedule estimated cost for carrying out entire mining activity is included.

2.1. General

M/s. R.V Enterprises - Partner M.Ramamoorthy applied for mining lease of Rough stone in survey numbers – 232/2(Part) in Mugalur Village, Shoolagiri Taluk, Krishnagiri District and Tamil Nadu State over an extent of 2.40.0 hectares Government Poromboke Lands for a period of 5 years.

Precise Area Communication Letter was communicated vide letter No. Rc. No. 220/2019/Mines dated 13th June 2019 from the district collector, Geology and Mines, Krishnagiri district for Preparation of Mining Plan.

2.2. Type of the project:

As per EIA Notification, 2006 and its subsequent amendments (O.M vide No.F.No.L-11011/175/2018-IA-II(M) Govt of India MOEF&CC on December 12th 2018) project comes under category B1 cluster & schedule 1(a) under item 1. The project required to be appraised at state level by State Environment Impact Assessment Authority, Tamil Nadu. Environment Clearance study will involve preparation of draft EIA report on the basis of baseline & impact assessment study is carried out. Also, before appraisal, under 7(III) of EIA notification 2006, the project involves the Public Consultation and the same will be conducted under SPCB (TN) in Krishnagiri District. The proceedings of the same will be incorporated in the Final EIA Report.

The mines within 500m radius from the project site is listed below:

Table 2-1 Quarry within 500m Radius

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoologiri Taluk, Krishnagiri District	

S. No	Name of the lessee	Village & Taluk	Mineral	S.F No	Extent (Ha)	G.O. No. & Date	Lease period
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I. Existing Quarries

1	Thiru.P.Nagaraja reddy, S/o.Pappi reddy, No.2/32, Balageri Village, Mudhuganapalli Post, Hosur Taluk, Krishnagiri Dist	Hosapuram Village & Denkanikottai Taluk	Rough stone	457/(P-1)	2.00.0	Roc. 111/2016/ Mines dated 08.08.2016	17.08.2016 to 16.08.2026
2	Thiru.P.Venkata Reddy, S/o. Pedha Obul Reddy, No.3/213 Periya Kodipalli Village, Kempatt, Muthur Post, Denkanikottai Taluk, Krishnagiri Dist	Hosapuram Village & Denkanikottai Taluk	Rough stone	457/(P-2)	3.70.0	Roc. 112/2016/ Mines dated 26.02.2020	26.02.2020 to 25.02.2030
3	Thiru.C.Venkatadri, Pothachandiram Village, Kundumaranapalli Post, Denkanikottai Taluk, Krishnagiri Dist	Mugalur Village & Denkanikottai Taluk	Rough stone	257/1A, 257/2A, 257/2B(P) 272/1A(P)	0.39.8 0.04.45 0.97.0 0.90.5 <hr/> 2.31.75	Roc.402/2017/Mines dated: 04.06.2018	13.06.2018 to 12.06.2023

II. Abandoned / Old Quarries

S. No.	Name of the lessee	Village & Taluk	S.F No	Extent (Ha)	G.O. No. & Date	Lease period
1	Thiru.M.R.Sivalingappa, S/o Ramaiah Perandapalli village and Post, Hosur Taluk, Krishnagiri Dist	Mugalur Village & Hosur Taluk	270 (P)	5.00.0	Roc.110/2008/ Mines-2 dated	04.09.2008 to 03.09.2018
2	Thiru.Annaiya Reddy S/o Venkata reddy No.40, Shakambri Layout, Anekal Road, Attibele, Anekal Taluk, Krishnagiri Dist	Mugalur Village & Hosur Taluk	231/4e1	0.81.0	Roc.175/2010/ Mines-2 dated 25.12.2010	31.01.2011 to 30.01.2016

III. Proposed Quarries

1	M/s.R.V.Enterprises, Partner.M.Ramamoorthy	Mugalur Village & Shoologiri Taluk	Rough Stone	232/2 (Part)	2.40.0	Roc. No. 220/2019/Mines Dt. 13.06.2019	Precise area given Instant Proposal
Total					10.41.75		

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoolagiri Taluk, Krishnagiri District	

2.3. Need for the project:

Rough stone is one of the most valuable natural building materials. Aggregates are mostly used for building roads and footpaths. Aggregates – stone used for its strong physical properties – crushed and sorted into various sizes for use in concrete, coated with bitumen to make asphalt or used 'dry' as bulk fill in construction. Mostly used in roads, concrete and building products. Aggregates represent about 98% of quarry output, most of which is used in road construction, maintenance and repair. Much of this goes to the production of asphalt; the remainder is used 'dry' without the addition of other materials to provide a sturdy base for roads.

Krishnagiri District is comprised of Archaean peninsular gneisses such as Charnockites, Hornblende gneisses, Biotite gneisses and migmatites, dolerites and are intruded by younger formations like pegmatite and quartz veins. The peninsular gneisses/ migmatite consists of biotite mica, plagioclase and orthoclase feldspar and quartz and are found as sheet rocks. The rock formations surrounded by shear zones in between the country rocks and later period of intrusions, fractured / joint, weathered rock formations, the metamorphosed rock formations are in enormous in nature. The massive rock formations which are not suitable for the productions of granite slabs are also suitable and used to produce rough stones. The predominant occurrence of granitic gneissic rock formations which are most suitable to produce rough stone, jelly and for making M. Sand, crusher dust.

2.4. Brief Description of the project

Table 2-2 Salient Features of the Project

S. No	Description	Details
1	Project Name	M/s.R.V Enterprises rough stone quarry
2	Proponent	Partner M.Ramamoorthy
3	Mining Lease Area Extent	2.40.0 Ha
4	Location	232/2 (p) Mugalur Village, Shoolagiri Taluk, Krishnagiri Dt.
5	Latitude	12°37'25.9249"N to 12°37'23.5847"N
6	Longitude	77°48'56.4872"E to 77°48'49.2256"E

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoologiri Taluk, Krishnagiri District	

7	Topography	Plain terrain
8	Site Elevation above MSL	873m above MSL
9	Topo sheet No.	57 – H/14
10	Minerals of Mine	Rough stone
11	Proposed production of Mine	Geological Reserves – 1089179 m ³ Mineable Reserves – 503487 m ³ Proposed production for five years – 427630 m ³ of Rough Stone
12	Ultimate depth of Mining	36m below ground level
13	Method of Mining	Opencast mechanized Mining with a bench height of 7m and bench width of 5m is proposed.
14	Source of water	Packaged Drinking water vendors available in Kottur Village which is about ≈ 1.00 km, NE from the project site.
15	Manpower	15 Nos.
16	Mining Plan Approval	Mining Plan was approved by The Deputy Director, Geology & Mining, Krishnagiri vide Rc.No.G.M.220/2019/Mines dated :30.07.2019
17	Precise Area Communication	The Proponent has obtained Precise area communication letter received from District Collector, Krishnagiri Rc.No.220/2019/kaniman dated 13.06.2019
18	Ground water	The quarry operation is proposed up to a depth of 36m below ground level. The ground water table is reported as 65m below ground level in nearby open wells and bore wells of this area. Hence the ground water will not be affected in any manner due to the quarrying operation during the entire lease period.
19	Habitations within 500m radius of the Project Site	There is no Habitation within 500m radius
20	Rivers / Canal/Lake	<ul style="list-style-type: none"> ❖ Nanjappan Kodigai Eri – 4.87 km SE ❖ Vasa Lake – 4.31 km NW ❖ Vannama lake – 15.21 km SW ❖ Rama Naicken lake – 11.62 km NE ❖ Tahally lake – 11.09 km SW

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Project Location	Mugalur Village, Shoolagiri Taluk, Krishnagiri District	

21	Reserved Forest / Wildlife Sanctuary	<ul style="list-style-type: none"> ➤ Udedurgam R.F – 11.94 Km SE ➤ Denkanikottai R.F – 11.04 km SE ➤ Sanamavu Forest – 6.68 km NE ➤ Cauvery North Wildlife Sanctuary – 22.11 Km - SW
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Figure 2.1 Google Earth Image of the Project Site

2.4.1. Details of Quarry within 500m Radius – Cluster Mines

The mines within 500m radius from the project site is listed below

Table 2-3 Quarry within 500m Radius

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoologiri Taluk, Krishnagiri District	

S. No	Name of the lessee	Village & Taluk	Mineral	S.F No	Extent (Ha)	G.O. No. & Date	Lease period
I. Existing Quarries							
1	Thiru.P.Nagaraja reddy, S/o.Pappi reddy, No.2/32, Balageri Village, Mudhuganapalli Post, Hosur Taluk, Krishnagiri Dist	Hosapuram Village & Denkanikottai Taluk	Rough stone	457/(P-1)	2.00.0	Roc. 111/2016/ Mines dated 08.08.2016	17.08.2016 to 16.08.2026
2	Thiru.P.Venkata Reddy, S/o. Pedha Obul Reddy, No.3/213 Periya Kodipalli Village, Kempatt, Muthur Post, Denkanikottai Taluk, Krishnagiri Dist	Hosapuram Village & Denkanikottai Taluk	Rough stone	457/(P-2)	3.70.0	Roc. 112/2016/ Mines dated 26.02.2020	26.02.2020 to 25.02.2030
3	Thiru.C.Venkatadri, Pothachandiram Village, Kundumaranapalli Post, Denkanikottai Taluk, Krishnagiri Dist	Mugalur Village & Denkanikottai Taluk	Rough stone	257/1A, 257/2A, 257/2B(P) 272/1A(P)	0.39.8 0.04.45 0.97.0 0.90.5 <u>2.31.75</u>	Roc.402/2017/Mines dated: 04.06.2018	13.06.2018 to 12.06.2023

II. Abandoned / Old Quarries

S. No.	Name of the lessee	Village & Taluk	S.F No	Extent (Ha)	G.O. No. & Date	Lease period
1	Thiru.M.R.Sivalingappa, S/o Ramaiah Perandapalli village and Post, Hosur Taluk, Krishnagiri Dist	Mugalur Village & Hosur Taluk	270 (P)	5.00.0	Roc.110/2008/ Mines-2 dated	04.09.2008 to 03.09.2018
2	Thiru.Annaiya Reddy S/o Venkata reddy No.40, Shakambri Layout, Anekal Road, Attibele, Anekal Taluk, Krishnagiri Dist	Mugalur Village & Hosur Taluk	231/4e1	0.81.0	Roc.175/2010/ Mines-2 dated 25.12.2010	31.01.2011 to 30.01.2016

III. Proposed Quarries

1	M/s.R.V.Enterprises, Partner.M.Ramamoorthy	Mugalur Village & Shoologiri Taluk	Rough Stone	232/2 (Part)	2.40.0	Roc. No. 220/2019/Mines Dt. 13.06.2019	Precise area given Instant Proposal
Total					10.41.75		

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoolagiri Taluk, Krishnagiri District	

2.4.2. Site Connectivity:

The site is connected to Kelamangalam Road.



Figure 2.2 Site Connectivity

2.5. Location Details:

Table 2-4: Location Details

S. No	Particulars	Details
1.	Latitude	12°37'25.9249"N to 12°37'23.5847"N
2.	Longitude	77°48'56.4872"E to 77°48'49.2256"E
3.	Site Elevation above MSL	873m from MSL
4.	Topography	Plain terrain
5.	Land use of the site	Government Poromboke land
6.	Extent of lease area	2.40.0 Ha

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoologiri Taluk, Krishnagiri District	

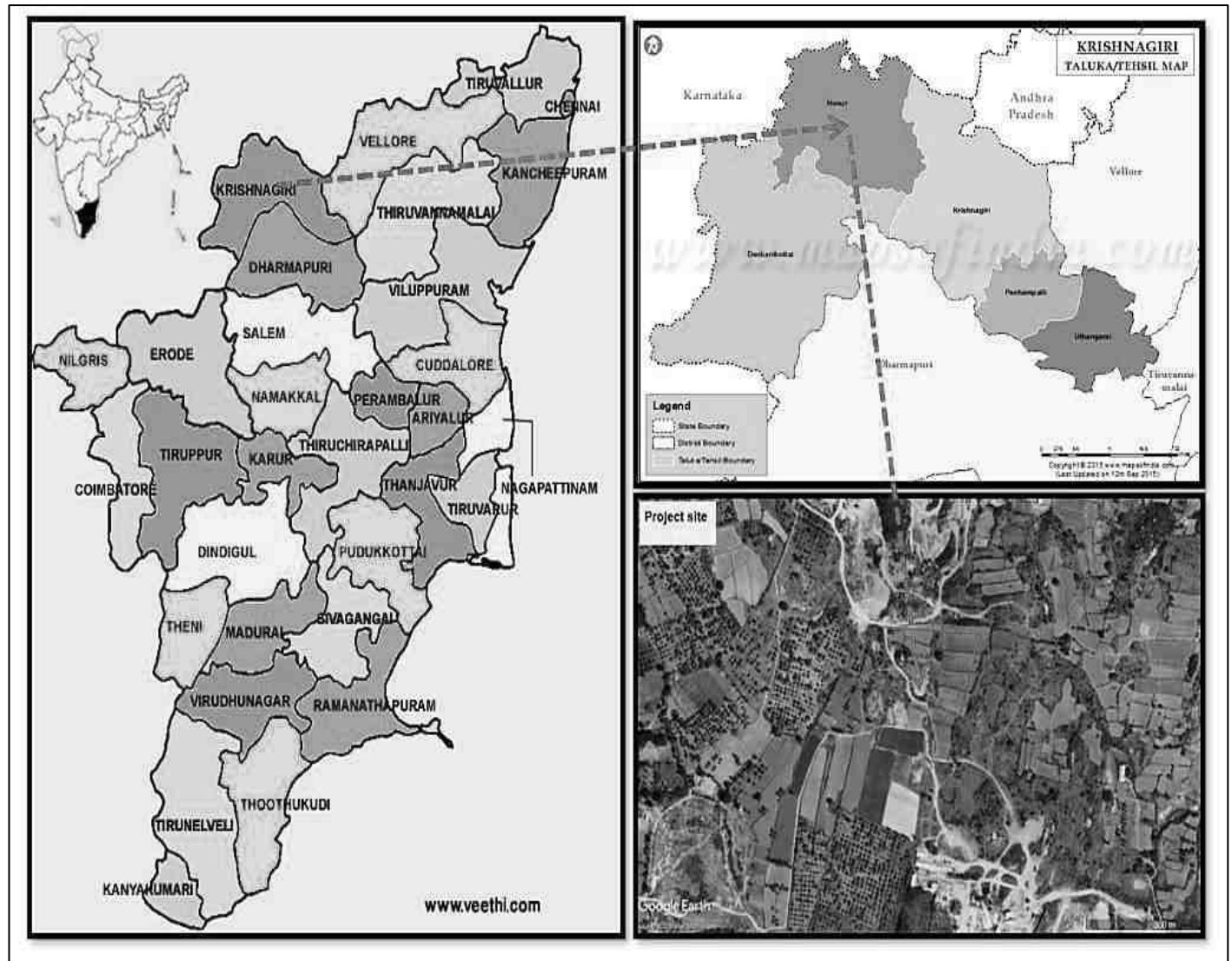


Figure 2.4 Location of the project site

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoologiri Taluk, Krishnagiri District	



Figure 2.5: Environmental Sensitivity within 15km radius

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Project Proponent	M/s.R.V.Enterprises	
Project Location	Mugalur Village, Shoolagiri Taluk, Krishnagiri District	

2.5.1. Site Photographs

The site photographs of the project site are as follows.



Figure 2.6: Site Photographs

2.5.2. Land Use Breakup of the Mine Lease Area

The area applied for quarry lease is almost plain area sloping towards southern covered with Rough Stone which does not sustain any type of vegetation. The altitude of the area is 873m above MSL. The land use pattern in and around the mine have no adverse effect in the environment changes.

The land use pattern at the end of the lease period:

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Project Proponent	M/s.R.V.Enterprises	
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Table 2-5: Land use pattern

Sl. No.	Land Use	Present Area (Hect)	Area in use during the quarrying period (Hect)
1.	Area under quarrying	Nil	1.76.0
2.	Infrastructure	Nil	0.01.0
3.	Roads	0.01.0	0.01.0
4.	Green Belt	Nil	0.39.0
5.	Unutilized	2.39.0	0.23.0
	Total	2.40.0 Ha	2.40.0 Ha

2.5.3. Human Settlement

There are no habitations within the radius of 500m. the nearby habitations are as follows

Table 2-6: Habitation

Direction	Village	Distance in Kms	Population
Northeast	Devaganapalli	2.5 Kms	320
Northwest	Koottur	1.2 Kms	240
Southeast	Nagappan Agraharam	2.2 kms	210
Southwest	Kallu Barundur	2.0 Kms	180

2.6. Leasehold Area

M/s.R.V Enterprises - Partner M.Ramamoorthy applied for mining of Rough stone in survey numbers – 232/2(P) in Mugalur Village, Shoolagiri Taluk, Krishnagiri District and Tamil Nadu State over an extent of 2.40.0 hectares in Government Poromboke Lands for a period of 5 years . The area lies in the latitude of 12°37'25.9249"N to 12°37'23.5847"N and longitude of 77°48'56.4872"E to 77°48'49.2256"E. The area is marked in the survey of India Topo sheet No. 57 – H/14. There is no human settlement within 500m radius from the lease area.

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Project Location	<i>Mugalur Village, Shoolagiri Taluk, Krishnagiri District</i>	

2.7. Geology

Krishnagiri District is underlain by crystalline metamorphic complex in the western parts of district and sedimentary tract in eastern side. An area of 4551 Sq.km is covered by crystalline rocks (63%) and 2671 Sq.km is covered by sediments (37%).

The general geological sequence of formation is given below:

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

The major part of the area is covered by metamorphic crystalline rocks of charnockite, granitic gneiss of Archaean age intruded by dolerite dykes and pegmatite veins. These rocks are highly metamorphosed and have been subjected to very severe folding, crushing and faulting. Ground Water occurs under the phreatic condition and wherever there are deep seated fractures, it occurs under semi-confined to confined conditions.

Occurrence of Ground Water in hard rock depends upon the intensity and depth of weathering, fractures and fissures present in the rocks. Granites and gneisses yield moderately compared to the yield in Charnockites. Depth of well in hard rock generally ranges between 8 and 15m below ground level. Generally, yield in open wells ranges from 30 to 250m³ /day and in bore well between 260 and 430 m³ /day. The weathered thickness varies from 2.5 m to 42m in general. there are 3 to 5 fracture zones within 100 m and 1 to 4 fracture zones between 100 and 200 m.

The Cretaceous formation is represented by Arenaceous Limestone, Calcareous sandstone and marl. The Tertiary formation is argillaceous comprising of Silty clay stones, argillaceous Limestone. The Quaternary deposits represented by the river deposits of Ponnaiyar and Varahanadhi spread over as patches in Villupuram District. The alluvium consists of unconsolidated sands, gravelly sands, clays and clayey

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Project Location	Mugalur Village, Shoolagiri Taluk, Krishnagiri District	

sands. The thickness of the sands ranges between 15 and 25 m in the alluvial formation which also form potential aquifers. In some areas, sandstone of tertiary formation are the potential groundwater reservoirs.

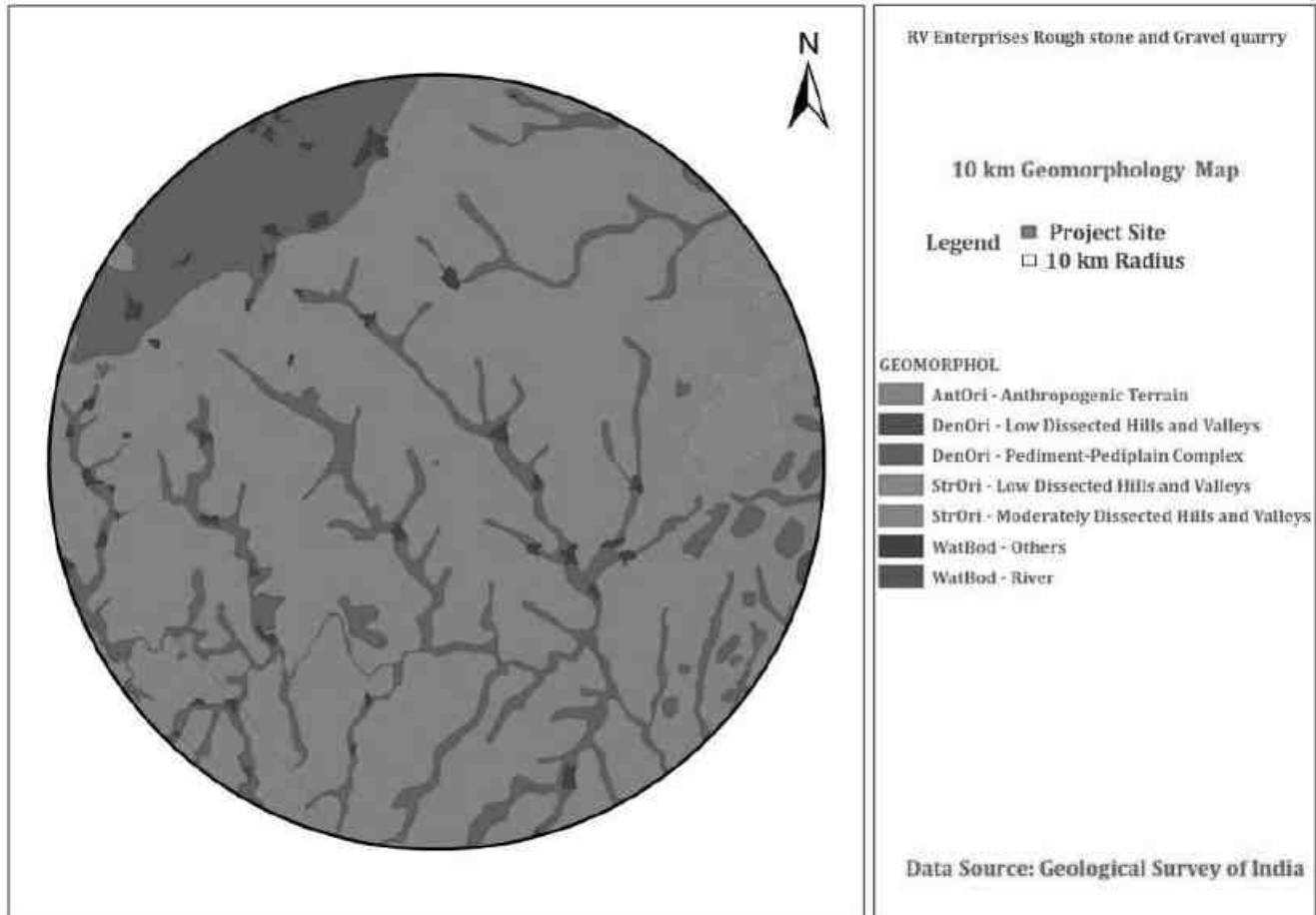


Figure 2.7 Geomorphology around 10km radius from the project site

The proposed project lies in the active quarry area.

2.8. Quality of Reserves:

The mining lease area is of 2.40.0 Ha. The proposed production of Rough stone for Five Years is 427630 m³. Due to significant role in the domestic as well as infrastructural market, making the mining of Stone along with associated minor minerals is economically viable.

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
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Project Location	Mugalur Village, Shoolagiri Taluk, Krishnagiri District	

Table 2-7: Details of Mining

S. No	Particulars	Details
1	Method of Mining	Open Cast mechanized
2	Geological Reserves	1089179m ³ of Rough stone
3	Mineable Reserves	503487m ³
4	Proposed production for five years	427630m ³
5	Elevation Range of the Mine Site	493m MSL
6	Bench Height	Opencast mechanized Mining with a bench height of 7m and bench width of 5m is proposed.
7	Ultimate Pit Dimension	170.0m (L) x 108.0m (W) x 50.0 m (D) (1m Topsoil + 49m Rough Stone)

2.9. Geological Reserves

The Geological reserve of Rough Stone and Topsoil is calculated up to a depth of 50m (1.0m Topsoil + 49m Rough Stone). Total Geological reserve estimated as 1146502 Cu.m by area cross sectional method.

Table 2-8: Geological Reserves

GEOLOGICAL RESERVES								
Section	Bench	L (m)	W (m)	D (m)	Volume In M³	Geological Rough stone Reserves in m³ @ 95%	Mine waste in m³ @ 5%	Top Soil in m³
XY-AB	I	95	102	1				9690
	II	95	102	7	67830	64439	3391	
	III	95	102	7	67830	64439	3391	
	IV	95	102	7	67830	64439	3391	
	V	95	102	7	67830	64439	3391	
	VI	95	102	7	67830	64439	3391	
	VII	95	102	7	67830	64439	3391	
	VIII	95	102	7	67830	64439	3391	
TOTAL					474810	451073	23737	9690

Project	Rough stone Quarry- 2.40.0 Ha	Draft EIA Report
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Project Location	Mugalur Village, Shoologiri Taluk, Krishnagiri District	

XY-CD	I	92	149	1				13708
	II	92	149	7	95956	91158	4798	
	III	92	149	7	95956	91158	4798	
	IV	92	149	7	95956	91158	4798	
	V	92	149	7	95956	91158	4798	
	VI	92	149	7	95956	91158	4798	
	VII	92	149	7	95956	91158	4798	
	VIII	92	149	7	95956	91158	4798	
TOTAL					671692	638106	33586	13708
GRAND TOTAL					1146502	1089179	57323	23398

2.10.Mineable reserve

The Mineable reserves calculated by deducting 7.5m Safety distance and Bench Loss. The Mineable Reserve is calculated up to a depth of 50m (1.0m Topsoil + 49m Rough Stone).

Table 2-9 Mineable Reserve

MINEABLE RESERVES								
Section	Bench	L (m)	W (m)	D (m)	Volume In M³	Recoverable Reserves in m³ @ 95%	Mine waste in m³ @ 5%	Top Soil in m³
XY-AB	I	88	85	1				7480
	II	87	83	7	50547	48020	2527	
	III	82	73	7	41902	39807	2095	
	IV	77	63	7	33957	32259	1698	
	V	72	53	7	26712	25376	1336	
	VI	67	43	7	20167	19159	1008	
	VII	62	33	7	14322	13606	716	
	VIII	57	23	7	9177	8718	459	
TOTAL					196784	186945	9839	7480
XY-CD	I	82	132	1				10824
	II	81	130	7	73710	70025	3685	
	III	76	120	7	63840	60648	3192	
	IV	71	110	7	54670	51937	2733	
	V	66	100	7	46200	43890	2310	
	VI	61	90	7	38430	36509	1921	
	VII	56	80	7	31360	29792	1568	
	VIII	51	70	7	24990	23741	1249	
TOTAL					333200	316542	16658	10824
GRAND TOTAL					529984	503487	26497	18304

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2.11. Year wise Production

The proposed rate of production of Rough Stone is about 457422cu.m for Five Years. The average proposed rate of production of Rough Stone is about 91484cu.m. at the rate of 95% recovery up to a 43m depth (1.0m Topsoil + 42m Rough Stone). The proposed rate of production & development for next five years are given below.

Table 2-10 Year wise development and Production

YEARWISE DEVELOPMENT AND PRODCUTION RESERVES									
YEAR	Section	Bench	L (m)	W (m)	D (m)	Volume In m³	RESERVES in m³ @ 95%	Mine waste in m³ @ 5%	Top Soil in m³
I-YEAR	XY - AB	I	88	85	1				7480
		II	87	83	7	50547	48020	2527	
	XY - CD	I	82	132	1				10824
		II	81	130	7	73710	70025	3685	
	TOTAL						124257	118045	6212	18304
II-YEAR	XY - AB	III	82	73	7	41902	39807	2095	
	XY - CD	III	76	120	7	63840	60648	3192	
	TOTAL						105742	100455	5287
III-YEAR	XY - AB	IV	77	63	7	33957	32259	1698	
	XY - CD	IV	71	110	7	54670	51937	2733	
	TOTAL						88627	84196	4431
IV-YEAR	XY - AB	V	72	53	7	26712	25376	1336	
	XY - CD	V	66	100	7	46200	43890	2310	
	TOTAL						72912	69266	3646
V-YEAR	XY - AB	VI	67	43	7	20167	19159	1008	
	XY - CD	VI	61	90	7	38430	36509	1921	
	TOTAL						89957	55668	4497
GRAND TOTAL						481495	427630	24073	18304

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2.12.Type of Mining

2.12.1. Method of Working:

Opencast method of mechanized mining is adopted to extract Rough Stone. Machineries like Tractor mounted compressor attached with Jack hammers is being used to drilling and Proposed Control Blasting. Excavators are operated for quarrying of Rough Stone and Tippers / Lorries are used for transportation of Rough Stone to the destination.

It is a mechanized quarrying operation using shot hole drilling with the help of compressor and jack hammers, smooth blasting. Rough Stone are removed using Hydraulic excavator and loaded directly to the tippers and transported to the crushing plants for breaking into required size from 75mm jelly to 10mm chips.

Drilling of shot holes will be carried out using compressor and jack hammer. Depth of holes shall be 1 to 2m bench height and spacing shall be 0.75m and burden shall be 0.60m from the preface. Details of drilling equipment are given below.

Type	Nos	Dia of hole	Size / Capacity	Make	Motive power	H.P.
Jack Hammer	6	25.5 mm	Hand held	Atlas copco 2Nos	Diesel	60

Loading of waste and rough stone shall be carried out by 10 tonne capacity tippers from the working place periodically. Details of loading equipment are given as under.

Type	Nos	Bucket Capacity (MT)	Make	Motive power	H.P.
Hydraulic excavator	1	1.2 M ³	L&T or Ex200	Diesel	120

Transport of raw materials and waste shall be done by Tipper of 10 M.T. capacity.

Type	Nos	Size / Capacity	Make	Motive power	H.P.
Tipper	2	10 M.T	Ashok Leyland	Diesel	110

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2.12.2. Energy:

Electricity for mines and lights only at nights (working is restricted on day time only between 9Am to 5Pm). Diesel (HSD) will be used for quarrying machines around **642646 litres** of HSD will be used for the entire project life. Diesel will be brought from nearby diesel pumps. No power is required for the project. Lightings on the night will be taken from nearby electric poles after obtaining permission from concerned authorities.

For Top soil:

Per hour excavator will consume = 10 liters / hour
 Per hour excavator will excavate = 60m³ of rough stone
 For 18304 m³ = 18304/ 60 = 305.0 hours
 Diesel consume 136.43 working hours = 305.0 hours x 10 liters
Total diesel Total diesel consumption = 3050 litres of HSD will be utilized for top soil

For Rough stone:

Per hour excavator will consume = 16 liters / hour
 Per hour excavator will excavate = 20m³ of rough stone
 For 481495m³ = 481495/ 20 = 24075 hours
 Diesel consume 40904.5 working hours = 24075 hours x 16 liters
 Total diesel consumption = 385200 litres of HSD for Rough stone
 Total diesel consumption is around = **388250 litres of HSD for the entire period of life**

2.12.3. Topsoil

The topsoil of the lease area is 18304 m³.

Topsoil formation will be backfilled in the odai portion of the lease area.

Table 2-11 Dimension of dumps

ULTIMATE PIT DIMENSION		
Length (m)	Width (m)	Depth(m)
170	108	50 (1m Topsoil + 49m Rough Stone)

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2.13. Man Power Requirements

The manpower requirement to meet out the production Schedule and the machinery strength envisaged in the mining plan and to comply with the statutory provisions of the Mines Safety Regulations is as follows.

Table 2-12: Man Power Requirements

	Skilled	Operator	2
		Mechanic	1
		Mines Manager/Mate	1
	Semi skilled	Driver	2
	Unskilled	Musdoor/Labours	4
		Office boy	1
		Cleaners	2
	Management & Supervisory staff		2
Total			15 Nos

No child less than 21 years will be entertained during quarrying operations.

2.14. Water Requirement

This rough stone quarry project does not require huge water and electricity.

Table 2-13 Water Requirement

Purpose	Quantity	Sources
Drinking Water	1.0KLD	Packaged Drinking water vendors available in Kottur Village which is about \approx 1.00 km, NE from the project site.
Green belt	0.5KLD	Other domestic activities through road tankers supply
Dust suppression	0.5KLD	From road tankers supply
Total	2.0 KLD	

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2.15.Project Cost

Project Cost/Investment Cost

The total project cost is **Rs. 1,44,60,000/-** including land cost and deployment of machinery and creation of infrastructural facilities like Labour shed, Sanitary facility, fencing cost etc, electrifications and water supply.

Table 2-14 Investment Cost

1	<u>A. Fixed Asset Cost:</u>	
	1. Land Cost	: Rs. 1,08,00,000/- (Leased tender amount for Government Poramboke Land)
	2. Labour Shed	: Rs. 1,40,000/-
	3. Sanitary Facility	: Rs. 80,000/-
	4. Fencing cost	: Rs. 1,00,000/-
	Total=	Rs.1,11,20,000/-
2	<u>B. Operational Cost:</u>	
	<u>Machinery cost</u>	: Rs.30,00,000/-
3	<u>C. EMP Cost:</u>	
	Drinking water facility	: Rs. 1,00,000/-
	Safety kits	: Rs. 50,000/-
	Water sprinkling	: Rs. 50,000/-
	Afforestation	: Rs. 30,000/-
	Water quality test	: Rs. 30,000/-
	Air quality test	: Rs. 30,000/-
	Noise/vibration test	: Rs. 30,000/-
	Total=	: Rs. 3,40,000/-
	Total Project Cost(A+B+C)	: Rs. 1,44,60,000/-

Total Project Cost: Rs. 1,44,60,000/- (One crore forty four lakhs and sixty thousands rupees only).

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2.16. Corporate Social Responsibility

The following Corporate Environment Responsibility (CER) activities before the commencement of the quarrying activities.

Table 2-15 CER Cost

S.No.	CER Activity	CER value (Rs)
1.	2. Government Higher Secondary School, Masinayakkanapalli – 3.05 km, SW Provision of <ul style="list-style-type: none"> ➤ CCTV Camera facility, ➤ Xerox machine, ➤ Environmental books for library (in Tamil language), ➤ Greenbelt facilities and ➤ Basic amenities such as safe drinking water, Hygienic Toilets facilities, furniture. 	5,00,000
Total		5,00,000

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3. Description of the Environment

3.1. General:

The method of mining for extracting rough stone quarry and gravel is required to be selected in such a manner to ensure sustainable development. Mining activities invariably affect the existing environmental status of the site. It has both adverse and beneficial effects. 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 and sustainable resource extraction.

To understand the existing environmental scenario, Baseline data helps in identification, prediction and evaluation of impacts in Environmental Impact assessment. Through field study, baseline data are collected considering various factors of the project. This includes-

- Physical- the area, the soil properties, the geological characteristics, the topography, etc
- Chemical- water, air, noise and soil pollution levels, etc.
- Biological- the biodiversity of the area, types of flora and fauna, species richness, species distribution, types of ecosystems, presence or absence of endangered species and/or sensitive ecosystems etc.
- Socioeconomic- demography, social structure, economic conditions, developmental capabilities, displacement of locals, etc.

3.1.1 Study Area:

The study area for the mining projects is as follows:

- Mine lease area as the “core zone”
- A study area of 10 km radius from the project boundary is designated as buffer Zone and for the study of Socio-economic status, 10 km radius from the boundary limits of the mine lease area has been selected.

We have obtained Terms of Reference from SEIAA vide Letter No. SEIAA-TN/ F. No. 9253/ ToR-1202/2022 Dated: 14.07.2022. The baseline monitoring is carried out in May to July 2022 and the

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analysis is briefed in the EIA report. The proponent has engaged M/s. Ecotech labs Pvt. Ltd for carrying out the existing baseline study.

3.1.2 Instruments Used

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

1. Respirable Dust Sampler with attachment for gaseous Pollutants, Envirotech APM 460, APM411.
2. Fine Particulate Matter (FPM) Sampler, APM 550
4. Sound Level Meter Model SL-4010
5. 2000 series watchdog automatic weathering monitoring station

3.1.3 Baseline Data Collection Period:

The baseline data is collected in accordance with the CPCB Guidelines. The Baseline study is carried out from May to July 2022.

3.1.4 Frequency of Monitoring

Table 3-1: Frequency of Sampling and Analysis

Attributes	Sampling	Frequency
Air environment – Meteorological (wind speed, wind direction, rainfall, humidity, temperature)	Project site	1 hourly continuous
Air environment – Pollutants PM 10 PM 2.5 SO ₂ NO _x Lead in PM	5 locations	24 hourly twice a week 4 hourly. Twice a week, One non-monsoon season 8 hourly, twice a week 24 hourly, twice a week
Noise	5 locations	24 hourly Once in 5 locations
Water (Ground water)	5 locations	Once in 5 locations

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pH, Temperature, Turbidity, Magnesium Hardness, Total Alkalinity, Chloride, Sulphate, Fluoride, Nitrate, Sodium, Potassium, Salinity, Total nitrogen, Total Coliforms, Fecal Coliforms		
Water (surface water) pH, Temperature, Turbidity, Magnesium Hardness, Total Alkalinity, Chloride, Sulphate, Fluoride, Nitrate, Sodium, Potassium, Salinity, Total nitrogen, Total Coliforms, Fecal Coliforms	Sample from nearby lakes/river	One-time Sampling
Soil (Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	5 locations	Once in 5 locations
Ecology and biodiversity Study	Study area covering 10 km radius	One-time Sampling
Socio- Economic study (Population, Literacy Level, employment, Infrastructure like school, hospitals & commercial establishments)	Villages around 10 km radius	One-time Sampling

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3.1.5 Secondary data Collection

Apart from the primary data, Secondary data is also used for the collection; collation; synthesis and interpretation

- Flora & Faunal Study
- Land use study
- Demography and socio-economic analysis
- Meteorological data, from Indian Meteorological Department (IMD)

3.1.6 Study area details

Table 3-2 Study area details

S. No	Description	Details	Source
1.	Project Location	S.F.No. 232/2 (part) - 2.40.0 Ha , Mugalur Village, Hosur Taluk, Krishnagiri District, Tamil Nadu State	Field Study
2.	Latitude & Longitude	Latitude: 12°37'25.9249"N to 12°37'23.5847"N Longitude: 77°48'56.4872"E to 77°48'49.2256"E	Topo Sheet
3.	Topo Sheet No.	57 H/14	Survey of India Toposheet
4.	Mine Lease Area	2.40.0 Ha	--
Demography in the study area (as per Census 2011)			
5.	Total Population	2593	Census Survey of India
6.	Total Number of Households	609	
7.	Maximum Temperature (°C)	36	IMD
8.	Minimum Temperature (°C)	21	

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9.	Ecological Sensitive Areas - Wetlands, watercourses or other waterbodies, coastal zone, biospheres, mountains, forests	<ul style="list-style-type: none"> ❖ Nanjappan Kodigai Eri – 4.87 km SE ❖ Vasa Lake – 4.31 km NW ❖ Vannama lake – 15.21 km SW ❖ Rama Naicken lake – 11.62 km NE ❖ Tahally lake – 11.09 km SW ❖ Udedurgam R.F – 11.94 Km SE ❖ Denkanikottai R.F – 11.04 km SE ❖ Sanamavu Forest – 6.68 km NE 	Google Earth/Field Study																		
10.	Densely Populated area	Kottur Village - 1 Km -NE																			
11.	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	<table border="1"> <thead> <tr> <th>S. No</th> <th>Places</th> <th>Dist. From Project Site</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">Schools & Colleges</td> </tr> <tr> <td>1</td> <td>Govt Boys Hr Sec School</td> <td>4.11 km, SE</td> </tr> <tr> <td>2</td> <td>Panchayat Union Primary school,</td> <td>4.42 Km, SE</td> </tr> <tr> <td>3</td> <td>Sishya School Mugalur</td> <td>1.12 Km, NW</td> </tr> <tr> <td>4</td> <td>Govt Primary health care</td> <td>4.46 Km, NW</td> </tr> </tbody> </table>	S. No	Places	Dist. From Project Site	Schools & Colleges			1	Govt Boys Hr Sec School	4.11 km, SE	2	Panchayat Union Primary school,	4.42 Km, SE	3	Sishya School Mugalur	1.12 Km, NW	4	Govt Primary health care	4.46 Km, NW	Google Earth/Field Study
S. No	Places	Dist. From Project Site																			
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3	Sishya School Mugalur	1.12 Km, NW																			
4	Govt Primary health care	4.46 Km, NW																			

3.1.7 Site Connectivity:

The site is connected to SH 17A (Hosur - Denkanikottai) – 3.5km, W

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Figure 3.1: Site Connectivity

3.2 Land use Analysis

3.2.1 Land Use Classification

Land Use / Land Cover - Land Use refers to man's activity and the various uses, which are carried on land. Land Cover refers to natural vegetation, water bodies, rock/soil, artificial cover and others, resulting due to land transformation. The present Land Use/Land Classification map is developed with following objectives. The main objective of the study is to classify the different land use within 10 km from the project boundary.

3.2.2 Methodology

Information of land use and land cover is important for many planning and management activities concerning the surface of the earth (Agarwal and Garg, 2000). Land use refers to man's activities on

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land, which are directly related to land (Anderson et al., 1976). The land use and the land cover determine the infiltration capacity. Barren surfaces are poor retainers of water as compared to grasslands and forests, which not only hold water for longer periods on the surface, but at the same time allow it to percolate down.

The terms ‘land use’ and ‘land cover’ (LULC) are often used to describe maps that provide information about the types of features found on the earth’s surface (land cover) and the human activity that is associated with them (land use). Satellite remote sensing is being used for determining different types of land use classes as it provides a means of assessing a large area with limited time and resources. However, satellite images do not record land cover details directly and they are measured based on the solar energy reflected from each area on the land. The amount of multi spectral energy in multi wavelengths depends on the type of material at the earth’s surface and the objective is to associate particular land cover with each of these reflected energies, which is achieved using either visual or digital interpretation. In the present study the task is to study in detail the land use and land cover in and around the project site. The study envisages different LULC around the proposed project area and the procedure adopted is as below.

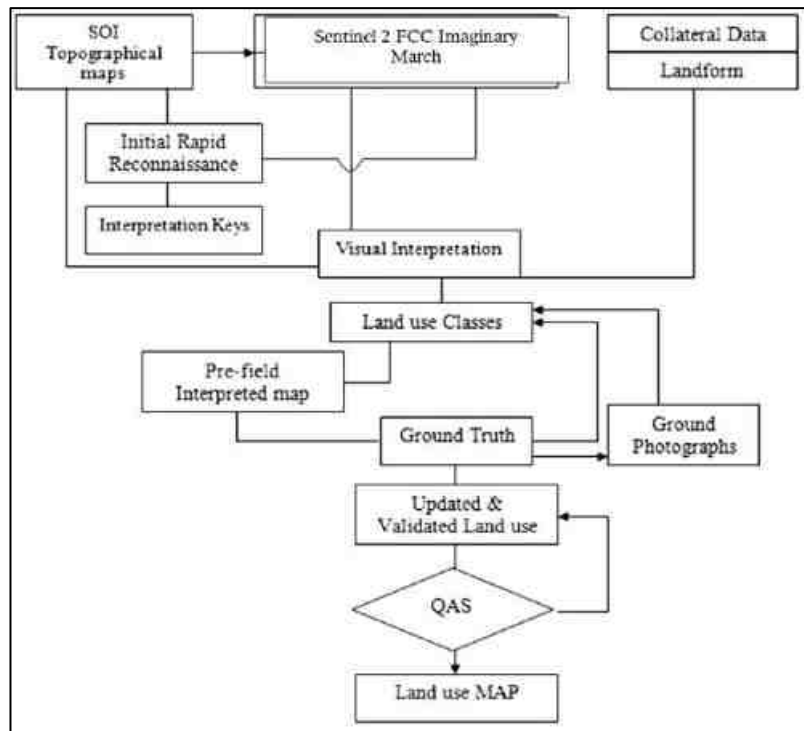


Figure 3.2 Flow Chart showing Methodology of Land use mapping

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3.2.3 Satellite Data

Sentinal 2 multispectral satellite data of 2020 was utilized for the present study. Details of satellite data is given below. The rectification of imagery was carried out on to bring the digital data on the earth coordinate system by means of ground control point (GCP) assignments/SOI topo sheets.

3.2.4 Scale of mapping

Considering the user defined scale of mapping, 1:50000 Sentinal 2 data was used for Land use / Land cover mapping of 10 km radius for proposed site. The description of the land use categories for 10 km radius and the statistics are given for 10 km radius.

3.2.5 Interpretation Technique

Standard on screen visual interpretation procedure was followed. The various Land use / Land cover classes interpreted along with the SOI topographical maps during the initial rapid reconnaissance of the study area. The physiognomic expressions conceived by image elements of color, tone, texture, size, shape, pattern, shadow, location and associated features are used to interpret the FCC imagery. Image interpretation keys were developed for each of the LU/LC classes in terms of image elements.

June 2016 FCC imagery (Digital data) of the study area was interpreted for the relevant land use classes. On screen visual interpretation coupled with supervised image classification techniques are used to prepare the land use classification.

1. Digitization of the study area (10 km radius from the proposed site) from the topo maps
2. In the present study the sentinal satellite image and SOI topo sheets of 58J/10, 58J/11, 58J/14, 58J/15 have been procured and interpreted using the ERDAS imaging and ARC-GIS software adopting the necessary interpretation techniques.
3. Satellite data interpretation and vectorization of the resulting units
4. Adopting the available guidelines from manual of LULC mapping using Satellite imagery (NRSA, 1989)
5. Field checking and ground truth validation
6. Composition of final LULC map

The LULC Classification has been done at three levels where level -1 being the broad classification about the land covers that is Built-up land, agriculture land, waste land, wet lands, and water bodies. These are followed by level –II where built-up land is divided into towns/cities as well villages. The

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Agriculture land is divided into different classes such as cropland, Fallow, Plantation, while wastelands are broadly divided into, Land with scrub and without Scrub and Mining and Industrial wasteland. The wetlands are classified into inland wetlands, coastal wetlands and islands. The water bodies are classified further into River/stream, Canal, Tanks and bay. In the present study level II classification has been undertaken. The SOI Topo map is presented in Annexure and Satellite imagery of 10 km radius from the project site is presented Annexure

3.2.6 Field Verification

Field verification involved collection, verification and record of the different surface features that create specific spectral signatures / image expressions on FCC. In the study area, doubtful areas identified in course of interpretation of imagery is systematically listed and transferred on to the corresponding SOI topographical maps for ground verification. In addition to these, traverse routes were planned with reference to SOI topographical maps to verify interpreted LU/LC classes in such a manner that all the different classes are covered by at least 5 sampling areas, evenly distributed in the area. Ground truth details involving LU/LC classes and other ancillary information about crop growth stage, exposed soils, landform, nature and type of land degradation are recorded and the different land use classes are taken the Land use map is presented in Annexure

3.2.7 Description of the Land Use / land cover classes

3.2.7.1 Water

Areas where water was predominantly present throughout the year; may not cover areas with sporadic or ephemeral water; contains little to no sparse vegetation, no rock outcrop nor built up features like docks; examples: rivers, ponds, lakes, oceans, flooded salt plains.

3.2.7.2 Trees

Any significant clustering of tall (~15-m or higher) dense vegetation, typically with a closed or dense canopy; examples: wooded vegetation, clusters of dense tall vegetation within savannas, plantations, swamp or mangroves (dense/tall vegetation with ephemeral water or canopy too thick to detect water underneath).

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3.2.7.3 Grass

Open areas covered in homogenous grasses with little to no taller vegetation; wild cereals and grasses with no obvious human plotting (i.e., not a plotted field); examples: natural meadows and fields with sparse to no tree cover, open savanna with few to no trees, parks/golf courses/lawns, pastures.

3.2.7.4 Flooded vegetation

Mix of small clusters of plants or single plants dispersed on a landscape that shows exposed soil or rock; scrub-filled clearings within dense forests that are clearly not taller than trees; examples: moderate to sparse cover of bushes, shrubs and tufts of grass, savannas with very sparse grasses, trees or other plants.

3.2.7.5 Crops

Human planted/plotted cereals, grasses, and crops not at tree height; examples: corn, wheat, soy, fallow plots of structured land.

3.2.7.6 Scrub/Shrub

Mix of small clusters of plants or single plants dispersed on a landscape that shows exposed soil or rock; scrub-filled clearings within dense forests that are clearly not taller than trees; examples: moderate to sparse cover of bushes, shrubs and tufts of grass, savannas with very sparse grasses, trees or other plants

3.2.7.7 Built Area

Human made structures; major road and rail networks; large homogenous impervious surfaces including parking structures, office buildings and residential housing; examples: houses, dense villages / towns / cities, paved roads, asphalt.

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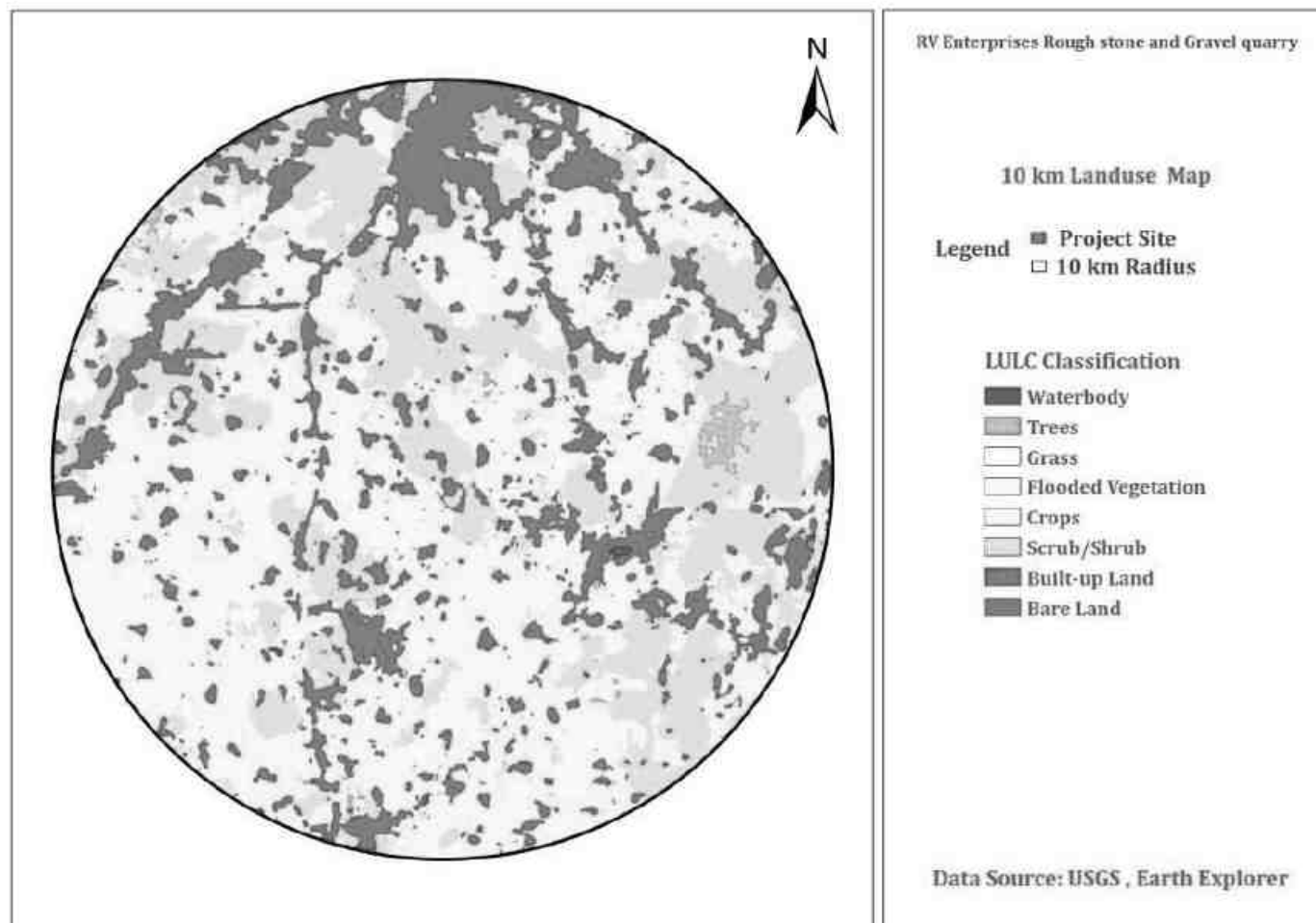


Figure 3.3 Land use classes around 10 km radius from the project site

3.2.7.8 Different Land use classes around 10 km radius from the project site

Table 3-3 Land use pattern

Sl.No	Categories	Area in Sq.m
1	Water	0.41
2	Trees	2.85
3	Grass	0.67
4	Flooded Vegetation	0.0001
5	Crops	177.16
6	Scrub/Shrub	82.06
7	Built Area	63.26
8	Barren Land	0.18

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3.3 Water Environment

3.3.1 Contour & Drainage

Krishnagiri district forms parts of Cauvery and East Coast Minor Rivers basins. Cauvery River forms the southwestern boundary of the district. Dodda Halla is the most important tributary of Cauvery draining the rugged terrain in the northwestern part of the district. Ponnaiyar is the major river draining the district and is ephemeral in nature. It originates from Nandhi hills in Karnataka, enters Tamil Nadu west of Bagalur and flows almost in a southeasterly direction till it reaches Manjamedu from where it flows along the district boundary before entering the district, again near Hanuman Tirtham. After flowing for a short distance in an easterly direction, it again follows the district boundary before entering the neighboring Dharmapuri district. Pambar and Burgur Ar., are among the important tributaries of Ponnaiyar draining part of the district.

3.3.2 Geomorphology

The prominent geomorphic units identified in the district through interpretation of satellite imagery are structural hills in the southwestern part of the district, denudational land forms like buried pediments in the plains and inselbergs and plateaus represented by conical hills aligned with major lineaments. Krishnagiri district forms part of the upland plateau region with many hill ranges and undulating plains. The western part of the district has hill ranges of Mysore plateau with a chain of undulating hills and deep valleys extending in NNE-SSW direction. The plains of the district have an average elevation of 488 m amsl. The plateau region along the western boundary and the northwestern part of the district has an average elevation of 914 m amsl. The Guthrayan Durg with an elevation of 1395 m amsl is the highest peak in the district.

Soils

Soils have been classified into Black soil, mixed soil, red loamy soil, gravelly and sandy soils. Red loamy and sandy soils are predominant in Hosur taluk. Vast stretches of loam soils and black soils occur in Krishnagiri district.

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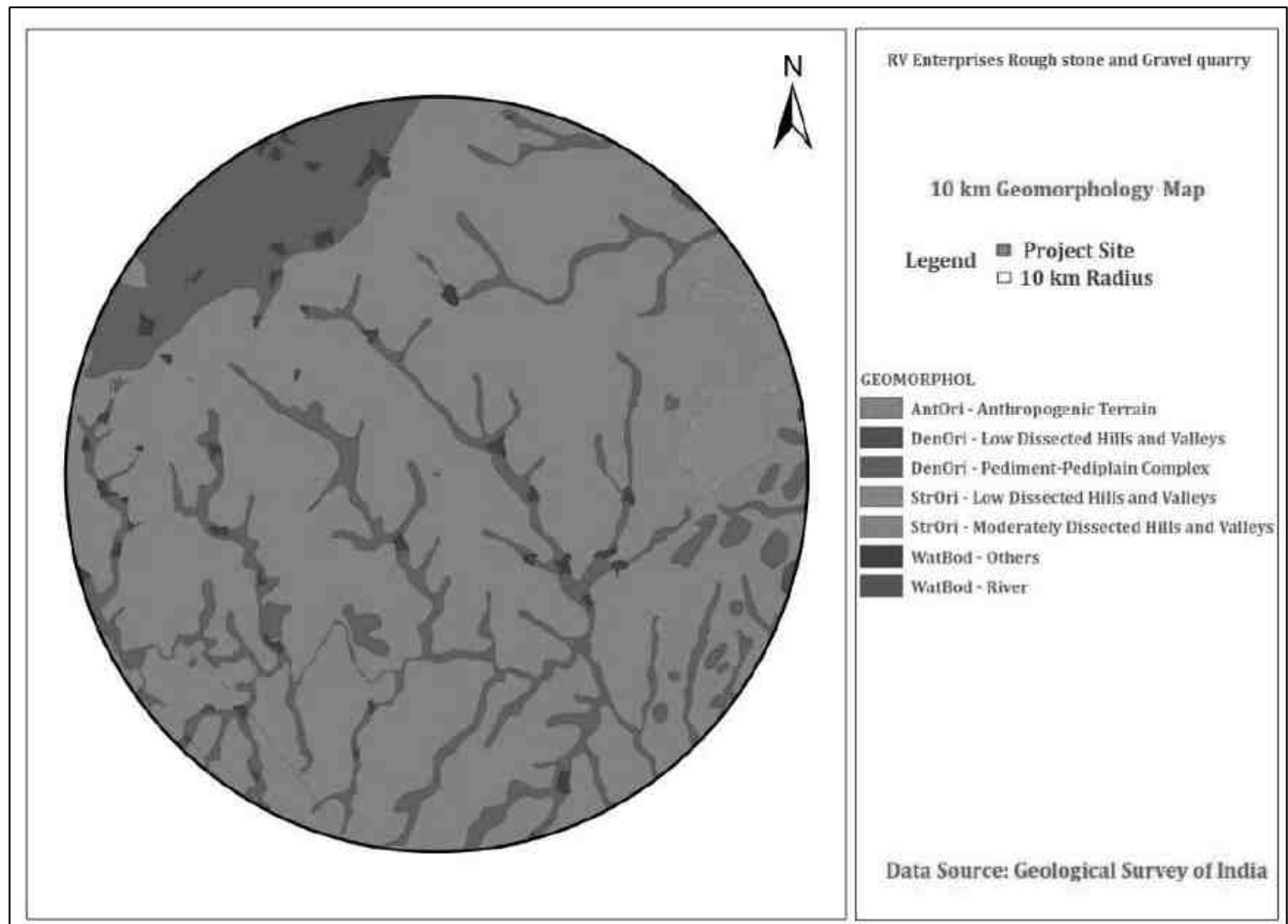


Figure 3.4 Geomorphology within 10km from the project site

3.3.3 Geology:

The geological formations of the district belong mainly to Archaean age along with rock of Proterozoic age. The former is represented by Khondalite Group of rocks, Charnockite Group of rocks, Migmatites Complex, Sathyamangalam Group of rocks, while the latter is represented by Alkaline rocks. The Khondalite Group includes garnet sillimanite gneiss and quartzite which occur as small patches. The migmatite complex includes garnet ferrous quartzofeldspathic gneiss and horn blends biotite gneiss, the former exposed on the western part of the district. The Sathyamangalam Group includes fuchsite quartzite, sillimanite mica schist and amphibolites. The Bhavani Group in this area includes fissile hornblende-biotite gneiss, granitoid gneiss and pink migmatite. Amphibolites with barbed ferruginous

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quartzite and associated quartzo-feldspathic rocks (Champion Gneiss) represent the Kolar group and are found west and southwest of Veppanapalli. Following this there are basic intrusions occurring as dykes. The Charnockite Group occupies a major part of the south-west portion of this district with small bands of garnetiferous quartzo-feldspathicgneiss, Granite gneiss and dolerite dykes. The North-East and Northern part of the District mainly consist of granite gneiss with small patches of Pink Migmatite, hornblende-biotite gneiss and dolerite dykes. The Eastern part of the district consists of Epidote-Hornblende Gneiss, Ultra Mafics, Syenite and Carbonatite.

The Alkaline Complex is represented by epidote-horn blende gneiss, ultramafics, syenite and carbonatite and these are distributed in the eastern part of the district. Innumerable basic dykes and felsites, quartz, barites and pegmatite veins form part of the Alkali Complex.

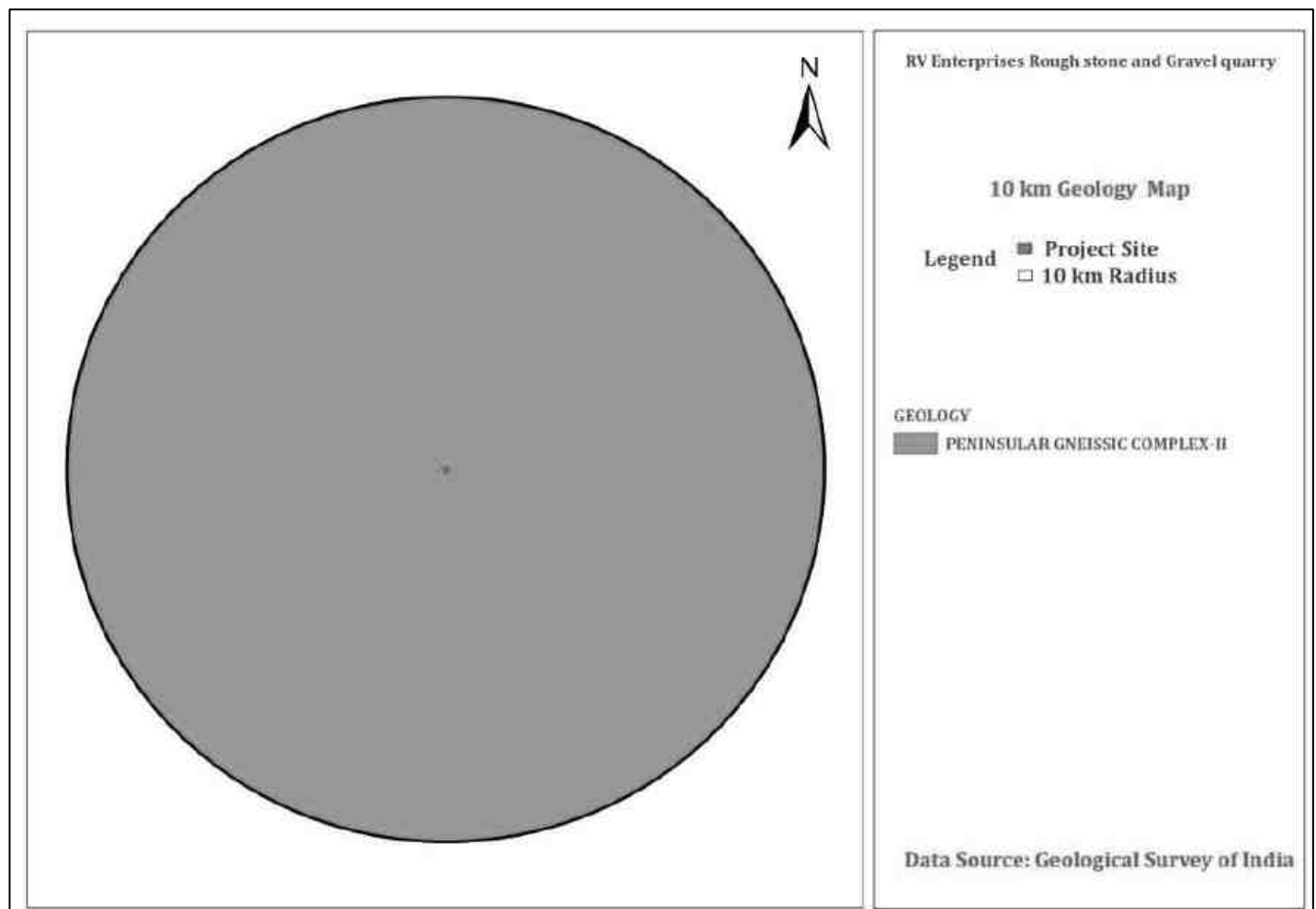


Figure 3.5 Geology within 10km from the project site

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3.3.4 Hydrogeology

Krishnagiri district is underlined by Archaean crystalline formations with Recent alluvial deposits of limited areal extent and thickness along the courses of major rivers (Plate-II). The occurrence and movement of ground water are controlled by various factors such as physiography, climate, geology and structural features. Weathered, and fractured crystalline rocks constitute the important aquifer systems in the district.

Ground water generally occurs under phreatic conditions in the weathered mantle and under semi-confined conditions in the fractured zones at deeper levels. The thickness of weathered zones in the district ranges from less than a meter to more than 15 m. The yield of large diameter dug wells in the district, tapping the weathered mantle of crystalline rocks ranges from 100 to 500 lpm. These wells normally sustain in pumping for 2 to 6 hours per day, depending upon the local topography and characteristics of the weathered mantle.

The depth to water level (DTW) during pre monsoon (May 2006) ranged between 0.5 and 9.9 m bgl (Plate-III) in the district. In major part of the district the DTW is more than 5mbgl. Whereas it ranged between 2 and 9.9 m bgl (Plate-IV) during post monsoon, in the district and the DTW is in the range of 5 – 10 m bgl in the entire district except a few isolated pockets.

The yield of successful exploratory wells drilled in the district ranged from 0.78 lps to 26 lps. As per the studies the wells drilled in granitic gneiss have higher yields than the wells drilled in charnockites. The specific capacity of the wells ranged from 1.2 to 118.0 lpm/m/dd. The piezometric head of fracture zones varied between 0.50 and 18.45 m bgl.

Aquifer Parameters:

The transmissivity values of fracture zones ranged from 1 to 188 m² /day with low to very low permeability values.

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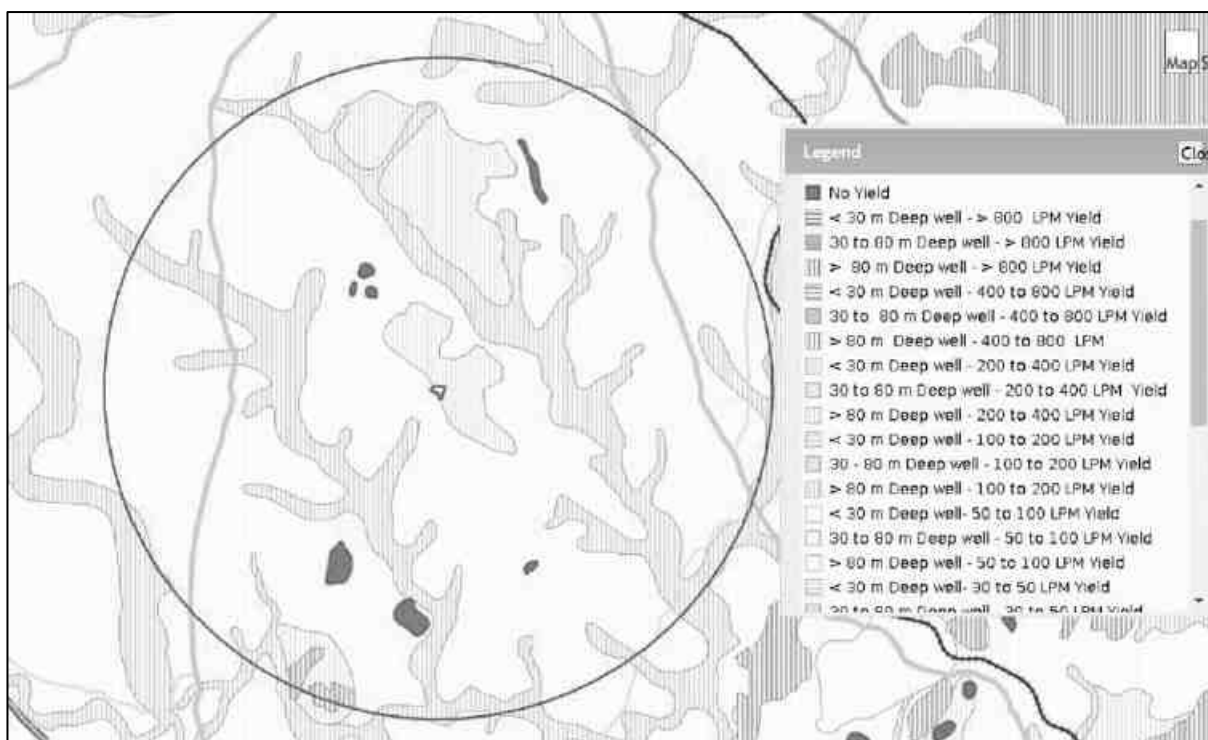


Figure 3.6 Ground water prospects within 5 km radius of the project site

3.3.5 Ground water quality monitoring

Ground water quality monitoring is done in the following locations and analysis will be done for physical, chemical & Biological parameters.

Table 3-4 Ground water Quality Analysis

Environmental Parameters: Ground water Quality Analysis	
Monitoring Period	May to July 2022
Design Criteria	Based on the Environmental settings in the study area
Monitoring Locations	Project Site -GW 1 Madina Masjid, Machnayakanpalli- GW 2 Veera Anjaneyar temple, Settupalli- GW 3 Bus stop, Soothalam- GW 4 Govt. High school, Doddabelur- GW 5
Methodology	Water Samples were collected in 5 Litre fresh cans as per IS 3025 Part I and transported to the laboratory in Iceboxes
Frequency of Monitoring	Once in a season

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3.3.5.1 Sampling Procedure

Quality of ground water was compared with IS: 10500: 1991 (Reaffirmed 1993 With Amendment NO -3 July 2010) for drinking purposes. Water samples were collected as Grab sample from five sampling locations in a 5-liter plastic jerry can and 250 ml sterilized clean glass/pet bottle for complete physico-chemical and bacteriological tests respectively. The samples were analyzed as per standard procedure / method given in IS: 3025 (Revised Part) and standard method for examination of water and wastewater Ed. 21st, published jointly by APHA.

Table 3-5: Standard Procedure

S. No	Parameters	Test Method
1	pH (at 25°C)	IS:3025(P -11)1983 RA: 2012
2	Electrical Conductivity	IS:3025(P -14) 2013
3	Colour	IS:3025 (P -4)1983 RA: 2012
4	Turbidity	IS:3025(P -10)1984 RA: 2012
5	Total Dissolved Solids	APHA 22 nd Edn.2012-2540-C
6	Total Suspended Solids	IS:3025(P-17)-1984 RA:2012
7	Total Hardness as CaCO ₃	APHA 22 nd Edn.2012-2340-C
8	Calcium as Ca	APHA 22 nd Edn2012.3500 Ca-B
9	Magnesium as Mg	APHA 22 nd Edn.2012-3500 Mg-B
10	Chloride as Cl	IS:3025(P -32)-1988 RA: 2014
11	Sulphate as SO ₄	APHA 22 nd Edn.2012-4500 SO ₄ ⁻ -E
12	Total Alkalinity as CaCO ₃	APHA 22 nd Edn.2012-2320-B
13	Iron as Fe	IS:3025(P -53):2003 RA: 2014
14	Silica as SiO ₂	IS:3025(P -35)1988 RA: 2014
15	Fluoride as F	APHA 22 nd Edn.2012-4500-F-D
16	Nitrate as NO ₃	IS:3025(P -34):1988 RA: 2014
17	Sodium as Na	IS:3025(P -45):1993 RA: 2014
18	Potassium as K	IS:3025(P -45):1993 RA: 2014
19	Coliform	IS:1622:1981:RA:2014
20	E.coli	IS:1622:1981:RA:2014

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Table 3-6 Ground water sampling results

S. No	Parameters	Units	Project Site – GW 1	Madina Masjid, Machnayakannpalli GW 2	Veera Anjaneyar temple, Settipalli GW 3	Bus stop, Soothalam GW 4	Govt. High school, Doddabelur GW 5
1	pH (at 25°C)	-	8.35	7.98	7.75	7.76	7.12
2	Electrical Conductivity	µS/cm	353	1191	749	868	1289
3	Colour	Hazen Unit	2	2	2	1	10
4	Turbidity	NTU	BQL(LOQ:1)	BQL(LOQ:1)	BQL(LOQ:1)	BQL(LOQ:1)	12.3
5	Total Dissolved Solids	mg/L	212	655	412	550	709
6	Total Suspended Solids	mg/L	BQL(LOQ:2.0)	BQL(LOQ:2.0)	BQL(LOQ:2.0)	BQL(LOQ:2.0)	12.3
7	Total Hardness as CaCO ₃	mg/L	119	396	198	376	404
8	Calcium as Ca	mg/L	28.6	114	42.9	119	110
9	Magnesium as Mg	mg/L	11.6	27.0	22.2	19.3	31.8
10	Chloride as Cl	mg/L	33.3	82.2	76.3	93.9	74.4
11	Sulphate as SO ₄	mg/L	16.8	184	85.1	45.6	144
12	Total Alkalinity as CaCO ₃	mg/L	105	176	109	192	269
13	Iron as Fe	mg/L	BQL(LOQ :0.1)	BQL(LOQ :0.1)	BQL(LOQ :0.1)	BQL(LOQ :0.1)	4.74
14	Silica as SiO ₂	mg/L	1.9	5.6	23.8	23.8	42.4
15	Potassium as K	mg/L	2.21	1.49	5.1	6.33	5.21
16	Sodium as Na	mg/L	28.8	79.2	66.4	85.2	68.4

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3.3.6 Interpretation of results:

3.3.6.1 Physical parameters of water:

The basic physical parameters of water include

Colour:

Value observed in Project Site (True/Apparent Color): 2 Hazen unit.

Acceptable and permissible limits: 5 Hazen units and 15 Hazen units respectively. The value in the project site is as same as the acceptable limits prescribed by IS 10500: 2012 (referred as “Standards” from herein).

pH:

Value observed in the Project Site: 8.35

Acceptable and permissible limits: 6.5-8.5. The pH value is the measure of acid – base equilibrium. The value of pH in the project site clearly indicates that water is slightly neutral in nature.

Turbidity:

Value observed in the Project Site: <1

Acceptable and permissible limits: 1 NTU & 5 NTU respectively. The value of turbidity generally indicates the presence of phytoplankton and other sediments. The value in the project site indicates the water is slightly turbid.

Total Dissolved Solids:

Value observed in the Project Site: 212 mg/L.

Acceptable and permissible limits: 500 mg/L and 2000 mg/L respectively.

The TDS is the presence of the inorganic salts and small amounts of organic matter present in the water. This is mainly due to the result of surface runoff as the cations and anions in the top soil is carried away by the water. The value in the project site indicates the water is less turbid.

3.3.6.2 Chemical parameters of water:

The chemical parameters of the drinking water include,

Calcium:

Value observed in the Project Site: 28.6 mg/L.

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Acceptable and permissible limits: 75mg/L and 200 mg/L respectively.

Calcium is the essential macronutrient. The value of the calcium is within the prescribed permissible standards. The higher level of calcium may cause hardening in domestic equipment and will also reduce the detergent efficiency. Higher levels of calcium will lead to constipation, gas, and bloating. Apart from that, extra calcium may also increase the risk of kidney stones. If the calcium deposit in blood is high, it may lead to hypercalcemia.

Magnesium:

Value observed in the Project Site: 11.6 mg/L.

Acceptable and permissible limits: 30 mg/L and 100 mg/L respectively.

The value of Magnesium in the project site is higher than acceptable limit and less than the permissible limit. The increase in the level of magnesium will cause diarrhea and vomiting in children.

Chloride

Value observed in the project site: 33.3 mg/L.

Acceptable and permissible limits: 250 mg/L and 1000 mg/L respectively.

The chloride level in the project site is within the acceptable and permissible limit. If the level of chloride is more, it may cause galvanic and pitting corrosion, increases level of metals. It imparts bitter taste to the water.

Total Alkalinity as CaCO₃:

Value observed in the project site:105 mg/L.

Acceptable and permissible limits: 200 mg/L and 600 mg/L respectively.

Total Alkalinity is the measure of the concentration of all alkaline substances dissolved in the water which includes carbonates, bicarbonates and hydroxides. The value of the total alkalinity is slightly greater in the project site, which will impart soda taste to the water.

Hardness:

Value observed in the Project Site: 119 mg/L.

Acceptable and permissible limits:200 mg/L and 600 mg/L respectively.

The value of Hardness in the project site is higher than acceptable limit but within the permissible limit. The increase in the level of hardness may cause corrosion and scaling problems, increased soap consumption and it also contributes to the salty taste of water.

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3.3.7 Surface Water Analysis

Surface water samples were taken from **Devaganapalli Lake** . The results are summarized below.

Table 3-7 Surface Water Sample Results

S. No	Parameters	Units	Devaganapalli Lake
1	pH (at 25°C)	-	7.71
2	Electrical Conductivity	μS/cm	295
3	Colour	Hazen Unit	45.2
4	Turbidity	NTU	21.4
5	Total Dissolved Solids	mg/L	162
6	Total Suspended Solids	mg/L	BQL(LOQ:2.0)
7	Total Hardness as CaCO ₃	mg/L	95.04
8	Calcium as Ca	mg/L	26.2
9	Magnesium as Mg	mg/L	7.2
10	Chloride as Cl	mg/L	19.6
11	Sulphate as SO ₄	mg/L	26.3
12	Total Alkalinity as CaCO ₃	mg/L	89.1
13	Iron as Fe	mg/L	5.08
14	Silica as SiO ₂	mg/L	3.8
15	Potassium as K	mg/L	1.35
16	Sodium as Na	mg/L	17.5
17	BOD	mg/L	18.1
18	COD	mg/L	64.2
19	TKN	mg/L	28.3
20	DO	mg/L	3.4

Inference: The surface water quality is compared with the CPCB Water Quality Criteria against A, B, C, D & E class of water. From the test result, it is found that the both the water does not fit Class A (Drinking Water Source without conventional treatment but after disinfection). But they can be used for outdoor bathing as it meets the requirements shown for class B water.

3.3.7.1 Climatology & Meteorology:

Climate and meteorology of a place can play an important role in the implementation of any developmental project. Meteorology is also the key to understand local air quality as there is an essential

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relationship between meteorology and atmospheric dispersion involving wind in the broadest sense of the term.

The year may broadly be divided into four seasons:

Winter season : December to February

Pre-monsoon season : March to May

Monsoon season : June to September

Post-monsoon season : October to November

i) Climate

Eastern part of the district experiences hot climate and Western part has a contrasting pleasant cold climate. The district is hot and dry in summer i.e., from March to June. From July to November is rainy season and between December to February winter prevails with very cold and misty.

ii) Temperature

The maximum temperature is around 36°C and minimum temperature is 28°C.

iii) Rainfall

Krishnagiri receives rainfall from both the northeast and the southwest monsoons. Monsoon season is from the months of July to November. During this time, temperature is mild and pleasant. Heavy rainfall is expected in short intervals during this period. December to February are winter months.

This district gets maximum rainfall in November (274.7mm).

KRISHNAGIRI DISTRICT - NORMAL AND ACTUAL RAINFALL

Unit in mm.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F	R/F
2017	5.7	0	48.7	37.9	198.6	19.1	24.6	189.7	291.7	219	54.5	56.2
2018	0	1.3	34.9	14.4	114.5	41.1	10.5	18.5	152.1	85.2	33.2	4.8
2019	13.2	1.2	4.5	47.2	96.5	33.6	34.6	94.7	138.6	177.7	48.7	39.5
2020	0.3	0	6.9	61.7	57.9	59	147.2	66.8	142.1	142	77	42.6
2021	40.1	5.8	0	46.6	75.7	32.4	137.7	70.2	134.9	140.4	282.6	19.1

Source: District survey report

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Meterological Data

The meteorological data – Temperature, rainfall, Wind Speed, Wind direction are recorded through AWS by setting it up in the site.

vi) Wind Rose Diagram

The wind rose denotes a class of diagrams designed to display the distribution of wind direction at a given location over a period of time. Wind roses are also useful as they project a large quantity of data in a simple graphical plot.

The wind speed & wind direction data are taken and wind rose is plotted for May to July 2022.

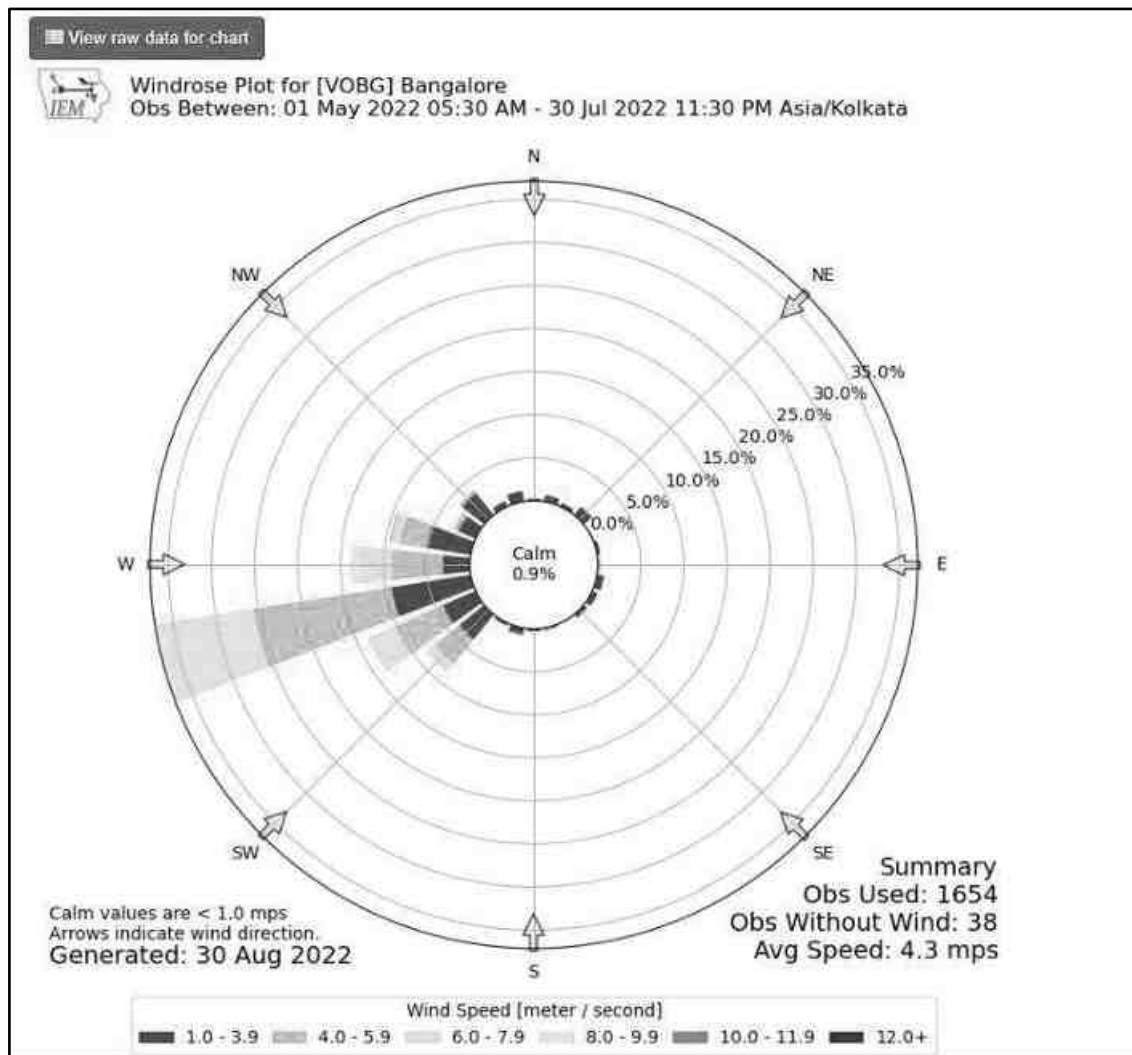


Figure 3.7 Wind rose

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3.3.8 Selection of Sampling Locations:

Four Monitoring locations along with the project site is selected based on Wind Direction & Wind Speed. All the monitoring locations are chosen in the downwind direction.

3.4 Ambient Air Quality

Table 3-8: Selection of Sampling Location

Environmental Parameters: <i>Ambient Air</i>			
Monitoring Period	May 2022 to July 2022		
Design Criteria	The monitoring stations are selected based on factors like topography/terrain, prevailing meteorological conditions like predominant wind direction (May to July 2022), etc, play a vital role in the selection of air sampling stations. Based on these criteria, 5 air sampling station were selected in the area as shown below.		
Monitoring Locations	Location & Code	Distance (km)	Direction
	Project Site	--	--
	Madina Masjid, Machnayakanpalli	3.10 km	Upwind W
	Veera Anjaneyar temple, Settipalli	2.01 km	Downwind E
	Bus stop, Soothalam	4.19 km	Crosswind N
	Govt. High school, Doddabelur	4.45 km	Crosswind S
Methodology	Respirable Particulate Matter (PM10) - Gravimetric (IS 5182: Part 23:2006) Particulate Matter PM2.5 - Gravimetric (Fine particulate matter) Sulphur Dioxide - Calorimetric (West & Gaeke Method) (IS 5182: Part 02: 2001) Nitrogen Dioxide - Calorimetric (Modified Jacob & Hocheiser Method) (IS 5182: Part 06:2006)		
Frequency of Monitoring	2 days in a week, 4 weeks in a month for 3 months in a season.		

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3.4.1 Ambient Air Quality: Results & Discussion

The test results of the ambient air quality monitored in project site and other four locations is summarized below.

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Table 3-9 Ambient Air Quality

Code	Location	PM 10 ($\mu\text{g}/\text{m}^3$)				PM 2.5 ($\mu\text{g}/\text{m}^3$)				SO2 ($\mu\text{g}/\text{m}^3$)				NOx ($\mu\text{g}/\text{m}^3$)			
		Min	Max	Avg	98 percentile	Min	Max	Avg	98 percentile	Min	Max	Avg	98 percentile	Min	Max	Avg	98 percentile
AAQ	Project Site	40	52	46.4	51.9	17	26	21.1	25.2	5	10	7	9.8	11	23	15.9	22.6
AAQ	Madina Masjid, Machnayakanpalli	44	53	48	53.1	19	26	21.8	25.4	5	12	7.7	11.6	11	27	17.5	26.7
AAQ	Veera Anjaneyar temple, Settipalli	50	59	54.3	59.1	22	28	24.5	27.8	5	12	8.3	12	13	28	19.2	27
AAQ	Bus stop, Soothalam	50	64	57.1	63	22	31	25.9	30.3	8	14	10.4	13.2	17	30	23.7	29.9
AAQ	Govt. High school, Doddabelur	47	56	51.7	55.8	20	27	23.6	26.7	5	12	8.1	11.6	9	27	18.5	26.4
NAAQ Standards - Residential Area		100 ($\mu\text{g}/\text{m}^3$)				60($\mu\text{g}/\text{m}^3$)				80 ($\mu\text{g}/\text{m}^3$)				80 ($\mu\text{g}/\text{m}^3$)			

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3.4.2 Interpretation of ambient air quality:

To assess the impact, AAQ were monitored in project site and four locations.

Observation:

The Maximum value of PM10 (64(µg/m3), PM 2.5 (31(µg/m3), SOx (14(µg/m3) ,NOx (30(µg/m3) is observed in different places.

Inference:

The monitoring results for PM10, PM2.5, Sox, NOx was found to be high in Bus stop, Soothalam which is due to the presence of movement of vehicles .

The observed values are all well within the Standards prescribed by NAAQ.

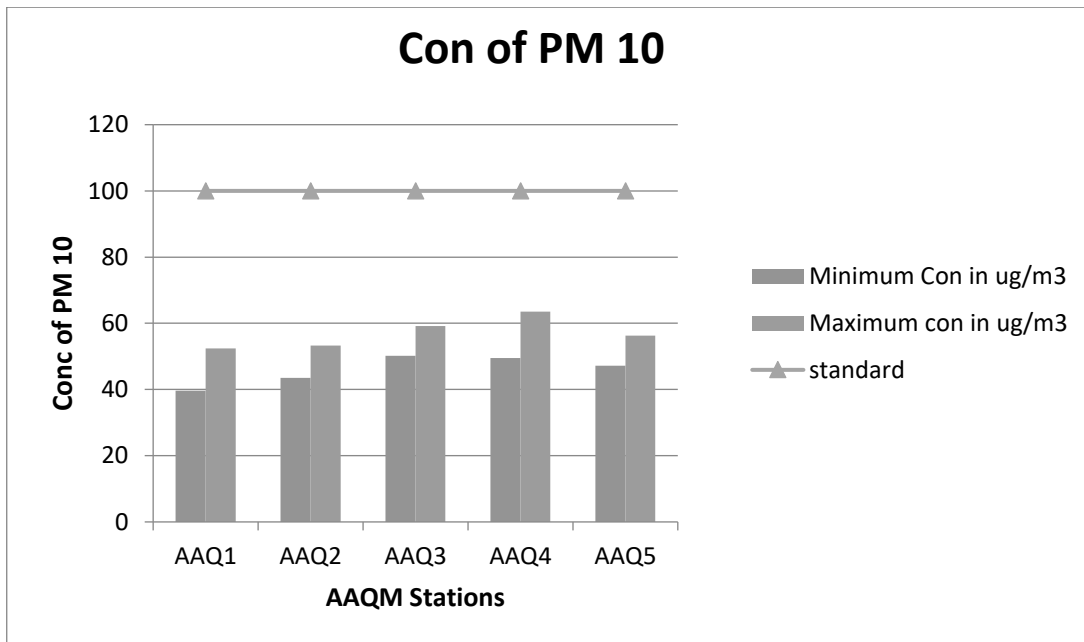


Figure 3.8 Concentration of PM10 (µg/m³) in Study Area

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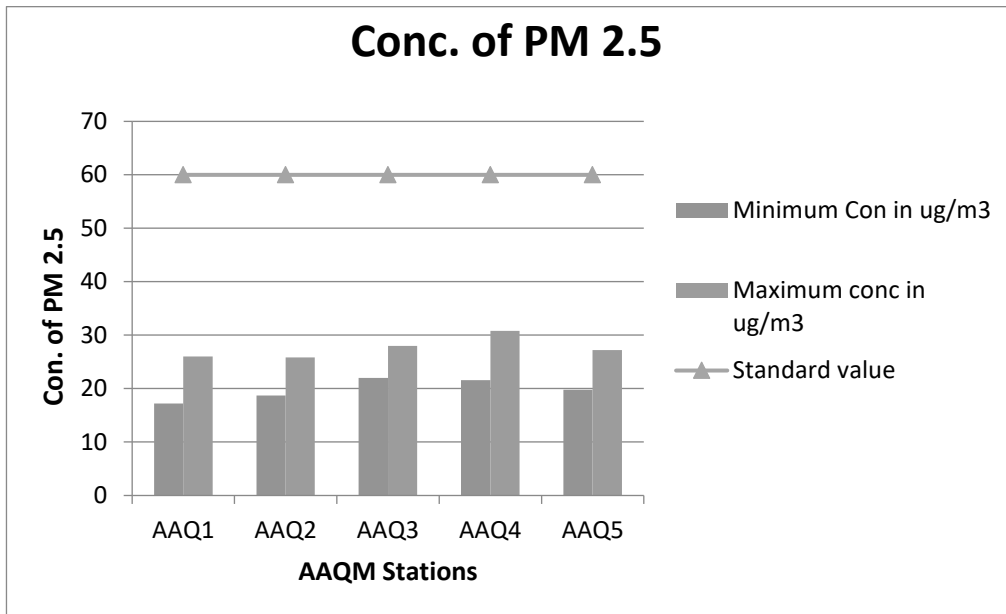


Figure 3.9 Concentration of PM_{2.5} (µg/m³) in Study Area

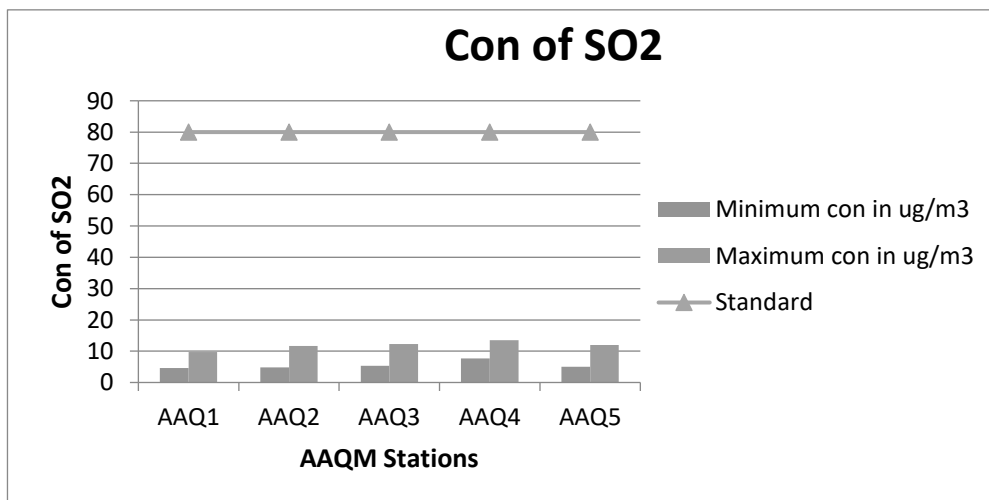


Figure 3.10 Concentration of SO_x (µg/m³) in Study Area

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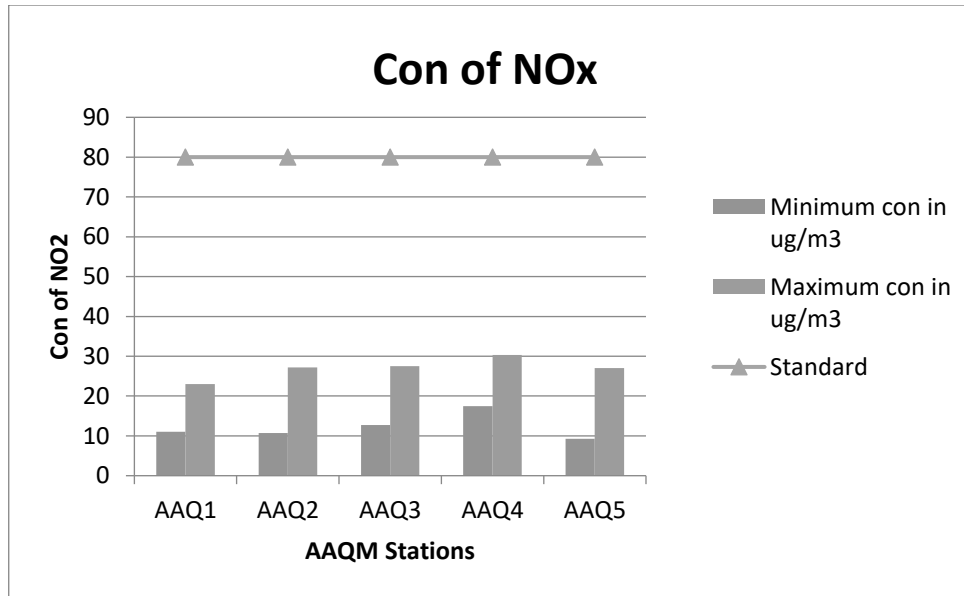


Figure 3.11 Concentration of NOx (µg/m³) in Study Area

This Chapter describes the baseline environmental conditions around the project site for various environmental attributes, i.e., physical, biological, and socio-economic conditions, within the 10-km radial zone of the proposed project site, which is termed as the study area. Topography, drainage, meteorology, air, noise, water, soil and land constitute the physical environment, whereas flora and fauna constitute the biological environment. Demographic details and occupational pattern in the study area constitute socio-economic environment.

The method of mining for extracting rough stone quarry is required to be selected in such a manner to ensure sustainable development. Mining activities invariably affect the existing environmental status of the site. It has both adverse and beneficial effects. 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 and sustainable resource extraction.

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To understand the existing environmental scenario, Baseline data helps in identification, prediction and evaluation of impacts in Environmental Impact assessment. Through field study, baseline data are collected considering various factors of the project. This includes-

- Physical- the area, the soil properties, the geological characteristics, the topography, etc
- Chemical- water, air, noise and soil pollution levels, etc.
- Biological- the biodiversity of the area, types of flora and fauna, species richness, species distribution, types of ecosystems, presence, or absence of endangered species and/or sensitive ecosystems etc.
- Socioeconomic- demography, social structure, economic conditions, developmental capabilities, displacement of locals, etc.

3.5 Noise Environment:

Table 3-10 Noise Analysis

Environmental Parameters: <i>Noise Analysis</i>	
Monitoring Period	May to July 2022
Design Criteria	Based on the Sensitivity of the area
Monitoring Locations	Project Site – N 1 Madina masjid, Machnayakanpalli-N 2 Veera Anjaneyar temple, Settipalli- N3 Bus stop, Soothalam-N 4 Govt.High schools, Doddabelur-N 5
Methodology	Noise level measurements were taken at the selected locations using noise level meter both during day and night time. Noise level measurements were taken continuously for 24 hours at hourly intervals
Frequency of Monitoring	Noise samples were collected from 5 locations - Once in a season

Ambient Noise Levels are monitored in the chosen 5 Locations including the project Site and the monitoring results are summarized below

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3.5.1 Day Noise Level (Leq day)

Table 3-11 Day Noise Level (Leq day)

Location	Leq day in dB(A)		
	Max	Min	Average
Project Site	55	43	49
Madina Masjid, Machnayakanpalli	56	45	51
Veera Anjaneyar temple, Settipalli	61	50	56
Bus stop, Soothalam	54	44	49
Govt. High school, Doddabelur	57	48	53

3.5.2 Night Noise Level (Leq Night)

Table 3-12 Night Noise Level (Leq Night)

Location	Leq Night in dB(A)		
	Max	Min	Average
Project Site	39	31	35
Madina Masjid, Machnayakanpalli	44	36	40
Veera Anjaneyar temple, Settipalli	48	40	44
Bus stop, Soothalam	43	35	38
Govt. High school, Doddabelur	46	36	41

Observation:

The maximum Day noise and Night noise were found to be 61 dB(A) and 48 dB(A) respectively in Veera Anjaneyar temple, Settipalli. The minimum Day Noise and Night noise were 43 dB (A) and 31 dB(A) respectively which was observed in Project Site. The observed values are all well within the Standards prescribed by CPCB.

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3.6 Soil Environment

Soil environment is studied for 10 km radius from the project site. The 5 km radius image shows that the soil is not affected by any kind of erosion.



Figure 3.12 Soil Erosion pattern within 5 km radius of the project site

3.6.1 Baseline Data:

The present study of the soil quality establishes the baseline characteristics which will help in future in identifying the incremental concentrations if any, due to the operation Phase of the proposed project. The sampling locations have been identified with the following objectives:

- To determine the impact of proposed project on soil characteristics and
- To determine the impact on soils more importantly from agricultural productivity point of view.

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Table 3-13 Soil Quality Analysis

Environmental Parameters: <i>Soil Quality Analysis</i>	
Monitoring Period	May to July 2022
Design Criteria	Based on the environmental settings of the study area
Monitoring Locations	Project Site – SQ 1 Madina Masjid, Machnayakanpalli-SQ 2 Veera Anjaneyar temple, Settipalli-SQ 3 Bus stop, Soothalam- SQ 4 Govt. High school, Doddabelur- SQ 5
Methodology	Composite soil samples using sampling augers and field capacity apparatus
Frequency of Monitoring	Soil samples were collected from 5 locations Once in a season

To assess the soil quality of the study area, 5 monitoring stations were selected and the results are summarized below.

Table 3-14 Soil Quality Analysis

Parameters	Unit	Project Site SQ 1	Madina Masjid, Machnayak anpalli SQ 2	Veera Anjaneyar temple, Settipalli SQ 3	Bus stop, Soothalam SQ 4	Govt. High school, Doddabelur SQ5
pH (at 25°C)	-	6.50	7.65	8.60	5.25	7.92
Specific Electrical Conductivity	mS/cm	0.19	0.31	0.22	0.18	0.15
Water Holding Capacity	ml/l	7.10	8.60	8.40	8.77	7.90
Chloride	g/cm ³	132	62	99	52	145
Soluble Calcium	mg/kg	31	21	23	11	48
Soluble Sodium	mg/kg	76	72	62	74	80

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Soluble Potassium	mg/kg	23	22	19	22	24
Organic matter	%	3.1	3.2	1.6	2.9	3.6
Soluble Magnesium	mg/kg	33	37	33	16	51
Total Soluble Sulphates	%	30	66	61	63	36
Cation Exchange Capacity	mg/kg	0	0	0	0	0
Total Nitrogen	%	0.023	0.015	0.029	0.016	183
Bulk Density	meq/100g	1.9	1.1	1.3	1.3	0.028
Phosphorous	meq/kg	173	223	199	167	1.2
Sand	%	55	52	45	52	178
Clay	mg/kg	5	8	18	7	56
Silt	mg/kg	40	40	37	41	1
SAR	mg/kg	3.2	3.1	2.7	4.7	43
Silicon	%	0.632	0.821	0.412	0.5214	2.7

3.6.1.1 Physical Properties:

Regular cultivation practices increase the bulk density of soils thus inducing compaction. This results in reduction in water percolation rate and penetration of roots through soils. The soils with low bulk density have favorable physical conditions whereas those with high bulk density exhibit poor physical conditions for agriculture crops. The bulk density of the soil in the study area ranged between 0.028 to 1.9 meq/100g which indicates favorable physical condition for plant growth. The water holding capacity was found in the range of 7.10 ml/1 to 8.77 ml/1.

3.6.1.2 Chemical Properties:

Chemical characteristics of soils include pH, exchangeable cations and fertility status in the form of NPK values and organic matter. The value of the pH ranges from 5.25 to 8.60, which it indicates majority of pH of the soil is slightly alkaline. The soil in the project site is sodic in nature, which challenges because

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they tend to have very poor structure which limits or prevents water infiltration and drainage. The organic matter varies from 1.6 to 3.6%, which indicates the soil is slightly unfertile.

3.7 Ecology and Biodiversity

Ecology and Biodiversity is studied for 10 km radius around the project site. Project site and 2 km around the project site is considered as core zone and from 2 km to 10 km radius, it is considered as buffer zone.

- Primary field survey is carried out for the assessment of flora and fauna in the core zone
- Secondary data from Journals/Literature were studied and compiled to understand the species present in the buffer zone

3.7.1 Methods available for floral analysis:

3.7.1.1 Plot Sampling Methods

- Quadrat – 2D shape (e.g., square or rectangle, or other shape) used as a sampling unit
- Transect
 - Line transects feature only a length dimension, usually defined by a tape stretched across the area to be sampled.
 - Belt transects have a width as well as length.
 - Pace-transects are established when the observer strides along an imaginary line across the sample site and uses their foot placement to determine specific sampling points.

3.7.1.2 Plot less Sampling Methods

- Closest individual method - Distance is measured from each random point to the nearest individual.
- Nearest neighbour method - Distance is measured from an individual to its nearest neighbour.
- Random pairs method - Distance is measured from one individual to another on the opposite side of the sample point.
- Point-centered quarter (PCQ) method - Distance is measured from the sampling point to the nearest individual in each quadrat.

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3.7.2 Field study & Methodology adopted:

To assess the suitability of the methodology, random field survey was done. Field survey was conducted around 2 km radius from the project site and five locations were chosen based on the species density. Quadrat method is chosen for the proposed study as compared to other sampling methods, because they are relatively simple to use. Quadrat plots are uniform in size and shape and distributed randomly throughout the sample area, which makes the study design straightforward. They are also one of the most affordable techniques because they require very few materials.

3.7.3 Study outcome:

Phyto-sociological parameters, such as *Density, Frequency, Basal Area, Abundance and Importance Value Index* of individual species (Trees) were determined in randomly placed quadrates of different sizes in the study area. Relative frequency, relative basal area and relative density were calculated and the sum of these three represented Importance Value Index (IVI) for various species. For shrubs, herbs and grasses, *Density, Frequency, Relative Density & Relative Frequency were found.*

Sample plots were selected in such a way to get maximum representation of different types of vegetation and plots were laid out in different part of the study area of 2 km radius. Analysis of the vegetation will help in determining the relative importance of each species in the study area and to reveal if any economically valuable species is threatened in the process.

Table 3-15 Calculation of Density, Frequency (%), Dominance, Relative Density, Relative Frequency, Relative Dominance & Important Value Index

Parameters	Formula
Density	Total No. of individuals of species/ Total No. of Quadrats used in sampling
Frequency (%)	(Total No. of Quadrats in which species occur/ Total No. of Quadrats studied) * 100
Dominance	Total Basal Area /Total area sampled
Abundance	Total No. of individuals of species/ No. of Quadrats in which they occur
Relative Density	(Total No. of individuals of species/Sum of all individuals of all species) * 100
Relative Frequency	(Total No. of Quadrats in which species occur/ Total No. of Quadrats occupied by all species) * 100
Relative Dominance	Dominance of a given species/Total Dominance of all species
Important Value Index	Relative Density + Relative Frequency + Relative Dominance

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Table 3-16 Tree Species in the core Zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Dominance	Relative Density	Relative Frequency	Relative Dominance	IVI	IUCN Conservation Status
1	Ficus Carica	Athi Maram	2	2	6	0.33	33.33	1	0.28	1.68	2.17	4.45	8.31	Least Concern
2	Cocos nucifera	Thennai	10	6	6	1.67	100.0	1.67	0.15	8.40	6.52	2.39	17.32	Not assessed
3	Azadirachta indica	Veppam	17	6	6	2.83	100.0	2.83	0.13	14.29	6.52	1.98	22.79	Not assessed
4	Tamarindus indica	Puli	10	6	6	1.67	100.0	1.66	0.20	8.40	6.52	3.09	18.02	Not assessed
5	Mangifera indica	Mamaram	7	6	6	1.17	100.0	1.16	0.07	5.88	6.52	1.11	13.52	Data insufficient
6	Morinda pubescens	Nuna	6	6	6	1.00	100.0	1	0.24	5.04	6.52	3.74	15.31	Not assessed
7	Couroupita guianensis	Nagalingam	5	3	6	0.83	50.00	1.67	0.14	4.20	3.26	2.18	9.64	Not assessed
8	Bombax ceiba	Sittan	4	4	6	0.67	66.67	1	0.08	3.36	4.35	1.27	8.98	Not assessed
9	Acacia nilotica	Karuvelai	4	4	6	0.67	66.67	1	0.28	3.36	4.35	4.45	12.16	Least Concern
10	Bambusa vulgaris	Moongil	4	4	6	0.67	66.67	1	0.50	3.36	4.35	7.92	15.63	Not assessed
11	Syzygium cumini	naval	5	1	6	0.83	16.67	5	0.11	4.20	1.09	1.79	7.07	Not assessed
12	Carica papaya	Papaya	3	3	6	0.50	50.00	1	0.09	2.52	3.26	1.43	7.21	Not assessed

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13	Psidium guajava	Guava	3	3	6	0.50	50.00	1	0.23	2.52	3.26	3.61	9.39	Not assessed
14	Cassia siamea	ManjalKonrai	3	2	6	0.50	33.33	1.5	0.07	2.52	2.17	1.11	5.81	Least Concern
15	Ficus religiosa	Arasa maram	3	3	6	0.50	50.00	1	0.09	2.52	3.26	1.35	7.13	Not assessed
16	Musa paradise	Vaazhai	3	3	6	0.50	50.00	1	0.08	2.52	3.26	1.19	6.97	Not assessed
17	Prosopis juliflora	Vaelikaruvai	3	3	6	0.50	50.00	1	0.21	2.52	3.26	3.34	9.13	Not assessed
18	Tectona grandis	Thekku	3	3	6	0.50	50.00	1	0.12	2.52	3.26	1.88	7.66	Not assessed
19	Thespesia populnea	Poovarasam	3	3	6	0.50	50.00	1	0.15	2.52	3.26	2.39	8.18	Not assessed
20	Causuarina equisetifolia	Savukku	2	2	6	0.33	33.33	1	0.21	1.68	2.17	3.34	7.20	Not assessed
21	Alstonia scholaris	Elilaipalai	2	2	6	0.33	33.33	1	0.27	1.68	2.17	4.31	8.16	Least Concern
22	Anacardium occidentale	Cashew	1	1	6	0.17	16.67	1	0.44	0.84	1.09	6.96	8.88	Not assessed
23	Artocarpus heterophyllus	Palaa	2	2	6	0.33	33.33	1	0.18	1.68	2.17	2.85	6.70	Not assessed
24	Aegle marmelos	Vilvam	1	1	6	0.17	16.67	1	0.16	0.84	1.09	2.50	4.43	Not assessed
25	Delonix elata	Perungondrai	1	1	6	0.17	16.67	1	0.17	0.84	1.09	2.62	4.54	Least Concern
26	Pithecellobium dulce	Kodukapuli	1	1	6	0.17	16.67	1	0.14	0.84	1.09	2.18	4.11	Not assessed
27	Citrus medica	Elumichai	2	2	6	0.33	33.33	1	0.23	1.68	2.17	3.61	7.46	Not assessed
Total			110	83					5.02					

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Table 3-17 Shrubs in the Core Zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants with species	Total No. of Quadrants	Density	Frequency (%)	Abundance	Relative Density	Relative Frequency	IUCN Conservation Status
1	Jatropagossypifolia	Kaatamanaku	32	17	24	1.17	0.71	1.65	14.43	17.17	Not Assessed
2	Calotropis gigantea	Erukam	16	12	24	0.58	0.50	1.17	7.22	12.12	Not Assessed
3	Tabernaemontanadivaricata	Crepe Jasmine	4	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
4	Catharanthus roseus	Nithyakalyani	4	3	24	0.13	0.13	1	1.55	3.03	Not Assessed
5	Datura metal	Ummattangani	7	4	24	0.21	0.17	1.25	2.58	4.04	Not Assessed
6	Robiniapseudoacacia	Black locust	15	5	24	0.71	0.21	3.4	8.76	5.05	Least Concern
7	Acalypha indica	Kuppaimeni	18	8	24	0.83	0.33	2.5	10.31	8.08	Not Assessed
8	Stachytarpheaurticifolia	Rat tail	13	9	24	0.63	0.38	1.67	7.73	9.09	Not Assessed
9	Woodfordiafruiticosa	Velakkai	4	3	24	0.13	0.13	1	1.55	3.03	Least Concern
10	Hibiscus rosa sinensis	Sembaruthi	3	2	24	0.13	0.08	1.5	1.55	2.02	Not Assessed
11	Lantana camara	Unnichi	8	6	24	0.38	0.25	1.5	4.64	6.06	Not Assessed
12	Parthenium hysterophorous	Vishapoond	45	13	24	2.08	0.54	3.85	25.77	13.13	Not Assessed
13	Euphorbia geniculata	Amman Pacharisi	5	3	24	0.13	0.13	1	1.55	3.03	Not Assessed

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Table 3-18 Herbs & Grasses in the core zone

S. No.	Scientific Name	Local Name	Total No. of species	Total of Quadrants	Total No. of Quadrants	Density	Frequency (%)	Abundance	Relative Density	Relative Frequency	IUCN Conservation status
1	Helicteresisora	Valampuri	4	2	30	0.07	0.07	1	0.79	2.15	Not assessed
2	Tridax procumbens	Vettukaayathalai	7	4	30	0.17	0.13	1.25	1.98	4.30	Not assessed
3	Heraculem spondylium	Hog Weed	19	10	30	0.67	0.33	2	7.94	10.75	Not assessed
4	Tridax procumbens	Cuminipachai	18	4	30	0.50	0.13	3.75	5.95	4.30	Not assessed
5	Senna occidentalis	Nattamsakarai	30	4	30	0.83	0.13	6.25	9.92	4.30	Not assessed
6	Plumbago zeylanica	Chittiramoolam	12	3	30	0.10	0.10	1	1.19	3.23	Not assessed
7	Scrophularia nodosa	Sarakkothini	18	7	30	0.50	0.23	2.14	5.95	7.53	Not assessed
8	Viburnum dentatum	Viburnum	7	5	30	0.17	0.17	1	1.98	5.38	Least concern
9	Cynodondactylon	Arugu	15	6	30	0.40	0.20	2	4.76	6.45	Not assessed
10	Euphorbia hirta	Amman Pacharisi	7	4	30	0.17	0.13	1.25	1.98	4.30	Not assessed
11	Sida cordifolia	Maanikham	50	4	30	1.50	0.13	11.25	17.86	4.30	Not assessed
12	Sida acuta	Malaidangi	12	3	30	0.33	0.10	3.33	3.97	3.23	Not assessed
13	Laportea canadensis	Peruganchori	28	20	30	1.00	0.67	1.5	11.90	21.51	Not assessed
14	Sporobolus fertilis	Giant Parramatta Grass	10	4	30	0.30	0.13	2.25	3.57	4.30	Not assessed
15	Tephrosia purpurea	Kavali	23	4	30	0.67	0.13	5	7.94	4.30	Not assessed

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3.7.4 Calculation of species diversity by Shannon – wiener Index, Evenness and richness by Margalef:

Biodiversity index is a quantitative measure that reflects how many different type of species, there are in a dataset, and simultaneously takes into account how evenly the basic entities (such as individuals) are distributed among those types of species. The value of biodiversity index increases both when the number of types increases and when evenness increases. For a given number of type of species, the value of a biodiversity index is maximized when all type of species are equally abundant. Interpretation of Vegetation results in the study area is given below.

Table 3-19 Calculation of species diversity

Description	Formula
Species diversity – Shannon – Wiener Index	$H = \sum [(p_i) * \ln(p_i)]$ Where p_i : Proportion of total sample represented by species i : number of individuals of species i / total number of samples
Evenness	H/H_{max} $H_{max} = \ln(s) =$ maximum diversity possible $S =$ No. of species
Species Richness by Margalef	$RI = S - 1 / \ln N$ Where $S =$ Total Number of species in the community $N =$ Total Number of individuals of all species in the community

3.7.5 Calculation of species diversity by Shannon – wiener Index, Evenness and richness by Margalef for trees

i. Species Diversity

Scientific Name	Common Name	No. of Species	Pi	ln (Pi)	Pi x ln (Pi)
Ficus Carica	Athi Maram	2	0.018182	-4.00733	-0.07286
Cocos nucifera	Thennai	10	0.090909	-2.3979	-0.21799
Azadirachta indica	Veppam	17	0.154545	-1.86727	-0.28858
Tamarindus indica	Puli	10	0.090909	-2.3979	-0.21799
Mangifera indica	Mamaram	7	0.063636	-2.75457	-0.17529
Morinda pubescens	Nuna	6	0.054545	-2.90872	-0.15866
Couroupita guianensis	Nagalingam	5	0.045455	-3.09104	-0.1405

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Bombax ceiba	Sittan	4	0.036364	-3.31419	-0.12052
Acacia nilotica	Karuvelai	4	0.036364	-3.31419	-0.12052
Bambusa vulgaris	Moongil	4	0.036364	-3.31419	-0.12052
Syzygium cumini	naval	5	0.045455	-3.09104	-0.1405
Carica papaya	Papaya	3	0.027273	-3.60187	-0.09823
Psidium guajava	Guava	3	0.027273	-3.60187	-0.09823
Cassia siamea	ManjalKonrai	3	0.027273	-3.60187	-0.09823
Ficus religiosa	Arasa maram	3	0.027273	-3.60187	-0.09823
Musa paradise	Vaazhai	3	0.027273	-3.60187	-0.09823
Prosopis juliflora	Vaelikaruvai	3	0.027273	-3.60187	-0.09823
Tectona grandis	Thekku	3	0.027273	-3.60187	-0.09823
Thespesia populnea	Poovarasam	3	0.027273	-3.60187	-0.09823
Causuarina equisetifolia	Savukku	2	0.018182	-4.00733	-0.07286
Alstonia scholaris	Elilaipalai	2	0.018182	-4.00733	-0.07286
Anacardium occidentale	Cashew	1	0.009091	-4.70048	-0.04273
Artocarpus heterophyllus	Palaa	2	0.018182	-4.00733	-0.07286
Aegle marmelos	Vilvam	1	0.009091	-4.70048	-0.04273
Delonix elata	Perungondrai	1	0.009091	-4.70048	-0.04273
Pithecellobium dulce	Kodukapuli	1	0.009091	-4.70048	-0.04273
Citrus medica	Elumichai	2	0.018182	-4.00733	-0.07286
Total		110			-3.02215005

H (Shannon Diversity Index) =3.02

Shrubs

Scientific Name	Common Name	No. of Species	Pi	ln (Pi)	Pi x ln (Pi)
Jatropagossypifolia	Kaatamanaku	32	0.183908	-1.69332	-0.31142
Calotropis gigantea	Erukam	16	0.091954	-2.38647	-0.21945
Tabernaemontanadivaricata	Crepe Jasmine	4	0.022989	-3.77276	-0.08673
Catharanthus roseus	Nithyakalyani	4	0.022989	-3.77276	-0.08673
Datura metal	Ummattangani	7	0.04023	-3.21315	-0.12926
Robiniapseudoacacia	Black locust	15	0.086207	-2.45101	-0.21129
Acalypha indica	Kuppaimeni	18	0.103448	-2.26868	-0.23469
Stachytarphaurticifolia	Rat tail	13	0.074713	-2.59411	-0.19381
Woodfordiafruticosa	Velakkai	4	0.022989	-3.77276	-0.08673
Hibiscus rosa sinensis	Sembaruthi	3	0.017241	-4.06044	-0.07001
Lantana camara	Unnichi	8	0.045977	-3.07961	-0.14159
Parthenium hysterophorous	Vishapoondur	45	0.258621	-1.35239	-0.34976
Euphorbia geniculata	Amman Pacharisi	5	0.028736	-3.54962	-0.102
Total		174			-2.2234

H (Shannon Diversity Index) =2.22

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Herbs

Scientific Name	Common Name	No. of Species	Pi	ln (Pi)	Pi x ln (Pi)
Helicteresisora	Valampuri	4	0.015385	-4.17439	-0.06422
Tridax procumbens	Vettukaayathalai	7	0.026923	-3.61477	-0.09732
Heraculem spondylium	Hog Weed	19	0.073077	-2.61624	-0.19119
Tridax procumbens	Cuminipachai	18	0.069231	-2.67031	-0.18487
Senna occidentalis	Nattamsakarai	30	0.115385	-2.15948	-0.24917
Plumbago zeylanica	Chittiramoolam	12	0.046154	-3.07577	-0.14196
Scrophularia nodosa	Sarakkothini	18	0.069231	-2.67031	-0.18487
Viburnum dentatum	Viburnum	7	0.026923	-3.61477	-0.09732
Cynodondactylon	Arugu	15	0.057692	-2.85263	-0.16457
Euphorbia hirta	Amman Pacharisi	7	0.026923	-3.61477	-0.09732
Sida cordifolia	Maanikham	50	0.192308	-1.64866	-0.31705
Sida acuta	Malaidangi	12	0.046154	-3.07577	-0.14196
Laportea canadensis	Peruganchori	28	0.107692	-2.22848	-0.23999
Sporobolus fertilis	Giant Parramatta Grass	10	0.038462	-3.2581	-0.12531
Tephrosia purpurea	Kavali	23	0.088462	-2.42519	-0.21454
Total		260			-2.51

H (Shannon Diversity Index) =2.51

i. Species diversity calculation

Details	H	Hmax	Evenness	Species Richness (Margalef)
Trees	3.02	3.36	0.89	5.95
Shrubs	2.22	2.56	0.86	2.32
Herbs	2.51	2.70	0.92	2.51

From the above, it can be interpreted that herb community has higher diversity. While the tree community shows less diversity. It is also observed that most of the quadrates have controlled generation of plant species with older strands. Higher herb species diversity can be interpreted as a greater number of successful species and a more stable ecosystem where more ecological niches are available, environmental change is less likely to be damaging to the ecosystem. Species richness is high for herb community when compared with tree and shrubs.

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3.7.6 Floral study in the Buffer Zone:

Economically important Flora of the study area

Agricultural crops: The important crops of this district are Paddy, Maize, Ragi, Banana, Sugarcane, Cotton, Tamarind, Coconut, Mango, Groundnut, Vegetables and Flowers also grown by the local people.

Medicinal species: The nearby area is also endowed with the several medicinal species which are commonly available in the shrub forest and waste lands. The common medicinal species of the region are Asparagus racemosus (satamulli), Aegle marmelos (golden apple), Azadirachta indica (Neem) etc.

Rare and endangered floral species: There are no rare or endangered or threatened (RET) species of in the study area. During the vegetation survey, there are no any species which are endangered or threatened under IUCN (International Union for Conservation of Nature and Natural resources) guidelines.

3.7.7 Faunal Communities

Both direct and indirect observation methods were used to survey the fauna.

- Point Survey Method: Observations were made in each site for 15 minutes duration.

Roadside Counts: The observer traveled by motor vehicles from site to site, all sightings were recorded (this was done both in the day and night time). An index of abundance of each species was also established.

Pellet and Track Counts: All possible animal tracks and pellets were identified and recorded (South Wood, 1978).

Additionally, survey of relevant literature was also done to consolidate the list of fauna distributed in the buffer zone.

Based on the Wildlife Protection Act, 1972 (WPA 1972, Anonymous. 1991, Upadhyay 1995, Chaturvedi and Chaturvedi 1996) species were short-listed as Schedule II or I and considered herein as endangered species. Species listed in Ghosh (1994) are considered as Indian Red List species.

Methodology Adopted:

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Point Survey method was adopted for this development project where observations were made in each site for 15 minutes duration (10 times).

Study in the core zone:

Point Survey method was adopted for the study within 2 km radius and the following species were observed.

Mammals: No wild mammalian species was directly sighted during the field survey. Discussion with local villagers located around the study area also could not confirm presence of any wild animal in that area. Three striped Palm Squirrel, Common Indian Hare, Common mongoose, Common Mouse etc were observed during primary survey.

Avifauna: Since birds are considered to be the indicators for monitoring and understanding human impacts on ecological systems (Lawton, 1996) attempt was made to gather quantitative data on the avifauna by walk through survey within the entire study area and surrounding areas. From the primary survey, a total of 26 species of avifauna were identified and recorded in the study area. The diversity of avifauna from this region was found to be quite high and encouraging.

The list of fauna species found in the study area is mentioned in Table below.

Table 3-20 List of fauna species

Scientific Name	Common Name	Schedule of wildlife protection act	IUCN conservation status
Mammals			
Funambulus pennanti	Palm Squirrel	IV	Least Concern
Mus rattus	Indian rat	IV	Not listed
Bandicota bengalensis	Indian mole rat	IV	Least Concern
Funambulus palmarum	Three striped palm squirrel	IV	Least Concern
Herestes edwardsii	Common Mongoose	IV	Not listed
Mus musculus	Common Mouse	IV	Least Concern
Bandicota indica	Rat	IV	Least Concern
Lepus nigricollis	Indian Hare	IV	Least Concern
Felis catus	Cat	Not listed	Not listed

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Canis lupus familiaris	Indian dog	Not listed	Not listed
Bos Indicus	Indian Cow	Not listed	Not listed
Bubalus bubalis	Buffalo	I	Not listed
Sus scrofa domesticus	Domestic pig	Not listed	Not listed
Birds			
Milvus migrans	Black kite	IV	Least concern
Saxicoloides fulvicatus	Indian Robin	IV	Least concern
Pycnonotus cafer	Red vented Bulbul	IV	Least concern
Phragamaticola aedon	Thick billed warbler	IV	Least concern
Pericrocotus cinnamomeus	Small Minivet	IV	Least concern
Eudynamys scolopaceus	Koel	IV	Least concern
Psittacula krameni	Rose ringed parakeet	IV	Least concern
Dicrurus marcocercus	Black drongo	IV	Least concern
Columba livia	Rock pigeon	IV	Least concern
Corvus splendens	House crow	IV	Least concern
Alcedo atthis	Small blue kingfisher	IV	Least concern
Cuculus canorus	Common Cukoo	IV	Least concern
Reptiles & Amphibians			
Chameleon zeylanicum	Chameleon	IV	Not listed
Calotes versicolor	Common garden lizard	II	Not listed
Bungarus caeruleus	Common krait	IV	Not listed
Ophisops leschenaultia	Snake eyed lizard	--	Not listed
Bufo melanostictus	Toad	IV	Least concern
Ptyas mucosa	Rat snakes	IV	Least concern
Hemidactylus sp.	House lizard	--	Not listed
Butterflies			
Danaus chrysippus	Plain Tiger	--	Not listed
Papilio demoleus	Common lime	--	Not listed

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Villages	Household	Population	Sex Ratio		Literacy Rate		SC	ST
			Male	Female	Male	Female		
Muthuganapalli	281	1135	581	554	365	269	408	0
Poonapalli	738	3061	1542	1519	1111	889	544	9
Onalvadi	1607	6656	3411	3245	2475	1968	1360	0
Gopanapalli	342	1388	716	672	478	358	276	2
Sanamavu	925	4248	2182	2066	1487	1062	659	183
Thiyarandurgam	919	4143	2136	2007	1337	908	442	82
Panchakshipuram	442	1882	973	909	664	502	477	0
Anniyalam	614	2558	1308	1250	890	671	823	0
Thandarai	605	2664	1349	1315	784	605	363	4
Hosappuram	763	3561	1830	1731	1166	882	773	0
Bodichipalli	1176	4982	2549	2433	1638	1212	432	0
Pachapanatti	863	3895	1959	1936	1183	915	380	231
Anekollu	628	2858	1471	1387	861	621	136	1
Arasakuppam	988	4196	2148	2048	1378	1027	313	87
Bevunutham	823	3768	1985	1783	1157	778	300	3

3.9 Traffic Impact Assessment

Traffic data collected continuously for 24 hours by visual observation and counting of vehicles under three categories, viz., heavy motor vehicles, light motor vehicles and two/three wheelers. As traffic densities on the roads are high, two skilled persons were deployed simultaneously at each station during each shift- one person on each of the two directions for counting the traffic. At the end of each hour, fresh counting and recording was undertaken. Total numbers of vehicles per hour under the three categories were determined.

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Figure 3.14: Site Connectivity

Table 3-22: No. of Vehicles per Day

S. No	Vehicles Distribution	Number of Vehicles Distribution/Day	Passenger Car Unit (PCU)	Total Number of Vehicle in PCU
		SH-17 A	-	SH-17A
1	Cars	618	1	618
2	Buses	457	3	1371
3	Trucks	209	3	627
4	Two wheelers	1028	0.5	514
5	Three wheelers	382	1.5	573
	Total		-	3703

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Table 3-23: Existing Traffic Scenario and LOS

Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS
SH17A	3703/24=154	405	0.38	B

Note: The existing level may be “Very Good” for MDR=665.

V/C	LOS	Performance
0.0-0.2	A	Excellent
0.2-0.4	B	Very Good
0.4-0.6	C	Good/ Average/ Fair
0.6-0.8	D	Poor
0.8-1.0	E	Very Poor

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4. Anticipated Environmental Impacts & Mitigation Measures

This chapter describes the anticipated impacts on the environment and mitigation measures. The method of assessment of impacts including studies carried out, modeling techniques adopted to assess the impacts where pertinent should be elaborated in this chapter. It should give the details of the impacts on the baseline parameters, both during the construction and operational phases and suggests the mitigation measures to be implemented by the proponent.

4.1 Introduction

An environmental impact is defined as any change to the environment, whether adverse or beneficial, resulting from a facility's activities, products, or services. The anticipation of the possible & potential Environmental impact due to the proposed project is a key step in EIA. Based on the impacts assessed, appropriate mitigation measures should be adopted to maintain the environment with less or no damage.

Environmental Impacts can be group into Primary impacts & Secondary Impacts.

Primary Impacts: These impacts are directly attributed by the project.

Secondary Impacts: These are those which are induced by primary impacts and include the associated investments and changed patterns of the social and economic activities by the action.

Assessment of impacts is done for the following Environmental Parameters:

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

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4.2 LAND ENVIRONMENT:

Aspect	Impact	Mitigation Measures									
<i>Mining of Rough stone</i>	<p>The proposed 2.40.0 Ha mine in Mugalur mines rough stone of 427630m³ respectively. The quarry operation is proposed to carry out with conventional open cast semi mechanized mining with 7.0-meter vertical bench and bench width of 5.0 meter. At the end of 5 years, mining lease area will be converted into ultimate pit of</p> <table border="1"> <thead> <tr> <th colspan="3">ULTIMATE PIT DIMENSION</th> </tr> <tr> <th>Length (m)</th> <th>Width (m)</th> <th>Depth(m)</th> </tr> </thead> <tbody> <tr> <td>170</td> <td>108</td> <td>50 (1m Topsoil + 49m Rough Stone)</td> </tr> </tbody> </table> <p>This may lead to soil erosion, degradation and resource loss.</p>	ULTIMATE PIT DIMENSION			Length (m)	Width (m)	Depth(m)	170	108	50 (1m Topsoil + 49m Rough Stone)	<p>The proposed project site is not prone to any kind of soil erosion (Source: Bhuvan).</p> <p>In addition, garland drainage of 1m x 1m will be provided to avoid storm water run-off.</p> <p>It is proposed to plant 250 Nos of local tree species (Neem, Magizham, Tamarind, Elandhai and Vilvam) every year along the roads, outer periphery of the mining area which enhances the binding property of the soil.</p> <p>It is proposed to improve the affected land wherever possible for better land use, so as to support vegetation and creation of water reservoir in the ultimate pit after quarrying.</p>
ULTIMATE PIT DIMENSION											
Length (m)	Width (m)	Depth(m)									
170	108	50 (1m Topsoil + 49m Rough Stone)									

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	<p>The main impact of open cast mining on land-use is land degradation. The land is bound to be excavated for mining of Rough Stone Quarry.</p> <p>Impact on soil of the study area will be minimal as there are no wastewater generated, heavy metal infusion, stack emissions.</p> <p>Impact due to transformation of terrain characteristics over the large area results in soil degradation.</p>	<p>The topsoil of the lease area is 18304 m³. Topsoil formation will be backfilled in the odai portion of the lease area. And Partly used for road low lying area and Plantation Purposes.</p> <p>The source of dust generation is majorly due to drilling, blasting, loading & unloading of the mined out mineral, the impact will be mitigated by water sprinkling regularly once in 3hrs.</p> <p>The proposed mining activity is carried out in almost plain terrain where the contour level difference is 4m.</p> <p>After removal of minerals, undulating portion will be created. Excavated area or ultimate pit at the end of the mine period will be converted into water reservoir. Two tier tree belts will be planted along the safety distance.</p>
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	<p>Solid waste will be generated from the mining activity as there will be refuse also generation of domestic waste. If it not properly managed, may cause odor and health problem to the workers.</p>	<p>The 95% recovery is achieved by extracting the entire mineable reserve. Hence there will be no refuse generation due to the mining activity. Apart from that, a very meagre quantity of domestic waste will be generated in the project, which will be handed over to the local body on daily basis.</p>
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4.3 WATER ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.</i>	The mining in the area may cause ground water contamination due to intersection of the water table and mine runoff.	The water table will not be intersected during mining, as the ultimate depth is limited upto 36 meter below the ground level, whereas the ground water table is at 65m below the ground level. The municipal wastewater will be disposed into septic tanks of 5 cum and soak pit. No chemicals

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	<p>The ground water depletion may occur due to mining activity</p> <p>Chemicals consisting of nitrate used for blasting may pollute the surface run off.</p>	<p>consisting of toxic elements will be used for carrying out mining activity.</p> <p>The ground water table is at a depth of 65m BGL, the mining operation will not affect the aquifer. The ultimate pit at the end of the mining operation will be used for rainwater storage, the stored water will be used for green belt development and further the stored water will be used for domestic purposes (other than drinking) after proper treatment.</p> <p>Further, the run-off water will be stored in sumps and after proper treatment; water will be used in the mining operation for dust suppression.</p>
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	Improper management of Domestic wastewater in the Mine lease may create unhygienic conditions in the site thereby causing health impacts to the labors	Provision of urinals/Latrines along with septic tank followed by soak pit arrangement will be provided in the Mine Lease area for the proper management of wastewater
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4.4 AIR ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.</i>	<p><i>Impacts during Operation Phase</i></p> <p>During mining operation, fugitive dust and other air pollutants like particulate matter (PM₁₀ & PM_{2.5}) will be generated.</p> <p>The main source of pollutants arises due to drilling and blasting. 2 Nos of Tipper will be used for loading and unloading, 1 No of</p>	<p><i>Mitigation Measures during Operation Phase</i></p> <p>It is proposed to plant 1250 Nos of local species (with 250 Nos each year) along the haul roads, outer periphery within the lease area to prevent the impact of dust in consultation with Forest department for the plantation of trees (Neem, Magizham, Tamarind, Elandhai and Vilvam) in two tier to combat air pollution and with herbs (Nerium) in between the tree species.</p> <p>Planning transportation routes of the mined out mineral, so as to reach the</p>

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	<p>Excavator (0.90 m³ bucket capacity (with rock breaker attachment) will be used for excavation of the mineral which contributes to the generation of fugitive dust. In addition, blasting will be done using explosives leading to the generation of dust.</p> <p><u>Effect on Human</u></p> <ul style="list-style-type: none"> • Adverse effect on human health of working labourers and neighbouring villagers like effect on breathing and respiratory system, damage to lung tissue, influenza or asthma. • Dust generation due to loading and unloading of mineral and due to 	<p>nearest paved roads (an approach road) by shortest route connecting to SH 17A.</p> <p>Alternatively, gravelled road may be constructed between mine lease area and nearest major district road connectivity. The speed of trucks plying on the haul road will be limited to 20km/hr to avoid generation of dust.</p> <p>The trucks will be covered by tarpaulin.</p> <p>Overloading will be avoided.</p> <p>Personal Protective Equipments (PPEs) like eye goggles, dust mask, leather gloves, safety shoes & boots will be provided to the workers engaged at dust generation points like excavation and loading points.</p>
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	<p>transportation can also affect the workers as well as nearby villagers.</p> <p><u>Effect on Plants</u></p> <ul style="list-style-type: none"> Stomatal index may be minimized due to dust deposit on leaf. 	0.5 kLD of water will be proposed for sprinkling on unpaved roads to avoid dust generation during transportation.
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Air Quality Modelling:

The major air pollutant from the mining activity will be suspended particulate matter. SPM will be emitted during various stages of the mining activity like excavation, drilling, blasting, loading, Haulage, etc. The pollutants released into the atmosphere will disperse in the down wind direction and finally reach the ground at farther distance from the source. The concentration of ground level concentrations mainly depends upon the strength of the emission source and micrometeorology of the study area.

Table 4-1 Overview of the source parameters

S. N O	Description	Symbol	Quantity
1.	Moisture Content (%)	M	5
2.	Silt Content (%)	s	10
3.	Wind Speed (m/s)	u	3
4.	Production (m ³ /Day)		804.88
5.	No. of excavator on site		1
6.	Average Speed of tipper on haul road (kmph)	S	25
7.	Weight of fully loaded truck (tons)	W	25

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8.	Number of Tippers per day		135
9.	Distance travelled after loading per tipper per day (km)	VKT	2
10.	No of Working Days in Year		260
11.	Working Hours per day (hrs)		8
12.	Open Pit Area (Sq.m)	Aa	8025
13.	Mist spraying Control Efficiency during excavation, Loading/Unloading and Haulage (%)	η	91.95
14.	Average time between spray application (hours)	t	4
15.	Spray Application rate (litres/ m ²)	k	8
16.	Evaporation rate of sprayed water (mm/hr)	p	1.2
17.	Vehicle traffic in Haul road (vehicles /hr)	r	17

Emission Calculations

Table 4-2 Emission factors for uncontrolled emissions

Activity	Emission Factor		References	
Topsoil handling	Scraper	0.029 Kg TSPM/ average time between spray application	<i>USEPA (2008)</i>	<i>Jose I. Huertas & Dumar A. Camacho & Maria E. Huertas, Standardized emissions inventory methodology for open-pit mining areas, Environmental Science</i>
	Bulldozing	15.048 kg PM ₁₀ /	<i>USEPA (2008)</i>	

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		Hr excavation		<i>Pollution Research, 2012.</i>
	Loading	2.3237E-04 kg PM ₁₀ / average time between spray application	<i>USEPA (2006a)</i>	
	Haulage	0.69718 kg PM ₁₀ /VKT	<i>USEPA (2006a) Cowherd (1988)</i>	
Rough stone mining	Wet drilling	8.00E-5 lbs PM ₁₀ / Ton produce	EPA. August, 2004. Section 11.19.2, Crushed Stone Processing and Pulverized Mineral Processing. In: Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition, AP-42. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.	
	Loading	1.00E-4 lbs PM ₁₀ / Ton produce		

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4.5 NOISE ENVIRONMENT:

Aspect	Impact	Mitigation Measures
<i>Drilling, Blasting, Loading and unloading, Transportation of the excavated mineral.</i>	<p>Usage of Equipments (Excavator – 82 dBA, Tipper -, Jack Hammer), Machinery and trucks used for transportation will generate noise.</p> <p>Noise from the machinery can cause hypertension, high stress level, hearing loss, sleep disturbance etc due to prolonged exposure.</p> <p>Number of vehicles will be increased due to the proposed mining activity hence vehicle may collate which may result in unwanted sound and can also cause impact on human health like breathing and respiratory</p>	<ul style="list-style-type: none"> • The machinery will be maintained in good running condition so that noise will be reduced to minimum possible level. • Awareness will be imparted to the workers once in six months about the permissible noise level and effect of maximum exposure to those levels. Adequate silencers will be provided in all the diesel engines of vehicles. • It will be ensured that all transportation vehicles carry a valid PUC Certificates. • Speed of trucks entering or leaving the mine will be limited to moderate speed (20km/hr) to prevent undue noise from empty vehicles.

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	<p>system, damage to lung tissue, influenza or asthma.</p>	<p>The noise generated by the machinery will be reduced by proper lubrication of the machinery and other equipments.</p> <ul style="list-style-type: none"> • It is proposed to plant 1250 Nos. of local species (Neem, Mandharai, Athi, Ashoka and Villam) to reduce the impact of noise in the study area. The development of green belts around the periphery of the mine will be implemented to attenuate noise. • The trucks will be connected to SH 17A • Health check-up camps will be organized once in six month. • Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas. • Provision of quiet areas, where employees can get relief from workplace noise.
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4.6 BIOLOGICAL ENVIRONMENT:

Aspect	Impacts	Mitigation Measures
Site Clearance	Loss of habitat due to site clearance which may lead to ecological disturbance.	The proposed mining lease is already a barren land hence no site clearance is required. Only few shrubs and herbs like parthenium sp., prosopis juliflora were present.
Planting of trees	Development of afforestation in the mine lease area will have a positive impact as the land was initially a barren.	7.5m safety distance will be provided all along the boundary of the mine lease area. Around 0.39.0 Ha of land is utilized for greenbelt development (1250 Nos – 5 years) This will attract avifauna thus enhancing the existing ecological environment.

4.7 SOCIO ECONOMIC ENVIRONMENT:

Aspect	Impact	Mitigation Measures
Proposed implementation of Mining activity	Land acquisition for the implementation of the project may result in loss of assets, which in return will make the PAP to shift, losing their normal routine and livelihood	The proposed project is a Government Poromboke Land and the land is vacant where there are no human settlement within 500m radius. Hence the project does not involve Rehabilitation and resettlement

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Drilling, Blasting, Loading and Transportation of the mined out mineral	The mining activities may cause dust emission, noise pollution thereby causing disturbance to the local habitat	No human activity is envisaged near the project site. The nearest human settlement is observed in Koottur, which is 1.2 km away from the project site.
Grazing and Rearing activities in the nearby villages	The Grazing and rearing of local animals like Sheep, Goat and cows is observed in the nearby villages, which may be affected due to the project as the movement of the vehicles may affect/injure the animals	It is proposed to use gravelled road and nearest paved road and preferred not to use unpaved roads. In addition to that, the speed of trucks will be limited to 20km/hr to avoid any accidents
Employment opportunity	The project will improve the livelihood of the local people	After the development of the proposed mine, it will improve the livelihood of local people and also provide the direct and indirect employment opportunities. The rough stone and gravel for the infrastructural development in the area will be made available from the local markets at reasonably lower price.
Corporate Environmental Responsibility	The proposed project will help in natural resource augmentation & Community resource development	As a part of CER, 2% of the project cost i.e, Rs. 1,35,000 will be allocated. The detailed agenda, which is to be executed, has been

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		<p>framed. The salient features of the programme are as follows:</p> <p>Developing the library, sports/drinking water facility in nearby Government school.</p>
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4.8 Other Impacts:

S. No	Aspect	Impact	Mitigation measure
1.	Risk due to the proposed mining	Accidents may occur in the mine area	Proper PPE kit (Safety jacket, Helmet, Safety Shoes, Gloves) etc will be provided to each and every employee in the mine lease concerning the safety of each labor
2.	Screening of Labours	Labours will be checked for health condition before employing them in mining activity	All the labours will be checked and screened for health before employing them After employing them, periodical medical check-ups will be held once in every six months

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5. ANALYSIS OF ALTERNATIVES

5.1 General

Analysis of alternative is a significant aspect in planning and designing any project. Cost benefit analysis should be work out along with other parameters while choosing an alternative in such a way that the production is maximum and the mining operation is environment friendly and cost effective. The mine plan and mine closure plan has been approved by The Deputy Director, Department of Mining and Geology, Krishnagiri District prior to submission of the Form-1 and PFR.

ToR issued by the SEIAA-TN vide Letter No. SEIAA-TN/F. No. 9253/ ToR-1202/2022 Dated: 14.07.2022. The study for alternative analysis involves in-depth examination of site and technology.

5.1.1 Analysis for Alternative Sites and Mining Technology

5.1.1.1 Alternative Site

The proposed project is the mining of Rough Stone Quarry and is proposed after prospecting the area. In other words, these can be implemented in the mineral available zone. Since the mining block has been allotted in principle by the State Government, there is no case for studying and exploring any other site as an alternative.

5.1.1.2 Alternative Technology

The open cast mining could be manual/semi-mechanized/mechanized depending upon the geological and topographical setup of the mineral (ROM) to be won and the daily/annual targeted production

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Table 0-1 Alternative for Technology and other Parameters

Sr. No.	Particular	Alternative Option 1	Alternative Option 2	Remarks
1.	Technology	Opencast semi mechanized mining	Opencast mechanized mining	Opencast mechanized mining is preferred
2.	Employment	Local employment.	Outsource employment	Local employment is preferred Benefits: Provides employment to local people along with financial benefits No residential building/ housing is required.
3.	Labour transportation	Public transport	Private transport	Local labors will be deployed from Koottur, Kallu Barundur so they will either reach mine site by bicycle or by foot. Benefits: Cost of transportation of labors will be negligible
4.	Material transportation	Public transport	Private transport	Material will be transported through trucks/trolleys on the contract basis Benefits: It will give indirect employment.
5.	Water	Tanker supplier	Ground water	Tanker supply will be preferred. Water will be sourced from Koottur Village, 1.2 km in Northeast.

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6 Environmental Monitoring Plan

6.1 Introduction

This chapter covers the planned environmental monitoring program. It also includes the technical aspects of monitoring the effectiveness of mitigation measures.

Monitoring is important to measure the efficiency of control measures. Post project monitoring of environmental parameters is of key importance to assess the status of environment. The monitoring program will serve as an indicator for identifying environmental degradation due to operation of the project and help in selection of appropriate mitigation measures to safeguard the environment.

Regular monitoring is as important as control of pollution since the efficacy of control measures can only be determined by monitoring. The project proponent has awarded **M/s. Ecotech Labs Pvt Ltd** for carrying out the post project environmental monitoring (PPM) and timely compliance report submission to various regulatory authorities.

Therefore, regular monitoring programme of the environmental parameters is essential to take into account the changes in the environmental quality. The objectives of monitoring are to:-

- Verify effectiveness of planning decisions.
- Measure effectiveness of operational procedures.
- Confirm statutory and corporate compliance; and
- Identify unexpected changes.

Table 6-1 Environmental Monitoring Programme

Parameters	Sampling	Frequency	Location
Air environment – Pollutants PM 10 PM 2.5	5 locations	24 hourly twice a week 4 hourly. Twice a week, One non monsoon season	Project Site, Madina Masjid-Machnayakanpalli, Emakalnatham, Veera Anjaneyar temple-

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SO ₂ NO _x		8 hourly, twice a week 24 hourly, twice a week	Settipalli, Bus stop, Soothalam, Govt. High school, Doddabelur
Noise	5 locations	24 hourly Once in 5 locations	Project Site, Madina Masjid-Machnayakanpalli, Emakalnatham, Veera Anjaneyar temple-Settipalli, Bus stop, Soothalam, Govt. High school, Doddabelur
Water (Ground water) <ul style="list-style-type: none"> • pH • Temperature • Turbidity • Magnesium Hardness • Total Alkalinity • Chloride • Sulphate • Fluoride • Nitrate • Sodium • Potassium • Salinity • Total nitrogen • Total Coliforms • Fecal Coliforms 	5 locations	Once in 5 locations	Project Site, Madina Masjid-Machnayakanpalli, Emakalnatham, Veera Anjaneyar temple-Settipalli, Bus stop, Soothalam, Govt. High school, Doddabelur
Water (surface water) <ul style="list-style-type: none"> • pH • Temperature • Turbidity • Magnesium Hardness 	Sample from nearby lakes/river	One time Sampling	Devaganapalli Lake

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<ul style="list-style-type: none"> • Total Alkalinity • Chloride • Sulphate • Fluoride • Nitrate • Sodium • Potassium • Salinity • Total nitrogen • Total Coliforms • Fecal Coliforms 			
Soil (Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	5 locations	Once in 5 locations	Project Site, Madina Masjid-Machnayakanpalli, Emakalnatham, Veera Anjaneyar temple-Settipalli, Bus stop, Soothalam, Govt. High school, Doddabelur
Ecology and biodiversity Study	Study area covering 5 km radius	One time Sampling	
Socio- Economic study (Population, Literacy Level, employment, Infrastructure like school, hospitals & commercial establishments)	Villages around 5 km radius	One time Sampling	

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Table 6-2: Monitoring Schedule during Mining

S. No.	Attributes	Parameters	Frequency	Location
1.	Ambient Air Quality at Mine Site & Fugitive Dust Sampling	PM 10 PM 2.5 SO ₂ NO _x	Once in a Month	Project Site
2.	Ground water Quality	Drinking Water Parameters, As per IS - 10500: 2012	Half yearly	Project Site
3.	Surface Water Quality	Class will be assessed as per the CPCB Guidelines	Half yearly	Project Site
4.	Soil Quality	(Organic matter, Texture, pH, Electrical Conductivity, Permeability, Water holding capacity, Porosity)	Half yearly	Project Site
5.	Noise Level Monitoring	Noise level in dB(A) Quarterly/half yearly	Half yearly	Project Site

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7 Additional Studies

7.1 General

This chapter covers the details of the additional studies viz. Risk assessment, Disaster Management, Public Hearing, Rehabilitation and resettlement.

7.1.1 Public Hearing:

As the proposed mining project falls under 1(a), Category B1 – Cluster Mining.

Existing Quarries – 1. Thiru.B.Nagaraja reddy – 2.00.0 Ha

2. Thiru.P.Venkata reddy – 3.70.0 Ha

3. Thiru.C.Venkatadri – 2.31.75 Ha

Abandoned / Old Quarries – 1. Thiru.M.R.Sivalingappa – 5.00.0 Ha

2. Thiru.Annaiya reddy – 0.81.0 Ha

Proposed Quarries – 1. M/s.R.V.Enterprises – 2.40.0 Ha

Other Proposed / Applied Quarries – Nil.

The Total extent of the Existing / Proposed quarries are 10.41.75 Ha

Hence under 7(III) of EIA notification 2006 and its subsequent amendments, the project involves the Public Consultation and the same will be conducted under SPCB (TN) in Krishnagiri District. The proceedings of the same will be incorporated in the Final EIA Report.

7.1.2 Risk assessment:

For mining projects to be successful, it should meet not only the production requirements, but also maintain the highest safety standards for all concerned. The industry has to identify the hazards, assess the associated risks and bring the risks to tolerable level on a continuous basis.

Mining is a hazardous operation and consists of considerable environmental, health and safety risk to miners. Safety risk assessment is the systematic identification of potential hazards in workplace as a first step to controlling the possible risk involved. Unsafe conditions in mines lead to a number of accidents and cause loss and injury to human lives, damage to property, interruption in production etc.

Risk Assessment is a systematic method of identifying and analyzing the hazards associated with an activity and establishing a level of risk for each hazard.

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The hazards cannot be completely eliminated, and thus there is a need to define and estimate an accident risk level possible to be presented either in quantitative or qualitative way. Because of the existing hazards of mining as an activity and the complexity of mining machinery and equipment and the associated systems, procedures and methods, it is not possible to be naturally safe. Regardless of how well the machinery or methods are designed, there will always be potential for serious accidents. It is not possible for an external agency to ensure the safety of an organization such as a mining company nor of the machinery or methods it uses.

Risk Assessment tools are used to help to prevent major hazards in mining industry, e.g., fire, explosion, wind-blast, outbursts, spontaneous combustion, roof instability, chemical and hazardous substances, etc., from injuring miners. The structured process associated with risk assessment helps to characterize the major hazards and evaluate engineering, management and work process factors that impact how a mine mitigates its highest risk. The degree of success is influenced by the existing risk management culture at the mining operation, identification of risk, the design of the risk assessment, the risk management, the character of the risk assessment process, the extent of the existing controls, and the quality of the new ideas.

Need for Risk Assessment

- Identify hazards—something with the potential to cause harm,
- Assess the likelihood, or probability, of harm arising from the hazard,
- Assess the severity of harm resulting from realization of the hazard,
- Combine assessments of likelihood and severity to produce an assessment of risk and
- Use the assessment of risk as an aid to decision making.

Objectives of Risk Assessment

- Identifying hazardous activities
- Assessment of risk level and severity in different operations
- Identification of control measures
- Setting monitoring process
- Reduce the impact of mishaps of all kinds
- Reduce the inherent potential for major accidents.

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7.1.3 Identification of Hazard

7.1.3.1 Blasting Pattern:

The quarrying operation will be carried out by mechanized opencast method in conjunction with conventional method of mining using Jack Hammer drilling and blasting for shattering effect and loosen the Rough Stone.

7.1.3.2 Drilling and Blasting

Drilling and Blasting parameters are as follows

Diameter of the hole	:	32-36 mm
Spacing	:	60 Cms
Depth	:	1 to 1.5m
Charge / Hole	:	D.Cord with water or 70 gms of gun powder or Gelatine.
Pattern of hole	:	Zig Zag
Inclination of hole	:	70 ⁰ from the horizontal.
Quantity of rock broken	:	0.45 MT x 2.6 = 1.17 MT
Control Blasting efficiency @ 90%	:	1.17 x 90% = 1.05MT / hole
Charge per hole	:	140 gms of 25mm dia cartridge
Quantity of rock broken per day	:	657.54 m ³ .

Following explosives are recommended for efficient Proposed Control Blasting with safe practice.

S. No	Description	Class / Division	Type	Size
1.	Slurry	Class - 3	Nitro Compound	25 x 200
2.	Detonators	Class - 3	Ordinary and elec (OD & ED)	6.5 x 32
3.	Safety fuse	Class - 6	Blue sump fuse coils of 10mts each	

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The following steps shall be adopted to control ground vibration due to Proposed Control Blasting.

1. The minimum recommended delay time of 8m/s was introduced to minimize ground vibration to avoid constructive interference of blast vibration waves and hence its impact or amplitude.
2. In case of electronic detonators, which are inherently much more accurate delays (+/- 0.2 milliseconds delay) to minimizes the ground vibration.
3. Use of Ammonium nitrate fuel oil mixture for shot holes may be avoided because which cause for high fly of rocks in view critical diameter problem. Only high strength explosives like slurry will be used in the form of cartridge.
4. Charge per hole should exceed the powder factor designed for each hole based on the quantum of Proposed Control Blasting, strength of rocks, fracture pattern etc.

Most of the accidents during transport of mined out mineral using other heavy vehicles are often attributed to mechanical failures and human errors.

a. Mitigation measures to minimize the risk

- At the time of loading no person will be allowed within the swing radius of the excavation.
- The dumpers/ trucks will stand near the loading equipment and fully braked when the muck is filled in it.
- The truck would be brought to a lower level so that the loading operation suits to the ergonomic condition of the workers.
- The workers will be provided with helmets, gloves and safety boots; loading and unloading operations will be carried out only during daylight
- All the mining machineries will be regularly maintained and checked such as brakes, lights and horns to keep in the efficient working order.
- The Applicant stores the explosives as per the Indian Explosives Act, 1958.
- The explosives to be used in mines being a small quantity, the District collector may be approached to keep the stocks not exceeding 5kgs at time or any other quantity permitted by the concerned authorities in a portable magazine of S & B types.

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- An authorized explosive agency is engaged to carry out blasting.
- The blasting time in a day is between 5 PM to 6 PM.
- First Aid Box is kept ready at all the time.
- Necessary precautionary announcement is being carried out before the blasting operation.

7.1.4 General Precautionary measures for the Risk involved in the proposed mine:

- In order to take care of above hazard/disaster, the following control measures will be adopted:
 - All safety precautions and provisions of Mine Act,1952, Metalliferous Mines Regulation, 1961 and Mines Rules, 1955 will be strictly followed during all mining operations.
 - Entry of unauthorized persons will be prohibited.
 - Firefighting and first-aid provisions in the ECC and mining area.
 - Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the workers (14 Nos.) and regular inspection for their use.
 - In case of eventuality, first aid will be given by the senior safety officer in the mine area initially to the injured person. The safety officer will give notice of accident as per Rule-23 of Mines Act-1952.
 - The safety officer will be responsible for coordination between management district authorities/DGMS etc. Regarding general safety as per Rule-181 of MMR 1961, “No person shall negligently or will fully do anything likely to endanger life or limb in the mine, or negligible or will fully omit to do anything necessary for the safety of the mine or of the persons employed there in”. The workers will be provided with protective foot wear and safety helmets;
 - Cleaning of mine faces will be regularly done;
 - Handling of explosives, charging and blasting will be carried out by highly skilled labours only;
 - Regular maintenance and testing of all mining equipment as per manufacturer’s guidelines;
 - Suppression of dust by sprinkling water on the haulage roads;

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7.1.4 Safety Team:

The effective implementation of compliance of Safety Rules/ Statutory Provisions will be ensured. The safety officer will be engaged, meeting the requirement of Mines Act and their duties and responsibilities. The safety officer will be responsible for identification of the hazardous conditions and unsafe acts of workers and advice on corrective actions, conduct safety audit, organize training programs and provide professional expert advice on various issues related to occupational safety and health. Organizing safety training will be conducted to employees and contractor labors periodically.

7.1.5 Emergency Control Centre

The emergency control center will be provided to handle the emergency. The site main controller, key personnel and the senior officers of the fire and police services will attend it. The center will be equipped to receive and transmit information and directions from and to the incident controller and other areas of the works, as well as outside. The emergency control center will be sited in an area of minimum risk. This common Emergency control centre will be used for the mines around the 500m radius.

7.2 Disaster Management:

The possible risks in the case of stone along with associated minor minerals mining projects are fly rock, vibration failure of pit, slope and waste dump, accidents due to transportation. Mining and allied activities are associated with several potential hazards to both the employees and the public at large. Safety of the mine and the employees is taken care of by the mining rules & regulations, which are well defined with laid down procedure for safety, which when scrupulously followed, safety is ensured not only to manpower but also to machines & working environment.

7.2.1 Emergency Management Plan For Proposed Mines On Site- Offsite Emergency Preparedness Plan:

The emergency plan delineates the procedures for dealing with accidents or unexpected events and natural calamities arising from mining activity. An experience of any accidents

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that have occurred in other manufacturing/mining projects is considered to prepare this plan. This Emergency plan should be periodically reviewed and modified. It should also be changed based on the observations of emergency mock drills and experience of handling actual emergencies.

Major objectives of this onsite – offsite emergency plans are:

- To take necessary proactive and preventive actions to avoid the emergency.

The main aim of any emergency plan should be to prevent emergency situations.

To train the manpower to handle the emergencies of the following nature:

- Onsite (Within ML boundary)
- Offsite (Outside ML boundary)

7.2.1 Onsite off-site emergency Plan:

1- Emergency on account of:

- Fire
- Explosion
- Major accidents involving man-made collapse of the mining edges.
- Snake bites, attack by honeybees or attack by wild animals.

2- Disaster due to natural calamities like:

- Flood/ heavy rains which can involve natural landslides.
- Earth quake
- Cyclone
- Lightening

7.2.2 *Emergency Plan:*

- The mining operations should be immediately stopped in case of any emergency. A siren will be sounded during emergency time.
- An emergency assembly point will be created and all the workers will guide visitors or contractors to approach assembly point.

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- Emergency vehicle (Ambulance) will be available in the nearby place, in proximity to the three mines and will rush to the emergency control centre at the blowing of emergency siren. The driver of emergency vehicle will follow the instructions of Incident Controller/Site Main Controller.
- Workers will be trained for the precautions to be taken during natural disasters like heavy rain, floods, earthquake and cyclone.
- All escape routes from mines to the assembly point or any other safe location will be made and the escape plan will be displayed in many places in the mine area

7.2.3 Emergency Control:

- Shut down of mining operations: Raising the alarm or siren followed by immediate safe shut down of the power supply, and isolation of affected areas.
- Treatment of injured: First aid and hospitalization of injured persons
- Protection of environment and property: During mitigation, efforts will be made to prevent impacts on environment and property to the extent possible.
- Preserving all evidences and records: This will be done to enable a thorough investigation of the true causes of the emergency.
- Ensuring safety of personnel prior to restarting of operations: Efforts required will be made to ensure that work environment is safe prior to restarting the work.

7.3 Natural Resource Conservation

There are no natural resources within the premises. The conservation strategies for energy will be followed in the proposed mine lease area.

7.4 Resettlement and Rehabilitation:

The proposed Mine lease area is a Government poromboke land. There is no displacement of the population within the project area and adjacent nearby area and hence Rehabilitation & Resettlement is not applicable.

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8 Project Benefits

8.1 General

This chapter covers the benefits accruing to the locality, neighborhood, region and nation as a whole. It brings out the details of benefits by way of improvements in the physical infrastructure, social infrastructure, employment potential and other tangible benefits.

8.1.1 Physical Benefits

The opening of the proposed project will enhance the following physical infrastructure facilities in the adjoining areas:

- a. **Market:** Generating useful economical resource for construction. Due to demand supply chain, excavated mineral (Rough stone) will sold in the market in the affordable price.
- b. **Infrastructure:** The excavated rough stone will be used for *Laying Roads, Building & Construction Projects, Bridges.*
- c. **Enhancement of Green Cover & Green Belt Development:** As a part of reclamation plan, native tree species will be planted along the safety boundary (0.39.0 Ha) of the mine lease area. A suitable combination of trees that can grow fast and also have good leaf cover will be adopted to develop the green belt. It is proposed to plant at the rate of 250 trees per year along with some fruit bearing and medicinal trees during the mining plan period.

8.2 Social Benefits

The mining in the area will create rural employment. During site visit, it has been observed that the economic conditions of the villages in the study area is quite normal. After the development of the proposed mine, it will improve the livelihood of local people and also provide the indirect employment opportunities. The rough stone for the infrastructural development in the area will be made available from the local markets at reasonably lower price.

As a part of CER, 2% of the project cost i.e., Rs. 5,00,000/- will be allocated. The detailed agenda, which is to be executed has been framed. The salient features of the programme are as follows:

Developing the library, Sports/Drinking water facility in the nearby government school

<i>Project Name</i>	<i>Rough stone Quarry – 2.40.0 Ha</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>M/s.R.V. Enterprises</i>	
<i>Project Location</i>	<i>Mugalur Village, Shoologiri Taluk, Krishnagiri District</i>	

8.3 PROJECT COST / INVESTMENT DETAILS

Investment

i) Land cost

It's a Government Poromboke land. Lease tender for Government poromboke land is **Rs.1,08,00,000.**

ii) Refilling / Fencing

For fencing the cost involved is **Rs.1,00,000.**

iii) Laborers shed

The machine operators will be from nearby local villages, hence no cost is involved. Rest shelter will be constructed as semi-permanent structure at the cost of **Rs.1,40,000.**

iv) Sanitary facility

Sanitary facility will be constructed as semi-permanent structure, the cost will be around **Rs.80,000.**

v) Machinery to be used

The excavators of 0.90m bucket capacity and tippers of 10/20s capacity will be used. The quantity of Diesel consumption is based on the working hours of Excavators (Filling Factor and loading Cycling) Average Diesel consumption of Hitachi Excavator model EX 150-200 is **12 Litres/ Hr.**

Machinery cost **Rs.30,00,000/-**

8.3.2 Expenditure

i) Drinking water facility for the laborers

Drinking water at the cost of **Rs.1,00,000/-** for a period of five years.

ii) Air, Noise/ Vibration & Water quality test:

Air, Noise/Vibration & Water quality test maintenance at the cost of **Rs.90,000/-** for a period of five years.

iii) Safety kits:

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<i>Project Location</i>	<i>Mugalur Village, Shoolagiri Taluk, Krishnagiri District</i>	

Rs.50,000 will be spent for the safety kits such as Helmet, Goggles, Ear plugs, Ear mask, Safety shoes and Reflector jackets.

iv) Water sprinkling

Water sprinkling on haul roads for dust suppression, the cost will be around **Rs. 50,000/-** for a period of five years.

v) Afforestation

Afforestation is proposed within the lease applied area, plantation will be carried out on the safety boundary of the proposed mine lease area. The cost estimate is around **Rs.30,000/-** in which includes Rs.15,000 for sapling & Rs.10,000 for maintenance.

Project Cost Budget:

Table 8-1Budget for the proposed project

Proposed Financial Estimate / Budget for (EMP) Environment Management	
<u>A. Fixed Asset Cost:</u>	
Land Cost	: Rs. 1,08,00,000/- (Leased tender amount for Government Poramboke Land)
Labour Shed	: Rs. 1,40,000/-
Sanitary Facility	: Rs. 80,000/-
Fencing cost	: Rs. 1,00,000/-
Total=	: Rs.1,11,20,000/-
<u>B. Operational Cost:</u>	
<u>Machinery cost</u>	: Rs.30,00,000/-
<u>C. EMP Cost:</u>	
Drinking water facility	: Rs. 1,00,000/-
Safety kits	: Rs. 50,000/-
Water sprinkling	: Rs. 50,000/-
Afforestation	: Rs. 30,000/-
Water quality test	: Rs. 30,000/-
Air quality test	: Rs. 30,000/-
Noise/vibration test	: Rs. 30,000/-
Total=	: Rs. 3,40,000/-
<u>Total Project Cost</u>	: Rs.1,44,60,000/-

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<i>Project Proponent</i>	<i>M/s.R.V. Enterprises</i>	
<i>Project Location</i>	<i>Mugalur Village, Shoolagiri Taluk, Krishnagiri District</i>	

9 Environmental Management Plan

9.1 General:

This chapter comprehensively presents the Environmental Management Plan (EMP), which includes the administrative and technical setup, summary matrix of EMP, the cost involved to implement the EMP, during various Mining activities and provisions made towards the same in the cost estimates of project. This chapter describes the proposed monitoring scheme as well as inter-organizational arrangements for effective implementation of the mitigation measures

9.2 Subsidence

Mining will be carried out by opencast mechanized mining method with drilling & blasting as per mining plan approved by Department of Mining and Geology, Krishnagiri. Subsidence/slope failures are not envisaged because there are no loose strata overlying the deposit (mineral to be excavated). The bench height will be average 7m. The individual bench slope has been proposed to be kept at 60° from horizontal, while the ultimate pit slope has been kept 45° from horizontal. Moreover, all safety standards / safeguards will be implemented as per prescribed guidelines.

9.3 Mine Drainage

9.3.1 Storm water Management

The following measures will be taken with respect to the prevailing site conditions.

- Storm water drains with silt traps of size 1m x 1m will be suitably constructed all along the periphery of the pit area to collect the run-off from the mine area and divert into the pit
- All measures will be taken not to disturb the existing drainage pattern adjacent to the mine lease area
- The storm water collected from the mine area will be utilized for dust suppression on haul roads, plantation within the premises, etc.,

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9.3.2 Drainage

Local workers will be deployed for the project. But, urinals and Latrines will be provided and the same will be connected to septic tank followed by soak pit arrangement. No domestic waste will be deposited into the nearby area. Regular checking will be carried out to find any blockage due to silting or accumulation of loose materials. The drains will also be checked for any damage in lining / stone pitching, etc.

9.3.3 Administrative and Technical Setup

The Environment Management Plan (EMP) will consist of all mitigation measures for each component of the environment due to the activities increased during mining operation to minimize adverse environmental impacts resulting from the activities of the project. To carry out the above activities, M/s.R.V. Enterprises will work in association with M/s. Ecotech Labs Pvt Ltd.

Table 9-1 Impacts and mitigation measures

S. no	Impacts on Environment	Activity / Aspect	Anticipated impacts	Mitigation measures
1.	Air	Fugitive Emission	During mining operation, fugitive dust and other air pollutants like particulate matter (PM10 & PM 2.5) will be generated.	<ul style="list-style-type: none"> Planting of trees along the safety distance of the Mine Lease Area Water will be sprinkled in the site as dust suppression measure.
2.	Water	Wastewater Generation	Improper management of Domestic wastewater in the Mine lease may create unhygienic conditions in the site thereby causing	<ul style="list-style-type: none"> Provision of urinals/Latrines along with septic tank followed by soak pit arrangement will be provided in the Mine Lease area for the proper

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			health impacts to the labors	management of wastewater
3.	Noise	Mining activities like drilling, blasting, loading and transportation	Noise from the machinery can cause hypertension, high stress level, hearing loss, sleep disturbance etc due to prolonged exposure. Apart from Mining activities like drilling, blasting may generate noise	<ul style="list-style-type: none"> • Use of personal protective devices i.e., earmuffs and earplugs by workers, who are working in high noise generating areas
4.	Land	Improper management of Storm water Runoff	Storm water Runoff may result in Soil Erosion	<ul style="list-style-type: none"> • Garland drainage of 1m x 1m will be provided to avoid storm water run-off.
4.	Social Responsibility	Mining workers	Unhygienic site sanitation facilities may cause health damage to workers.	<p>The objective is to ensure health and safety of the workers with effective provisions for the basic facilities of sanitation, drinking water, safety of equipments or machinery etc. The following will be done in the site</p> <ul style="list-style-type: none"> ✓ By complying with the safety procedures, norms and guidelines (as applicable) as outlined in the National Building Code of India, Bureau of Indian Standards.

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				<ul style="list-style-type: none"> ✓ Provide adequate number of decentralized latrines and urinals ✓ Providing Septic tank along with Soak pit arrangement ✓ Providing First Aid room, conducting frequent health checkups to labor and conducting free medical camps ✓ Providing safety helmet, Gloves, Jacket & Boots ✓ Providing measures to prevent fires. Fire fighting extinguishers and buckets of sand will be provided in the construction site
6.	Building materials resource conservation	Building Material consumption	Use of farfetched construction materials than the locally available construction materials may lead to over exploitation of natural resources & increase in carbon footprint.	<ul style="list-style-type: none"> • Use of locally available construction materials.

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Table 9-2: Budgetary Allocation for EMP during Mining

S. No	Description	Budgetary Allocation (in
1.	EMP COST	
1.	Drinking water facility for Labourers	1,00,000
2.	Sanitary Maintenance	1,40,000
3.	Safety Kits	50,000
4.	Water Sprinkling	50,000
5.	Fencing cost	1,00,000
6.	Afforestation, Plantation & Maintenance	30,000
2.	Environmental Monitoring	
1.	Air Quality Monitoring	30,000
2.	Water Quality Monitoring (Bore well water)	30,000
3.	Noise Monitoring	30,000
Total Cost		5,60,000

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<i>Project Location</i>	<i>Mugalur Village, Shoolagiri Taluk, Krishnagiri District</i>	

10 Summary & Conclusion

This chapter summarizes the overall justification for implementation of the project and explains how the potential impacts are mitigated.

10.1 Introduction

M/s. R.V.Enterprises, Partner M.Ramamoorthy, residing at No.1/16,Machiyakanpalli village, Panchakshipuram post, Hosur Taluk, Krishnagiri district– 635 110 has applied for the grant of quarry lease to quarry Rough Stone over an extent of 2.40.0 Hectares. of Government Poromboke Land in S.F. No. 232/2(P) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District of Tamil Nadu State for a period of Five Years.

M/s. R.V Enterprises, Partner M.Ramamoorthy applied for mining of Rough stone in survey numbers – 232/2(P) in Mugalur Village, Shoolagiri Taluk, Krishangiri District and Tamil Nadu State over an extent of 2.40.0 hectares in Government Poramboke Lands for a period of 5 years . The area lies in the latitude of 12°37'25.9249"N to 12°37'23.5847"N and longitude of 77°48'56.4872"E to 77°48'49.2256"E. The area is marked in the survey of India Topo sheet No. 57 – H/14.

10.2 Project Overview

Table 10-1Project Overview

S. No.	Description	Details
1	Project Name	M/s. R.V.Enterprises Rough stone quarry
2	Proponent	Partner M.Ramamoorthy
3	Mining Lease Area Extent	2.40.0 Ha
4	Location	232/2 (Part) Mugalur Village, Shoolagiri Taluk, Krishnagiri Dt.
5	Latitude	12°37'25.9249"N to 12°37'23.5847"N

Project Name	Rough stone Quarry – 2.40.0 Ha	Draft EIA Report
Project Proponent	M/s.R.V. Enterprises	
Project Location	Mugalur Village, Shoologiri Taluk, Krishnagiri District	

6	Longitude	77°48'56.4872"E to 77°48'49.2256"E
7	Topography	Plain terrain
8	Site Elevation above MSL	873m above MSL
9	Topo sheet No.	57 – H/14
10	Minerals of Mine	Rough stone
11	Proposed production of Mine	Geological Reserves – 1089179 m ³ Mineable Reserves – 503487 m ³ Proposed production for five years – 427630 m ³ of Rough Stone
12	Ultimate depth of Mining	36m below ground level
13	Method of Mining	Opencast mechanized Mining with a bench height of 7m and bench width of 5m is proposed.
14	Source of water	Packaged Drinking water vendors available in Kottur Village which is about ≈ 1.00 km, NE from the project site.
15	Manpower	15 Nos.
16	Mining Plan Approval	Mining Plan was approved by The Deputy Director, Geology & Mining, Krishnagiri vide Rc.No.G.M.220/2019/Mines dated :30.07.2019
17	Precise Area Communication	The Proponent has obtained Precise area communication letter received from District Collector, Krishnagiri Rc.No.220/2019/kaniman dated 13.06.2019
18	Ground water	The quarry operation is proposed up to a depth of 36m below ground level. The ground water table is reported as 65m below ground level in nearby open wells and bore wells of this area. Hence the ground water will not be affected in any manner due to the quarrying operation during the entire lease period.
19	Habitations within 500m radius of the Project Site	There is no Habitation within 500m radius

<i>Project Name</i>	<i>Rough stone Quarry – 2.40.0 Ha</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>M/s.R.V. Enterprises</i>	
<i>Project Location</i>	<i>Mugalur Village, Shoologiri Taluk, Krishnagiri District</i>	

20	Rivers / Canal/Lake	<ul style="list-style-type: none"> ❖ Nanjappan Kodigai Eri – 4.87 km SE ❖ Vasa Lake – 4.31 km NW ❖ Vannama lake – 15.21 km SW ❖ Rama Naicken lake – 11.62 km NE ❖ Tahally lake – 11.09 km SW
21	Reserved Forest / Wild life Sanctuary	<ul style="list-style-type: none"> ➤ Udedurgam R.F – 11.94 Km SE ➤ Denkanikottai R.F – 11.04 km SE ➤ Sanamavu Forest – 6.68 km NE ➤ Cauvery North Wildlife Sanctuary – 22.11 Km - SW

10.3 Justification of the proposed project

Rough stone is one of the most valuable natural building materials. Aggregates are mostly used for building roads and footpaths. Aggregates – stone used for its strong physical properties – crushed and sorted into various sizes for use in concrete, coated with bitumen to make asphalt or used 'dry' as bulk fill in construction. Mostly used in roads, concrete and building products. Aggregates represent about 98% of quarry output, most of which is used in road construction, maintenance and repair. Much of this goes to the production of asphalt; the remainder is used 'dry' without the addition of other materials to provide a study base for roads.

Krishnagiri District is covered with wide range of metamorphic rocks of peninsular gneissic complex. These rock formations occur as massive hillocks all over the district in government lands and patta lands, and extensively weathered formations are overlain by soil / alluvium deposits with an average thickness of 1 to 5mts. Rough stone deposits suitable for the production of Jelly, Cut stones and Pillar Stones are available throughout the Krishnagiri District. Rough stones are widely used in this district as building stones, boulders, cut stones and for the production of Jelly, M.Sand, Crusher Dust. The rock products which are produced not only used in the Krishnagiri District alone but also transported to the neighboring districts. These products enter into the market in different parts of the country.

<i>Project Name</i>	<i>Rough stone Quarry – 2.40.0 Ha</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>M/s.R.V. Enterprises</i>	
<i>Project Location</i>	<i>Mugalur Village, Shoologiri Taluk, Krishnagiri District</i>	

Table 10-2: Anticipate Impacts & Appropriate Mitigation Measures

S. No.	Potential Impact	Mitigation Measure
1	The main impact in the air environment is dust emission during various mining activities such as drilling, blasting, excavation, loading and transportation. The dust emission may affect the quality of ambient air in the and around the mine area. The increased emission may cause respiratory & Cardiovascular problems in human health	Proper mitigation measures like water sprinkling on haul roads will be adopted to control dust emissions. To control the emissions regular preventive maintenance of equipments will be carried out on contractual basis. Plantation will be carried out along approach roads & mine premises.
2	Waste water will be generated due to mining activity and from other domestic activities. These may contaminate the ground water leading to ground water. The mining activity may affect the ground water table	No waste water will be generated from the mining activity of minor minerals as the project only involves lifting of over burden from mine site. The wastewater generated from the domestic activity will be disposed off safely through the proposed septic tank Mining will not intersect ground water table. Hence the water table will not be impacted due to the proposed project
3	Noise will be generated in the mine area during various mining activities such as blasting, drilling, excavation. During transportation of the mined out mineral, there may be noise generation due to the movement of vehicles. This may impact	Periodical monitoring of noise will be done. No other equipments except the transportation vehicles and Excavator (as & when required) for loading will be allowed at site.

Project Name	<i>Rough stone Quarry – 2.40.0 Ha</i>	<i>Draft EIA Report</i>
Project Proponent	<i>M/s.R.V. Enterprises</i>	
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	the health condition of the workers by creating headache	Noise generated by these equipments shall be intermittent and does not cause much adverse impact. Plantation will be carried out along approach roads. The plantation minimizes propagation of noise and also arrest dust.
4	Solid waste will be generated from the mining activity as there will be refuse after 95% recovery and also generation of domestic waste	The 100% recovery is achieved by extracting the entire mineable reserve. Hence there will be no refuse generation due to the mining activity. Apart from that, a very meagre quantity of domestic waste will be generated in the project, which will be handed over to the local body on daily basis.
5	During mining activities, there are chances of workers getting health issues or may be prone to accidents	Dust masks will be provided as additional personal protection equipment to the workers working in the dust prone area. Periodical trainings will be conducted to create awareness about the occupational health hazards due to activities like blasting, drilling, excavation Workers health related problem if any, will be properly addressed.

<i>Project Name</i>	<i>Rough stone Quarry – 2.40.0 Ha</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>M/s.R.V. Enterprises</i>	
<i>Project Location</i>	<i>Mugalur Village, Shoologiri Taluk, Krishnagiri District</i>	

11 Disclosure of Consultant

11.1 Introduction

This chapter presents the details of the environmental consultants engaged, their background and the brief description of the key personnel involved in the project. Specific studies on the mining project have been carried out by engaging engineers/experts of Ecotech Labs Pvt. Ltd, Chennai. Ecotech Labs Pvt. Ltd (ETL), Chennai is NABET accredited consultancy organization. ETL is equipped with in-house, spacious laboratory, accredited by NABL (National Accreditation Board for Testing & Calibration Laboratories), Department of Science & Technology, Government of India and MoEF & CC.

11.2 Eco Tech Labs Pvt. Ltd – Environment Consultant

Eco Tech Labs Pvt. Ltd is a multi-disciplinary testing and research laboratory in India. Eco Tech labs provides high quality services in environmental consultancy, engineering solution, chemical and microbiological laboratory analysis of food, water and environment (Air, Water, Soil) with highest accuracy.

11.2.1 The Quality policy

- We, at Eco Tech Labs Pvt. Ltd. engaged in providing Environmental consulting services and we are committed to strengthen our capabilities in all areas of our operations in line with customer requirements & expectations, applicable legal requirements & stakeholders expectations.
- We are committed to establish and maintain Quality Management System (QMS) for continual improvement in processes and Services
- We are committed to provide customized solutions in realistic, time bound and cost effective to achieve highest degree of customer satisfaction and Environmental improvement.
- We shall establish, maintain & periodically review our documented management systems, objectives and performance in consultation with our employees and prevailing best practices.

<i>Project Name</i>	<i>Rough stone Quarry – 2.40.0 Ha</i>	<i>Draft EIA Report</i>
<i>Project Proponent</i>	<i>M/s.R.V. Enterprises</i>	
<i>Project Location</i>	<i>Mugalur Village, Shoolagiri Taluk, Krishnagiri District</i>	

- Effective communication of organization's policy and objectives to employees and seeking feedbacks from all our employees and concerned stakeholders for continual improvement.

ANNEXURE-I

**STANDARD TOR CONDITIONS WITH
ADDITIONAL TOR POINTS**



THIRU.DEEPAK S.BILGL, I.F.S.,
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY – TAMIL NADU

3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet,
Chennai-15.

Phone No. 044-24359973

Fax No. 044-24359975

TERMS OF REFERENCE (ToR)

Lr No.SEIAA-TN/F.No.9253/ToR- 1202/2022 Dated: 14.07.2022.

To

M/s. R.V Enterprises
Partner.M.Ramamoorthy
S/o. Muthappa, No. 1/16, Machiyakanapalli
Panchakshipuram Post
Hosur Taluk
Krishnagiri 635110

Sir / Madam,

Sub: SEIAA, Tamil Nadu – Terms of Reference with public Hearing (ToR) for the Proposed Rough Stone quarry lease over an extent of 2.40.0 Ha at S.F.No.232/2 (part), Mugalur Village, Hosur Taluk, Krishnagiri District, Tamil Nadu by M/s. R.V Enterprises - under project category – “B1” and Schedule S.No.1 (a) – ToR issued along with Public Hearing - preparation of EIA report – Regarding.

- Ref:**
1. Online proposal No.SIA/TN/MIN/76721/2022, 07.05.2022.
 2. Your application submitted for Terms of Reference dated: 17.05.2022
 3. Minutes of the 287th SEAC meeting held on 22.06.2022.
 4. Minutes of the 532nd SEIAA meeting held on 14.07.2022.

Kindly refer to your proposal submitted to the State Level Impact Assessment Authority for Terms of Reference.

MEMBER SECRETARY
SEIAA-TN

The proponent, M/s. R.V Enterprises has submitted application for Terms of Reference (ToR) with public Hearing on 17.05.2022, in Form-I, Pre- Feasibility report for the proposed Rough Stone quarry lease over an extent of 2.40.0 Ha at S.F.No.232/2 (part), Mugalur Village, Hosur Taluk, Krishnagiri District, Tamil Nadu.

Discussion by SEAC and the Remarks:-

Proposed Rough Stone quarry lease over an extent of 2.40.0 Ha at S.F.No.232/2 (part), Mugalur Village, Hosur Taluk, Krishnagiri District, Tamil Nadu by M/s. R.V Enterprises for Terms of Reference (SIA/TN/MIN/76721/2022, 07.05.2022)


The proposal was placed in this 287th Meeting of SEAC held on 22.06.2022. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following


1. The Project Proponent, M/s. R.V Enterprises has applied for Terms of Reference for the proposed Rough Stone quarry lease over an extent of 2.40.0 Ha at S.F.No. 232/2 (part), Mugalur Village, Hosur Taluk, Krishnagiri District, Tamil Nadu. It is Govt Poramboke land.
2. The proposed quarry/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
3. As per the mining plan the lease period is 10 years. The mining plan is for the period of five years & production should not exceed 457422cu.m of rough stone. The annual peak production is 118015cu.m. of Rough Stone (1st year). The ultimate depth is 43 m BGL.

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

1. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the


MEMBER SECRETARY
SEIAA-TN

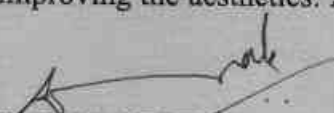
- proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.
2. The Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.
 3. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
 4. **The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.**
 5. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
 6. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
 - a. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
 - b. Quantity of minerals mined out.
 - c. Highest production achieved in any one year
 - d. Detail of approved depth of mining.
 - e. Actual depth of the mining achieved earlier.
 - f. Name of the person already mined in that leases area.
 - g. If EC and CTO already obtained, the copy of the same shall be submitted.
 - h. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
 7. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).


MEMBER SECRETARY
SEIAA-TN


8. The PP shall carry out Drone video survey covering the cluster, Green belt , fencing etc.,
9. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
10. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
11. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
12. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
13. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
14. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
15. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
16. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be


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- prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
17. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
 18. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
 19. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
 20. Impact on local transport infrastructure due to the Project should be indicated.
 21. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
 22. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
 23. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
 24. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
 25. The PP shall produce/display the EIA report, Executive summary and other related information with respect to public hearing in Tamil Language also.
 26. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
 27. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A


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- wide range of indigenous plant species should be planted as given in the **appendix-I** in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
28. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
 29. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
 30. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
 31. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
 32. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
 33. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
 34. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
 35. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
 36. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by


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MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.

37. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
38. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

Appendix - I
List of Native Trees Suggested for Planting

No	Scientific Name	Tamil Name	Tamil Name
1	<i>Aegle marmelos</i>	Vilvam	நிலம்பம்
2	<i>Adenanthera pavonina</i>	Manjadi	மஞ்சளடி, ஆனைக்குன்றமணி
3	<i>Albizia lebbek</i>	Vaagai	வாகை
4	<i>Albizia amara</i>	Usil	உசில்
5	<i>Bauhinia purpurea</i>	Mantharai	மந்தாரை
6	<i>Bauhinia racemosa</i>	Aathi	ஆத்தி
7	<i>Bauhinia tomentos</i>	Iruvathi	இருவாத்தி
8	<i>Buchanania axillaris</i>	Kattuma	காட்டுமா
9	<i>Borassus flabellifer</i>	Parai	பனை
10	<i>Butea monosperma</i>	Murakkamaram	முருக்கமரம்
11	<i>Bobax ceiba</i>	Ilavu, Sevvilavu	இலவு
12	<i>Calophyllum inophyllum</i>	Punnai	புனை
13	<i>Cassia fistula</i>	Sarakondrai	சரகொண்டரை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கொண்டரை
15	<i>Chloroxylon swietenia</i>	Purasamaram	புரசு மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Manjallavu	கோங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Naruvuli	நருவூலி
18	<i>Creteva adansonii</i>	Mavalingum	மாலைங்கம்
19	<i>Dillenia indica</i>	Uva, Uzha	உவா
20	<i>Dillenia pentagyna</i>	SiruUva, Sitruzha	சிறு உவா
21	<i>Diospyro sebenum</i>	Karungali	கருங்காளி
22	<i>Diospyro schloroxylon</i>	Vaganai	வாகளை
23	<i>Ficus amplissima</i>	Kallitchi	கல் இச்சி
24	<i>Hibiscus tiliaceo</i>	Aatrupoovarasu	ஆற்றுப்புரைசு
25	<i>Hardwickia binata</i>	Aacha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aayili	ஆயிலி மரம், ஆயிலி
27	<i>Lansea coromandelica</i>	Odhiam	ஒதியம்
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	பூ மருது
29	<i>Leptanthus tetraphylla</i>	Neikottaimaram	நெய் கொட்டை மரம்
30	<i>Limonia acidissima</i>	Vila maram	வில்லா மரம்
31	<i>Litsea glutinos</i>	Pisinpattai	பிளிப்பட்டை
32	<i>Madhuca longifolia</i>	Iluppai	இலுப்பை
33	<i>Manilkara hexandra</i>	UlakkaiPaalai	உலக்கை பாலை
34	<i>Mimusops elengi</i>	Magizhamaram	மகிழ்மரம்
35	<i>Mitrasyna parvifolia</i>	Kadambu	கடம்பு
36	<i>Morinda pubescens</i>	Nuna	நுணா
37	<i>Morinda citrifolia</i>	Vellai Nuna	வெள்ளை நுணா
38	<i>Phoenix sylvestre</i>	Eachai	எச்சமரம்
39	<i>Pongamia pinnat</i>	Pungam	புங்கம்

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40	<i>Prenna mollissima</i>	Murnai	முள்ளை
41	<i>Prenna serratifolia</i>	Narumunnai	நறு முள்ளை
42	<i>Prenna tomentosa</i>	Malaipoovarasu	மலை பூவரசு
43	<i>Prosopis cinerea</i>	Vanni maram	வன்னி மரம்
44	<i>Pterocarpus marsupium</i>	Vengai	வேங்கை
45	<i>Pterospermum canescens</i>	Vennangu, Tada	வெண்ணாங்கு
46	<i>Pterospermum xylocarpum</i>	Polavu	புலவு
47	<i>Puthranjiva roxburghii</i>	Karipala	கரிபாலா
48	<i>Salvadora persica</i>	Ugaa Maram	உகா மரம்
49	<i>Sapindus emarginatus</i>	Marupungan, Soapukai	மணிப்புகள் சோபுகாய்
50	<i>Saraca asoca</i>	Asoca	அசோகா
51	<i>Strobilus asper</i>	Piray maram	பிராய் மரம்
52	<i>Strychnos nuxvomica</i>	Yeti	யெட்டி
53	<i>Strychnos potatorum</i>	Therthang Kottai	தேத்தாங் கொட்டை
54	<i>Syzygium cumini</i>	Naval	நாவல்
55	<i>Terminalia belleric</i>	Thandri	தாண்டரி
56	<i>Terminalia arjuna</i>	Ven marudhu	வெண் மருது
57	<i>Toona ciliata</i>	Sandhana vembu	சந்தன வேம்பு
58	<i>Thospesia populnea</i>	Puvarasu	பூவரசு
59	<i>Walsuratrifoliata</i>	valsura	வால்சுரா
60	<i>Wrightia tinctoria</i>	Veppalai	வேப்பலை
61	<i>Pithecolobium dulce</i>	Kodukkapuli	கொடுக்காப்பூளி

Discussion by SEIAA and the Remarks:-

The proposal was placed in the 532nd Authority meeting held on 14.07.2022. After detailed discussions, the Authority accepts the recommendation of SEAC and decided to grant Terms of Reference (ToR) along with Public Hearing under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC & normal condition in addition to the following conditions:

1. Restricting the ultimate depth of mining upto 38m and quantity of 427630 cu.m of Rough stone are permitted for mining over five years considering the environmental impacts due to the mining, safety precautionary measures of the working personnel and following the principle of the sustainable mining.
2. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas.
3. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological structures etc.

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4. As per the MoEF& CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.
5. The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities.
6. The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.
7. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.
8. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.
9. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.
10. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.
11. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.
12. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.
13. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.
14. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.
15. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.
16. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.
17. The project proponent shall study and furnish the details on potential fragmentation impact of natural environment, by the activities.


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18. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.
19. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the environment. The ecological risks and impacts of plastic & microplastics on aquatic environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.
20. The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.
21. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area covering the entire mine lease period as per precise area communication order issued from reputed research institutions on the following
 - a) Soil health & bio-diversity.
 - b) Climate change leading to Droughts, Floods etc.
 - c) Pollution leading to release of Greenhouse gases (GHG), rise in Temperature, & Livelihood of the local people.
 - d) Possibilities of water contamination and impact on aquatic ecosystem health.
 - e) Agriculture, Forestry & Traditional practices.
 - f) Hydrothermal/Geothermal effect due to destruction in the Environment.
 - g) Bio-geochemical processes and its foot prints including environmental stress.
 - h) Sediment geochemistry in the surface streams.
22. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.
23. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued.


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24. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.
25. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.
26. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued.


A. STANDARD TERMS OF REFERENCE

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ topo sheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental


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issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.

- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any


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other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.

- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government.


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It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be



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undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.

- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.


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- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - e) Where the documents provided are in a language other than English, an English translation should be provided.
 - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.


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- g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.


In addition to the above, the following shall be furnished:-

The Executive summary of the EIA/EMP report in about 8-10 pages should be prepared incorporating the information on following points:

1. Project name and location (Village, District, State, Industrial Estate (if applicable)).
2. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
3. Measures for mitigating the impact on the environment and mode of discharge or disposal.
4. Capital cost of the project, estimated time of completion.
5. The proponent shall furnish the contour map of the water table detailing the number of wells located around the site and impacts on the wells due to mining activity.
6. A detailed study of the lithology of the mining lease area shall be furnished.
7. Details of village map, "A" register and FMB sketch shall be furnished.
8. Detailed mining closure plan for the proposed project approved by the Geology of Mining department shall be submitted along with EIA report.
9. Obtain a letter /certificate from the Assistant Director of Geology and Mining standing that


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- there is no other Minerals/resources like sand in the quarrying area within the approved depth of mining and below depth of mining and the same shall be furnished in the EIA report.
10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual for Mining of Minerals published February 2010.
 11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
 12. The EIA study report shall include the surrounding mining activity, if any.
 13. Modeling study for Air, Water and noise shall be carried out in this field and incremental increase in the above study shall be substantiated with mitigation measures.
 14. A study on the geological resources available shall be carried out and reported.
 15. A specific study on agriculture & livelihood shall be carried out and reported.
 16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
 17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
 18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
 19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
 20. Likely impact of the project on air, water, land, flora-fauna and nearby population
 21. Emergency preparedness plan in case of natural or in plant emergencies
 22. Issues raised during public hearing (if applicable) and response given
 23. CER plan with proposed expenditure.
 24. Occupational Health Measures
 25. Post project monitoring plan
 26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
 27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
 28. The proponent shall propose the suitable control measure to control the fugitive emissions




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during the operations of the mines.

29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
30. Reserve funds should be earmarked for proper closure plan.
31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

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

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF & CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -11013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website <http://www.moef.nic.in/> may be referred.
 - After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned points, the proponent will take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.


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


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Copy to:

1. The Additional Chief Secretary to Government, Environment & Forests Department, Govt. of Tamil Nadu, Fort St. George, Chennai - 9
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
4. The APCCF (C), Regional Office, MoEF & CC (SZ), 34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai -34.
5. Monitoring Cell, IA Division, Ministry of Environment, Forests & CC, Paryavaran Bhavan, CGO Complex, New Delhi 110003
6. The District Collector, Krishnagiri District.
7. The EO/BDO, Mugalur Village, Hosur Taluk, Krishnagiri District
8. Stock File.

TOR Reply of Proposed Rough Stone Quarry over an Extent of 2.40.0 Ha

COMPLIANCE OF TOR CONDITIONS

Point wise compliance of TOR points issued by SEIAA, TN vide letter No. SEIAA-TN/F.No.9253/ToR-1202/2022, dated 14.07.2022 for Mining of Minor Minerals in the Mine of “Proposed Rough Stone Quarry over an Extent of 2.40.0 Ha in S.F Nos. 232/2 (Part) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu State.

S. No	Standard ToR	Compliance	Page Ref in the Report														
1.	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification, 1994 came into force w.r.t. the highest production achieved prior to 1994.	<p>This is a proposed Rough Stone Quarry</p> <p>Precise area communication letter received from District Collector, Krishnagiri Rc.No.220/2019/kaniman dated 13.06.2019</p> <p>Mining Plan was approved by The Deputy Director, Geology & Mining, Krishnagiri vide Rc.No.G.M.220/2019/Mines dated :30.07.2019</p> <p>As the area is being exploited for the first time hence Year wise Production details since 1994 and before 1994 are not relevant or applicable.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Year</th> <th style="text-align: center;">Rough Stone</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I</td> <td style="text-align: center;">118045</td> </tr> <tr> <td style="text-align: center;">II</td> <td style="text-align: center;">100455</td> </tr> <tr> <td style="text-align: center;">III</td> <td style="text-align: center;">84196</td> </tr> <tr> <td style="text-align: center;">IV</td> <td style="text-align: center;">69266</td> </tr> <tr> <td style="text-align: center;">V</td> <td style="text-align: center;">55668</td> </tr> <tr> <td style="text-align: center;">Total</td> <td style="text-align: center;">427630</td> </tr> </tbody> </table>	Year	Rough Stone	I	118045	II	100455	III	84196	IV	69266	V	55668	Total	427630	<p>Chapter – 2</p> <p>Table No. 2.2</p> <p>Page No. 34</p>
Year	Rough Stone																
I	118045																
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III	84196																
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V	55668																
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TOR Reply of Proposed Rough Stone Quarry over an Extent of 2.40.0 Ha

		Proposed Production of Rough Stone for five years is proposed in the EIA/EMP in chapter no-2.	
2.	A copy of document in support of the fact that the Proponent is the rightful lessee of the mine should be given.	The mine lease area of 2.40.0 hectare in Mugalur Village for Rough Stone Quarry approved by the Assistant Director (Addl. Charge), Dept. of Geology and Mining, Collectorate, Krishnagiri vide letter Roc.No.220/2019/Mines dated 30.07.2019	Annexure-III
3.	All documents including approved mine plan, EIA and public hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management and mining technology and should be in the name of the lessee.	All the documents i.e., Mining Plan, EIA and public hearing are compatible with each other in terms of ML area production levels, waste generation and its management and mining technology are compatible with one another. The mining plan of the project site has been submitted to The Assistant Director, Geology and Mining, Krishnagiri District.	Annexure-VI Chapter- II
4.	All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/toposheet should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	Details of coordinates of all corners of proposed mining lease area have been incorporated in Chapter 2 of EIA/ EMP Report.	Chapter-2, Fig no. 2.1 Page. No. 35
5.	Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, important water	Topo map as attached in Chapter-2	Chapter-2, Fig no. 2.3 Page. No. 38

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	bodies, streams and rivers and soil characteristics.		
6.	Details about the land proposed for mining activities should be given with information as to whether conforms to the land use policy of the state; land diversion for mining should have approval from State land use board or the concerned authority.	Details about the land proposed for mining activities should be given in Chapter 2.	Chapter-2 Page 42
7.	<p>It should be clearly stated whether the proponent company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions?</p> <p>The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or</p>	Noted.	

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	shareholders or stakeholders at large may also be detailed in the EIA report.		
8.	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.	It is an open cast mining project. Blasting details are incorporated in chapter-2	Chapter-2, Page no.48
9.	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc should be for the life of the mine / lease period,	Study area comprises of 15 km radius from the mine lease boundary. Key Plan showing core zone (ML area).	Chapter-2 Fig no. 2.5 Page no.40
10.	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	Land Use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, National park, migratory routes of fauna, water bodies, human settlements and other ecological features has been prepared and incorporated in Chapter-3 of EIA/ EMP Report. There is no wildlife sanctuary and national park, migratory routes of fauna in the study area.	Chapter-3, Table no. 3.3 Page no.63

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<p>11.</p>	<p>Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.</p>	<p>The overburden is in the form of topsoil of the lease area. The area is covered by 1.0 m Topsoil in this mine area is 18304 m³. Topsoil will be utilized for the formation of mine roads, construction of bund and Afforestation purposes. The waste generated during the mining period is 24073 m³ will be proposed to dump into the boundary barrier of the lease area.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Proposed Mine Waste Dump Dimensions</td> </tr> <tr> <td style="text-align: center;">368.7 m (L) x 10.0 m(W) x 6.52 m (H) = 24073 m³</td> </tr> </table>	Proposed Mine Waste Dump Dimensions	368.7 m (L) x 10.0 m(W) x 6.52 m (H) = 24073 m ³	<p>Chapter-2, Page no.49</p>
Proposed Mine Waste Dump Dimensions					
368.7 m (L) x 10.0 m(W) x 6.52 m (H) = 24073 m ³					
<p>12.</p>	<p>Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to</p>	<p>The proposed mining lease area is not falling under forest land.</p>			

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	assist the Expert Appraisal Committees.		
13.	Status of forestry clearance for the broken-up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.	The proposed mining lease area is not falling under forest land.	
14.	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.	Not Applicable. There is no involvement of forest land in the project area.	-
15.	The vegetation in the RF / PF areas in the study area, with necessary details, should be given.	Details of flora have been discussed in Chapter-3 of the EIA/EMP Report.	Chapter-3 Table 3.16 Page No. 89
16.	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly detailed mitigative measures required, should be worked out with cost implications and submitted.	There is a relatively poor sighting of animals in the core and buffer areas of the mining lease. No significant impact is anticipated.	-

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17.	<p>Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/ Elephant Reserves/ (existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the State Wildlife Obtained from the Standing Committee of National Board of Wildlife and copy furnished.</p>	<p>There is no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/ Elephant Reserves/Critically Polluted areas within 10 km radius of the mining lease area.</p>	-
18.	<p>A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan for their conservation should be prepared in consultation with State Forest and</p>	<p>Detail biological study (flora & fauna) within 10 km radius of the project site have been incorporated in Chapter-3 of EIA/ EMP Report.</p> <p>No flora & fauna listed in scheduled-I have been found in study area so there is no need of conservation plan. However, all care will be taken for protection of flora & fauna, if any in the lease hold area.</p>	Chapter-3

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	Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.		
19.	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.	The proposed mining lease area is not falling under critically polluted area or under the 'Aravalli Range'.	-
20.	Similarly, for coastal projects, A CRZ map duly authenticated by one of the authorized agencies Similarly, for coastal projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone	There is no Coastal Zone within 15km radius of the project site.	-

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	Management Authority).		
21.	<p>R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State / National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need-based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village located in the mine lease area will be shifted or not.</p> <p>The issues relating to shifting of Village including their R&R and socio-economic aspects should be discussed in the report.</p>	There is no Rehabilitation and resettlement is involved. Land classified as Government Poramboke Land.	-
22.	<p>One season (non-monsoon) and (Summer Season), (Post monsoon) primary baseline data on ambient air quality CPCB Notification of 2009 water quality,</p>	Baseline data collected during May to July 2022 has been incorporated in EIA/EMP report.	Chapter 3

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	<p>noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report.</p> <p>Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre- dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre- dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.</p>	<p>The key plan of monitoring station has been discussed in Chapter-3. Locations of the monitoring stations have been selected keeping in view the pre- dominant downwind direction and location of the sensitive receptors and also that they represent whole of the study area.</p>	
23.	<p>Air quality modelling should be Carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating</p>	<p>Air quality modelling & Impact of Air quality incorporated in chapter-4</p> <p>Transportation of mineral during operation of mines will be done by road & SH17A through dumpers and the impact of movement of vehicles are incorporated in Draft EIA/EMP report.</p>	<p>Chapter-4</p> <p>Page No. 108</p>

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	the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing predominant wind direction may also be indicated on the map.	Air quality modeling & Impact of Air quality will be incorporated in the final EIA Report.	
24.	The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.	Total water requirement: 2.0 KLD Dust Suppression: 1.0 KLD Domestic Purpose: 0.5 KLD Plantation : 0.5 KLD Domestic Water will be sourced from nearby Mugalur village, 1 km, NE and other water will be source from nearby road tankers supply.	Chapter-2 Page no. 40
25.	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.	Not Applicable Water will be taken from nearby villages.	-
26.	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	At the last stage of mining operation, almost complete area will be worked to restore the land to its optimum reclamation for future use as water reservoir.	-
27.	Impact of the project on the water quality, both surface and groundwater should be assessed and necessary safeguard measures, if any required, should be provided.	Impact of the project on the water quality & its mitigation measures has been incorporated in Chapter-4 of EIA/EMP report.	Chapter-4 Page No.106
28.	Based on actual monitored data, it	Maximum working depth: 36m	Chapter-2

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	<p>may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.</p>	<p>The ground water table is reported as 62 m below surface ground level in nearby wells of this area. Now, the present quarry shall be proposed above the water table and hence, quarrying may not affect the ground water So mine working will not be intersecting the ground water table.</p>	<p>Page No.34</p>
29.	<p>Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.</p>	<p>There is no any stream crossing in the new quarry</p>	<p>Executive Summary</p>
30.	<p>Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.</p>	<p>Highest elevation: 873 m AMSL Ultimate Depth of mining : 36 Ground Water Table : 65 m BGL</p>	<p>Chapter-2 Table no. 2.2 Page No. 34</p>
31.	<p>A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted,</p>	<p>Green Belt Development plan is proved given in Chapter 2.</p>	<p>Chapter-2</p>

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	<p>keeping in mind, the same will have to be executed up front on commencement of the project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant pollution.</p>		
32.	<p>Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project proponent shall conduct impact of Transportation</p>	<p>Impact on local transport infrastructure due to the project has been assessed. There shall not be much impact on local transport. Traffic density from the proposed mining activity has been incorporated in Draft EIA/EMP report.</p>	<p>Chapter-3 Page No.102</p>

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	study as per Indian Road Congress Guidelines.		
33.	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA report.	Adequate infrastructure & other facilities shall be provided to the mine workers. Details are given in chapter-2 of EIA/EMP	Chapter-2
34.	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.	Conceptual post mining land use and Reclamation and restoration sectional plates are given in Mining Plan followed by Scheme of mining.	Mining plates Annexure-6
35.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project in the mining area may be detailed.	Suitable measure will be adopted to minimize occupational health impacts of the project. The project shall have positive impact on local environment. Details are given in chapter-10 of Draft EIA/EMP.	Chapter-10 Page No.140
36.	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Suitable measure will be adopted to minimize occupational health impacts of the project.	Chapter-10 Page No.140
37.	Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent	Suitable measures has been discussed in Chapter 4	Chapter 4 Page No. 99

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	should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.		
38.	Detailed environmental management plan to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.	Environment Management Plan has been described in detail in Chapter-9 of the Draft EIA/EMP Report.	Chapter-9 Page-135
39.	Public hearing points raised and commitment of the project proponent on the same along with time bound action plan to implement the same should be provided and incorporated in the final EIA/EMP Report of the Project.	Public Hearing proceedings will be furnished in Final EIA report	-
40.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the project should be given.	Not applicable No. litigation is pending against the project in any court.	

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41.	The cost of the project (capital cost and recurring cost) as well as the cost towards implementation of EMP should clearly be spelt out.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S.No.</th> <th style="width: 60%;">Description</th> <th style="width: 30%;">Cost</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Fixed Asset Cost</td> <td style="text-align: right;">1,,1,20,000/-</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Operational Cost</td> <td style="text-align: right;">30,00,000/-</td> </tr> <tr> <td style="text-align: center;">3</td> <td>EMP Cost</td> <td style="text-align: right;">3,40,000/-</td> </tr> <tr> <td></td> <td>Total</td> <td style="text-align: right;">1,44,60,000/-</td> </tr> </tbody> </table>	S.No.	Description	Cost	1	Fixed Asset Cost	1,,1,20,000/-	2	Operational Cost	30,00,000/-	3	EMP Cost	3,40,000/-		Total	1,44,60,000/-	Chapter – 8 Page No. 134
S.No.	Description	Cost																
1	Fixed Asset Cost	1,,1,20,000/-																
2	Operational Cost	30,00,000/-																
3	EMP Cost	3,40,000/-																
	Total	1,44,60,000/-																
42.	A Disaster Management Plan shall be prepared and included in the EIA/EMP Report.	Disaster Management and Risk Assessment has be incorporated in Chapter-7	Chapter-7 Page No. 124															
43.	Benefits of the project if the project is implemented should be spelt out. The benefits of the project shall clearly indicate environmental, social economic, employment potential etc.																	
44.	Besides the above, the below mentioned general points are also to be followed:																	
(a)	Executive Summary of the EIA/EMP report	Executive Summary of EIA Report is given separately with Tamil and English.																
(b)	All documents to be properly referenced with index and continuous page numbering.	Complied																
(c)	Where data are presented in the report especially in tables, the period in which the data were	Complied																

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	collected and the sources should be indicated.		
(d)	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the project.	Complied	
(e)	Where the documents provided are in a language other than English, an English translation should be provided.	Complied	
(f)	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.	The complete questionnaire has been prepared.	
(g)	While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M.No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should also be followed.	The EIA report has been prepared and complying with the circular issued by MoEF vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009.	
(h)	Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be	There are no changes in prepared EIA as per submitted Form-1 & PFR.	

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	<p>brought to the attention of MoEF with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.</p>		
(i)	<p>As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report on the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project by the Regional Office of Ministry of Environment & Forests, if applicable.</p>	<p>Will be complied after grant environment clearance from SEIAA, Tamilnadu</p>	
(j)	<p>The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections (iii) sections of mine pit and external dumps, if any clearly showing the features of the adjoining area.</p>	<p>All Sectional Plates of Quarry is enclosed in Mining Plan.</p>	

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Additional ToR Compliance

S.No.	Condition	Compliance
1.	In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the PP shall prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.	Agree to comply.
2.	The Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30m below ground level.	Agree to comply. Slope Stability Report will be submitted with final EIA
3.	The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate. mine foreman, II/I Class mines manager appointed by the proponent	Agree to comply.
4.	The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling & muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel	Noted Agree to comply

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	beyond 30 m from the blast site.	
5.	The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past. either in the same location or elsewhere in the State with video and photographic evidence.	Complied The photographs are attached in EIA Report
6.	<p>If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,</p> <p>a) What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?</p> <p>b) Quantity of minerals mined out.</p> <p>c) Highest production achieved in any one year</p> <p>d) Detail of approved depth of mining.</p> <p>e) Actual depth of the mining achieved earlier.</p> <p>f) Name of the person already mined in that leases area.</p> <p>g) If EC and CTO already obtained, the copy of the same shall be submitted.</p> <p>h) Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.</p>	It is a fresh quarry project
7.	All corner coordinates of the mine lease area, superimposed on High Resolution Imagery/ Toposheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the	All maps have been provided in chapter 2 of Draft EIA report.

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	proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	
8.	The PP shall carry out Drone video survey covering the Cluster, Green Belt, Fencing etc.,	Noted. Drone video survey will be submitted in final EIA Report.
9.	The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.	Complied. The photographs of fencing and greenbelt attached as per SEAC recommendation.
10	The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.	The details of Geological Reserves, Mineable Reserves and Yearwise production reserves are tabulated in Chapter 2. The mining methodology and impacts are follow as on prescribed norms by Government.
11	The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.	Complied. The Organization chart has been discussed in Chapter 2
12	The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open	The hydro-geological study will be conducted and submitted in final EIA report.

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	<p>wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD/ TWAD to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.</p>	
13	<p>The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.</p>	<p>The baseline data for the environmental and ecological parameters about surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study have been incorporated in Chapter 3.</p>
14	<p>The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of air pollution, water pollution & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry & the surrounding habitations in the mind.</p>	<p>Noted Agree to comply</p>
15	<p>Rainwater harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.</p>	<p>Noted Agree to comply</p>

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16	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	Current land use of the study area has attached in EIA Report Chapter 3. Operational and post operational land use will be submitted.
17	Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided	Overburden has been discussed in Chapter 2
18	Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.	Noted
19	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be	The ultimate pit at the end of the mining operations will be used for the rainwater storage, the stored water will be used for greenbelt development and further the

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	provided.	stored water will be used for domestic purposes (other than the drinking purpose) after the proper treatment.
20	Impact on local transport infrastructure due to the Project should be indicated	Traffic Impact Assessment Study has been given in EIA Report Chapter 3.
21	A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.	The list of trees in the core and buffer zone have been discussed in chapter 3
22	A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.	Noted. Mine closure plan has been attached along with mining plates as Annexure VI.
23	Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.	Noted and will be complied in Final EIA Report
24	The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.	Noted Agree to comply.
25	The PP shall produce/display the EIA Report, Executive Summary and other related with respect to Public Hearing should be in Tamil Language also.	Noted.
26	As a part of the study of flora and fauna around	Noted

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	the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study. wherever possible.	Agree to comply.
27	The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University & local school/college authorities. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner	Noted Agree to comply.
28	Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/ botanist/ Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.	The green belt plan is enclosed along with mining plates in Annexure VII
29	A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the	A Disaster management Plan will be prepared and included in the Final EIA/EMP Report.

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	complete life of the proposed quarry (or) till the end of the lease period.	
30	A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.	A Risk Assessment and management Plan will be prepared and included in the final EIA/EMP Report in Chapter 7.
31	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	Occupational Health impacts of the project has prepared and incorporated in Environmental Management Plan in Chapter 10.
32	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations	Suitable Measures will be adopted to minimize occupational health impacts of the project.
33	The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	The socio-economic study has been carried out discussed in chapter 3 Page No. 99
34	Details of litigation pending against the project,	Not applicable

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	if any, with direction /order passed by any Court of Law against the project should be given.	No. litigation is pending against the project in any court.
35	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc	Benefits of the project has been incorporated in EIA Report Chapter 8
36	If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.	It is a fresh quarry project site
37	The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to the EMP for the entire life of mine.	Noted Agree to comply.
38	Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Reference besides attracting penal provisions in the Environment (Protection) Act, 1986.	Noted.

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Additional ToR by SEIAA

1.	Restricting the ultimate depth of mining up to 38m and quantity of 427630 cu.m of Rough stone are permitted for mining over a period of five years considering the environmental impacts due to the mining, safety precautionary measures of the working personnel and following the principle of the sustainable mining	Noted Agreed to comply.
2.	Detailed study shall be carried out regard to impact of mining around the proposed mine lease area on the nearby villages, Water-bodies/Rivers, & any ecological fragile areas.	The detailed study will be carried out and will be furnished in the Final EIA Report.
3.	The project proponent shall furnish VAO Certificate with reference to 300m radius regard to approved habitations, schools, Archaeological structures etc.	Obtained and same has been attached as Annexure VII
4.	As per the MoEF& CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.	Noted and public hearing details will be included along with final EIA report.
5.	The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks, and temperature reduction including control of other emission and climate mitigation activities.	Noted and will be complied in Final EIA report.

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6.	The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.	The biodiversity has been studied and discussed in chapter 3 in EIA Report.
7.	Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.	Noted Agreed to Comply
8.	The project proponent shall study impact on fish habitats and the food web/ food chain in the water body and Reservoir.	There is no water body within 1km surrounding the project site. Hence there won't be much impact on fish habitats and the food web/ food chain in the water body and Reservoir.
9.	The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.	The soil erosion map 5km surrounding the project site has been given in chapter 3 - Pg No. 84. The soil samples have been collected surrounding the project site and physical, chemical components and microbial components study has been carried out and the results are tabulated in chapter 3 - Pg No. 84.
10	The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.	The biological environment impacts, and its mitigation measures has been given in Chapter 4.
11	The Environmental Impact Assessment should study impact on standing trees and the existing	There is no existing trees in the project site and surrounding the project site. Only thorny

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	trees should be numbered and action suggested for protection.	shrubs were present. The trees around the site upto 10 km has been incorporated in Chapter 3
12	The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.	The water environment impacts and its mitigation measures has been given in Chapter 4
13	The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.	The EMP details has been given in Chapter 6 – Pg No. 120
14	The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.	Noted and will be complied in Final EIA report.
15	The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.	<p>There is no Reserve Forest within 15 km radius of the Project Site. Hence our project will not cause any damage to reserve forest. Also, we will get letter from DFO indicating the nearest reserve forest and submit along final EIA report.</p> <p>There is no protected areas, National Parks, Corridors and Wildlife pathways near project site.</p>
16	The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.	There is no plantation surrounding 500m from project site. Hence there won't be any impact in adjoining patta lands, Horticulture, Agriculture and livestock.
17	The project proponent shall study and furnish the details on potential fragmentation impact	Noted and will be complied in Final EIA report.

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	of natural environment, by the activities.	
18	The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.	There is no water body within 1km surrounding the project site. Hence there won't be much impact on aquatic plant and animals. There is no caves, heritage sites and archaeological sites near the project site.
19	The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the environment. The ecological risks and impacts of plastic & microplastics on the water systems due to activities aquatic environment and freshwater systems due to activities, contemplated during mining may be investigated and reported.	There will not be any plastic and microplastic pollution due to mining activity. Also, we ensure that we won't use any single use plastics in the project site.
20	The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.	There is no Reserve Forest within 15 km radius of the Project Site. Also we will get letter from DFO indicating the nearest reserve forest and submit along final EIA report.
21	Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area covering the entire mine lease period as per precise area communication order issued from reputed research institutions on the following. a. Soil Health & Bio-diversity. b. Climate Change leading to Droughts, Floods etc. c. Pollution leading to release of Greenhouse	The biodiversity has been studied and discussed in chapter 3 – Pg No. 87. The soil erosion map 5km surrounding the project site has been given in chapter 3 – Pg No. 84. The detailed study will be carried out and will be enclosed in the Draft EIA Report.

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	<p>gases (GHG), rise in Temperature & livelihood of the local people.</p> <p>d.Possibilities of water contamination and impact on aquatic ecosystem health.</p> <p>e.Agriculture, Forestry & Traditional practices.</p> <p>f. Hydrothermal/Geothermal effect due to destruction in the Environment.</p> <p>g.Bio-geochemical processes and its footprints including environmental stress.</p> <p>h.Sediment geochemistry in the surface streams.</p>	
22	<p>Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. withing 1 km (radius) to assess the impacts on the nearby water bodies due to mining activity. Based on actual monitored data, It may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period.</p>	<p>The hydro-geological study will be conducted and submitted in final EIA report.</p>
23	<p>To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining</p>	<p>Disaster Management and Risk Assessment has be incorporated in Chapter-7, Page No.129</p>

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	activity & its related activities covering the entire mine lease period as per precise area communication order issued.	
24	To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of mining.	A Risk Assessment and management Plan will be prepared and included in the final EIA/EMP Report.
25	Detailed mine closure plan covering the entire mine lease period as per precise area communication order issued.	Mine closure plan has been attached along with mining plates as Annexure VI.
26	Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued	Noted Agreed to comply. Incorporated in Chapter 9 of EIA Report.

ANNEXURE-II
PRECISE AREA COMMUNICATION LETTER

ந.க எண் 220/2019/கனிமம்

மாவட்ட ஆட்சியர் அலுவலகம்,
(புவியியல் மற்றும் சுரங்கத்துறை)
கிருஷ்ணகிரி மாவட்டம்,
கிருஷ்ணகிரி.
நாள் 13.06.2019.



குறிப்பாணை

பொருள்:

கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண கற்கள் கிருஷ்ணகிரி மாவட்டம் - குளகிரி வட்டம் - முகளுர் கிராமம் அரசு புல எண் 232/2 (பகுதி) ல் 2.40.0 செறக்டேர் பரப்பளவில் அரசு நிலத்தில் அமைந்துள்ள சாதாரண கற்குவாரிக்கு டெண்டருடன் இணைந்த ஏல் முறையில் குத்தகை வழங்க டெண்டர்/ பொது ஏல் நடத்தப்பட்டது — பொது ஏலத்தில் அதிக தொகை கோரிய தி/ள். ஆர்.வி. எண்டர்பிரைசஸ் பங்குதாரர் எம். இராமமூர்த்தி, த/பெ. முத்தப்பா, கதவு எண் 1/16, மாசிநாயக்கனப்பள்ளி கிராமம், பஞ்சாட்சிபுரம் அஞ்சல், ஓசூர் வட்டம், கிருஷ்ணகிரி மாவட்டம் என்பவருக்கு சாதாரண கற்குவாரி குத்தகை வழங்குதல் தொடர்பாக அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம், தமிழ்நாடு மாநில சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் தடையிணைமைச் சான்று மற்றும் தமிழ்நாடு மாகாண்டுப்பாட்டு வாரிய இசைவு ஆகியவற்றை பெற்று வழங்க கோருதல் - தொடர்பாக.

பார்வை

- 1 கிருஷ்ணகிரி மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.07 நாள் 21.02.2019.
2. 02.03.2019 அன்று தினமணி நாளிதழில் வெளியிடப்பட்ட பத்திரிக்கை செய்தி
3. தி/ள். ஆர்.வி. எண்டர்பிரைசஸ் பங்குதாரர் எம். இராமமூர்த்தி, த/பெ. முத்தப்பா, கதவு எண் 1/16, மாசிநாயக்கனப்பள்ளி கிராமம், பஞ்சாட்சிபுரம் அஞ்சல், ஓசூர் வட்டம், கிருஷ்ணகிரி மாவட்டம் என்பவரது டெண்டர் விண்ணப்ப நாள் 08.03.2019.

கிருஷ்ணகிரி மாவட்டம் குளகிரி வட்டம் முகளுர் கிராமம் அரசு புல எண் 232/2 (பகுதி) ல் 2.40.0 செறக்டேர் பரப்பளவில் அமைந்துள்ள சாதாரண கற்குவாரிக்கு பத்து ஆண்டுகளுக்கு குவாரி குத்தகை வழங்குவது தொடர்பாக 08.03.2019 அன்று நடைபெற்ற பொது ஏலத்தில் தி/ள். ஆர்.வி. எண்டர்பிரைசஸ் பங்குதாரர் எம். இராமமூர்த்தி, த/பெ. முத்தப்பா, கதவு எண் 1/16, மாசிநாயக்கனப்பள்ளி கிராமம், பஞ்சாட்சிபுரம் அஞ்சல், ஓசூர் வட்டம், கிருஷ்ணகிரி மாவட்டம் என்பவர் அரசு நிர்ணயம் செய்த குறைந்தபட்ச குத்தகை தொகையை விட அதிக தொகையான ரூ 1,08,00,000/- (ரூபாய் ஒரு கோடியே எட்டு லட்சம் மட்டும்) ஐ டெண்டரில் அதிக தொகை குறிப்பிட்டுள்ள அவருக்கு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959ன் விதி 8 (6) (b) ன்படி அவருக்கு கீழ்க்கண்ட நிபந்தனைகளுடன் குவாரி குத்தகை வழங்க உத்தேசிக்கப்பட்டுள்ளது.

(i) குவாரி குத்தகை வழங்க உத்தேசிக்கப்பட்டுள்ள குவாரிக்கு அருகிலுள்ள பட்டா

M. Ramasamy
P. Uthay

நிலங்களுக்கு 7.5 மீட்டர் பாதுகாப்பு இடைவெளியும், அரசு நிலங்களுக்கு 10 மீட்டர் பாதுகாப்பு இடைவெளியும் விட்டு குவாரிப்பணி செய்ய வேண்டும்.

(ii) அருகிலுள்ள கிராம சாலைகளுக்கு 10 மீட்டர் பாதுகாப்பு இடைவெளியும், இதர

நெடுஞ்சாலைகளுக்கு 50 பாதுகாப்பு இடைவெளியும் விட்டு குவாரிப்பணி செய்யவேண்டும்.

2. எனவே கிருஷ்ணாகிரி மாவட்டம் குளகிரி வட்டம், முகனூர் கிராமம் புல எண் 232/2 (பகுதி) ல் 2.40.0 செக்டர் பரப்பளவில் புல வரைபடத்தில் குறிப்பிட்டுள்ள பகுதியில் குவாரி குத்தகை ஒப்பந்த ஆவணம் நிறைவேற்றும் நாளிலிருந்து பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் வெட்டியெடுக்க குவாரி குத்தகை வழங்குதல் தொடர்பாக தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959ன் விதி 41 மற்றும் 42ன் ஆகியவற்றில் கண்டுள்ள கால்வரையறைக்குள் அங்கீகரிக்கப்பட்ட கரங்கத்திட்டம், தமிழ்நாடு சுற்றுச் சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் இசைவு மற்றும் தமிழ்நாடு பாசுக்கட்டுப்பாட்டு வாரியத்தின் இசைவு ஆகியவற்றை சமர்ப்பிக்க வேண்டும் என தி/ள் ஆர்.பி.எண்டர்பிரைசஸ் என்பவருக்கு தெரிவிக்கப்படுகிறது.

3. உரிய காலத்தில் மேற்கண்ட ஆவணங்களை சமர்ப்பிக்க தவறினால் விதிகளின்படி உரிய நடவடிக்கை எடுக்கப்படும் எனவும், தெரிவிக்கப்படுகிறது.

4. மேற்கூறிய ஆவணங்களை சமர்ப்பித்த பின்பு குவாரி குத்தகை வழங்கப்பட்டு குவாரி குத்தகை ஒப்பந்த ஆவணம் நிறைவேற்றிய பின்பே மேற்கண்ட புலத்தில் குவாரிப்பணிகளை தொடங்கவேண்டும். தவறினால் தமிழ்நாடு சிறுகனிமச் சலுகை விதிகள் 1959ன் விதி 36 (அ)ன்படி உரிய நடவடிக்கை எடுக்கப்படும் எனவும் தெரிவிக்கப்படுகிறது.

இணைப்பு : புல வரைபடம்

/உண்மை நகல்/

ஓம்/எஸ்.பிரபாகர்,
மாவட்ட ஆட்சியர்,
கிருஷ்ணாகிரி.

மாவட்ட ஆட்சியருக்காக
கிருஷ்ணாகிரி.
13/10/2014

13/10/14

பெறுநர்

தி/ள். ஆர்.வி. எண்டர்பிரைசஸ்
பங்குதாரர் எம். இராமமூர்த்தி,
த/பெ. முத்தப்பா,
கதவு எண் 1/16, மாசிநாயக்கனப்பள்ளி கிராமம்,
பஞ்சாட்சிபுரம் அஞ்சல், ஒசூர் வட்டம்,
கிருஷ்ணாகிரி மாவட்டம்

S.DHANASEKAR, M.Sc., (Geo)
RQP/MAS/225/2011/A

R. Ramesh
R. Ramesh

ANNEXURE-III
MINING PLAN APPROVED LETTER

From

Thiru.L.Suresh,M.Sc.,
Deputy Director,
Dept. of Geology and Mining,
Collectorate,
Krishnagiri.

To

M/s.R.V.Enterprises,
Partner:M.Ramamoorthy,
S/o.Muthappa,
No.1/16,
Machinayakanapalli Village,
Panchakshipuram Post,
Krishnagiri District

Roc.No.220/2019/Mines**Dated: 30.07.2019.****Sir,**

Sub: Mines and Minerals – Minor Mineral – Rough Stone-
Krishnagiri District – Hosur Taluk – Mugalur Village –
Government Poramboke land in S.F.No. 232/2 (Part) -
Over an extent of 2.40.0 Hects - Application preferred by
Tvl.R.V.Enterprises, Krishnagiri- Draft Mining Plan
submitted - Approved – Reg.

Ref: 1. Application preferred by M/s.R.V.Enterprises,
Partner:M.Ramamoorthy, S/o.Muthappa, No.1/16,
Machinayakanapalli Village, Panchakshipuram
Post, Krishnagiri District. Dt: 08.03.2019.
2. The District Collector Krishnagiri Roc.No.220/2019/
Mines dated: 13.06.2019.
3. Draft Mining plan submitted by M/s.
R.V.Enterprises, Partner:M.Ramamoorthy, S/o.
Muthappa, No.1/16, Machinayakanapalli Village,
Panchakshipuram Post, Krishnagiri District
Dated:02.07.2019.

Kind attention is invited to the reference cited,

2. M/s.R.V.Enterprises, Partner.M.Ramamoorthy, S/o.Muthappa,
No.1/16, Machinayakanapalli Village, Panchakshipuram Post, Krishnagiri
District has been issued precise area over an extent of 2.40.0 Hects of
Government Poramboke land in S.F.No.232/2 (Part) in Mugalur Village,
Hosur Taluk, Krishnagiri District for the proposed grant of Rough Stone
for a period of 10 year under the provisions of Rule 8(1) of Tamil Nadu
Minor Mineral Concession Rules, 1959 and he has been directed to submit
approved mining plan and Environment Clearance vide the reference 2nd
cited.

3. In this regard, M/s.R.V.Enterprises, Partner:M.Ramamoorthy had submitted 03 copies of draft Mining Plan vide in the reference 3rd cited for approval for the said of grant of permission.

4. The draft Mining Plan submitted by M/s.R.V.Enterprises, Partner. M.Ramamoorthy has been scrutinized as per the guide lines/ Instructions issued by the Commissioner of Geology and Mining, Chennai-32. The mining plan is prepared in accordance with the guidelines/ instructions issued and tallies with the field conditions. The special conditions imposed in the precise area letter had been incorporated in the Mining Plan.

5. Hence, as per the guidelines/instructions issued by the Commissioner of Geology and Mining, Chennai, the said mining plan is hereby approved subject to the following conditions.

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

ii) This approval of the mining plan does not in any way imply the approval of the Government in terms of any other provisions of Mines and Minerals Development and Regulation Act 1957, or any other connected laws including Forest (Conservation) Act 1957, or any other connected Laws industry Forest (Conservation) Act 1980, Forest Conservation Rules 1981 Environment protection Act 1980, Indian Explosive Act 1884 (Central Act IV of 1884) and the rules made there under, Minor Mineral Conservation and Development Rules, and The Tamil Nadu Minor Mineral Concession rules, 1959.

iii) That the mining plan is approved without prejudice to any other order or directions from any court of competent jurisdiction.

iv) All the conditions mentioned in the precise area letter should be followed during quarry operation as per rules.

v) The applicant should get prior Environmental clearance from the appropriate authority and should submit it to the District Collector, Krishnagiri.

Deputy Director,
Dept of Geology and Mining,
Krishnagiri.

BAJ
30/7/19

- Copy submitted to :
1. The Chairman,
State Level Environment Impact
Assessment Authority,
Saidapet, Chennai.
 2. The Director, Dept of Geology and
Mining, Guindy,
Chennai -32.

ANNEXURE-IV
500M Radius letter

From

Thiru.L.Suresh,M.Sc.,
Deputy Director,
Dept. of Geology and Mining,
Collectorate,
Krishnagiri.

To

M/s.R.V.Enterprises,
Partner:M.Ramamoorthy,
S/o.Muthappa,
No.1/16,
Machinayakanapalli Village,
Panchakshipuram Post,
Krishnagiri District

Roc.No.220/2019/Mines**Dated: 30.07.2019.****Sir,**

Sub: Mines and Minerals – Minor Mineral – Rough Stone-
Krishnagiri District – Hosur Taluk – Mugalur Village –
Government Poramboke land in S.F.No. 232/2 (Part) - Over
an extent of 2.40.0 Hects - Application preferred by
Tvl.R.V.Enterprises, Partner:M.Ramamoorthy - Details of
quarries situated within 500 mts radial distance –
Requested by the applicant – Details furnished - reg.

- Ref:** 1. The District Collector Krishnagiri Roc.No.220/2019/
Mines dated: 13.06.2019.
2. M/s. R.V.Enterprises, Partner:M.Ramamoorthy, S/o.
Muthappa, No.1/16, Machinayakanapalli Village,
Panchakshipuram Post, Krishnagiri District
dated:02.07.2019.

Kind attention to the references cited above.

2. M/s.R.V.Enterprises, Partner.M.Ramamoorthy, S/o.Muthappa,
No.1/16, Machinayakanapalli Village, Panchakshipuram Post, Krishnagiri
District has been issued precise area over an extent of 2.40.0 Hects of
Government Poramboke land in S.F.No.232/2 (Part) in Mugalur Village,
Hosur Taluk, Krishnagiri District for the proposed grant of Rough Stone
for a period of 10 year under the provisions of Rule 8(1) of Tamil Nadu
Minor Mineral Concession Rules, 1959 and he has been directed to submit
approved mining plan and Environment Clearance vide the reference 1st
cited.

3. The applicant vide letter dated:02.07.2019 had requested to issue the details of the quarries situated within the radial distance of 500 mts from the subject quarry to furnish the same to SEIAA for getting Environmental Clearance.

4. Accordingly the details of quarries situated within 500 mts radial distance from the subject quarry is furnished as follow:

Details of Existing quarries.

Sl N	Name of the lessee	Village & Taluk	Mineral	S.F No.	Extent in Het	GO No.& Date	Lease period.
1	Thiru. P.Nagaraja reddy, S/o. Pappi reddy, No.2/32, Balageri Village, Mudhuganapalli Post, Hosur Taluk, Krishnagiri District	Denkanikottai Taluk, Hosapuram Village,	Rough Stone	457/(P-1)	2.00.0	Roc.111/2016/ Mines dated: 08.08.2016	17.08.2016 to 16.08.2026.
2	Thiru. P.Venkata Reddy, S/o. Pedha Obul Reddy, No.3/213, Periya Kodipalli Village, Kempatt, Muthur Post, Denkanikottai Taluk, Krishnaigri Dist	Denkanikottai Taluk, Hosapuram Village,	Rough Stone	457/(P-2)	3.70.0	Roc.112/2016/ Mines dated: 26.02.2020.	26.02.2020 To 25.02.2030
3	Thiru.c.Venkatadri, Pothachandiram Village, Kundumaranapalli Post, Denkanikottai Taluk, Krishnagiri District.	Denkanikottai Taluk, Mugalur Village.	Rough Stone	257/1A, 257/2A, 257/2B(P), 272/1A (P)	0.39.8 0.04.45 0.97.0 0.90.5 ----- 2.31.75	Roc.402/ 2017/Mines dated: 04.06.2018.	13.06.2018 To 12.06.2023.
				Total			

II. Details of abandoned/Old quarries.


Sl. No.	Name of the lessee	Village	S.F No.	Extent in Hect	GO No.& Date	Lease period.
1	Thiru.M.R.Sivalingappa, S/o Ramaiha Perandapalli village and post,Hosur Taluk Krishnagiri District	Hosur Taluk - Mugalur Village	270 (Part)	5.00.0 Hects	Roc.110/2008 /Mines-2 dated 26.03.2008.	04.09.2008 to 03.09.2018
2	Thiru.Annaiya Reddy s/o. Venkata reddy, No.40, shakambri Layout, Anekal Road, Attibele, Anekal Taluk, Krishnagiri district.	Hosur Taluk - Mugalur Village	231/4e1	0.81.0 Hect	Roc.175/2010 /Mines-2 dated 25.12.2010.	31.01.2011 to 30.01.2016

Details of Proposed quarries

Sl. No.	Name of the lessee	Village & Taluk	S.F No.	Extent in Hect	GO No.& Date	Lease period.
1.	M/s.R.V. Enterprises, Partner.M.Ramamoorthy S/o.Muthappa,D.No.1/16, Masinayanapalli Village, Panchachipuram Post, Hosur Taluk, Krishnagiri District	Shoolagiri, Taluk, Mugalur Village.	Rough Stone	S.F.No.232/2 (Part) Ext: 2.40.0	Roc. 220/ 2019/Mine s dated: 13.06.2019.	Precise area given Instant Proposal

Details of other Proposed/applied quarries

Sl. No.	Name of the lessee	Village & Taluk	S.F No.	Extent in Hect	GO No.& Date	Lease period.
Nil						

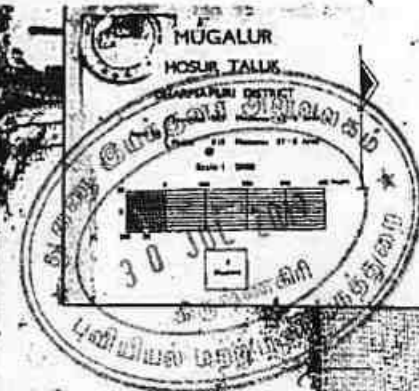

Deputy Director
Dept of Geology and Mining,
Krishnagiri.

Copy to :-

The Chairman,
Tamil Nadu State Environment
Impact Assessment Authority,
3rd Floor, Panakal Maligai,
No. 1 Jeenes Road,
Saidapet,
Chennai -15.


30/7/19

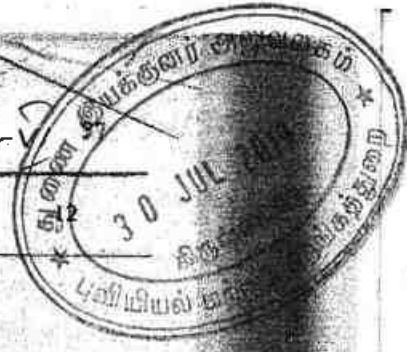
ANNEXURE-V
FMB, A REGISTER, VILLAGE MAP AND
DEED OF AGREEMENT



ANNEXURE V

S. DHANASEKAR, M.Sc. (Geol)
RQP/MAS/225/2011/A

M. Ramiah
R. Vignesh



	3	4	5	6	7	8	9	10	11
						கு. பை.	ஹெ.ஏர்ஸ்.	கு. பை.	
1-பா	ர	4	...	8-5	10	1 09	1 14-0	1 25	179 மு. நஞ்சுய்யர்.
1-பா	அ	தி.ஏ.த	...	...	...	...	15 86.5	...	...
							17 00.5	1 25	தீர்வை ஏற்படாததற்கு.
1-பா	ர	4	...	8-5	10	1 09	0 09-0	0 10	179 மு. நஞ்சுய்யர்.
1-பா	ர	4	...	8-5	10	1 09	0 12.5	0 15	137 கா. சீனப்பர்.
2	ர	4	...	8-5	10	1 09	0 28-0	0 31	137 கா. சீனப்பர்.
3	ர	4	...	8-5	10	1 09	0 26.5	0 38	136 வெ. சீனப்பர்.
							0 76.0	0 94	
1-பா	ர	4	...	8-3	7	2 77	0 31-0	0 86	267 ந. மதனகிரி யப்பர்.
1-பா	ர	4	...	8-3	7	2 77	0 15.5	0 43	179 மு. நஞ்சுய்யர்.
1-பா	ர	4	...	8-3	7	2 77	0 15-0	0 42	48 ந. கிருஷ்ணப்பர்.
1-பா	ர	4	...	8-3	7	2 77	0 67-0	1 87	394 வ. லக்ஷ்மய்யர்.
1-பா	ர	4	...	8-3	7	2 77	0 16-0	0 44	136 வெ. சீனப்பர்.
2-பா	ர	4	...	8-5	10	1 09	0 04-0	0 06	267 ந. மதனகிரி யப்பர்.
2-பா	ர	4	...	8-5	10	1 09	0 09-0	0 09	136 வெ. சீனப்பர்.
							1 57.5	4 16	
115-1	ர	4	...	8-3	7	2 77	0 23-0	0 62	48 ந. கிருஷ்ணப்பர்.
2	ர	4	...	8-3	7	2 77	0 32-0	0 88	394 வ. லக்ஷ்மய்யர்.
							0 55-0	1 50	
136-பா	ர	4	...	8-5	10	1 09	0 74.5	0 83	225 அ. பாஸ்கர் ரெட்டி.
1-பா	ர	4	...	8-5	10	1 09	0 10.5	0 11	358 சி. ராமோஜி ரெட்டி.
							0 85-0	0 94	
137-பா	ர	4	...	8-5	10	1 09	0 47-0	0 50	358 சி. ராமோஜி ரெட்டி.
1-பா	ர	4	...	8-5	10	1 09	1 01.5	1 12	225 அ. பாஸ்கர் ரெட்டி.
							1 48.5	1 62	

S. DHANASUKUMAR (Geo)
RQP/MAS/225 1/A

M. Ramani
R. Vignesh

ANNEXURE - VII



FORM C

[See rule 9(a)]

Acknowledgement of Registration of Firms

The Registrar of Firms, TamilNadu, hereby acknowledges the receipt of the statement prescribed by Section 58(1) of the Indian Partnership Act, 1932. The statement has been filed and the name of the firm **RV ENTERPRISES** has been entered in the Register of Firms as No **FR/Krishnagiri/197/2021**.



Date :24-Aug-2021

Station : Krishnagiri

Digitally Signed by Thiru/ Tmt/ Selvi
SENTHILKUMAR VELMURUGAN
Registrar of Firms

[Handwritten signature]

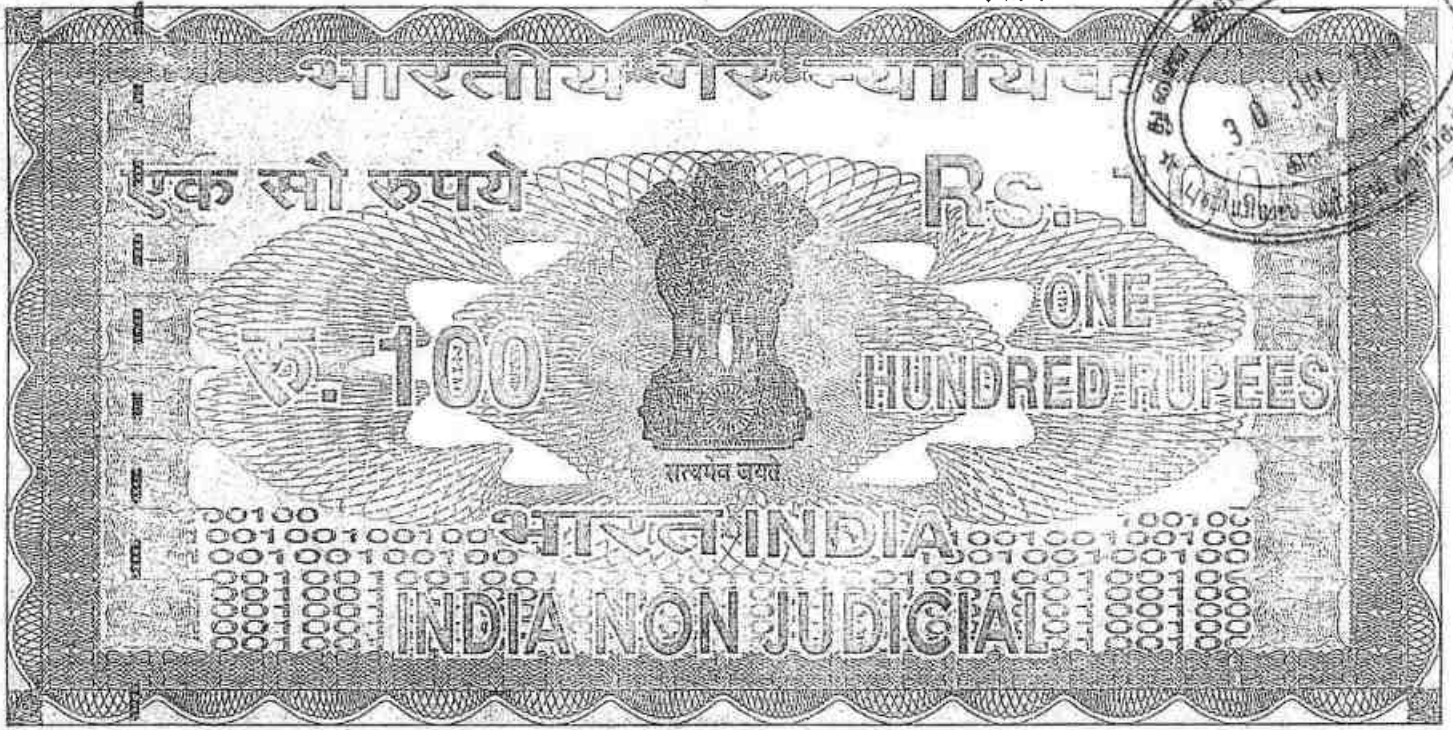
24/8/2021

[Handwritten signature]
S.DHANASEKAR, M.Sc.(Geo)
RQP/MAS/225/2011/A

M. Ramani
R. Uthay

Document verified by Senthilkumar V
VELMURUGAN
Digitally signed by
SENTHILKUMAR V
VELMURUGAN
Date: 2021.08.24
13:09:48 IST

ANNEXURE VII



தமிழ்நாடு தமில்நாடு TAMILNADU

BK 591162



Rs. 100/-

R. V Enterprises
Megalur

Parimala

M.D. PARIMALA,
Stamps Vendor
L.No. 5/2008, R.G.I., HOSUR, T.N.

PARTNERSHIP DEED

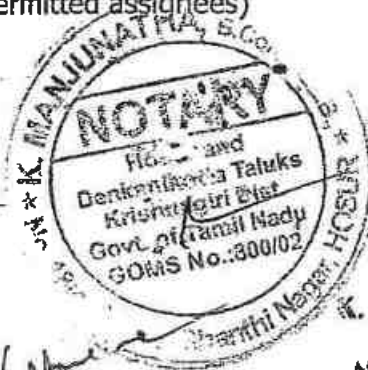
The deed of Partnership made and executed at Hosur on this 8th day of March 2019 between:

Mr.M.Ramamoorthy, aged about 40 years, S/o.Muthappa, residing at No.27/1/64-A, Machinayakanapalli Village, Panchakshipuram Post, Hosur Taluk-635 110, Krishnagiri District, Tamil Nadu. Hereinafter called the party of the **FIRST PART** (which expression shall mean and includes unless opposed to the context, his heirs, executors, legal representatives and permitted assignees)

AND

Mr.Venkatachalapathy.R., aged about 30 years, S/o.Ramachandrappa, residing at No.2/157, H.Chettipalli Village, Karapalli Post, Denkanikotta Taluk, Krishnagiri District, Tamil Nadu. Hereinafter called the party of the **SECOND PART** (which expression shall mean and includes unless opposed to the context, his heirs, executors, legal representatives and permitted assignees)

M. Ramamoorthy



R. Venkatachalapathy

K. MANJUNATHA, S. Gov., LLB
ADVOCATE & NOTARY
No: 18/42 E 11A, Shanthi Nagar
HOSUR-635 109.



தமிழ்நாடு தமிழ்நாடு TAMILNADU

BK 591163

R. V Enterprises
Mugalur

Parimala

N.B. PARIMALA,
Stamp Vendor
L.No. 5/2008, KCL, HOSUR, TN.

Rs. 100/-

Sl. No. _____

8/3/19

WHEREAS four the parties to this deed intend to carry on the partnership business.

WHEREAS the parties to this deed have agreed to their terms and conditions orally.

Whereas the parties to this deed are now desirous of embodying their terms and conditions in a written instrument.

NOW THIS INSTRUMENT WITNESS THE FOLLOWING TERMS AND CONDITIONS HEREINAFTER SET FORTH:

1. The partnership business shall continue under the name style of "M/s.RV ENTERPRISES", Hosur.

M. Parimala

R. V. Enterprises



N. C. MANJUNATHA, B.Com., LL.B.
ADVOCATE & NOTARY
No: 18/42 S 11A, Shanik Nagar



தமிழ்நாடு தமில்நாடு TAMILNADU

BK 591164

100/-

R. v Enterprises
Mugalur

Parimala

N.S. PAKHIALA,

Stamp Vendor

L.No. 5/2008, K.G.I, HOOSUR, T.N.

Sl. No. _____

Date: 8/3/19

2. The office and factory of the partnership shall be situated at **Mugalur Village and Post, Hosur Taluk, Krishnagiri District**. The Office and factory may be shifted to any other place or places as the parties to this deed may from time to time, mutually agree upon.
3. The terms of the partnership shall come into force with effect from **08.03.2019**.
4. The duration of the partnership business for **10 years**.
5. The partnership shall carry on the business of manufacturing **Quarry work** and to do my business beneficial to the partnership.

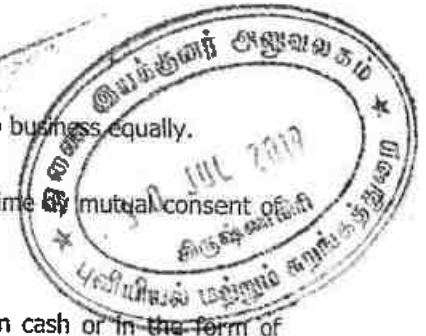
H. Ramaswamy

R. Uthay



N. K. MANJUNATHA, B.Com., LL.B.
ADVOCATE & NOTARY
No: 18/42 E 11A, Shanthi Nagar,
HOOSUR-635 109.

6. The first and second party invest money for the partnership business equally.
7. The capital may be increased or decreased from time to time by mutual consent of all the parties to this deed.
8. The parties to this deed may bring in additional capital in cash or in the form of properties as may be mutually agreed upon.
9. Four parties to this deed shall devote their time and attention to the affairs of the firm and each shall be paid a monthly remuneration of **Rs.50,000/- (Rupees Fifty Thousand Only)** per month.
10. The profit or losses of the partnership after remuneration and interest on capital shall be shared as under.
11. The partnership may raise loan/loans for the purpose of the business which shall be only with the consent of all the parties to this instrument and be borrowed only in the same of partnership business. All the parties to this deed are severally liable for any loan raised by the partnership business.
12. Death, insolvency or retirement of the partner shall not dissolve the partnership business as to the other partner. The existing partner should pay back the capital investment amount to the partner or his legal heirs. In the event of retirement of one of the partner before partnership period the out going partner should be paid his initial investment by the partner who continue to carryon business.
13. The bank account or accounts including overdraft account of the partnership business which may be opened with any bank/banks shall be operated by **Mr.M.Ramamoorthy** (First Partner) of the parties to this deed.
14. Every party to this instrument shall be entitled to act for and on behalf of the partnership business in all matters pertaining to the partnership business other than those terms as may be mutually agreed upon.
15. **Mr.M.Ramamoorthy** (First Partner) party to this instrument shall be entitled to collect monies due to the partnership, give discharge for monies received on behalf of the partnership and shall be accountable to the firm for such amounts and make representations before any Government, Local Authority of such similar bodies or any Court of enquiry duly constituted in respect of all matters and proceedings relating to the business of the partnership.



M. Ramamoorthy

Let



[Handwritten Signature]

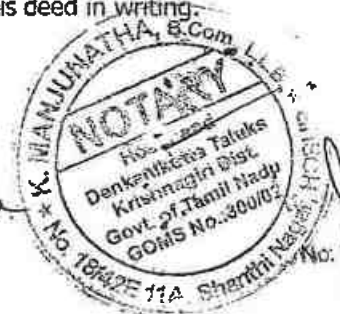
MANJUNATH REDDY, B.Com., LL.B.
NOTARY PUBLIC
No. 11A, Shanthi Nagar,
HOSUR-505 109.

16. Every party to this instrument shall diligently discharge his duties in the conduct of the partnership business.
17. Every party to this instrument shall indemnify any loss or damage caused to this partnership by his fraud or willful neglect in the conduct of the partnership business.
18. Any new partners can be admitted into the partnership business by mutual consent of all the parties to this instrument.
19. On the 31st March every year a general account shall be taken of all the assets and liabilities of the partnership business on all dealings and transactions of the partnership during the preceding year and the account shall be audited by a duly qualified Chartered accountant or a firm of Chartered accountants. A profit and loss account shall be prepared and signed by all the parties to this instrument and on such signing each shall be binding on them and save that in the event any manifest error be found therein, such error shall be rectified within one calendar month thereof. The accounts for the first period shall be closed on 31st March 2020.
20. No party to this instrument shall except with the written consent of the other party, in any way;
- Charge, pledge, or mortgage or assign his share of interest or any part thereof in the partnership assets or profits or losses if any, if applicable.
 - Do or suffer anything whereby the partnership business or property may be endangered.
21. No party to this instrument without the previous consent of other party shall directly or indirectly interest themselves in any business which is of competitive nature to this partnership business.
22. The death, retirement or insolvency of any partner shall not dissolve the firm. In the event of the death of the partnership, unless otherwise agreed upon by all the partners to this deed, their legal heirs shall succeed them and continue to carry on the partnership business.
23. Any partner intend to retire from the business shall give there 3 months notice in writing to the other partner. The retiring partner shall be entitled to only the amount at his credit in the accounts of the firm (inclusive of profit or loss up to that period). In the event of debit balance in the account of the retiring partner he shall pay the same forthwith.
24. The terms of the partnership can be altered, amended, substituted or added to by mutual consent of the parties to this deed in writing.



M. Ramanathan

Sehi



R. Upathy

B.Com, L.L.S
NOTARY
Shanthi Nagar
HOSUR-635 109.



25. Any notice hereby requested or authorized to be given to any of the said partners shall be sufficiently given by leaving the same addressed to him/her the principal place of business of the firm or by sending the same by registered post to him/her at the principal place of business of the firm or by sending the same by registered post to his/her usual or last known place of address.

IN WITNESS WHEREOF THE PARTIES HERETO HAVE SET AND SUBSCRIBED THEIR RESPECTIVE HANDS ON THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

M. Ramamoorthy
M. Ramamoorthy
(First Party)

V. Venkatachalapathy.R
Venkatachalapathy.R
(Second Party)

WITNESS

1. V. Anil Kumar. 64-A, Mahinayakanapalem, Hosur.
2. N. Bharath. S/o Narayanappa

Signed before me
8/3/19

K. MANJUNATHA, B.Com., LL.B.
ADVOCATE & NOTARY
No: 18/42 E 11A, Shanthi Nagar
HOSUR-635 100.



S. Dhanasekar
S. DHANASEKAR, M.Sc. (Geo)
ROP/MAS/225/2011/A

**ANNEXURE-VI MINING PLAN REPORT &
PLATES**

MINING PLAN

FOR

GRANT OF ROUGH STONE QUARRY LEASE IN GOVERNMENT PORAMBOKE LAND

TOTAL LEASE GRANTED PERIOD 10 YEARS

PROPOSED PERIOD OF MINING 5 YEARS

(Prepared Under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As Per Amendment Under Rule 41 & 42)

LOCATION OF THE APPLIED AREA

EXTENT : 2.40.0Ha.
S.F. No : 232/2(PART).
VILLAGE : MUGALUR.
TALUK : SHOOLAGIRI.
DISTRICT : KRISHNAGIRI.
STATE : TAMIL NADU.

APPLICANT

M/s. R.V. ENTERPRISES,
PARTNER M.RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16, MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT- 635 110.

PREPARED BY:

S.DHANASEKAR, M.Sc.,
RQP/MAS/225/2011/A
8/3, KULLAPPAN STREET,
OPP, INDIAN BANK LINE,
OMALUR TALUK,
SALEM DISTRICT - 636 455.

Email: geodhana@yahoo.co.in
CELL : 98946-28970 & 73733-74702.



CONTENTS



SL. NO.	DESCRIPTION	PAGE NO.
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2.0	EXECUTIVE SUMMARY	10
3.0	GENERAL INFORMATION	11
4.0	LOCATION	11
5.0	GEOLOGY AND MINERAL RESERVES	12
6.0	MINING	17
7.0	BLASTING	20
8.0	MINE DRAINAGE	23
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11.0	ENVIRONMENT MANAGEMENT PLAN	26
12.0	MINE CLOSURE PLAN	29
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ANNEXURES



SL. NO.	DESCRIPTION	ANNEXURE NO.
1.	COPY OF PRECISE AREA COMMUNICATION LETTER	I
2.	COPY OF GAZETTE	II
3.	COPY OF DFO CLEARANCE	III
4.	COPY OF FMB	IV
5.	COPY OF COMBINED SKETCH	V
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7.	COPY OF FIRM REGISTRATION	VII
8.	COPY OF PARTNERSHIP DEED	VIII
9.	COPY OF ID PROOF	IX
10.	COPY OF RQP CERTIFICATE	X
11.	COPY OF PROPOSED LEASE AREA PHOTOS	XI

LIST OF PLATES



SL. NO.	DESCRIPTION	PLATE NO.	SCALE
1	LOCATION PLAN	I	Not to Scale
2	ROUTE MAP	IA	Not to Scale
3	TOPOSHEET MAP	IB	Not to Scale
4.	SATELLITE IMAGE (LEASE AREA)	IC	1:1000
5.	SATELLITE IMAGE (500m RADIUS)	ID	1:5000
6.	MINE LEASE PLAN	II	1:1000
7.	SURFACE & GEOLOGICAL PLAN	III	1:1000
8.	GEOLOGICAL SECTIONS	III-A	1:1000
9.	YEARWISE DEVELOPMENT AND PRODUCTION PLAN	IV	1:1000
10.	YEAR WISE DEVELOPMENT AND PRODUCTION SECTIONS	IV- A	1:1000
11.	MINE LAYOUT, LAND USE PATTERN & AFFORESTATION PLAN	V	1:1000
12.	ENVIRONMENT PLAN	VI	1:5000
13.	CONCEPTUAL/ FINAL MINE CLOSURE PLAN	VII	1:1000
14.	CONCEPTUAL/ FINAL MINE CLOSURE SECTIONS	VII-A	1:1000
15.	PROGRESSIVE MINE CLOSURE PLAN	VIII	1:1000

M/s. R.V. ENTERPRISES,
PARTNER M. RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16, MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT.



CONSENT LETTER FROM THE APPLICANT

We hereby give our consent for preparing the Mining Plan in respect of **Rough Stone** quarry over an extent of **2.40.0Ha** of **Government Poramboke Land** in **S.F.No.232/2(Part)** of **Mugalur** Village, **Shoolagiri** Taluk, **Krishnagiri** District, **Tamilnadu** State by **Shri. S. Dhanasekar, M.Sc.,** Regn.No. **RQP/MAS/225/2011/A.**

We request the Deputy Director, Department of Geology and Mining, KRISHNAGIRI District to make further correspondence regarding modifications if any in the Mining Plan with the said Recognized Qualified Person on this following address.

S.DHANASEKAR, M.Sc.,
RQP/MAS/225/2011/A
8/3, Kullappan Street,
Opposite Indian bank Line,
Omalur Post & Taluk,
Salem District - 636455.
E-Mail: geodhana@yahoo.co.in
Cell: 98946-28970

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

For **M/s. R.V. Enterprises**

1. M. Ramulu
2. P. Muthappa
Signature of the Applicant

Place: Krishnagiri.

Date:

M/s. R.V. ENTERPRISES,
PARTNER M. RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16, MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT.



DECLARATION

We hereby declare that the Mining Plan in respect of **Rough Stone** quarry over an extent **2.40.0Ha** of **Government Poramboke Land** in S.F.No.232/2(Part) of **Mugalur Village, Shoolagiri Taluk, Krishnagiri District and Tamilnadu State** has been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the Mining Laws.

For M/s. R.V. Enterprises

1. *M. Ramamoorthy*

2. *P. Muthappa*

Signature of the Applicant

Place: Krishnagiri.

Date:



KRK MEMORIAL MINING SERVICES

S.DHANASEKAR
M.Sc. (Geo), MMEAL
Senior Geologist /
Recognized Qualified Person



Off
86680 20217

No.5/30-7B, Avvai Nagar,
Ponkumar Mines Road,
Jagir Ammapalayam,
Salem - 636 302.

GST: 33ALIPD6733A1Z0

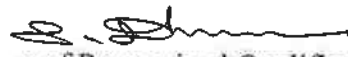


CERTIFICATE

This is to certify that, the provisions of Minor Minerals Conservation and Development Rules, 2010 (MMCDR) have been observed in the Mining Plan for the grant of **Rough Stone** quarry lease over an extent of **2.40.0Ha.** of **Government Poramboke Land** in **S.F.No.232/2(Part)** of **Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State** obtained by **M/s. R.V. Enterprises**, for applied quarry lease.



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

Certified


Signature of Recognized Qualified Person.
S.DHANASEKAR, M.Sc., (Geo)
RQP/MAS/225/2011/A

Place: SALEM

Date:

11°41'29.45" N
78°07'13.58" E

98946 28970
73733 74702

krkmemorialminingservices
@gmail.com
geodhana@yahoo.co.in

Branch
8/3, Kullappan Street.
Opp. Indian Bank Line,
Omalur, Salem - 636 455.



KRK MEMORIAL MINING SERVICES

S.DHANASEKAR
M.Sc. (Geo), M.M.E.A.I.
Senior Geologist /
Recognized Qualified Person

Off
86680 20217

No.5/30-7B, Avvai Nagar,
Ponkumar Mines Road,
Jagir Ammapalayam,
Salem - 636 302.

GST: 33AHPD6733A1ZQ



CERTIFICATE

This is to certify that during preparation of Mining Plan for **Rough Stone** quarry over an extent of **2.40.0Ha** of **Government Poramboke Land** in **S.F.No.232/2(Part)** of **Mugalur Village, Shoolagiri Taluk, Krishnagiri District, Tamilnadu State** for **M/s. R.V. Enterprises** covers all the provisions of Mines Act, Rules, and Regulations etc made there under and whenever specific permission are required, the Applicant will approach the Director General of Mines Safety, Chennai. The standards prescribed by DGMS in respect of Mines Health will be strictly implemented.

Certified

Signature of Recognized Qualified Person.

S.DHANASEKAR, M.Sc.(Geo)
RQP/MAS/225/2011/A

Place: SALEM

Date:

M. Ramkalyan
R. Uthay

11°41'29.45" N
78°07'13.58" E

98946 28970
73733 74702

krkmemorialminingservices@gmail.com
geodhana@yahoo.co.in

Branch
8/3, Kullappan Street.
Opp. Indian Bank Line,
Omalur, Salem - 636 455.

MINING PLAN FOR MINOR MINERALS

ROUGH STONE QUARRY

TOTAL LEASE GRANTED PERIOD 10 YEARS

PROPOSED PERIOD OF MINING 5 YEARS





**Over an extent 2.40.0Ha. of GOVERNMENT PORAMBOKE LAND in S.F. No.232/2 (Part)
of MUGALUR Village, SHOOLAGIRI Taluk, KRISHNAGIRI District and
TAMILNADU State.**

**(Prepared Under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 &
As Per Amendment Under Rule 41 & 42)**

1.0 INTRODUCTION :

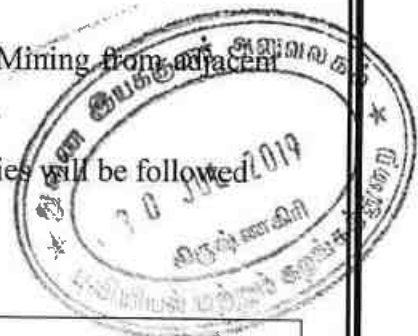
- 1. M/s. R.V. Enterprises, Partner M.Ramamoorthy, S/o. Muthappa, residing at No.1/16, Machinayakanapalli Village, Panchakshipuram Post, Hosur Taluk, Krishnagiri District has applied quarry lease for **Rough Stone** over an extent of **2.40.0Ha** of **Government Poramboke Land** in **S.F.No.232/2 (Part)** of **Mugalur Village, Shoolagiri Taluk, Krishnagiri District** of **Tamilnadu State** for a period of Ten Years.**
- 2. The Applicant has been the Successful **HIGHEST BIDDER** for an **Amount Rs.1,08,00,000/-**(One Crore and Eight Lakhs only) in a tender cum public action conducted by the Government of Tamilnadu and Precise area had been given for the proposed grant of Rough Stone quarry lease to **M/s. R.V. Enterprises** over an extent of 2.40.0 hectares in Government Poramboke land in S.F.No.232/2(Part) of Mugalur Village, Shoolagiri Taluk, Krishnagiri District of Tamil Nadu State for a period of **Ten Years** Vide Letter No. **Rc. No.220/2019/Mines** dated **13.06.2019** and directed to submit the approved Mining Plan and Environmental Clearance certificate from the State Environment Impact Assessment Authority (SEIAA) for the grant of quarry lease for the applied area.**
- 3. Accordingly, Mining Plan is prepared under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As per Amendment under Rule 41 & 42 by incorporating the conditions imposed in the precise area communication letter and by incorporating all the details proposed in the letter to obtain environmental clearance from State Environment Impact Assessment Authority.**


S.DHANASEKAR, M.Sc.(Geo)
RQP/MAS/225/2011/A



8

ix) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly adhering to.

x) And any other conditions as stipulated by the concerned authorities will be followed to protect the environment.



2.0 EXECUTIVE SUMMARY:

a.	Name of the Village	: Mugalur
b.	Name of the Panchayat / Union	: Mugalur / Shoologiri
c.	The proposed total Mineable Reserves	: 529984M³
d.	The proposed quantity of reserves (level of production) Rough Stone	: 457422M³ of Rough Stone
e.	Total extent of the area	: 2.40.0Ha
f.	Proposed Period of mining	: Five Years
g.	Proposed Depth of mining	: 43m (1.0m Top soil + 42.0m Rough stone)
h.	Existing Pit Dimension	Nil
i.	Average Production Per Year Rough stone	: 91484M³
j.	Method of mining / level of mechanization	: Opencast, Semi-mechanized Mining with a bench height of 7m and bench width of 5m is proposed.
k.	Types of Machineries used in the quarry	: i) Compressor with jack hammer. ii) Excavator of 0.90Cbm bucket Capacity.
l.	Cost of the Project a. Fixed Cost b. Operational Cost c. EMP Cost	Rs. 1,11,20,000/- Rs. 30,00,000/- Rs. 3,40,000/-
m.	The Applied lease area is bounded by four corners and the coordinates are Latitude Longitude North East South East North West South West	Toposheet No. 57- H/14 : 12° 37' 25.9249" N to 12° 37' 23.5847" N : 77° 48' 56.4872" E to 77° 48' 49.2256" E : 12° 37' 25.9249" N 77° 48' 56.4872"E : 12° 37' 19.5633" N 77° 48' 54.2857"E : 12° 37' 26.3788" N 77° 48' 50.1416"E : 12° 37' 23.5847" N 77° 48' 49.2256"E

M. Ramani
P. H. H. H.
10

3.0. GENERAL INFORMATION:

3.1	a.	Name of the Applicant	:	M/s. R.V. Enterprises,
	b.	Address of the Applicant with phone No and e-mail id if any	:	M/s. R.V. Enterprises, Partner M. Ramamoorthy, S/o. Muthappa, No.1/16, Machinayakanapalli Village, Panchakshipuram Post, Hosur Taluk, Krishnagiri District- 635 110.
	c.	Status of the Applicant	:	Partnership Firm
3.2	a.	Mineral Which the Applicant intends to mine	:	Rough Stone
	b.	Precise area letter	:	Rc. No.220/2019/Mines dated:13.06.2019
	c.	Period of permission	:	10 Years
	d.	Name and Address of the Recognized Qualified Person preparing the Mining Plan	:	S.Dhanasekar, M.Sc., No.5/30-7B, Avvai Nagar, Ponkumar Mines Road, Jagirammalayam, Salem District - 636302. E-Mail: geodhana@yahoo.co.in Cell: 98946-28970 & 73733-74702.



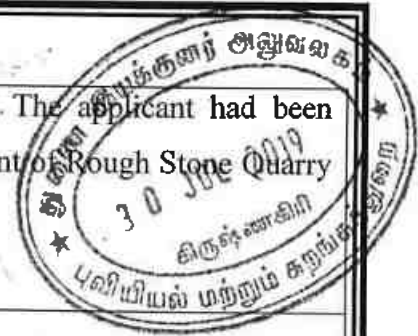
4.0 LOCATION:

a.DETAILS AREA:

STATE	DISTRICT	PANCHAYAT / UNION	TALUK	VILLAGE	S.F. No	EXTENT IN HECTARE
Tamil Nadu	Krishnagiri	Mugalur / Shoolagiri	Shoolagiri	Mugalur	232/2 (Part)	2.40.0
TOTAL =						2.40.0Ha
b.	Classification of the Area (Ryotwari / Poramboke / others)	:	It is a Government Poramboke Land, which is not fit for vegetation/cultivation.			

M. Ramamoorthy
P. L. Jeyaraj

c.	Ownership / Occupancy of the Applied Lease area (Surface rights)	:	It is a Government Poramboke land. The applicant had been given precise area for the proposed grant of Rough Stone Quarry Lease.
d.	Toposheet No. with Latitude and Longitude	:	Toposheet No. 57 - H/14 : 12° 37' 25.9249" N to 12° 37' 23.5847" N : 77° 48' 56.4872" E to 77° 48' 49.2256" E
e.	Existence of Public Road / Railway line if any nearby the area and approximate distance	:	Krishnagiri - Shoolagiri = 28.0 Kms. Shoolagiri - Kelamangalam = 19.0 Kms. Quarry site is located in Northwestern side at a distance of 4.5kms from Kelamangalam village.



PART - A

5.0 GEOLOGY AND MINERAL RESERVES:

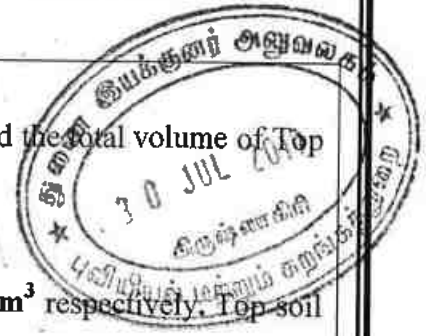
5.1	a.	Topography	:	<ol style="list-style-type: none"> 1. The area is situated on Plain terrain and gentle towards Northern side covered with Rough Stone which does not sustain any type of vegetation. The altitude of the area is 873m above MSL. 2. No major river is found nearby the lease area. 3. Water table is noticed at a depth of 65m from below the surface in the adjacent open well and bore well. 4. Temperature of the area is reported to be 18°C to a maximum of 38°C during summer. 5. Rainfall of this area is about 800mm to 900 mm during the monsoons in a year.
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	<p>b. Infrastructures nearby the Applied Lease area.</p> <p>1. Post Office : Mugalur - 1.8kms</p> <p>2. Police Station : Kelamangalam - 4.5kms</p> <p>3. G.H : Hosur - 11.0kms</p> <p>4. Fire service : Denkanikottai - 10.5kms</p> <p>5. Railway Station : Hosur - 11.0kms</p> <p>6. School : Agraharam - 3.5kms</p> <p>7. Airport : Bangalore - 60.0kms</p> <p>8. Seaport : Chennai - 280.0kms</p>							
	<p>c. Regional Geology</p>	<p>KRISHNAGIRI District is underlined by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places.</p> <p>The geological formations found in the District are Archaean rocks like Gneisses, Granites, Charnockite basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite.</p> <p>The generalized stratigraphic succession of the geological formations met within this District is as follows.</p> <table border="1"> <thead> <tr> <th>Age</th> <th>Rock Formation</th> </tr> </thead> <tbody> <tr> <td>1. Recent to Sub recent</td> <td>Soil, Alluvium</td> </tr> <tr> <td>2. Archaean</td> <td>Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites</td> </tr> </tbody> </table>	Age	Rock Formation	1. Recent to Sub recent	Soil, Alluvium	2. Archaean	Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites
Age	Rock Formation							
1. Recent to Sub recent	Soil, Alluvium							
2. Archaean	Granites, basic granulites, Peninsular Gneiss, Calc Gneiss and Charnockites							

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b. Geological Reserves:

Top Soil: The Thickness of Top soil in this area is 1.0m and the total volume of Top soil will be $23398m^3$.

Rough Stone :

The Available Geological Reserve is estimated as $1146502m^3$ respectively. Top soil is calculated upto a depth of 1m and Rough Stone at a depth of 49m.

Total Depth-50m.

GEOLOGICAL RESERVES								
Section	Bench	L (m)	W (m)	D (m)	Volume In M3	Geological Rough stone Reserves in m3 @ 95%	Mine waste in m3 @ 5%	Top Soil in m3
XY-AB	I	95	102	1				9690
	II	95	102	7	67830	64439	3391	
	III	95	102	7	67830	64439	3391	
	IV	95	102	7	67830	64439	3391	
	V	95	102	7	67830	64439	3391	
	VI	95	102	7	67830	64439	3391	
	VII	95	102	7	67830	64439	3391	
	VIII	95	102	7	67830	64439	3391	
TOTAL					474810	451073	23737	9690
XY-CD	I	92	149	1				13708
	II	92	149	7	95956	91158	4798	
	III	92	149	7	95956	91158	4798	
	IV	92	149	7	95956	91158	4798	
	V	92	149	7	95956	91158	4798	
	VI	92	149	7	95956	91158	4798	
	VII	92	149	7	95956	91158	4798	
	VIII	92	149	7	95956	91158	4798	
TOTAL					671692	638106	33586	13708
GRAND TOTAL					1146502	1089179	57323	23398

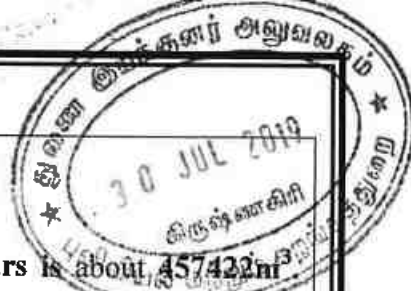
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6.0 MINING:

6.1	Method of Mining	:	1. Opencast method of semi mechanized mining is being adopted to extract Rough Stone of required size. 2. Machineries like Tractor mounted compressor attached with Jack hammers is used for drilling and blasting. Excavators are used for quarrying of Rough Stone and Tippers / Lorries are used for the transportation of Rough Stone to the destination.
6.2	Mode of Working	:	It is a semi mechanized quarrying operation using shot hole drilling with the help of compressor and jack hammers and smooth blasting. Rough Stone are removed using Hydraulic excavator and loaded directly to the tippers and transported to the needy buyers.
6.3	Proposed bench height & Width	:	Bench height = 7mts. Bench width = 5mts.
6.4	Details of Overburden / Mineral Production proposed for five years.	:	Top soil / Overburden production details follows: This area is covered 1.0m Top soil in this mine area $18304m^3$. Top soil will be utilized for the formation of mine roads, construction of bund and Afforestation purposes.

M. Ramulu

P. V. S. Prasad



Year wise reserves calculations :

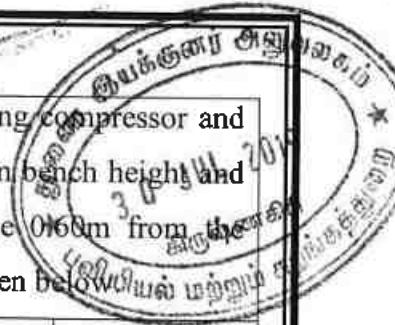
Rough stone production details as follows:

The proposed rate of production of Rough Stone for Five Years is about 457422m³

The average proposed rate of production of Rough Stone is about 91484m³ per year at the rate of 95% recovery upto the permissible depth. Total Depth-43m (1m Top soil + 42m Rough Stone).

YEARWISE DEVELOPMENT AND PRODCUTION RESERVES									
YEAR	Section	Bench	L (m)	W (m)	D (m)	Volume In M3	RESERVES in m3 @ 95%	Mine waste in m3 @ 5%	Top Soil in m3
I-YEAR	XY - AB	I	88	85	1				7480
		II	87	83	7	50547	48020	2527	
	XY - CD	I	82	132	1				10824
		II	81	130	7	73710	70025	3685	
TOTAL						124257	118045	6212	18304
II-YEAR	XY - AB	III	82	73	7	41902	39807	2095	
	XY - CD	III	76	120	7	63840	60648	3192	
	TOTAL						105742	100455	5287
III-YEAR	XY - AB	IV	77	63	7	33957	32259	1698	
	XY - CD	IV	71	110	7	54670	51937	2733	
	TOTAL						88627	84196	4431
IV-YEAR	XY - AB	V	72	53	7	26712	25376	1336	
	XY - CD	V	66	100	7	46200	43890	2310	
	TOTAL						72912	69266	3646
V-YEAR	XY - CD	VI	67	43	7	20167	19159	1008	
		VI	61	90	7	38430	36509	1921	
		VII	56	80	7	31360	29792	1568	
	TOTAL						89957	85460	4497
GRAND TOTAL						481495	457422	24073	18304

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6.5 a. Mining : Drilling of shot holes will be carried out using compressor and jack hammer. Depth of holes shall be 1 to 2m bench height and spacing shall be 0.75m and burden shall be 0.60m from the preface. Details of drilling equipments are given below

Type	Nos	Dia of hole	Size / Capacity	Make	Motive power	H.P
Jack Hammer	6	25.5 mm	Hand held	Atlas copco	Diesel	60

b. Loading : Loading of waste and rough stone is being carried out by Excavator into 10 tonne capacity tippers from the working place periodically. Details of loading equipment are given as under.

Type	Nos	Bucket Capacity (MT)	Make	Motive power	H.P
Hydraulic excavator	1	1.2 M ³	L&T or Ex200	Diesel	120

c. Transportation : Transport of raw materials and waste shall be done by 10 tonnes tipper

Type	Nos	Size / Capacity	Make	Motive power	H.P.
Tipper	2	10 M.T	Ashok Leyland	Diesel	110

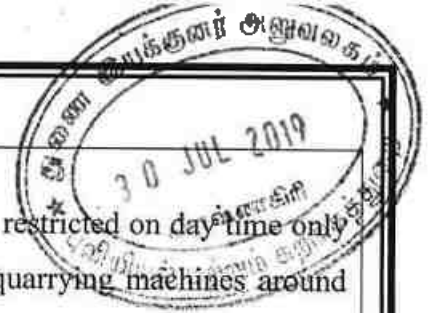
6.6 a. Disposal of Overburden : The Top soil of the lease area is 18304m³. Top soil will be utilized for the formation of mine roads, construction of bund and Afforestation purposes.

6.7 a. Brief Note on Conceptual Mining Plan for the entire lease period : Conceptual Mining Plan is prepared with an object of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, etc., Average Ultimate Pit dimension in given as Under,

Ultimate Pit Dimension
=170.0m(L)X 108.0m(W)(Avg)X 50.0m(D)

Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc. Afforestation has been proposed on the boundary barrier by planting trees. All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies are being carried out every year as per the MOEF norms.

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b. Energy:

Electricity for mines and lights only at nights (working is restricted on day time only between 8Am to 4Pm). Diesel (HSD) will be used for quarrying machines around **388250 liters** for the entire project life. Diesel will be brought from nearby diesel pumps. No power is required for the project. Lightings on the night is taken from nearby electric poles after obtaining permission from concerned authorities.

For Top soil:

Per hour excavator will consume = 10 liters / hour
 Per hour excavator will excavate = 60m³ of Top soil
 For 18304m³ = 18304/ 60 = 305.0 hours
 Diesel consumption 305 working hours = 305 x 10 liters
 Total diesel consumption = **3050 liters of HSD will be utilized for Top soil**

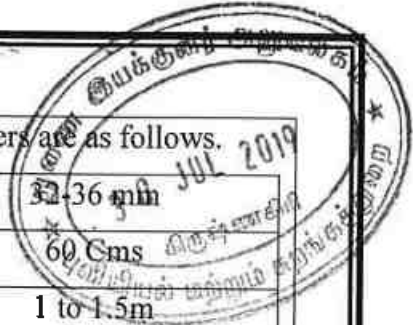
For Rough stone:

Per hour excavator will consume = 16 liters / hour
 Per hour excavator will excavate = 20m³ of rough stone
 For 481495m³ = 481495 / 20 = 24075 hours
 Diesel consume 24075 working hours = 24075 hours x 16 liters
 Total diesel consumption = **385200 liters of HSD will be utilized for Rough stone**
 Total diesel consumption is around = **388250 liters of HSD for the entire period of life.**

7.0 BLASTING:

7.1	Proposed Control Blasting Pattern	:	The massive formation shall be broken into pieces of portable size by drilling and Proposed Control Blasting using jack hammers and shot hole Blasting. Powder factor of explosives for breaking such hard rock shall be in the order of 6 to 7 tonnes per K.g of explosives.
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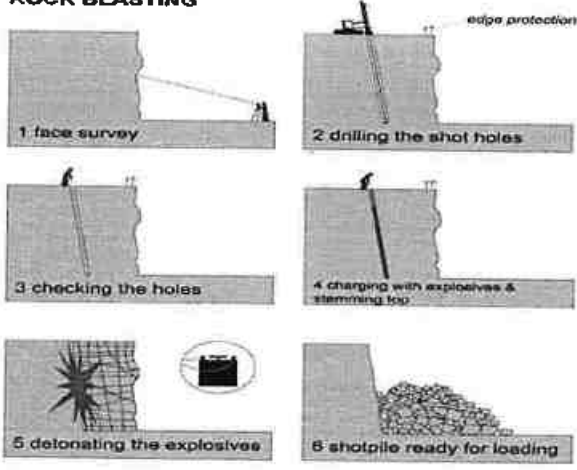
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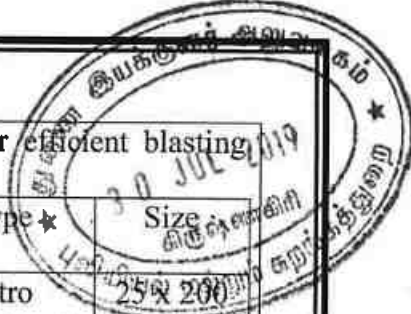
Proposed Control Blasting parameters are as follows.

Diameter of the hole	:	32-36 mm
Spacing	:	60 Cms
Depth	:	1 to 1.5m
Charge / Hole	:	D.Cord with water or 70 gms of gun powder or Gelatine.
Pattern of hole	:	Zig Zag
Inclination of hole	:	70° from the horizontal.
Quantity of rock broken	:	0.45 MT x 2.6 = 1.17 MT
Control Blasting efficiency @90%	:	1.17 x 90% = 1.05MT / hole
Charge per hole	:	140 gms of 25mm dia cartridge
Quantity of rock broken per day	:	304.94M³.

ROCK BLASTING



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7.2	Types of Explosives	:	Following explosives are recommended for efficient blasting with safe practice.				
			S. No	Description	Class / Division	Type	Size
			1.	Slurry	Class - 3	Nitro Compound	25 x 200
			2.	Detonators	Class - 3	Ordinary and elec (OD & ED)	6.5 x 32
3.	Safety fuse	Class - 6	Blue sump fuse coils of 10mts each				

7.3 Measures proposed to minimize ground vibration due to blasting

:

The following steps are being adopted to control ground vibration due to blasting.

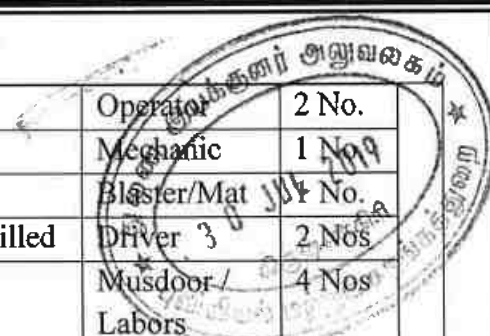
1. The minimum recommended delay time of 8ms was introduced to minimize ground vibration to avoid constructive interference of blast vibration waves and hence its impact or amplitude is less.
2. Use of Ammonium nitrate fuel oil mixture for shot holes is avoided because which cause high fly of rocks in view critical diameter problem. Only high strength explosives like slurry are used in the form of cartridge.
3. Charge per hole will exceed the powder factor designed for each hole based on the quantum of blasting, strength of rocks, fracture pattern etc.

7.4 Storage of Explosives and safety measures to be taken while blasting.

:

1. The Applicant stores the explosives as per the Indian Explosives Act, 1958.
2. The explosives to be used in mines being a small quantity, the District collector may be approached to keep the stocks not exceeding 5kgs at time or any other quantity permitted by the concerned authorities in a portable magazine of S & B types.
3. An authorized explosive agency is engaged to carry out blasting.
4. The blasting time in a day is between 5 PM to 6 PM.
5. First Aid Box is kept ready at all the time.
6. Necessary precautionary announcement is being carried out before the blasting operation.

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1.	Skilled	Operator	2 No.
		Mechanic	1 No.
		Blaster/Mat	1 No.
2.	Semi - skilled	Driver 3	2 Nos
3.	Unskilled	Musdoor / Labors	4 Nos
		Cleaners	2Nos
		Office Boy	1No
4.	Management & Supervisory staff		2No.
	Total =		15Nos

10.2	Welfare Measures		
a.	Drinking Water	:	Drinking water at the rate of 2Ltrs per person shall be provided as per the Mines Rules, 1960. It is proposed to make a borehole for providing uninterrupted supply of drinking water and other utilities.
b.	Sanitary facilities	:	Semi-permanent latrines & urinals shall be maintained at convenient places for use of labours as per the provisions of Rule (33) of the Mines Rules, 1960 separately for males and females. Washing facilities shall also be arranged as per rule (36) of the Mines Rules, 1960.
c.	First Aid Facility	:	Being a small mine First Aid station as per provisions under Rule (44) of the Mines Rules 1960 is provided with facilities as per the third schedule as prescribed. Qualified First Aid personnel should be appointed or nominated to attend emergency first aid treatment.
d.	Labor Health	:	As per Mines Rule, Periodic medical examination has been arranged for occupational health once in a year in addition to attending medical treatment of occupational injuries under the Rule 45 (A), MR, 1960.

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e.	Precautionary safety measures to the Laborers	: Safety provisions like helmet, goggles, safety shoes, Dust mask, Ear muffs etc have to be provided as per the circulars and amendments made for Mine labours under the guidance of DGMS being a mechanized operation. Necessary training will be conducted once in a year to all the employees with the help of qualified and experienced officers to train about the safe and system at quarrying operation.
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PART - B

11.0 ENVIRONMENTAL MANAGEMENT PLAN:

11.1	Area Land Use Pattern	: The land use pattern is given as under.																												
		<table border="1"> <thead> <tr> <th>SL. NO.</th> <th>LAND USE</th> <th>PRESENT AREA (HECT)</th> <th>AREA IN USE DURING THE QUARRYING PERIOD (HECT)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Area under Quarrying</td> <td>Nil</td> <td>1.76.0</td> </tr> <tr> <td>2.</td> <td>Infrastructure</td> <td>Nil</td> <td>0.01.0</td> </tr> <tr> <td>3.</td> <td>Roads</td> <td>0.01.0</td> <td>0.01.0</td> </tr> <tr> <td>4.</td> <td>Green Belt & Dump</td> <td>Nil</td> <td>0.39.0</td> </tr> <tr> <td>5.</td> <td>Unutilized Area</td> <td>2.39.0</td> <td>0.23.0</td> </tr> <tr> <td></td> <td>Total =</td> <td>2.40.0Ha</td> <td>2.40.0Ha</td> </tr> </tbody> </table>	SL. NO.	LAND USE	PRESENT AREA (HECT)	AREA IN USE DURING THE QUARRYING PERIOD (HECT)	1.	Area under Quarrying	Nil	1.76.0	2.	Infrastructure	Nil	0.01.0	3.	Roads	0.01.0	0.01.0	4.	Green Belt & Dump	Nil	0.39.0	5.	Unutilized Area	2.39.0	0.23.0		Total =	2.40.0Ha	2.40.0Ha
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3.	Roads	0.01.0	0.01.0																											
4.	Green Belt & Dump	Nil	0.39.0																											
5.	Unutilized Area	2.39.0	0.23.0																											
	Total =	2.40.0Ha	2.40.0Ha																											
11.2	Water Regime	: Water table in this area is noticed at a depth of 65m below the surface ground level and presently, the quarrying of Rough Stone is proposed up to a depth of 43m . Hence, it will not affect the ground water depletion of this area.																												
11.3	Flora and Fauna	: Except acacia bushes, no other valuable trees are noticed in the Applied Lease area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.																												
11.4	Climatic conditions	: Generally sub tropical climatic condition prevails throughout the year and this District receives rain both in South west and North east monsoon. The average rainfall is about 800mm to 900mm and the temperature ranges from 18 ^o C during winter and to a maximum of 38 ^o C during the summer.																												

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11.5	Human Settlement	<p>The nearest habitations with the population.</p> <table border="1"> <thead> <tr> <th>Direction</th> <th>Village</th> <th>Distance in Kms</th> <th>Population</th> </tr> </thead> <tbody> <tr> <td>North</td> <td>Devaganapalli</td> <td>2.5 Kms</td> <td>320</td> </tr> <tr> <td>East</td> <td>Koottur</td> <td>1.2Kms</td> <td>240</td> </tr> <tr> <td>South</td> <td>Nagappan Agraharam</td> <td>2.2 Kms</td> <td>210</td> </tr> <tr> <td>West</td> <td>Kallu Barundur</td> <td>2.0Kms</td> <td>180</td> </tr> </tbody> </table>	Direction	Village	Distance in Kms	Population	North	Devaganapalli	2.5 Kms	320	East	Koottur	1.2Kms	240	South	Nagappan Agraharam	2.2 Kms	210	West	Kallu Barundur	2.0Kms	180
Direction	Village	Distance in Kms	Population																			
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11.6	Plan for Air, Dust Suppression	<p>Air or dust expected to be generated from drilling process, hauling roads, places of excavation etc., is being suppressed by periodical wetting of land by water spraying. For the sampling of air, high volume air sampler (Model VFC-PM10) was used (10 meter above and 5 meter away from road) and the particulates were collected on what man GFA glass fiber filters dried in a hot air oven at 105°C for 1hr and weighed. The average flow rate was about 1.1 cubic meters.</p>																				
11.7	Plan for Noise Control	<p>Quarrying of Rough Stone will be carried out by drilling and blasting by using low power explosives, and hence, noise is very minimum. However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site. In order to assess the extent of noise pollution due to vehicular traffic different zones viz., Silence zone, Residential Zone, Commercial zone, Traffic signals and Industrial zones were identified in urban and suburban areas of Krishnagiri. Adequate number of observations were made in all the selected sites by using the sound level meter (LT Lutron SL-4001).</p>																				
11.8	Environmental Impact Assessment Statement Describing Impact on mining on the next FIVE YEARS.	<p>Factors to be considered for EIA are,</p> <ol style="list-style-type: none"> 1. Dust generation, 2. Land degradation 3. Stabilization and vegetation of dumps 4. Adverse effect on water regime 5. Socio economic benefits arising out of Mining. 6. Noise and Vibration. 																				

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	a. Dust	:	Dust is expected to be generated from drilling, hauling roads; place of excavation etc and it will be suppressed by periodical wetting of lands.		
	b. Land degradation	:	Land degradation is by means of cutting the trees and removal of fertile soil does not arise. Proposed usage of land for the next five years shall be less than 2.40.0Ha . Afforestation will be started during the first year of mining operation itself.		
	c. Stabilization and vegetation of dumps	:	The topsoil will be spread over the non-active dumps along the slope and edges to plant tree saplings to form vegetal cover over the dumps. Such vegetal cover will prevent erosion of dumps during rainy seasons.		
	d. Socio economic benefits arising out of mining	:	<ol style="list-style-type: none"> 1. To provide Employment opportunities of the nearby villagers. 2. For the cultural development of the nearby villagers. 		
	e. Noise and vibration	:	Since, no deep hole blasting is proposed with small dia explosives are used for breaking the hard rock and boulders, the noise and vibration is very minimum and are within the permissible limits.		
11.9	Proposal for Waste Management	:	<p>The wastes are generated during the mining period is 24073m³ will be proposed to dump into North and Eastern side 10.0m boundary barrier of the lease area.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Proposed Mine Waste Dump:</td> </tr> <tr> <td style="text-align: center;">$368.7m(L) \times 10.0m(W) \times 6.52m(H) = 24073m^3$</td> </tr> </table>	Proposed Mine Waste Dump:	$368.7m(L) \times 10.0m(W) \times 6.52m(H) = 24073m^3$
Proposed Mine Waste Dump:					
$368.7m(L) \times 10.0m(W) \times 6.52m(H) = 24073m^3$					
11.10	Proposal of Reclamation of Land affected during mining activities and at the end of mining.	:	The present mining is proposed to a depth of 43m . The mined out area will be fenced on top of open cast working with S1 fencing. Low lying areas with water logging shall be used for fish culture. No immediate proposals for closure of pit as the rough stone persist still at deeper level.		

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11.11	Program for Afforestation	:	Trees like tamarind, casuarinas etc were planted along the lease boundary and avenues as well as over non active dumps at a rate 50 trees per Year with an interval of 5m. The rate of survival expected to be 70% in this area.
11.12	Proposed Financial Estimate / Budget for (EMP) Environment Management	:	
	Fixed Asset Cost:		
	1. Land Cost	:	Rs.1,08,00,000/- (Amount for Government Poramboke Land)
	2. Labour Shed	:	Rs. 1,40,000/-
	3. Sanitary Facility	:	Rs. 80,000/-
	4. Fencing cost	:	Rs.1,00,000/-
	Total=	:	Rs.1,11,20,000/-
	Operational Cost:		
	Machinery cost	:	Rs.30,00,000/-
	EMP Cost:		
	1. Drinking water facility	:	Rs. 1,00,000/-
	2. Safety kits	:	Rs. 50,000/-
	3. Water sprinkling	:	Rs. 70,000/-
	4. Afforestation	:	Rs. 30,000/-
	5. Water quality test	:	Rs. 30,000/-
	6. Air quality test	:	Rs. 30,000/-
	7. Noise/vibration test	:	Rs. 30,000/-
	Total=	:	Rs. 3,40,000/-
	Total Project Cost	:	Rs.1,44,60,000/-

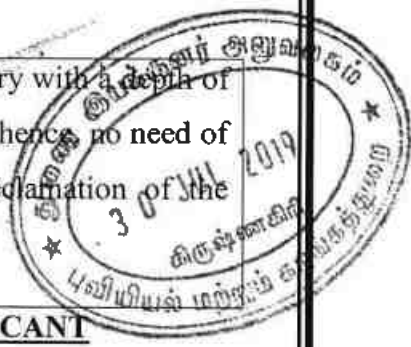
12.0 MINE CLOSURE PLAN:

12.1	Steps proposed for phased restoration, reclamation of already mined out area.	:	The present mining is proposed to a depth of 43m. The mined out area will be fenced on top of open cast working with S1 fencing to arrest the entry of cattle's and public in to the quarry site.
12.2	Measures to be under taken on mine closure as per Act & Rules	:	Measures will be taken as per the Acts and Rules. The quarried pit will be fenced by using Barbed wire fencing. Green belt development at the rate of 50 trees per year will be proposed.

M. Ramani ²⁹

R. Upthya

12.3	Mitigation measures to be undertaken for safety and restoration/ reclamation of the already mined out area	: It is a fresh Rough stone quarry with a depth of 43m for the first five years and hence, no need of mitigation and restoration / reclamation of the applied lease area.
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13.0 ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT

- (i) Permission will be obtained from the Director of Mines Safety for extracting the Rough Stone from the Boundary barriers and from slopes.
- (ii) Care and precautionary measures will be taken for the safety of workers as per Rules and Acts.
- (iii) The applicant will endeavor every attempt to quarry the Rough Stone economically without any wastage and to improve the environment and ecology.
- (iv) Accordingly, Mining Plan is prepared under Rule 8(6)(b) Tamil Nadu Minor Mineral Concession Rules, 1959 & As per Amendment under Rule 41 & 42 by incorporating the conditions imposed in the precise area communication letter and by incorporating all the details proposed in the letter to obtain environmental clearance from State Environment Impact Assessment Authority.
- (v) This Mining Plan is prepared for the Applied Rough Stone Quarry for a period of Five Years.
- (vi) The proposed production of Rough stone for Five Years is 457422M³. The average production of Rough stone per year is 91484M³.

S. Dhanasekar
S.DHANASEKAR, M.Sc.,(Geo)
 RQP/MAS/225/2011/A

This Mining Plan is approved based on guidelines / instruction issued and in corporation of the particulars specified in the letter Roc. No. 220/2019 Dated 30.7.2019 of the Deputy Director of Geology and Mining, Krishnagiri and subject to further fulfillment of the conditions laid down under Tamil Nadu Minor Mineral Concession Rules, 1959 and Minor Mineral Conservation and Development Rule 2010.

DEPUTY DIRECTOR
 Geology and Mining,
 Collectorate, Krishnagiri.

Def
 30/7/19

This Mining Plan is approved subject to the conditions / Stipulation Indicated in the Mining Plan Approval
 Letter Roc. No. 220/2019 Dated 30.7.2019

M. Ramnath

P. Nethy

ந.க எண் 220/2019/கனிமம்

மாவட்ட ஆட்சியர் அலுவலகம்,
(புவியியல் மற்றும் சுரங்கத்துறை)
கிருஷ்ணகிரி மாவட்டம்,
கிருஷ்ணகிரி.
நாள் 13.06.2019.



குறிப்பாணை

பொருள்:

கனிமங்களும் குவாரிகளும் - சிறுகனிமம் - சாதாரண கற்கள் கிருஷ்ணகிரி மாவட்டம் - சூளகிரி வட்டம் - முகளுர் கிராமம் அரசு புல எண் 232/2 (பகுதி) ல் 2.40.0 செறக்டேர் பரப்பளவில் அரசு நிலத்தில் அமைந்துள்ள சாதாரண கற்குவாரிக்கு டெண்டருடன் இணைந்த ஏல் முறையில் குத்தகை வழங்க டெண்டர்/ பொது ஏல் நடத்தப்பட்டது — பொது ஏலத்தில் அதிக தொகை கோரிய தி/ள். ஆர்.வி. எண்டர்பிரைசஸ் பங்குதாரர் எம். இராமமூர்த்தி, த/பெ. முத்தப்பா, கதவு எண் 1/16, மாசிநாயக்கனப்பள்ளி கிராமம், பஞ்சாட்சிபுரம் அஞ்சல், ஓசூர் வட்டம், கிருஷ்ணகிரி மாவட்டம் என்பவருக்கு சாதாரண கற்குவாரி குத்தகை வழங்குதல் தொடர்பாக அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம், தமிழ்நாடு மாநில சுற்றுச் சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் தடையின்மைச் சான்று மற்றும் தமிழ்நாடு மாசு கட்டுப்பாட்டு வாரிய இசைவு ஆகியவற்றை பெற்று வழங்க கோருதல் - தொடர்பாக.

- பார்வை
- 1 கிருஷ்ணகிரி மாவட்ட அரசிதழ் சிறப்பு வெளியீடு எண்.07 நாள் 21.02.2019.
 2. 02.03.2019 அன்று தினமணி நாளிதழில் வெளியிடப்பட்ட பத்திரிக்கை செய்தி
 3. தி/ள். ஆர்.வி. எண்டர்பிரைசஸ் பங்குதாரர் எம். இராமமூர்த்தி, த/பெ. முத்தப்பா, கதவு எண் 1/16, மாசிநாயக்கனப்பள்ளி கிராமம், பஞ்சாட்சிபுரம் அஞ்சல், ஓசூர் வட்டம், கிருஷ்ணகிரி மாவட்டம் என்பவரது டெண்டர் விண்ணப்ப நாள் 08.03.2019.

கிருஷ்ணகிரி மாவட்டம் சூளகிரி வட்டம் முகளுர் கிராமம் அரசு புல எண் 232/2 (பகுதி) ல் 2.40.0 செறக்டேர் பரப்பளவில் அமைந்துள்ள சாதாரண கற்குவாரிக்கு பத்து ஆண்டுகளுக்கு குவாரி குத்தகை வழங்குவது தொடர்பாக 08.03.2019 அன்று நடைபெற்ற பொது ஏலத்தில் தி/ள். ஆர்.வி. எண்டர்பிரைசஸ் பங்குதாரர் எம். இராமமூர்த்தி, த/பெ. முத்தப்பா, கதவு எண் 1/16, மாசிநாயக்கனப்பள்ளி கிராமம், பஞ்சாட்சிபுரம் அஞ்சல், ஓசூர் வட்டம், கிருஷ்ணகிரி மாவட்டம் என்பவர் அரசு நிர்ணயம் செய்த குறைந்தபட்ச குத்தகை தொகையை விட அதிக தொகையான ரூ 1,08,00,000/- (ரூபாய் ஒரு கோடியே எட்டு லட்சம் மட்டும்) ஐ டெண்டரில் அதிக தொகை குறிப்பிட்டுள்ள அவருக்கு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959ன் விதி 8 (6) (b) ன்படி அவருக்கு கீழ்க்கண்ட நிபந்தனைகளுடன் குவாரி குத்தகை வழங்க உத்தேசிக்கப்பட்டுள்ளது.

(i) குவாரி குத்தகை வழங்க உத்தேசிக்கப்பட்டுள்ள குவாரிக்கு அருகிலுள்ள பட்டா

M. Ramesh
P. Uthay

நிலங்களுக்கு 7.5 மீட்டர் பாதுகாப்பு இடைவெளியும், அரசு நிலங்களுக்கு 10 மீட்டர் பாதுகாப்பு இடைவெளியும் விட்டு குவாரிப்பணி செய்ய வேண்டும்.

(ii) அருகிலுள்ள கிராம சாலைகளுக்கு 10 மீட்டர் பாதுகாப்பு இடைவெளியும், இதர

நெடுஞ்சாலைகளுக்கு 50 பாதுகாப்பு இடைவெளியும் விட்டு குவாரிப்பணி செய்யவேண்டும்.

2. எனவே கிருஷ்ணாகிரி மாவட்டம் குளகிரி வட்டம், முகனூர் கிராமம் புல எண் 232/2 (பகுதி) ல் 2.40.0 செக்டர் பரப்பளவில் புல வரைபடத்தில் குறிப்பிட்டுள்ள பகுதியில் குவாரி குத்தகை ஒப்பந்த ஆவணம் நிறைவேற்றும் நாளிலிருந்து பத்து ஆண்டுகளுக்கு சாதாரண கற்கள் வெட்டியெடுக்க குவாரி குத்தகை வழங்குதல் தொடர்பாக தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959ன் விதி 41 மற்றும் 42ன் ஆகியவற்றில் கண்டுள்ள கால்வரையறைக்குள் அங்கீகரிக்கப்பட்ட கரங்கத்திட்டம், தமிழ்நாடு சுற்றுச் சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் இசைவு மற்றும் தமிழ்நாடு பாசுக்கட்டுப்பாட்டு வாரியத்தின் இசைவு ஆகியவற்றை சமர்ப்பிக்க வேண்டும் என தி/ள் ஆர்.பி.எண்டர்பிரைசஸ் என்பவருக்கு தெரிவிக்கப்படுகிறது.

3. உரிய காலத்தில் மேற்கண்ட ஆவணங்களை சமர்ப்பிக்க தவறினால் விதிகளின்படி உரிய நடவடிக்கை எடுக்கப்படும் எனவும், தெரிவிக்கப்படுகிறது.

4. மேற்கூறிய ஆவணங்களை சமர்ப்பித்த பின்பு குவாரி குத்தகை வழங்கப்பட்டு குவாரி குத்தகை ஒப்பந்த ஆவணம் நிறைவேற்றிய பின்பே மேற்கண்ட புலத்தில் குவாரிப்பணிகளை தொடங்கவேண்டும். தவறினால் தமிழ்நாடு சிறுகனிமச் சலுகை விதிகள் 1959ன் விதி 36 (அ)ன்படி உரிய நடவடிக்கை எடுக்கப்படும் எனவும் தெரிவிக்கப்படுகிறது.

இணைப்பு : புல வரைபடம்

/உண்மை நகல்/

ஓம்/எஸ்.பிரபாகர்,
மாவட்ட ஆட்சியர்,
கிருஷ்ணாகிரி.

மாவட்ட ஆட்சியருக்காக
கிருஷ்ணாகிரி.
13/10/2014

13/10/14

பெறுநர்

தி/ள். ஆர்.வி. எண்டர்பிரைசஸ்
பங்குதாரர் எம். இராமமூர்த்தி,
த/பெ. முத்தப்பா,
கதவு எண் 1/16, மாசிநாயக்கனப்பள்ளி கிராமம்,
பஞ்சாட்சிபுரம் அஞ்சல், ஒசூர் வட்டம்,
கிருஷ்ணாகிரி மாவட்டம்

S.DHANASEKAR, M.Sc., (Geo)
RQP/MAS/225/2011/A

M. Ramulu

R. Upathy



கிருஷ்ணகிரி மாவட்ட அரசிதழ்

சிறப்பு வெளியீடு

ஆணையின்படி வெளியிடப்பட்டது

கிருஷ்ணகிரி, பிப்ரவரி 21, 2019
[விளம்பி, மாசி 9 - திருவள்ளூர் ஆண்டு 2050]

[எண் 7

மாவட்ட ஆட்சியர் - அறிவிக்கை

(ந.க.எண். 1609/2018/கனிமம் நாள்: 21-02-2019)

சாதாரண கற்குவாரி ஒப்பந்தப்புள்ளி (டெண்டர்) மற்றும் ஏலம் குறித்த அறிவிப்பு

டெண்டர் விண்ணப்பங்கள் பெற கடைசி நாள் : 07-03-2019

பொது ஏலம் நடத்துதல் மற்றும் டெண்டர் விண்ணப்பங்களை பிரித்து பரிசீலிக்கும் நாள் : 08-03-2019

1. கிருஷ்ணகிரி மாவட்டத்தில் அரசு புறம்போக்கு நிலங்களில் அமைந்துள்ள சாதாரண கற்குவாரிகளிலிருந்து சாதாரண பொது உபயோக சிறுகனிமங்களான சாதாரணகற்களை வெட்டிபெடுத்துச் செல்வதற்கு தனிநபர் மற்றும் தனியார் நிறுவனங்களுக்கு குவாரி குத்தகை உரிமம் வழங்க மூடி முத்திரையிடப்பட்ட ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் வரவேற்கும் மற்றும் ஏல அறிவிப்பு.

2. 1959 ஆம் ஆண்டு தமிழ்நாடு சிறுகனிமச் சலுகை விதிகளின் விதி 8-ன்படி கிருஷ்ணகிரி மாவட்டத்தில் இத்துடன் இணைக்கப்பட்ட அட்டவணையில் குறிப்பிடப்பட்டுள்ள அரசு புறம்போக்கு நிலங்களில் அமைந்துள்ள சாதாரண கற்குவாரிகளிலிருந்து சாதாரணகற்களை குவாரி செய்து எடுத்துச் செல்ல டெண்டருடன் இணைந்த ஏல முறையில் குவாரி குத்தகை உரிமம் வழங்க மூடி முத்திரையிடப்பட்ட டெண்டர் விண்ணப்பங்கள் 3 பிரதிகளில் கிருஷ்ணகிரி மாவட்ட ஆட்சியரால் வரவேற்கப்படுகின்றன.

3. இந்த அறிவிக்கையின்படி விண்ணப்பிக்கப்படும் ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பம் 1959 ஆம் ஆண்டு தமிழ்நாடு சிறுகனிமச் சலுகை விதிகளின் பின்இணைப்பு VI-ல் குறிப்பிடப்பட்டுள்ள படிவத்தில் இருக்க வேண்டும். மாதிரி விண்ணப்பப்படிவம் இந்த மாவட்ட அரசிதழ் சிறப்பு வெளியீட்டின் இணைப்பில் பிரசுரிக்கப்பட்டுள்ளது. இணைப்பில் பிரசுரிக்கப்பட்டுள்ள படிவம் VI-ன்படி பூர்த்தி செய்து அனுப்பப்படாத விண்ணப்பங்கள் ஏற்றுக் கொள்ளப்படமாட்டாது.

4. ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்களுடன் இணைத்து அனுப்பப்பட வேண்டிய இணைப்புகளின் விவரங்கள் மற்றும் குத்தகை நிபந்தனைகள் பற்றிய விவரங்கள் குறிப்பிடப்பட்டுள்ள அரசிதழ் கிருஷ்ணகிரி, மாவட்ட ஆட்சியர் அலுவலகம். கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை துறை இயக்குநர் அலுவலகம். கிருஷ்ணகிரி மாவட்டத்திலுள்ள அனைத்து சார் ஆட்சியர்/வருவாய் கோட்டாட்சியர், வட்டாட்சியர் மற்றும் ஊராட்சி ஒன்றிய ஆணையர் அலுவலகங்களின் தகவல் பலகையில் விளம்பரம் செய்யப்பட்டுள்ளது.

5. அட்டவணையில் குறிப்பிட்டுள்ள குவாரிகளின் குத்தகை காலம் குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றப்பட்ட நாளிலிருந்து ஏற்கனவே குவாரி குத்தகை வழங்கப்பட்டு குத்தகை காலம் முடிவுற்ற சாதாரண கற்குவாரிகளுக்கு 5 ஆண்டுகளும் புதியதாக சேர்க்கப்பட்டுள்ள சாதாரண கற்குவாரிகளுக்கு 10 ஆண்டுகளும் ஆகும்.

6. ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பதாரர் தனது விண்ணப்பத்தில் குவாரியின் மொத்த குத்தகை காலத்திற்குமான ஒரே தவணையில் செலுத்தத்தக்க குத்தகை தொகையை உரிய இடத்தில் எண்ணிலும் எழுத்திலும் தெளிவாக குறிப்பிட வேண்டும்.

7. மாவட்ட ஆட்சியர், சார் ஆட்சியர் / வருவாய் கோட்டாட்சியர், வருவாய் வட்டாட்சியர், ஊராட்சி ஒன்றிய ஆணையர், துணை இயக்குநர் (புவியியல் மற்றும் சுரங்கத்துறை) அலுவலக தகவல் பலகைகளில் அறிவிப்பு செய்யப்பட்டுள்ள அரசிதழிக் கண்டுள்ள நிபந்தனைகளின்படி பூர்த்தி செய்யப்பட்ட ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்களை அனைத்து இணைப்புகளுடன் கவரில் வைத்து மூடி முத்திரை இட்டு மாவட்ட ஆட்சித்தலைவர் கிருஷ்ணகிரி என்ற விலாசமிட்டு நேரிலோ அல்லது ஒப்புக்க பெறத்தக்க பதிவஞ்சல் மூலமாகவோ மாவட்ட ஆட்சியர் அலுவலக வளாக தரைதளத்தில் அறை எண்.30ல் உள்ள புவியியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநர் அலுவலகத்தில் 2019ம் ஆண்டு மார்ச் திங்கள் 7-ம் நாள் மாலை 5.45 மணிக்கு கிடைக்கும்படி அனுப்பப்பட வேண்டும். கவரின் மீது விண்ணப்பிக்கும் குவாரியின் விவரம் மற்றும் அட்டவணையில் குறிப்பிட்டுள்ள குவாரியின் வரிசை எண் போன்றவற்றை தவறாமல் குறிப்பிட வேண்டும்.

8. மேலே குறிப்பிட்ட காலக்கெடுவிற்குள் வரப்பெற்ற விண்ணப்பங்கள் மட்டும் மாவட்ட ஆட்சியரால் அல்லது அவரது அங்கீகாரம் பெற்ற அலுவலரால் கிருஷ்ணகிரி மாவட்ட ஆட்சியர் அலுவலக வளாகத்தில் 2019ம் ஆண்டு மார்ச் திங்கள் 8-ம் நாளன்று முற்பகல் 11.00 மணிக்கு ஆஜராகியிருக்கும் சம்பந்தப்பட்ட குவாரிக்கு விண்ணப்பித்துள்ள விண்ணப்பதாரர்கள் மற்றும் பொது ஏலத்தில் கலந்து கொள்பவர்கள் முன்னிலையில் அட்டவணைகளில் உள்ள குவாரிகளின் வரிசை கிரமமாக முதலில் பொது ஏலமும் பின்னர் ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் திறப்பும் மேற்கொள்ளப்படும்.

9. மேலே குறிப்பிட்ட நாளில் ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் திறப்பதற்கு முன்னர் ஒவ்வொரு குவாரிக்கும் தனித்தனியே பொது ஏலம் விடப்படும். ஏல நடவடிக்கை முடிவு பெற்ற பின்பு சம்பந்தப்பட்ட குவாரிக்கு வரப்பெற்ற டெண்டர் விண்ணப்பங்கள் பிரித்து பரிசீலிக்கப்படும். டெண்டர் விண்ணப்பம் மூலம் கோரப்பட்டுள்ள உயர்ந்தபட்ச டெண்டர் தொகை அல்லது ஏலம் மூலம் கோரப்பட்ட உயர்ந்தபட்ச குத்தகை தொகை இதில் எது அதிகமோ அத்தொகையே சம்பந்தப்பட்ட குவாரிக்கான உயர்ந்தபட்ச குத்தகை தொகையாக எடுத்துக்கொள்ளப்பட்டு குவாரி குத்தகை உரிமம் வழங்குதல் சம்பந்தமாக நடவடிக்கைகள் மேற்கொள்ளப்படும்.

10. மேற்கண்டபடி வரப்பெறும் டெண்டர் / ஏல விண்ணப்பங்கள், 1959ஆம் ஆண்டு தமிழ்நாடு சிறுகனிமச் சலுகை விதிகள், சுரங்கங்கள் மற்றும் கனிமங்கள் (மேம்படுத்துதல் மற்றும் முறைப்படுத்துதல்) சட்டம் 1957 மற்றும் இந்த ஏல அறிவிப்பில் குறிப்பிட்டுள்ள முக்கிய நிபந்தனைகளின்படி பரிசீலிக்கப்பட்டு அவற்றின்மீது மாவட்ட ஆட்சியரால் தக்க ஆணைகள் பிறப்பிக்கப்படும்.

11. இந்த மாவட்ட அரசிதழ் அறிவிக்கை பிரசுரிக்கப்பட்ட பின்னரோ, குத்தகை உறுதி ஆணை பிறப்பிப்பதற்கு முன்னரோ, நிபந்தனைகளை மாற்றவோ அல்லது ரத்து செய்யவோ மற்றும் பட்டியலில் கண்டுள்ள எல்லா குவாரிகளின் குத்தகை உரிமம் கோரும் ஒப்பந்தப்புள்ளி மனுக்களை எக்காரணமும் கூறாமல் ரத்து செய்யவோ அல்லது மேற்படி மனுக்களை மூடி முத்திரைபிடப்பட்ட உறைகளை திறக்கும் நாள் நேரம் மற்றும் ஏலம் நடத்தும் நாள் மற்றும் நேரம் ஆகியவைகளை தள்ளிவைக்கவோ நிறுத்திவைக்கவோ மாவட்ட ஆட்சியருக்கு முழு அதிகாரம் உண்டு. ஏதாவது காரணத்தினால் ஒத்திவைக்க நேர்ந்தால் அதற்கு மனுதாரர்கள் யாருக்கும் நட்ட ஈடு கேட்க உரிமை இல்லை.

12. விண்ணப்பதாரர் ஒவ்வொரு குவாரிக்கும் தனித்தனியே ஒரு ஒப்பந்தப்புள்ளி விண்ணப்பத்தை உரிய இணைப்புகளோடு அனுப்ப வேண்டும். ஒரே விண்ணப்பத்தில் ஒரு குவாரிக்கு மேல் பல குவாரிகளை குறிப்பிட்டு அனுப்பும் விண்ணப்பம் நிராகரிக்கப்படும்.

13. ஒப்பந்தப்புள்ளி விண்ணப்பம் அனுப்புவதற்கு முன்/ ஏலத்தில் கலந்து கொள்வதற்கு முன் இம்மாவட்ட அரசிதழ் அறிவிக்கையுடன் இணைக்கப்பட்டுள்ள பட்டியலில் கண்ட சம்பந்தப்பட்ட குவாரியை / குவாரிகளை விண்ணப்பதாரர் தனது சொந்த செலவிலேயே நேரில் பார்வையிட்டு பாதை வசதி கனிமத்தின் தரம் மற்றும் கனிமத்தின் இருப்பு ஆகியவற்றை ஆராய்ந்து பின்னர் குத்தகை உரிமம் கோரி விண்ணப்பிக்க வேண்டும் மற்றும் ஏலத்தில் கலந்து கொள்ளவேண்டும். ஆணை வழங்கப்பட்ட பின் குவாரி அமைந்துள்ள புல எண், பரப்பு, குவாரிகளின் நான்கு எல்லைகள், பாதை வசதி, கனிமத்தின் தரம் கனிமத்தின் இருப்புக்குறித்து எவ்வித தாவாலும் செய்ய குத்தகைதாரருக்கு உரிமை கிடையாது.

14. 1959ஆம் ஆண்டு தமிழ்நாடு சிறுகனிமச் சலுகை விதிகளில் கண்டுள்ள அனைத்து சாராம்சங்களையும் மாவட்ட அரசிதழில் உள்ள அனைத்து நிபந்தனைகளையும் நன்கு தெரிந்து கொண்டபின் ஒப்பந்தப்புள்ளி விண்ணப்பங்களை உரிய இணைப்புகளோடு அனுப்பவேண்டும். விண்ணப்பம் அனுப்பிய பிறகு விதிகள் மற்றும் குத்தகை நிபந்தனைகள் பற்றி சரியான தெரியாதான மனுதாரர் வாதிட்டால் அது ஏற்றுக்கொள்ளப்பட மாட்டாது.

M. Ramulu

R. Vignesh



15. ஒப்பந்தப்புள்ளி (டெண்டர்) மற்றும் ஏல நிபந்தனைகள் :

1) ஒவ்வொரு குவாரிக்கும் இந்த அரசிதழின் பிற்சேர்க்கையில் பிரகரிக்கப்பட்டுள்ள இணைப்பு VI-ல் காணும்-மாதிரி விண்ணப்ப படிவத்தின்படி தனித்தனி விண்ணப்பங்களில் விண்ணப்பிக்க வேண்டும்.

2) நடப்பில் ஒரு நபருக்கு இரண்டு குவாரிகளுக்கு மட்டும் தான் குத்தகை உரிமம் வழங்கப்படும்.

3) இந்த அரசிதழின் அட்டவணையில் குறிப்பிட்டுள்ள குவாரிகளின் குத்தகை காலம் குத்தகை ஒப்பந்த பத்திரம் நிறைவேற்றப்பட்ட நாளிலிருந்து ஏற்கனவே குவாரி குத்தகை வழங்கப்பட்டு குத்தகை காலம் முடிவற்ற சாதாரண கற்குவாரிகளுக்கு 5 ஆண்டுகளும் புதியதாக சேர்க்கப்பட்டுள்ள சாதாரண கற்குவாரிகளுக்கு 10 ஆண்டுகளும் ஆகும். குத்தகை ஒப்பந்தப்பத்திரத்தில் குறிப்பிடப்படும் இறுதி நாளில் குத்தகை காலம் முடிவடையும், குத்தகை காலம் எக்காரணத்தைக்கொண்டும் நீட்டிக்கப்பட மாட்டாது.

4) ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பத்துடன் கீழ்க்கண்டவற்றை இணைத்து அனுப்ப வேண்டும்.

(அ) திரும்ப வழங்க இயலாத விண்ணப்பக் கட்டணமாக ரூ.1500/-க்கான கேட்பு வரைவே.லையை (டிமாண்ட் டிராப்ட்) ஏதேனும் ஒரு தேசிய மயமாக்கப்பட்ட வங்கியில் மாவட்ட ஆட்சியர் கிருஷ்ணகிரி மாவட்டம் அவர்களின் பதவியின் பெயரில் பெற்று இணைக்க வேண்டும்.

(ஆ) பிணை வைப்புத்தொகை (Earnest money deposit) ரூ.25000/- (ரூபாய் இருபத்தைந்தாயிரம் மட்டும்)க்கான கேட்பு வரைவோலை ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் மாவட்ட ஆட்சியர் கிருஷ்ணகிரி மாவட்டம் அவர்களின் பதவியின் பெயரில் பெற்று இணைக்க வேண்டும். குத்தகை உரிமம் வழங்கப்படுபவர் செலுத்த வேண்டிய டெண்டர்/ஏலத் தொகையில் இந்த தொகை பின்னர் சரி செய்து கொள்ளப்படும்.

(இ) ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பத்தில் குறித்துள்ள மொத்த குத்தகை தொகையில் 10 சதவீதத் தொகைக்கான கேட்பு வரைவோலை (டிமாண்ட் டிராப்ட்டை) மாவட்ட ஆட்சியர் கிருஷ்ணகிரி மாவட்டம் அவர்களின் பதவியின் பெயரில் ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் பெற்று இணைக்க வேண்டும்.

ஈ) மாவட்ட வாரியாக கனிம வாரியாக விண்ணப்பதாரர் / ஏலதாரர் நேரடியாகவோ அல்லது பங்குதாரராகவோ தொடர்புள்ள குவாரிகள் பற்றிய கீழ்க்கண்ட விவரங்களை ஆணை உறுதி வாக்குமூலம் (அபிடவிட்) மூலம் தெரிவிக்க வேண்டும்.

- அனுபவத்திலிருக்கும் குவாரி குத்தகை அனுமதி பற்றி விவரம்
- ஏற்கனவே விண்ணப்பித்து இதுவரை அனுமதி வழங்கப்படாத குவாரி குத்தகை அனுமதி பற்றி விவரம்.
- தற்போது உடனிகழ்வாக விண்ணப்பிக்கும் குவாரி குத்தகை அனுமதி விவரம்.
- விண்ணப்பதாரருக்கு கனிம குத்தகையுள்ள மாவட்ட ஆட்சியரால் வழங்கப்பட்ட செல்லத்தக்க சுரங்கவரி நிலுவை இல்லா சான்றிதழ் அல்லது சுரங்கவரி நிலுவை இல்லை என்பதற்கான ஆணையறுதி வாக்குமூலம்
- வருமான வரி செலுத்திய சான்றிதழ் அல்லது வருமானவரி பாக்கியில்லை என்பதற்கான ஆணையறுதி வாக்குமூலம் இணைக்கப்பட வேண்டும்.

5) ஏலத்தில் நேரடியாக கலந்து கொள்பவர்கள் பூர்த்தி செய்யப்பட்ட விண்ணப்பப்படிவம், திருப்பித்தரப்படாத விண்ணப்பக்கட்டணம் ரூ.1500/- மற்றும் பிணை வைப்புத்தொகை ரூ.25000/- ஆகியவற்றிற்கான கேட்பு வரைவோலைகள் (டிமாண்ட் டிராப்ட்) மாவட்ட ஆட்சியர் கிருஷ்ணகிரி மாவட்டம் அவர்களின் பதவியின் பெயரில் ஏதேனும் ஒரு தேசியமயமாக்கப்பட்ட வங்கியில் பெற்று ஏலத்தில் நேரடியாக கலந்து கொள்வதற்கு முன்னர் ஏலம் நடத்தும் அலுவலரிடம் சமர்ப்பிக்க வேண்டும். மேலும் ஏலம் மூலம் கோரப்பட்ட உயர்ந்தபட்ச தொகை டெண்டர் மூலம் கோரப்பட்ட உயர்ந்த பட்ச தொகையைவிட அதிகமாக இருந்தால் ஏலத்தொகையில் 10 சதவீதத் தொகையை உடன் ஏலம் நடத்தும் அலுவலரிடம் தேசிய மயமாக்கப்பட்ட ஏதேனும் ஒரு வங்கியில் அறப்பட்ட கேட்பு வரைவோலையாகவோ அல்லது ரொக்க தொகையாகவோ செலுத்தி தக்க இரசீதுகள் பெற்றுக் கொள்ள வேண்டும்.

6) ஒப்பந்தப்புள்ளி(டெண்டர்) விண்ணப்பங்கள் மேற்கூறிய இணைப்புகளுடன் நேரிலோ அல்லது ஒப்புரை பெறத்தக்க மதிவஞ்சல் மூலமாகவோ மாவட்ட ஆட்சியர் அலுவலக கட்டிடத்தில், தரைதளத்தில் அறை எண்.30ல் இயங்கும் கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநர் அலுவலகத்தில் 2019ஆம் ஆண்டு மார்ச் திங்கள் 7-ஆம் நாள் மாலை 5:45 மணிக்குள் கிடைக்கும்படி செய்ய வேண்டும். நேரில் விண்ணப்பங்கள் அளித்தால் அதைப்பெற்றுக்கொண்டதற்கான ஒப்புதல் கடிதம் அன்றைய தினமே வழங்கப்படும். தபால் மூலம் பெறப்படும் விண்ணப்பத்திற்கு ஒப்புதல் கடிதம் மூன்று சினைகளுக்குள் தபாலில் அனுப்பி வைக்கப்படும் டெண்டர் விண்ணப்பங்கள் மூடி முத்திரையிடப்பட்ட கவர்களில் மட்டுமே அனுப்பி வைக்கப்பட வேண்டும். கவரின் மேல்புறத்தில் விண்ணப்பதாரரின் பெயர் மற்றும் விலாசம் தெளிவாக குறிப்பிடப்பட வேண்டும். கவரின் இடது மூலையில் கனிமத்தின் பெயர் குவாரி அமைந்துள்ள கிராமம், புல எண், பரப்பு அரசிதழின் இணைப்பில் பிரகரிக்கப்பட்டுள்ள குவாரிகளின் பட்டியலில் உள்ள வரிசை எண் ஆகியவற்றை தவறாமல் குறிப்பிடவேண்டும்.

M. Renuka

R. Upthay

7) மாவட்ட ஆட்சியரால்/அல்லது அவரால் அங்கீகாரம் வழங்கப்பட்ட அலுவலரிடம் உள்ள வருகை பதிவேட்டில் விண்ணப்பதாரர்கள் / ஏலதாரர்கள் கையொப்பமிட்ட பின்னரே ஏல அறைக்குள் அனுமதிக்கப்படுவார்கள்.

8) குறிப்பிட்ட காலகெடுவிற்குள் வரப்பெற்ற விண்ணப்பங்கள் மாவட்ட ஆட்சியர் அல்லது அவரால் அங்கீகாரம் வழங்கப்பட்டுள்ள அலுவலரால் மாவட்ட ஆட்சியர் அலுவலகத்தில் 2019ம் ஆண்டு மார்ச் திங்கள் 8-ம் நாள் முற்பகல் 11.00 மணிக்கு வருகை தந்திருக்கும் தொடர்புள்ள குவாரிக்கு விண்ணப்பித்துள்ள விண்ணப்பதாரர்கள் மற்றும் ஏலம் கோர வந்திருக்கும் நபர்களின் முன்னிலையில் ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் திறக்கப்படுவதற்கு முன்னர் குவாரிப் பட்டியலில் கண்டுள்ள வரிசைப்படி ஏலம் நடத்தப்படும். ஏலத்தில் கலந்து கொள்ள விரும்புவோர் பிணை வைப்புத்தொகை ரூ.25000/-க்கான கேட்பு வரைவோலை மற்றும் விண்ணப்பக்கட்டணம் ரூ.1500/-க்கான கேட்பு வரைவோலை, சுரங்க நிலுவையில்லாச் சான்று அல்லது உறுதிமொழி ஆவணம், ஏலதாரர் நேரிடையாகவோ பங்குதாரராகவோ உள்ள குவாரிகள் தொடர்பான உறுதிமொழி ஆவணம், வருமானவரி நிலுவையில்லாசான்றிதழ் அல்லது உறுதிமொழி ஆவணம், முதலிய ஆவணங்களை ரூ.20/- மதிப்புள்ள முத்திரைத்தாளில் சான்று உறுதி அலுவலரிடம் (Notary Public) கையொப்பம் பெற்று பூர்த்தி செய்யப்பட்ட விண்ணப்பத்துடன் ஏலம் நடைபெறுவதற்கு முன் ஆஜர்படுத்த வேண்டும். ஏலம் மற்றும் ஒப்பந்தப்புள்ளி (டெண்டர்) கலந்து கொள்பவர் செலுத்தும் விண்ணப்பக்கட்டணத் தொகை ரூ.1500/- திருப்பித்தரப்படமாட்டாது. ஏலத்தில் நேரிடையாக பங்குபெறுபவர்கள் கொடுக்கும் விண்ணப்பத்தில் குத்தகை தொகையை குறிப்பிட தேவையில்லை. ஏற்கனவே டெண்டர் விண்ணப்பம் கொடுத்தவர்கள் ஏலத்தில் கலந்துகொள்ள முடியாவிடில் அவருக்குப்பதிலாக அவரால் நியமிக்கப்பட்ட வேறு ஒரு நபர் மட்டுமே நோட்டரிப்பளிக் முன்பு விண்ணப்பதாரர் மற்றும் நியமிக்கப்பட்ட நபர் கையெழுத்துக்கள் சான்றுபெறப்பட்ட உறுதிமொழி ஆவணம் (அபிடவிட்) தாக்கல் செய்வதின் பேரில் ஏலத்தில் கலந்து கொள்ள அனுமதிக்கப்படுவார்கள்.

9) ஒப்பந்தப்புள்ளி விண்ணப்படிவத்தில் மனு செய்யும் நபர்கள் தாங்கள் மனு செய்யும் குவாரிக்கு குத்தகை தொகையாக செலுத்த விரும்பும் தொகையை விண்ணப்பத்தில் குறிப்பிடாமல் இருந்தாலோ அல்லது விண்ணப்ப கட்டணம், பிணைவைப்புத் தொகை, அதிகபட்சம் குறிப்பிடும் குத்தகை தொகையின் 10% தொகை ஆகியவற்றிற்கான வங்கி வரைவோலைகளை விண்ணப்பத்துடன் இணைக்காமல் இருந்தாலோ, விண்ணப்பத்தாளில் விண்ணப்பதாரர் தன் கையொப்பம் செய்யாமல் இருந்தாலோ 1959ம் ஆண்டு தமிழ்நாடு சிறுகனிம் சலுகை விதிகளில் கூறப்பட்ட சுரங்கவரி பாக்கியின்மை சான்றிதழ், வருமானவரி பாக்கியின்மை சான்றிதழ் அல்லது இவைகளுக்காக வழங்கப்படும் ஆணை உறுதி ஆவணம் மற்றும் ஏற்கனவே மனுதாரர் நேரிடையாகவோ பங்குதாரராகவோ உள்ள குவாரிகள் தொடர்பான உறுதிமொழி ஆவணம் ஆகியவற்றை இணைக்கப்படாமல் இருந்தாலோ மேற்படி ஒப்பந்தப்புள்ளி விண்ணப்பம் மாவட்ட ஆட்சியரால் அல்லது அவரால் அங்கீகரிக்கப்பட்ட அலுவலரால் நிராகரிக்கப்படும். மேற்குறிப்பிட்டவாறு விண்ணப்பம் நிராகரிக்கப்பட்ட ஒப்பந்தப்புள்ளி விண்ணப்பதாரர்களுக்கு ஒப்பந்த புள்ளிகள் திறக்கும் சமயத்தில் விண்ணப்பதாரர் ஆஜரில் இருந்தால் மட்டும் மாவட்ட ஆட்சியர் அல்லது அவரது அங்கீகாரம் பெற்ற அலுவலரால் விண்ணப்பதாரரிடம் தக்க ஒப்புதல் பெற்று வங்கிவரைவோலை திருப்பி வழங்கப்படும். ஒப்பந்தப்புள்ளி திறக்கும் சமயத்தில் ஆஜரில் இல்லாத நபருக்கு பதிவஞ்சல் மூலம் வங்கி வரைவோலைகள் தனியே அனுப்பி வைக்கப்படும்.

10) ஒவ்வொரு குவாரிக்கும் பொது ஏலம் நடத்தி முடித்தபின்னர் சம்பந்தப்பட்ட குவாரிக்கான டெண்டர் விண்ணப்பங்கள் வருகை தந்திருக்கும் சம்பந்தப்பட்ட டெண்டர் விண்ணப்பதாரர்கள் மற்றும் ஏலதாரர்கள் அல்லது அவர்களது அதிகாரம் பெற்ற நபர்கள் முன்னிலையில் சம்பந்தப்பட்ட அதிகாரிகளால் திறக்கப்படும். ஒப்பந்தப்புள்ளி (டெண்டர்) திறக்கும் நேரத்தில் விண்ணப்பதாரர் அல்லது ஏலதாரர் அல்லது அங்கீகாரம் பெற்ற நபர் ஆஜரில் இல்லாததற்கு மாவட்ட நிர்வாகம் பொறுப்பு அல்ல. மேலும் ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பம் திறப்பதோ ஏலம் நடத்துவதோ நிறுத்தி வைக்கப்படமாட்டாது.

11) மாவட்ட ஆட்சியர் அல்லது அவரது அங்கீகாரம் பெற்ற அலுவலர் மேற்கண்ட குவாரிக்கு வரப்பெற்ற மொத்த செல்லத்தக்க விண்ணப்பங்கள், விண்ணப்பதாரர்களின் பெயர்கள் ஒவ்வொரு விண்ணப்பதாரராலும் குறிப்பிடப்பட்ட அதிகபட்ச டெண்டர் தொகை ஆகியவற்றையும் அதிகபட்ச தொகைக்கு ஏலம் கேட்ட நபர் பெயர் மற்றும் அதிகபட்ச ஏலத்தொகை ஆகியவற்றையும் ஏலம் முடிவடைந்தவுடன் அறிவிப்பார். ஏலத்தொகை, ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பத்தில் குறிப்பிடப்பட்டுள்ள குத்தகை (டெண்டர்) தொகையை விடகுறைவாக இருந்து ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்கள் மூலமாக கோரப்படும் குத்தகை தொகைகள் ஒன்றுக்கும் மேற்பட்ட விண்ணப்பதாரர்களால் ஒரே மாதிரியாக குறிப்பிடப்பட்டிருந்தால் மாவட்ட ஆட்சியர் அல்லது அவரால் அங்கீகாரம் அளிக்கப்பெற்ற அலுவலர் சம்பந்தப்பட்ட விண்ணப்பதாரர்களை மட்டும் அழைத்து சம்பந்தப்பட்ட குவாரிக்கு மட்டும் மறுகேட்பு மூலம் உயர் குத்தகை தொகை பெற நடவடிக்கை எடுக்கப்படும். அதிகபட்ச குத்தகைத்தொகை கோரும் நபர் அதிகபட்ச ஏலத்தொகை கோரிய நபராக அறிவிக்கப்படுவார். ஒவ்வொரு குவாரிக்கும் பெறப்பட்ட ஒப்பந்தப்புள்ளி (டெண்டர்) விண்ணப்பங்களில் குறிப்பிடப்பட்டுள்ள அதிகபட்ச குத்தகைத்தொகை அல்லது பொது ஏலத்தின் மூலம் கேட்கப்படும் அதிகப்பட்ச குத்தகைத் தொகையை இவற்றில் எது அதிகமோ அந்த தொகை மேற்கண்ட குவாரிக்கு கோரப்பட்ட அதிகபட்ச குத்தகை தொகை என அறிவிக்கப்பட்டு அதிகப்பட்ச குத்தகைத் தொகை குறிப்பிட்டவராக அறிவிக்கப்படுவார். அதிகப்பட்சத் தொகைக்கு டெண்டர்/ஏலம் மூலம் கேட்ட நபர் என மாவட்ட ஆட்சியர் அல்லது அவரால் அங்கீகாரம் பெற்ற நபர் மூலம் உறுதிசெய்யப்பட்டவுடன், டெண்டர்/ஏலம்கேட்ட நபர் அவரால் அதிகபட்சமாக கோரப்பட்ட தொகையில் பத்து சதவிகித தொகையினை கேட்பு வரைவோலையாகவோ / பணமாகவோ உடனடியாக செலுத்தி வேண்டும். அவ்வாறு செலுத்தத் தவறும் பட்சத்தில் அவரது ஏலம் / டெண்டர் ரத்து செய்யப்பட்டு அவருக்கு அடுத்தபடியாக அதிகபட்சத்தொகை கேட்ட நபருக்கு வாய்ப்பளிக்கப்படும். அவரும் பத்து சதவிகிதத்தொகையினை செலுத்த தவறும் பட்சத்தில் இதே நடைமுறையை தொடர்ந்து நடத்துவது அல்லது மறு ஏலம் விட ஆணையிடுவது போன்றவை மாவட்ட ஆட்சியரின் இறுதி

M. Renuka

R. Uthay



முடிவு மற்றும் அதிகார வரம்பிற்கு உட்பட்டதாகும். அதிகபட்ச ஏலம் / டெண்டர் கேட்ட நபரை தவிர மற்றவர்களுக்கு அனுமதி செலுத்திய பிணைவைப்புத்தொகை திரும்ப தரப்படும். ஏலம் / டெண்டர் உறுதி செய்யப்பட்ட நபர் மீதுள்ள 90 சதவீத தொகையினை ஏழு தினங்களுக்குள் செலுத்திவிட வேண்டும், தவறும் பட்சத்தில் ஏலம் / டெண்டர் ரத்துசெய்யப்பட்டு அவர்செலுத்திய அனைத்து தொகைகளும் பறிமுதல் செய்து அரசு கணக்கில் சேர்க்கப்படும்.

12) (அ) சிறப்பு நிபந்தனைகள்:

(i) இந்த டெண்டர் மற்றும் ஏலமுறையில் கலந்து கொள்ளும் விண்ணப்பதாரர்கள் அனைவரும் இந்திய அரசின் வருமான வரித்துறையினரால் வழங்கப்படும் நிரந்தர கணக்கு எண் (PAN - CARD) அட்டையை பெற்றிருக்கவேண்டும்.

(ii) இந்த நிரந்தர கணக்கு எண்ணை சமர்ப்பித்து டெண்டர் மற்றும் ஏலம் கோரும் தொகைக்கு 2.00 சதவீத வருமான வரியை கிருஷ்ணகிரி மாவட்ட புலியியல் மற்றும் சுரங்கத்துறை, துணை இயக்குனர் அவர்களுக்கு வருமான வரித்துறையினரால் அளிக்கப்பட்டுள்ள TAN.No.CHE05905E-ன் கீழ் உரிய வருமானவரித்துறை செலுத்துச்சீட்டின் மூலம் செலுத்தவேண்டும்.

(iii) மேலும் குத்தகை உரிமம் பெற்ற பின்னர் கனிமங்களை எடுத்துச் செல்ல போக்குவரத்து அனுமதி சீட்டுபெற ஒவ்வொருமுறையும் செலுத்துகின்ற சீனியரேஜ் தொகையின் மீது 2.00 சதவீத வருமான வரி தொகை செலுத்தவேண்டும்.

(iv) மேலும் குத்தகை உரிமம் பெற்ற பின்னர் கனிமங்களை எடுத்துச் செல்ல போக்குவரத்து அனுமதி சீட்டு பெற ஒவ்வொருமுறையும் செலுத்துகின்ற சீனியரேஜ் தொகையின் மீது 10 சதவீத தொகையை கிருஷ்ணகிரி மாவட்ட கனிம அறக்கட்டளை நிதியாக கிருஷ்ணகிரி பாரத மாநில வங்கி (State Bank of India) கணக்கு எண்.37243080996-ல் செலவள மூலம் செலுத்த வேண்டும்.

13). ஒரு குவாரிக்கு ஒரு டெண்டர் விண்ணப்பம் மட்டும் வரப்பெற்று ஏலம் கேட்க யாரும் முன்வரவில்லை எனில் அந்த ஒரு விண்ணப்பதாரர் குறிப்பிட்ட தொகை நியாயமானது என்றும் கனிம அபிவிருத்திக்கு உகந்தது என்றும் மாவட்ட ஆட்சியரால் கருதப்பட்டால் அவருக்கு மாவட்ட ஆட்சியரால் குத்தகை உரிமம் வழங்கப்படும். அந்த ஒரு விண்ணப்பதாரரால் குறிப்பிடப்பட்ட தொகை நியாயமானது அல்ல என்றும் அவருக்கு உரிமம் வழங்குவது கனிம அபிவிருத்திக்கு உகந்ததல்ல என்றும் மாவட்ட ஆட்சியர் கருதினால், அவருடைய விண்ணப்பம் மாவட்ட ஆட்சியரால் நிராகரிக்கப்படும். ஒரு குவாரிக்கு ஒன்றுக்கு மேற்பட்ட விண்ணப்பங்கள் வரப்பெறின் அதிகபட்ச ஏலத்தொகை / டெண்டர் தொகை நியாயமானது எனக் கருதப்படும் பட்சத்தில் குவாரி குத்தகை வழங்க நடவடிக்கை எடுக்கப்படும். ஒரு குவாரிக்கு பெறப்பட்ட அதிகபட்ச ஏல தொகை / டெண்டர் தொகை நியாயமானது அல்ல மற்றும் கனிம அபிவிருத்திக்கு உகந்ததல்ல என மாவட்ட ஆட்சியர் கருதும் பட்சத்தில் அதனை ஏற்காமல் நிராகரித்து ஏலத்தொகை / டெண்டர் தொகையில் 10% தொகையை பெற மறுத்து மறு ஏலம் மற்றும் டெண்டருக்கு கொண்டு வர நடவடிக்கை மேற்கொள்ளப்படும்.

14) மாண்புமிகு இந்திய உச்சநீதிமன்றம் வழக்கு எண் ஐ.ஏ 12-13/2012 எஸ்.எல்.பி (சி) எண்.19628 - 19629/2009 ஆகியவற்றின் மீது 27.02.2012 அன்று வழங்கியுள்ள ஆணைகளின்படியும், இந்திய அரசு சுற்றுச் சூழல் மற்றும் வனத்துறை குறிப்பாணை எண். எல்.11011/47/2011 - IA, II(M) நாள் 18.05.2012ன்படியும், அரசாணை எண். (எம்எஸ்)எண். 79, தொழில் (எம்எம்சி1)துறை நாள் 06.04.2015ன்படி 1959ம் வருடத்திய தமிழ்நாடு சிறுகனிம சலுகை விதிகளில் திருத்தம் செய்யப்பட்டு சேர்க்கப்பட்ட விதிகள் எண். 41 மற்றும் 42-ன் படியும் அனைத்து சிறுகனிம குவாரிகளுக்கும் குவாரி குத்தகை வழங்குமுன்பு அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம், கிருஷ்ணகிரி மாவட்ட சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் /தமிழ்நாடு மாநில சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின்/ இந்திய அரசு சுற்றுச்சூழல் மற்றும் வனத்துறையின் தடையின்மை சான்று, மற்றும் தமிழ்நாடு மாசு கட்டுப்பாட்டு வாரியத்தின் இசைவு ஆகியவற்றை பெற்று சமர்ப்பிக்காமலு தெரிவிக்கப்படும் வழங்க முடியும்.

15). அதிகபட்சத் தொகை கேட்ட நபருக்கு குவாரி குத்தகை உரிமம் உறுதிசெய்யப்படுமாயின் அவருக்கு குவாரி குத்தகை உரிமம் வழங்கப்பட்டவுள்ள குவாரியின் புல எண், பரப்பளவு, ஆகிய விவரங்கள் அடங்கிய அறிவிக்கை வழங்கப்பட்டு அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம், கிருஷ்ணகிரி மாவட்ட சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின்/தமிழ்நாடு மாநில சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின்/ இந்திய அரசு சுற்றுச்சூழல் மற்றும் வனத்துறையின் தடையின்மை சான்று, மற்றும் தமிழ்நாடு மாசு கட்டுப்பாட்டு வாரியத்தின் இசைவு ஆகியவற்றை உரிய காலத்திற்குள் சமர்ப்பிக்காமலு தெரிவிக்கப்படும்.

(அ) மேற்கண்ட அறிவிக்கை பெற்றுக்கொண்ட மனுதாரர் சுரங்கத்திட்டத்தை தகுதி வாய்ந்த நபர் (Q1) மூலம் அரசு தெரிவித்துள்ள விதிகள் மற்றும் வழிகாட்டுதலின் படி தயாரித்து அறிவிக்கை பெறப்பட்ட நாளிலிருந்து மூன்று மாத காலத்திற்குள் கிருஷ்ணகிரி புலியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநரிடம் அங்கீகாரம் பெற சமர்ப்பிக்க வேண்டும்.

(ஆ) மேற்கண்ட மனுதாரர் கிருஷ்ணகிரி புலியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநரால் அங்கீகாரம் வழங்கப்பட்ட சுரங்கத்திட்டத்தை கிருஷ்ணகிரி மாவட்ட சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின் / தமிழ்நாடு மாநில சுற்றுச்சூழல் பாதிப்பு

மதிப்பீட்டு ஆணையத்தின்/இந்திய அரசு சுற்றுச்சூழல் மற்றும் வனத்துறையின் முன்பு சமர்ப்பித்து தடையின்மை சான்று கோரி விண்ணப்பித்து தடையின்மை சான்று மற்றும் தமிழ்நாடு மாசுகட்டுப்பாட்டு வாரிய இணைவு ஆகியவற்றை பெற்று சமர்ப்பிக்க வேண்டும்.

(இ) இரு மாநில எல்லையிலிருந்து ஐந்து கிலோமீட்டர் தொலைவிற்குள்ளும் வனவிலங்கு சரணாலயத்திலிருந்து பத்து கிலோமீட்டர் தொலைவிற்குள்ளும் அமைந்துள்ள குவாரிகளுக்கு மத்திய அரசு சுற்றுச்சூழல் ஆணையத்தின் முன் அனுமதி பெற்று சமர்ப்பிக்க வேண்டும்.

(ஈ) தேசிய பூங்கா/வனவிலங்கு சரணாலயத்திலிருந்து பத்து கிலோமீட்டர் தொலைவிற்குள் அமைந்துள்ள குவாரிகளுக்கு வனவிலங்கு தேசிய வாரிய நிலைக்குழுவிடமிருந்து (Standing Committee of National Board of Wildlife) தடையின்மை சான்று பெற்று சமர்ப்பிக்க வேண்டும்.

(உ) அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் முதல் ஐந்து ஆண்டு காலத்திற்கு மட்டுமே செல்வத்தக்கதாகும்.

(ஊ) மேற்கண்ட ஆவணங்களை சமர்ப்பித்தபின்பு மனுதாரருக்கு குவாரி குத்தகை வழங்கி மாவட்ட ஆட்சியரால் ஆணையிடப்படும். அங்கீகரிக்கப்பட்ட சுரங்கத்திட்டம் மற்றும் கிருஷ்ணகிரி மாவட்ட சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின்/தமிழ்நாடு மாநில சுற்றுச்சூழல் பாதிப்பு மதிப்பீட்டு ஆணையத்தின்/ இந்திய அரசு சுற்றுச்சூழல் மற்றும் வனத்துறையின் தடையின்மை சான்று ஆகியவற்றை குறிப்பிட்ட காலக்கெடுவிற்குள் சமர்ப்பிக்க தவறினால் மாவட்ட ஆட்சியர் அவர்களால் மனுதாரருக்கு மாவட்ட ஆட்சியர் முன்பு விசாரணைக்கு ஆஜராக வாய்ப்பளித்து விசாரணை நடத்தப்பட்டு ஏற்கனவே வழங்கப்பட்ட உத்தரவு ரத்து செய்யப்படும்.

16) மேற்கூறிய உத்தரவு மாவட்ட ஆட்சியரிடமிருந்து கிடைக்கப்பெற்றவுடன் விண்ணப்பதாரர் மாவட்ட ஆட்சியரின் ஆணையில் குறிப்பிடப்பட்ட காலக்கெடுவிற்குள் கீழ்க்கண்ட ஆவணங்களை குத்தகை ஒப்பந்த ஆவணம் நிறைவேற்றுவது தொடர்பாக மாவட்ட ஆட்சியருக்கு சமர்ப்பிக்க வேண்டும்.

(அ) விண்ணப்பதாரரின் கையொப்பமிட்ட வரைவு குத்தகை ஒப்பந்தப்பத்திரம் மற்றும் வரைபடம்.

(ஆ) அசல் குத்தகை ஒப்பந்தப்பத்திரம் தயார் செய்வதற்கு தேவையான நீதித்துறை சாரா முத்திரைத்தாள்.

(இ) காப்புத்தொகைக்காக ஏலம் / டெண்டர் தொகையில் இருபது சதவீதம் அல்லது ரூ.10,000/-ம் இதில் எது அதிகமோ அதை செலுத்தியதற்கான அசல் செலுத்துச்சீட்டு (சலான்).

(ஈ) மாவட்ட ஆட்சியர் ஆணையில் குறிப்பிட்டுள்ள மொத்த குத்தகை பரப்பிற்கான பரப்புலரி செலுத்தியதற்கான அசல் சலான்.

17) அவ்வாறு குறிப்பிட்ட காலத்திற்குள் மேற்கண்ட ஆவணங்களை மாவட்ட ஆட்சியரிடம் சமர்ப்பிக்க தவறினால் மாவட்ட ஆட்சியரால் வழங்கப்பட்ட குத்தகை உரிமம் ரத்து செய்யப்பட்டு அவர் செலுத்திய அனைத்து தொகைகளும் அரசுக்கு ஆதாயம் செய்து அரசு கணக்கில் சேர்க்கப்படும்.

18) மேற்கண்ட ஆவணங்களை ஒப்படைத்து குவாரி குத்தகை ஒப்பந்த ஆவணம் நிறைவேற்றிய பின்பே குவாரிப்பணியை தொடங்க வேண்டும். குவாரி குத்தகை ஆவணம் நிறைவேற்றமுன் குவாரிப்பணி செய்வது கண்டறியப்பட்டால் அது அனுமதியின்றி கனிமம் வெட்டியெடுத்ததாக கருதப்பட்டு தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959ன் விதி 36-அ -ன்படி உரிய நடவடிக்கை எடுக்கப்படுவதுடன் குற்றவியல் நடவடிக்கையும் எடுக்கப்படும்.

19) குவாரி குத்தகைக்காக கோரப்பட்ட மொத்த குத்தகை காலத்திற்குமான ஒரே தடவையில் மொத்தமாக செலுத்தப்படும் குத்தகைத்தொகை நீங்கலாக குத்தகைதாரர் மேற்படி குவாரியில் இருந்து எடுத்துச்செல்ல உத்தேசிக்கும் சிறுகனிமத்திற்கு 1959ம் ஆண்டைய தமிழ்நாடு சிறுகனிம சலுகை விதிகளின் அட்டவணை 2ல் குறிப்பிடப்பட்டுள்ள விகிதாச்சாரப்படி சீனியரேஜ் கட்டணத்தை செலுத்தி மொத்த இசைவாணைச்சீட்டு மற்றும் அனுப்புகைச் சீட்டு பெற்றுதான் சிறுகனிமத்தினை எடுத்துச் செல்ல வேண்டும். மேலும் அரசால் அவ்வப்போது திருத்தி நிர்ணயிக்கப்படும் சீனியரேஜ் தொகையை செலுத்தி அனுமதிச்சீட்டுபெற வேண்டும். மேலும் கனிமங்களை வெளியில் எடுத்துச் செல்ல போக்குவரத்து அனுமதி சீட்டு பெற ஒவ்வொருமுறையும் செலுத்துகின்ற சீனியரேஜ் தொகையின் மீது 10 சதவீத தொகையை கிருஷ்ணகிரி மாவட்ட கனிம அறக்கட்டளை நிதியாக கிருஷ்ணகிரி பாரத மாநில வங்கி (State Bank of India) கணக்கு எண்.37243080996-ல் செலான் மூலம் செலுத்த வேண்டும்.

20) குத்தகைதாரர் ஒவ்வொரு மாதமும் குவாரிப்பணி செய்த தொழிலாளர்கள், குவாரி செய்த கனிமத்தின் அளவிற்குரிய கணக்குகளை பிரதி மாதம் ஐந்தாம் நாளுக்குள் துணை இயக்குநர் புவியியல் மற்றும் சுரங்கத்துறை, கிருஷ்ணகிரி அவர்களுக்கு தணிக்கைக்கு ஆஜர் செய்ய வேண்டும்.

21) குவாரிகளுக்கு அருகில் உள்ள போக்குவரத்து சாலைகள், கிராம சாலைகள் குடியிருப்பு பகுதிகள் வீடுகள்,



வண்டிப்பாதைகள், மின் மற்றும் தொலைபேசி கம்பிகள், டிரான்ஸ்பார்மர்கள், ரயில்பாதைகள் பொதுப்பணித்துறை வாய்ப்பு மற்றும் மதசம்பந்தமான வழிபாட்டுத்தலங்கள் மற்றும் இதர நிலையான அமைப்புகள் இவற்றிலிருந்து 1959ம் ஆண்டைய தமிழ்நாடு சிறுகணிமச் சலுகை விதிகளின் படி பாதுகாப்பு இடைவெளி விட்டு மீதமுள்ள இடத்திற்குள் தான் குவாரிப்பணி செய்யவேண்டும். பொதுமக்கள் உபயோகிக்கும் இடங்கள் குடியிருப்புக்கள் பட்டா நிலங்கள் அல்லது பொதுச்சொத்துக்கள் ஆகியவற்றிற்கு சேதம் ஏதும் ஏற்படாமல் குவாரிப்பணி செய்யவேண்டும். குவாரி பணியால் சேதம் ஏதும் ஏற்பட்டால் அதற்கு குத்தகைதாரரே முழு பொறுப்பேற்று அதில் ஏற்படும் நட்டத்தை ஈடு செய்து தரவேண்டும்.

22) குத்தகைதாரரை மேற்குறிப்பிட்ட நிபந்தனைகள் அல்லாமல் 1959ம் ஆண்டைய தமிழ்நாடு சிறுகணிமச் சலுகை விதிகள், கனிமங்கள் மற்றும் சுரங்கங்கள் (மேம்படுத்துதல் மற்றும் முறைப்படுத்துதல்) சட்டம் 1957 மற்றும் இந்த அரசிதழில் குறிப்பிடப்பட்டுள்ள சிறப்பு நிபந்தனைகள் மற்றும் அரசால் அவ்வப்போது கொண்டுவரப்படும் ஆணைகளும் விதிகளும் கட்டுப்படுத்தும்.

23) இவ்விதிகளின்கீழ் வழங்கப்படும் குவாரிகளின் குத்தகை காலம் எக்காரணத்தைக் கொண்டும் குத்தகை வழங்கப்பட்ட காலத்திற்கு மேல் நீட்டிக்கப்படவோ அல்லது குத்தகை காலம் புதுப்பிக்கப்படவோ மாட்டாது. குத்தகை காலம் முடிந்தபின் குத்தகைதாரர்கள் குத்தகைக்கு விடப்பட்ட பகுதிகளில் எவ்விதமான உரிமையும் கொண்டாடக்கூடாது.

24) 14 வயதுக்குட்பட்ட குழந்தை தொழிலாளர்களை குவாரிப்பணியில் ஈடுபடுத்தக்கூடாது.

25) இந்த அரசிதழில் குவாரி குத்தகை உரிமத்திற்காக அறிவிக்கப்பட்டிருக்கும் பட்டியலில் உள்ள குத்தகை விடப்படும் குவாரிகளை டெண்டர் / ஏலம் நடைபெறுவதற்கு முன்பாக நிறுத்தி வைக்கவோ, நீக்கவோ, புதியதாக சேர்க்கவோ குவாரி பரப்பளவை மாற்றவோ, மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

26) நிர்வாக சூழல் காரணமாக டெண்டர் மற்றும் ஏலத்தை ரத்து செய்ய மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

27) செய்தித்தாள் மூலமாகவோ, மாவட்ட அரசிதழ் மூலமாகவோ, அறிவிப்பு செய்யப்படாத குவாரிகளுக்கு ஏதாவது ஒப்பந்தப்புள்ளி விண்ணப்பங்கள் கிடைக்கப் பெற்றால் அவையாவும் முதிர்ச்சி அடையாத விண்ணப்பமாக கருதப்பட்டு மாவட்ட ஆட்சியரால் உடனடியாக நிராகரிக்கப்படும். குறித்த காலக்கெடுவிற்குள் வந்து சேராத விண்ணப்பங்கள் காலவரையறை கடந்த விண்ணப்பமாக கருதப்பட்டு அவையாவும் மாவட்ட ஆட்சியரால் நிராகரிக்கப்படும், நிராகரிக்கப்பட்ட விண்ணப்பங்களின் வங்கி வரைவோலைகள் மட்டும் விண்ணப்பதாரருக்கு திரும்ப அனுப்பி வைக்கப்படும்.

28) 1959ம் ஆண்டு தமிழ்நாடு சிறுகணிமச் சலுகை விதிகள் அட்டவணைப் படிவம்-1ல் கண்ட ஒப்பந்தப்பத்திரத்தில் தேவையான அளவிற்கு நிபந்தனைகளை புதியதாக சேர்க்கவோ, நீக்கவோ மாற்றி அமைக்கவோ மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு, குத்தகை பத்திரம் ஏற்படுத்தியபின்பு புல எண் மற்றும் குவாரி செய்ய ஒதுக்கப்பட்ட பரப்புக்குறித்து எவ்வித தாவாயும் செய்ய குத்தகைதாரருக்கு உரிமை கிடையாது.

29) குத்தகை ஒப்பந்தப்பத்திரத்தை புலவரைபட்டதுடன் சொத்து மாற்றுகைச் சட்டம் 1882ன் பிரிவு 107ன் கீழ் குத்தகைதாரர் தனது சொந்த செலவில் பதிவுசெய்து பதிவுசெய்த ஒப்பந்தப்பத்திரத்தினை கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை துணை இயக்குநர் அலுவலகத்தில் உடன் ஒப்படைக்க வேண்டும்.

30) தமிழ்நாடு சிறுகணிமச் சலுகை விதிகள் 1959ன் விதி 36(1)ல் வரையறுக்கப்பட்டுள்ளவாறு அருகிலுள்ள குடியிருப்புகளுக்கு பாதுகாப்பு இடைவெளியாக 300 மீட்டரும் கிராம சாலைகளுக்கு 10 மீட்டரும் இதர சாலைகள் கட்டிடங்கள், வழிபாட்டு தலங்கள், மின்கம்பி பாதைகள், தொலைபேசி பாதைகள், புகைவண்டிப்பாதைகள், டிரான்ஸ்பார்மர்கள், ஆறு, ஏரி, குளம், குட்டை மற்றும் இதர பொது சொத்துக்கள் ஆகியவற்றிற்கு பாதுகாப்பு இடைவெளியாக 50 மீட்டரும் விட்டு மீதமுள்ள இடத்திற்குள் தான் குவாரிப்பணி செய்யப்படவேண்டும். புராதன சின்னங்களுக்கு தொல்லியல் துறையால் வரையறுக்கப்பட்டுள்ள பாதுகாப்பு இடைவெளி விட்டும் குவாரிப்பணி செய்யவேண்டும். பொதுமக்கள் உபயோகிக்கும் இடங்களான குடியிருப்புக்கள் பட்டா நிலங்கள் மற்றும் இதர பொதுச்சொத்துக்கள் ஆகியவற்றிற்கு சேதம் ஏதும் நேரிட்டால் அதற்கு குத்தகைதாரரே முழுபொறுப்பேற்று அதில் ஏற்படும் நட்டத்தை ஈடுசெய்து தரவேண்டும்.

31) நிர்வாக காரணம் மற்றும் பொது நலனை கருத்தில் கொண்டு குத்தகைக்கு விடப்பட்ட பரப்பினை பின்னர் குறைத்து நிர்ணயிக்கவும், குவாரி குத்தகையை ரத்து செய்யவும் மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு.

32) குத்தகைதாரர் 1959ம் ஆண்டு தமிழ்நாடு சிறுகணிமச் சலுகை விதிகளின்படியும் மாவட்ட அரசிதழில் கண்டுள்ள நிபந்தனைகளின்படியும் ஒப்பந்தப்பத்திர நிபந்தனைகளின்படியும் நடந்து கொள்ள கடமைப்பட்டவராவார். குத்தகைகாலத்தில் சட்டதிட்டங்கள் மற்றும் குவாரி குத்தகை நிபந்தனைகளுக்கு ஒப்பந்த விதிகளுக்கு முரண்பட்டு குத்தகைதாரர் நடந்து கொண்டால் குத்தகை ரத்துச் செய்யப்படுவதுடன் காப்புத்தொகை மற்றும் அவர் செலுத்திய அனைத்து தொகைகளும் அரசுக்கு பறிமுதல் செய்யப்படும். அக்குவாரிக்கு மீண்டும் குவாரி குத்தகை வழங்க நடவடிக்கை மேற்கொள்ளப்படும்.

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33) குவாரி குத்தகை வழங்கப்பட்ட இடத்தில் சாதாரண கற்களை குவாரி செய்வதில் ஏற்படக்கூடிய நஷ்டங்களுக்கு அரசால் எவ்வித நஷ்டமும் வழங்கப்பட மாட்டாது.

34) வழங்கப்பட்ட குத்தகை உரிமத்திற்கு பொதுமக்கள் மற்றும் அரசு துறை மூலம் கடுமையான ஆட்சேபம் இருப்பின் பொதுநன்மையை கருதி மாவட்ட ஆட்சியர் குத்தகையை ரத்துச்செய்ய நேரிட்டால் அதனால் ஏற்படும் இழப்பிற்கு ஈடுகேர குத்தகைதாரருக்கு உரிமை இல்லை.

35) குத்தகைதாரர் குவாரியை வேறு யாருக்கும் மாற்றவோ உள் குத்தகைக்கு விடவோ கூடாது. அப்படி ஏதாவது செய்திருப்பது தெரியவந்தால் மேற்படி குத்தகை ரத்துச்செய்யப்படுவதுடன் குத்தகைதாரர் செலுத்திய தொகையும் அரசுக்கு ஆதாயம் செய்யப்படும்.

36) குத்தகைதாரர், புவியியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநர் அலுவலகத்தில் அரசு குறிப்பிட்ட படிவத்தில் அனுப்புகைச் சீட்டுக்களை அச்சிட்டு சமர்ப்பிக்க வேண்டும். குத்தகைதாரர் சிறுகனிமம் எடுத்து; செல்லும் வாகனத்துடன் அனுப்புகைச் சீட்டு கொடுத்து அனுப்ப வேண்டும். இந்நடைச்சீட்டை இரு பிரதிகள் அச்சிட்டு வரிசை எண்ணிட்டு தாங்கள் உத்தேசமாக எடுக்க இருக்கும் லோடுகளுக்கு லோடு ஒன்றுக்கு ஒரு சீட்டு வீதம் கணக்கிட்டு அதற்குரிய சீனியரேஜ் தொகையினை செலுத்திய பின்னர், கிருஷ்ணகிரி புவியியல் மற்றும் சுரங்கத்துறை, துணை இயக்குநரிடம் அனுப்புகைச்சீட்டு மற்றும் மொத்த இசைவாணைச் சீட்டு ஆகியவற்றில் உரிய முத்திரையும் கையொப்பமும் பெற்றபின்பே பயன்படுத்த வேண்டும்.

37) ஒப்புதல் பெறப்படாத அனுப்புகைச்சீட்டுடன் கனிமம் கொண்டு செல்லும் வாகனங்கள் அதிலுள்ள சிறுகனிமத்தை முறையற்ற வகையில் எடுத்துச்செல்வதாக கருதப்பட்டு உரிய சட்டத்தின்படி உரிய அலுவலர்களால் கைப்பற்றப்பட்டு அபராதம் விதிக்கப்படும்.

38) புவியியல் மற்றும் சுரங்கத்துறை அலுவலர்கள் அல்லது வருவாய்த்துறை அலுவலர்கள் முதலானோர் தணிக்கை செய்யும்போது உரிய கணக்குகள் மற்றும் அனுப்புகைச் சீட்டு முதலானவைகளை குவாரி குத்தகை உரிமம் பெற்ற குத்தகைதாரர் காண்பிக்கவேண்டும்.

39) அரசு அலுவலர்கள் தணிக்கை செய்யும் போது சிறுகனிமங்கள் கொண்டு செல்லும் வாகனங்களை தணிக்கைக்கு உட்படுத்த வாகன ஓட்டுனர்களை குத்தகைதாரர்கள் அறிவுறுத்த வேண்டும்.

40) அனுப்புகைச்சீட்டில் உள்ள கலங்கள் பூர்த்தி செய்யப்படாமலோ அல்லது தவறாக எழுதப்பட்டு வாகனங்களுக்கு கொடுக்கப்பட்டிருந்தாலோ சிறுகனிமம் கொண்டு செல்லும் வாகன உரிமையாளருக்கு அபராதம் விதித்து வசூல் செய்யப்படும் மற்றும் குவாரி குத்தகையை ரத்து செய்ய நடவடிக்கை மேற்கொள்ளப்படும்.

41) குத்தகைதாரர் ஒவ்வொரு நாளும் குவாரியில் எவ்வளவு சிறுகனிமங்கள் வெட்டி எடுக்கப்பட்டது என்பதையும் எந்த அளவு கனிமங்கள் லாரி, வண்டி மூலம் வெளியே அனுப்பப்பட்டது என்ற விவரத்தையும் காட்டும் பதிவேடு பராமரிக்க வேண்டும். குவாரி குத்தகை சம்பந்தமான இதர பதிவேடுகளை பராமரிக்க வேண்டும்.

42) அரசு மற்றும் மாவட்ட ஆட்சியரால் குவாரி குத்தகை உரிமம் சம்பந்தமாக ஏற்படுத்தப்பட்டுள்ள மற்றும் அல்லப்போது ஏற்படுத்தப்படும் சட்ட திட்டங்களுக்கும், நிபந்தனைகளுக்கும் குத்தகைதாரர் கட்டுப்பட்டு நடக்க வேண்டும். குத்தகை காலத்திலோ அல்லது அதற்குபின்னரோ கிராமம் தவறி குத்தகையை பயன்படுத்தியதினால் ஏற்படும் சகல நடவடிக்கைகளுக்கும் குத்தகைதாரர்கள் பொறுப்பேற்க வேண்டும். இதற்காக விதிக்கப்படும் அபராதத்தையும் செலுத்தவேண்டும்.

43) குத்தகை நிபந்தனை மீறப்பட்டால் குத்தகையை ரத்துச் செய்யவோ செய்யப்பட்ட தவறுகளுக்கு குத்தகைதாரருக்கு தண்டனை விதிக்கவோ கிரியினல் வழக்குதொடரவோ மாவட்ட ஆட்சியருக்கு அதிகாரம் உண்டு. குத்தகை ரத்துச் செய்யப்பட்டால் காப்புத்தொகை உள்பட அலானத்து தொகைகளும் அரசுக்கு ஆதாயம் செய்யப்படும். மாவட்ட ஆட்சியர் எக்காரணத்திற்காவது குவாரி குத்தகையை ரத்துச்செய்யும் பட்சத்தில் அதனால் ஏற்படும் எவ்வித நடவடிக்கைகளுக்கும் அரசு பொறுப்பல்ல. குத்தகை எடுத்தவர் எந்த காரணத்தை முன்னிட்டும் தனக்கு இழப்பு ஏற்பட்டால் நஷ்டமீடு கேட்கக்கூடாது.

44) குத்தகை எடுத்தவர் குத்தகையை அனுபவிக்காமல் விட்டாலும், செலுத்தப்பட்ட குத்தகை தொகை எக்காரணத்தை முன்னிட்டும் திரும்ப வழங்கப்படமாட்டாது.

45) குவாரிகளின் எல்லைகள் பற்றி பிரச்சினைகள் ஏற்பட்டால் மாவட்ட ஆட்சியரின் தீர்ப்பே இறுதியானது.

46) கற்குவாரி குத்தகை உரிமம் வழங்கப்பட்ட பின்னர் அக்கற்குவாரியின் ஏதாவது ஒரு பகுதியில் வரலாற்று முக்கியத்துவம் வாய்ந்த புராணக்கால கல்வெட்டுக்கள், சிற்ப வடிவமைப்புகள் போன்றவைகள் காணப்பட்டால் அது குறித்து அரசுக்கு தகவல் தரவேண்டும். மேலும், அப்பகுதியில் கற்கள் உடைப்பது நிறுத்தப்பட்டு அப்புராண சின்னங்கள் பாதுகாக்கப்பட வேண்டும்.

47) டெண்டரில் கோரப்படும் புல எண்களின் பேரில் எவையேனும் நீதிமன்றத்தின் ஆணை / தடையாணை முதலானவை நீதிமன்றத்தில் பெறப்பட்டதாக தெரியவந்தால் அவைகள் மீது குத்தகை உரிமம் வழங்குவதில் மாவட்ட ஆட்சியரின் முடிவே இறுதியானது.

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48) குத்தகைதாரர் குத்தகை வழங்கப்பட்ட குவாரி முகப்பில் குவாரியின் புல எண் பரப்பு குத்தகைதாரர் மொத்தத்தை வழங்கப்பட்ட மாவட்ட ஆட்சியர் செயல்முறை எண் குத்தகை தொகை, குத்தகை காலம் போன்ற விவரங்கள் குறிக்கப்பட்ட தகவல் பலகையை தனது சொந்த செலவில் வைத்து குத்தகை காலம் முழுதும் பராமரிக்கவேண்டும்.

49) குத்தகைதாரர் குவாரியின் எல்லைகளை தெளிவாக தெரியும்படி வண்ணமிட்ட எல்லைக்கற்கள் ஊன்றி அடையாளமிட்ட பின்பே குவாரிசெய்ய வேண்டும். எல்லைக்கற்களை குத்தகை காலம் முழுவதும் தனது சொந்த செலவில் நன்கு பராமரிக்கவேண்டும்.

50) குத்தகைக்கு வழங்கப்பட்ட கல்குவாரிகளில் சாதாரண கற்கள், கட்டுக்கல், சக்கை கற்கள், ஐல்லிகற்கள் ஆகியவைகளை மட்டுமே குவாரி செய்ய வேண்டும். அயல் நாட்டிற்கு ஏற்றுமதி செய்வதற்கும் மெருகு ஏற்றுமதிக்கும் பயன்படும் வடிவமைக்கப்பட்ட கற்களை உற்பத்தி செய்யக்கூடாது.

51) குவாரியில் வெடி வைத்து கற்களை உடைக்க அங்கீகாரம் பெற்ற வெடிபொருள் விற்பனையாளரிடம் (Licenced Explosive Dealer) வெடிபொருட்களை கொள்முதல் செய்து சான்று பெற்ற வெடி வெடிப்பவரைக் (Licenced shot Firer) கொண்டு அனைத்து பாதுகாப்பு நிபந்தனைகளையும் கடைபிடித்து வெடிகளை வெடிக்க வைக்க வேண்டும்.

52) குவாரியில் சாதாரண ஏர் கம்பர்சர்களை கொண்டு துளையிட்டு வெடிவைக்க வேண்டும். ஆழ்துளை கிணறு; உபகரணங்களை (Rig Bore) கொண்டு துளையிட்டு வெடிவைக்கக்கூடாது. அருகிலுள்ள விவசாய நிலங்கள், பொதுச்சொத்துக்கள் மற்றும் பொதுமக்கள் ஆகியோருக்கு எவ்வித பாதிப்பும் ஏற்படாமல் வெடி வைக்க வேண்டும்.

53) அரசு ஆணையர் புலியியல் மற்றும் சுரங்கத்துறை மற்றும் மாவட்ட ஆட்சியரால் இது தொடர்பாக ஏற்படுத்தப்பட்டுள்ள மற்றும் அவ்வப்போது ஏற்படுத்தப்படும் சட்டதிட்டங்களுக்கும் நிபந்தனைகளுக்கும் குத்தகைதாரர் கட்டுப்பட்டு நடக்க வேண்டும்.

54) 1961ம் ஆண்டின் மெட்டாலிபெரல்ஸ் மைன்ஸ் ரெகுலேஷன்ஸ், 1936 ஆம் ஆண்டின் சம்பளம் வழங்குதல் சட்டம், 1984 ஆம் ஆண்டின் இந்திய வெடிபொருட்கள் சட்டம், 1964 ஆம் ஆண்டு குறைந்தபட்ச ஊதியச்சட்டம் ஆகியவற்றிற்கு உட்பட்டு குத்தகைதாரர் கனிமங்கள் வெட்டி எடுத்து வெளியேற்ற வேண்டும்.

55) குவாரியில் வேலை செய்யும் தொழிலாளர்கள் மற்றும் இதர நபர்களுக்கு விபத்து ஏற்படின் அதற்கான முழுப் பொறுப்பையும் குத்தகைதாரரே ஏற்க வேண்டும். அதற்கு எவ்வகையிலும் அரசு பொறுப்பாகாது.

56) குவாரிகளில் நவம்பர், டிசம்பர், ஜனவரி மற்றும் பிப்ரவரி மாதங்களில் மாலை ஆறு மணிக்கு மேல் காலை ஆறு மணி வரை பாறைகளை வெடி வைத்து தகர்க்க கூடாது.

57) குவாரிகளில் இருந்து நவம்பர், டிசம்பர், ஜனவரி மற்றும் பிப்ரவரி மாதங்களில் மாலை ஆறு மணிக்கு மேல் காலை ஆறு மணி வரை ஊடை கற்களை வெளியில் எடுத்துச் செல்லக் கூடாது.

58) குவாரி தொடர்பான அனைத்து பணிகளும் மாலை 6.00 மணி முதல் காலை 6.00 மணி வரை நிறுத்தப்பட வேண்டும்.

59) குவாரி குத்தகை வழங்கப்படும் பகுதியை சுற்றி குறைந்த பட்சம் 100 மரக்கன்றுகளாவது நடவுசெய்து பாதுகாத்து பராமரித்து பசுமை வளையம் அமைக்கப்பட வேண்டும்.

60) அங்கீகரிக்கப்பட்ட சுரங்க திட்டத்தின்படி குவாரி பணி செய்யப்பட வேண்டும். குத்தகை காலத்தில் அங்கீகரிக்கப்பட்ட சுரங்க திட்டத்தில் குறிப்பிட்ட அளவை விட அதிகமான கனிமத்தை குவாரி செய்ய வேண்டியிருப்பின், திருத்தப்பட்ட சுரங்க திட்டம் சமர்ப்பித்து அங்கீகாரம் பெற்று அதற்கான சுற்றுச் சூழல் தடையின்மை சான்று சமர்ப்பித்த பின்பே அதனை செய்ய வேண்டும்.

61) குத்தகை கிடைக்கப்பெற்றவுடன், இவ்வலுவலக ந.க.எண்:64/2014/கனிமம்-1 நாள்:14.06.2016 எண்ணிட்ட கடிதத்திற்கு எடுக்கப்படும் முடிவினை ஏற்றுக்கொள்வதாக ரூ.20/- முத்திரைதாளில் அபிடாவிட் தயார் செய்து தர வேண்டும்.

62) குவாரி ஆரம்பிப்பது தொடர்பான அறிவிப்பை (Notice of opening) இந்திய அரசு பெங்களூரு மண்டல சுரங்க பாதுகாப்பு துறை இயக்குநர் அவர்களுக்கு சமர்ப்பிக்க வேண்டும்.

63) குவாரியில் அங்கீகாரம் பெற்ற மைன்ஸ் மேனேஜர்/மைன்ஸ் மேட்/பிளாஸ்டர் ஆகியோர்களை பணியமர்த்திய பின்பே குவாரிப் பணியை தொடங்க வேண்டும்.

64) குவாரிப் பகுதியில் மைன்ஸ் மேட் கண்காணிப்பிலேயே வெடிவைத்து வெடிக்கும் பணியை செய்ய வேண்டும்.

65) குவாரிப் பகுதியில் விபத்து ஏதும் ஏற்பட்டால் அதனை உடனடியாக இந்திய அரசு பெங்களூரு மண்டல சுரங்க பாதுகாப்பு துறை இயக்குநர் அவர்களுக்கும் கிருஷ்ணகிரி மாவட்ட ஆட்சியர் அவர்களுக்கும் தெரிவிக்க வேண்டும். குவாரி பகுதியில் ஏற்படும் விபத்துக்கு குவாரி குத்தகைதாரரே முழு பொறுப்பாவார்.

M. Renuka
R. Upstey

அட்டவணை -1

சாதாரண கற்குவாரி பட்டியல்.

(i.) கிருஷ்ணகிரி வருவாய் கோட்டம்.

பர்கூர் வட்டம்

வ. எண்	கிராமம்	ச.எண்	மொத்த பரப்பு	குவாரி குத்தகை வழங்கும் பரப்பு	வகைப்பாடு	குத்தகை காலம் (வருடங்கள்)
(1)	(2)	(3)	(4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
1	பர்கூர்	63/2 (பகுதி)	9.35.50	3.35.0	தீ.ஏ.த. கல்லாங்குத்து	5
2	சிகரலப்பள்ளி	284 (பகுதி-1)	7.59.0	2.50.0	அரசு புறம்போக்கு -கரடு	10

ஊத்தங்கரை வட்டம்

வ. எண்	கிராமம்	ச.எண்	மொத்த பரப்பு	குவாரி குத்தகை வழங்கும் பரப்பு	வகைப்பாடு	குத்தகை காலம் (வருடங்கள்)
(1)	(2)	(3)	(4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
3	வெப்பாலப்படி	7/1 (பகுதி), 7/4 மற்றும் 8/3	3.12.0	1.11.5	தீ.ஏ.த. கல்லாங்குத்து	10

(ii) ஓசூர் வருவாய் கோட்டம்.

ஓசூர் வட்டம்

வ. எண்	கிராமம்	ச.எண்	மொத்த பரப்பு	குவாரி குத்தகை வழங்கும் பரப்பு	வகைப்பாடு	குத்தகை காலம் (வருடங்கள்)
(1)	(2)	(3)	(4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
4	பஞ்சாட்சிபுரம்	755 (பகுதி)	13.69.0	2.00.0	தீ.ஏ.த. கல்லாங்குத்து	10
5	பஞ்சாட்சிபுரம்	583/1	2.16.50	2.16.50	தீ.ஏ.த. கல்லாங்குத்து	10
6	ஆலூர்	209 (பகுதி)	8.82.5	4.50.0	தீ.ஏ.த.	10
7	தொரப்பள்ளி அக்ரஹாரம்	662	2.90.0	2.20.0	தீ.ஏ.த. கல்லாங்குத்து	5
8	தொரப்பள்ளி அக்ரஹாரம்	486/1 (பகுதி)	1.74.0	1.00.0	தீ.ஏ.த. கல்லாங்குத்து	10
9	அச்செட்டிப்பள்ளி	886 & 887 (பகுதி)	8.78.5	3.50.0	தீ.ஏ.த.	10

M. Ramasamy

R. Nitya



குளகிரி வட்டம்

வ. எண்	கிராமம்	ச.எண்	மொத்த பரப்பு	குவாரி குத்தகை வழங்கும் பரப்பு	வகைப்பாடு	குத்தகை காலம் (வருடங்கள்)
(1)	(2)	(3)	(4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
10	முகலூர்	232/2 (பகுதி)	15.86.5	2.40.0	தீ.ஏ.த	10
11	அத்திமுகம்	303 (பகுதி-1)	8.58.0	2.00.0	பாறை	10
12	அத்திமுகம்	303 (பகுதி-2)	8.58.0	2.00.0	பாறை	10
13	பண்ணப்பள்ளி	306 (பகுதி)	3.56.0	1.56.0	தீ.ஏ.த பாறை	10
14	பண்ணப்பள்ளி	306 (பகுதி)	3.56.0	2.00.0	தீ.ஏ.த பாறை	10
15	காமன்தொட்டி	178/1 (ம) 181 (பகுதி-1)	8.63.0	3.00.0	தீ.ஏ.த தரிசு	10
16	காமன்தொட்டி	178/1 (ம) 181 (பகுதி 2)	8.63.0	2.00.0	தீ.ஏ.த தரிசு	10
17	காமன்தொட்டி	653 (பகுதி)	7.56.0	3.35.0	தீ.ஏ.த தரிசு	5
18	தியானதூர்கம்	940/1 (பகுதி-1)	102.76.5	4.02.0	அரசு புறம்போக்கு (மலை)	10
19	தியானதூர்கம்	940/1 (பகுதி-2)	102.76.5	4.24.5	அரசு புறம்போக்கு (மலை)	10
20	துப்புகானப்பள்ளி	420 (பகுதி)	46.61.0	4.90.0	தீ.ஏ.த (கரடு)	5
21	துப்புகானப்பள்ளி மற்றும் அகரம் அக்ரஹாரம்	637(பகுதி) (ம)	25.27.0 (ம)	2.00.0	தீ.ஏ.த புறம்போக்கு	10
22	பேரிகை	4 (பகுதி)	2.55.0	0.95.0	தீ.ஏ.த பாறை	10
23	வெங்கடேசபுரம்	316/1 (பகுதி)	3.35.5	2.20.0	தீ.ஏ.த பாறை	10
24	சானமாவு	288 (பகுதி)	5.00.0	3.00.0	கரடு	5
		964(ப)	12.60.0	3.30.0	தீ.ஏ.த பாறை	10

தேன்கனிக்கோட்டை வட்டம்

வ. எண்	கிராமம்	ச.எண்	மொத்த பரப்பு	குவாரி குத்தகை வழங்கும் பரப்பு	வகைப்பாடு	குத்தகை காலம் (வருடங்கள்)
(1)	(2)	(3)	(4) (ஹெக்டேர்)	(5) (ஹெக்டேர்)	(6)	(7)
25	நாகமங்கலம்	629 (பகுதி-3)	188.50.0	3.20.5	தீ.ஏ.த. கல்வாங்குத்து	10
26	நாகமங்கலம்	560 (ம)	113.36.0	2.00.0	தீ.ஏ.த கரடு	10
		563 (பகுதி)				

கிருஷ்ணகிரி,
21-02-2019.

சு. பிராபகர்,
மாவட்ட ஆட்சியர்,
கிருஷ்ணகிரி மாவட்டம்.

தமிழ்நாடு எழுதுபொருள் மற்றும் அச்சகத்துறை இயக்குநரால் சேலம் அரசினர் கிளை அச்சகத்தில் அச்சிடப்பட்டு மாவட்ட ஆட்சியரால் வெளியிடப்பட்டது.

இணைப்பு- I

பின் இணைப்பு VI

டெண்டர் விண்ணப்பம் / குவாரி குத்தகை உரிமம் வழங்குவதற்கான விண்ணப்பம்
(மூன்று பிரதிகளில் சமர்ப்பிக்கப்பட வேண்டும்)

விடுநர்

பெறுநர்

மாவட்ட ஆட்சித்தலைவர்,
கிருஷ்ணகிரி.

அய்யா,

கிருஷ்ணகிரி மாவட்ட அரசிதழ் (சிறப்பு வெளியீடு)எண். நான் 2016 திசைசரியில் வெளியிட்ட நான் 2016ன் படி இத்துடன் தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959 விதி 8ன் கீழ் எனது / எங்களது விண்ணப்பத்தினை சமர்ப்பிக்கின்றேன் / சமர்ப்பிக்கின்றோம்.

தமிழ்நாடு சிறு கனிம சலுகை விதிகள் 1959 விதி 8ன் கீழ் குவாரி குத்தகை உரிமம் வழங்கும் படி நான் கேட்டுக்கொள்கிறேன் / நாங்கள் கேட்டுக்கொள்கிறோம்.

தேவையான விபரங்கள் கீழே கொடுக்கப்பட்டுள்ளது

1) விண்ணப்பதாரர் பெயர் மற்றும் முழு முகவரி :

2) விண்ணப்பதாரர்

- அ) 1) தனிநபரா ?
2) தனிப்பட்ட நிறுவனமா ?
3) நிறுவனமா அல்லது கழகமா

ஆ) தனிநபரானால் விண்ணப்பதாரர்
எந்த நாட்டைச் சார்ந்தவர்

இ) தனிப்பட்ட நிறுவனமானால்/
கழகமானால் மேற்கண்ட
நிறுவனத்தின் / கழகத்தின்
இயக்குநர்களின் தாய் நாட்டை பற்றிய
விவரம் (எழுத்துப் பூர்வ ஆதாரங்கள்)
இணைக்கப்பட வேண்டும்)

M. Ravindran

R. Vignesh

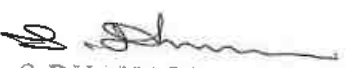


- 3) பிணை வைப்புத்தொகை செலுத்திய விவரம் கேட்பு வரைவோலையின் எண் மற்றும் நாள் / வங்கி வரைவோலை இணைக்கப்பட வேண்டும்
- 4) விண்ணப்பதாரரால் கீழ்க்கண்ட இனங்களுக்கு ஆணை உறுதி ஆவணம் (அபிடவிட்) இணைக்கப்பட்டுள்ளதா?
- 5) விண்ணப்பதாரர் குவாரி செய்ய விரும்பும் சிறுகனிமத்தின் பெயர் மற்றும் விபரம்
- 6) குவாரி குத்தகை உரிமம் கோரும் காலம்
- 7) விண்ணப்பிக்கும் இடத்தின் மொத்த பரப்பளவு
- 8) டெண்டர் விண்ணப்பம் அல்லது விண்ணப்பம் செய்யப்படும் இடத்தின் விபரம்
மாவட்டம்
வட்டம்
கிராமம்
புல எண்
பரப்பளவு (ஹெக்டேரில்)
- 9) குத்தகை உரிமம் பெறுவதற்கு விண்ணப்பதாரரால் செலுத்தப்படவுள்ள அதிக பட்ச ஒரு தடவை குவாரி குத்தகை தொகை (எண்ணாலும் எழுத்தாலும் எழுத்தப்பட வேண்டும்)
- 10) ஏற்கனவே தமிழ்நாட்டில் குவாரி குத்தகை உரிமம் பெற்ற இடத்தின் விபரம்
- 11) (அ) குவாரிகளுக்கு உரிய நிலுவை செலுத்துதல் தொடர்பாக கரங்க நிலுவை இல்லா சான்று இணைக்கப்பட்டுள்ளதா?
(ஆ) விண்ணப்பிக்கும் நாளில் குத்தகை உரிமம் ஏதும் விண்ணப்பதாரருக்கு இல்லை எனில் அதற்கு உண்டான ஆணை உறுதி ஆவணம் இணைக்கப்பட்டுள்ளதா?
- 12) விண்ணப்பதாரரால் அளிக்கப்படும் வேறு ஏதேனும் கூடுதல் விவரங்கள்

என்னால் / எங்களால் மேலே கொடுக்கப்பட்ட விபரங்கள் அனைத்தும் உண்மை. நான்/நாங்கள் அரசு / மாவட்ட ஆட்சித்தலைவர், மாவட்ட வன அலுவலர் ஆகியவர்களால் கேட்கப்படும் இதர விவரங்கள் மற்றும் பிணை வைப்பு தொகையிணை அளிக்க சம்மதிக்கின்றேன் / சம்மதிக்கிறோம். தமிழ்நாடு சிறுகனிம சலுகை விதிகள் 1959ன் கீழ் குத்தகை உரிமம் வழங்க உள்ள விதிகள் மற்றும் குவாரி செய்ய கொடுக்கப்பட்ட இதர நிபந்தனைகள் அனைத்தையும் தெரிந்து கொண்டேன் / கொண்டோம் என உறுதி அளிக்கின்றேன் / அளிக்கின்றோம். மேலும் எந்த சூழ்நிலையிலும் மேற்கண்ட குத்தகை உரிம இடத்திலிருந்து அலகை கற்கள் (Slabs) வெட்டியெடுக்க மாட்டேன் / மாட்டோம் என உறுதி அளிக்கின்றேன் / அளிக்கின்றோம்.

நான் :
இடம் :

தங்கள் உண்மையுள்ள.


S.DHANASEKAR, M.Sc., (Geo)
RQP/MAS/225/2011/A

விண்ணப்பதாரரின் கையொப்பம்


R. Upathy

கனம் காப்பீடும்

தமிழ்நாடுவனத்துறை



அனுப்பதல்

திரு. தீபக் எஸ். பில்கி, இ.வ.ப.,
வனஉயிரினகாப்பாளர்,
ஓசூர் கால்நடைபண்ணை அஞ்சல்,
மத்திகிரி, ஓசூர் - 635 110.
தொலைபேசி எண். 04344-262259.

பெறுதல்

மாவட்ட ஆட்சித் தலைவர்,
கிருஷ்ணகிரிமாவட்டம்,
கிருஷ்ணகிரி.

ந.க.எண்.153/2019-எல் நாள். 30.01.2019
சூ.விளக்கி வருடம், தை 16, திருவள்ளூர் ஆண்டு 2019

அப்பா,

பொருள் : கனிமங்களும் குவாரிகளும் - சிறுகனியம் -சாதாரண்கற்கள் -
கிருஷ்ணகிரி மாவட்டத்தில் உள்ள அரசு புறம்போக்கு நிலங்களில் உள்ள
சாதாரண கற்கள் வெட்டியெடுக்க டெண்டருடன் இணைந்த ஏலமுறையில்
குவாரி குத்தகை வழங்குதல் வனத்துறை சார்பாக பரிந்துரை செய்யக்
கோரியது-- வனத்துறை நோக்கிலான கருத்து தெரிவித்தல்-தொடர்பாக.

- பார்வை : 1. மாவட்ட ஆட்சித் தலைவர், கிருஷ்ணகிரி மாவட்டம்
ந.க.எண்.1609/2018(கனிமம்) நாள்.29.12.2018 மற்றும் 04.01.2019.
2. வனச்சரக அலுவலர், ஓசூர் சரகம் ந.க.எண்.02/2019 நாள்.23.01.2019.

பார்வை 1-ல் கண்ட கிருஷ்ணகிரி மாவட்ட ஆட்சித் தலைவர் அவர்களது கடிதத்தில்,
கிருஷ்ணகிரி மாவட்டத்தில் உள்ள அரசு புறம்போக்கு நிலங்களில் சாதாரண கற்கள் வெட்டி
எடுக்க டெண்டர் / பொது ஏலம் மூலம் குத்தகைக்கு வழங்க, வனத்துறை நோக்கிலான கருத்து
மற்றும் வனத்துறையின் தடையின்மை சான்று வழங்கவேண்டி கேட்கப்பட்டுள்ளது.

மேற்படி மனு மீது நடவடிக்கை எடுக்கும் பொருட்டு, ஓசூர் சரக வனச்சரக அலுவலர்
மற்றும் சரக பணியாளர்களுடன் 21.01.2019 அன்று தனித்தனி மேற்கொண்டு அறிக்கை
சமர்ப்பித்துள்ளார்.

ஓசூர் வனச்சரக அலுவலர் அறிக்கையின் அடிப்படையில், வன உயிரின காப்பாளரால்,
ஓசூர் சரக பணியாளர்களுடன் தனித்தனி செய்யப்பட்டதில், கீழ்க்கண்ட அட்டவணையில் உள்ள
குவாரிப் பகுதிகளுக்கு சாதாரண கற்கள் வெட்டி எடுக்க டெண்டர் / பொது ஏலத்தில்
குத்தகைக்குவிட கீழ்க்கண்டவாறு வனத்துறையின் கருத்து தெரிவிக்கப்படுகிறது.

M. Ramulu

R. Hottel

- i) சாதாரண கற்குவாரி குத்தகை வழங்க ஒப்பந்தம் செய்வதற்கு (Lease deed agreement) முன்பு ஒவ்வொரு குவாரிப் பகுதிக்கும் தனித்தனியாக வனத்துறையின் நிபந்தனையுடன் முன் அனுமதி பெற்றபின் குவாரிப் பணி செய்ய பணி ஆணை (Work order) வழங்கப்பட வேண்டும்.
- ii) மேற்படி சாதாரண கற்குவாரி குத்தகை கோரும் புலங்கள் காவேரி வடக்கு வன உயிரின சரணாலயத்திற்கான Eco Sensitive Zone எல்லை நிர்ணயம் செய்ய பிரேரிக்கப்பட்டு ஆணை எதிர்நோக்கியுள்ள சூழலில், காவேரி வடக்கு வன உயிரின சரணாலய எல்லையிலிருந்து 10 கிமீ-க்குள் அமைந்திருப்பின் தேசிய வன உயிரின வாரியத்தின் முன் அனுமதி (National Board for Wildlife) பெறப்பட வேண்டும்.
- iii) மலைதள பாதுகாப்பு பரிந்துரை குழு (Hill Area Conservation Authority)-என்படி அறிவிக்கை செய்யப்பட்ட கிராம எல்லைக்குள் கற்குவாரி பணி செய்ய அனுமதி கோரியுள்ள புலங்கள் அமைந்திருப்பின், மலைதள பாதுகாப்பு பரிந்துரை குழு (Hill Area Conservation Authority)-ன் கீழ் முன் அனுமதி பெறப்பட வேண்டும்.
- iv) உத்தேச கற்குவாரி செய்யும் புலங்கள் வருவாய்த்துறை ஆவணங்களில் "காடு" என வகைப்படுத்தப்பட்ட புலங்களில் கற்குவாரிப் பணிசெய்ய அனுமதிக்கக் கூடாது.
- v) உத்தேச கற்குவாரி செய்யும் புலங்கள்தமிழ்நாடு வனச்சட்டம் 1882-ன் பிரிவு 4 மற்றும் 16-ன் கீழ்காப்பு நிலம் / காப்புக்காடு என அறிவிக்கை செய்யப்பட்ட புலங்களாக இருத்தல் கூடாது.
- vi) உத்தேச கற்குவாரி செய்யும் புலங்கள் தமிழ்நாடு வனச்சட்டம் 1882-ன் பிரிவு 26-ன் கீழ் அறிவிக்கை செய்யப்பட்ட புலங்களாக இருத்தல்கூடாது.
- vii) உத்தேச கற்குவாரி செய்யும் புலங்கள் காப்புக்காட்டின் எல்லைக்கு அருகில் அமைந்திருப்பின், Standing Orders of the Board of Revenue- volume - I Section III, Sub-Section 38 (III) வருவாய் வாரிய நிலை ஆணை தொகுப்பு 1, பிரிவு 3, உட்பிரிவு 38 (III)-என்படி காப்புக்காட்டிற்கு அருகில் உள்ள நிலத்தில் இதராயன்பாட்டிற்கு உட்படுத்த நடவடிக்கை மேற்கொள்ளப்படும் போது காப்புக் காட்டின் எல்லையிலிருந்து குறைந்தபட்சம் 60 மீட்டர் (3 Chain) தொலைவிற்கு அப்பாற்பட்டிருக்க வேண்டும் என்ற நிபந்தனையை கடைபிடிக்கப்பட வேண்டும்.
- viii) அரசாணை (நிலை) எண்.79 தொழில் (கனிமம் 1) துறை நாள்.06.04.2015-ல் குறிப்பிட்டுள்ள நிபந்தனைகளை மாவட்ட நிர்வாகம் / கனிம வளத்துறை கவனத்தில் கொள்ளவேண்டும்.

M. Ravuthu

R. Upsthy



சாதாரண கற்கள் வெட்டி எடுக்க டெண்டருடன் இணைந்த எலமுறை வழங்குபரிந்துரை செய்யப்படும் குவாரிப் பகுதிகள் விபரம்

Shoolagiri Taluk

Sl. No.	Taluk / village	S.F.No.	Total Extent	Extent Proposed for Quarry Lease	Classification	Lease Period in years	Coordinates	
							Latitude	Longitude
1	Shoolagiri / Kamandoddi	178/1 & 181 (Part-1)	8.63.0	3.00.0	UAW-Tharisu	10	12° 41' 31.22"N	77° 56' 14.63"E
2	Shoolagiri / Kamandoddi	178/1 & 181 (Part - 2)	8.63.0	2.00.0	UAW-Tharisu	10	12° 41' 31.11"N	77° 56' 24.56"E
3	Shoolagiri / Thiyarandurgam	940/1 (Part-I)	102.76.5	4.02.0	Malai-Poramb	10	12° 36' 17.17"N	77° 53' 57.68"E
4	Shoolagiri / Thiyarandurgam	940/1 (Part-II)	102.76.5	4.24.5	Malai-Poramb	10	12° 36' 14.63"N	77° 54' 06.51"E

Hosur Taluk

Sl. No.	Taluk / village	S.F.No.	Total Extent	Extent Proposed for Quarry Lease	Classification	Lease Period in years	Coordinates	
							Latitude	Longitude
5	Hosur / Panchasipuram	755 (Part)	13.69.0	2.00.0	UAW	10	12° 35' 17.41"N	77° 47' 45.28"E
6	Hosur / Panchasipuram	583/1	2.16.50	2.16.50	UAW	10	12° 35' 54.75"N	77° 47' 09.63"E
7	Hosur / Mugalur	232/2 (Part)	15.86.0	4.00.0	UAW	10	12° 37' 19.03"N	77° 48' 56.57"E
8	Hosur / Mugalur	270 (Pt) & 271	5.54.00.36.5	3.15.5 0.36.5	Malai	5	12° 37' 04.83"N	77° 48' 57.06"E
9	Hosur / Sanamavu	964 (Part)	12.60.0	4.50.0	UAW-Paarai	5	12° 39' 47.41"N	77° 53' 54.10"E
10	Hosur / Thorapalli Agraharam	662	2.90.0	2.20.0	UAW-KallanKuthu	5	12° 41' 48.94"N	77° 54' 13.29"E
11	Hosur / Thorapalli Agraharam	486/1 (Part)	1.74.0	1.00.0	UAW-KallanKuthu	10	12° 40' 23.75"N	77° 52' 58.68"E

M. Ramesh
R. Uthay

12	Hosur / Thorapalli Agraharam	503 (Part-1)	3.96.0	2.00.0	UAW- KallanKuthu	5	12°40' 20.84"N	77°53' 19.37"E
13	Hosur / Thorapalli Agraharam	503 (Part-2)	3.96.0	1.40.0	UAW- KallanKuthu	5	12°40' 17.05"N	77°53' 20.41"E

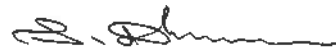
Denkanikottai Taluk

Sl. No	Taluk / village	S.F.No.	Total Extent	Extent Proposed for Quarry Lease	Classification	Lease Period in years	Coordinates	
							Latitude	Longitude
14	Denkanikottai/ Mallasandiram	771(PART)	2.79.5	2.15.0	UAW- Kallangudu	5	12° 33' 11.84"N	77° 47' 28.38"E
15	Denkanikottai/ Mallasandiram	887(PART I)	6.82.5	3.00.0	UAW- Kallangudu	10	12° 33' 12.22"N	77° 47' 20.48"E
16	Denkanikottai/ Mallasandiram	887(PART-II)	6.82.5	2.47.5	UAW- Kallangudu	10	12° 33' 12.37"N	77° 47' 24.63"E
17	Denkanikottai/ Nagamangalam	629 (PART-III)	138.50.0	3.20.5	UAW- Kallangudu	10	12° 34' 26.36"N	77° 54' 50.72"E
18	Denkanikottai/ Nagamangalam	560 & 563A (Part)	113.36.0	2.00.0	UAW-karadu	10	12° 35' 23.34"N	77° 54' 39.45"E

மேற்கண்ட இணங்களுக்கு டெண்டர் / பொது ஏலத்தில் குத்தகைக்குவிடமட்டுமே வனத்துறையின் தடையில்லாச் சான்று தற்போது அளிக்கப்படுகிறது. ஒவ்வொரு குவாரிப் பகுதிகளுக்கும் வனத்துறையின் மூலம் தனித்தனியாக தணிக்கை மேற்கொண்டு, அதற்கேற்ப சட்ட திட்டங்களுக்கு உட்பட்டு, மாண்புமிகு உச்சநீதி மன்ற ஆணைகளை கடைபிடிக்க (Compensatory plating), மனித - வன விலங்கு மோதல்கள் மற்றும் மாக கட்டுப்பாடு போன்றவற்றை கருத்தில்கொண்டு வனத்துறையின் கருத்துகள் மற்றும் நிபந்தனைகளை பெற ஒவ்வொரு குத்தகைக்கும் தனித்தனியாக விண்ணப்பிக்க வேண்டும் என்பதை அன்புடன் தெரிவித்துக்கொள்கிறேன்.

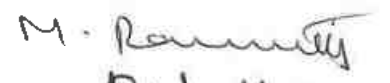
தங்கள் அன்புள்ள,


வனஉயிரினகாப்பாளர்,
ஓசூர் வனக்கோட்டம்.



S.DHANASEKAR, M.Sc.(Geo)
RQP/MAS/225/2011/A

4




Taluk : Hosur

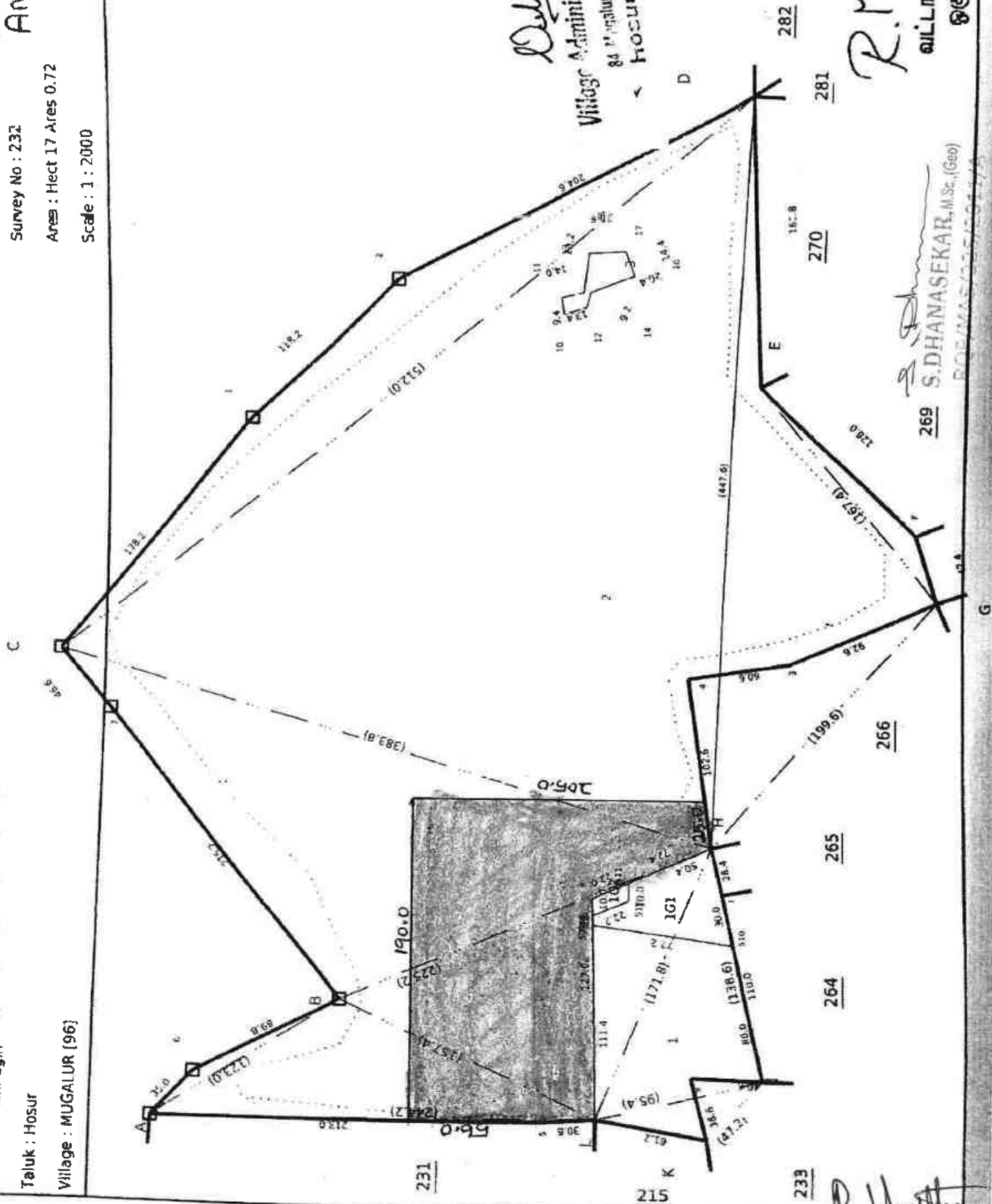
Village : MUGALUR (96)

Survey No : 232

Area : Hect 17 Acres 0.72

Scale : 1 : 2000

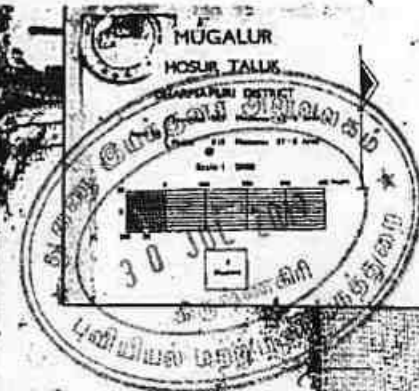
ANNEXURE-IV



R.M. வட்டமட்சியார், ஓசூர்.

S. DHANASEKAR, M.Sc., (Geo)
 269

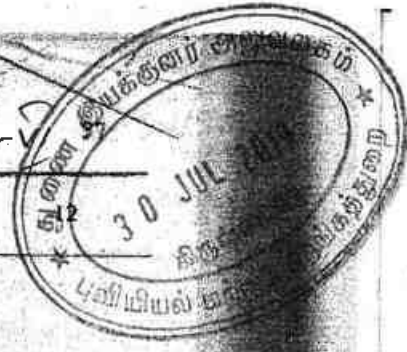
M. Ramaswami



ANNEXURE V

S. DHANASEKAR, M.Sc. (Geol)
RQP/MAS/225/2011/A

M. Ramiah
R. Vignesh



	3	4	5	6	7	8	9	10	11
						கு. பை.	ஹெ.ஏர்ஸ்.	கு. பை.	
1-பா	ர	4	...	8-5	10	1 09	1 14-0	1 25	179 மு. நஞ்சுய்யர்.
1-பா	அ	தி.ஏ.த	...	...	...	...	15 86.5	...	...
							17 00.5	1 25	தீர்வை ஏற்படாததற்கு.
1-பா	ர	4	...	8-5	10	1 09	0 09-0	0 10	179 மு. நஞ்சுய்யர்.
1-பா	ர	4	...	8-5	10	1 09	0 12.5	0 15	137 கா. சீனப்பர்.
2	ர	4	...	8-5	10	1 09	0 28-0	0 31	137 கா. சீனப்பர்.
3	ர	4	...	8-5	10	1 09	0 26.5	0 38	136 வெ. சீனப்பர்.
							0 76.0	0 94	
1-பா	ர	4	...	8-3	7	2 77	0 31-0	0 86	267 ந. மதனகிரி யப்பர்.
1-பா	ர	4	...	8-3	7	2 77	0 15.5	0 43	179 மு. நஞ்சுய்யர்.
1-பா	ர	4	...	8-3	7	2 77	0 15-0	0 42	48 ந. கிருஷ்ணப்பர்.
1-பா	ர	4	...	8-3	7	2 77	0 67-0	1 87	394 வ. லக்ஷ்மய்யர்.
1-பா	ர	4	...	8-3	7	2 77	0 16-0	0 44	136 வெ. சீனப்பர்.
2-பா	ர	4	...	8-5	10	1 09	0 04-0	0 06	267 ந. மதனகிரி யப்பர்.
2-பா	ர	4	...	8-5	10	1 09	0 09-0	0 09	136 வெ. சீனப்பர்.
							1 57.5	4 16	
115-1	ர	4	...	8-3	7	2 77	0 23-0	0 62	48 ந. கிருஷ்ணப்பர்.
2	ர	4	...	8-3	7	2 77	0 32-0	0 88	394 வ. லக்ஷ்மய்யர்.
							0 55-0	1 50	
136-பா	ர	4	...	8-5	10	1 09	0 74.5	0 83	225 அ. பாஸ்கர் ரெட்டி.
1-பா	ர	4	...	8-5	10	1 09	0 10.5	0 11	358 சி. ராமோஜி ரெட்டி.
							0 85-0	0 94	
137-பா	ர	4	...	8-5	10	1 09	0 47-0	0 50	358 சி. ராமோஜி ரெட்டி.
1-பா	ர	4	...	8-5	10	1 09	1 01.5	1 12	225 அ. பாஸ்கர் ரெட்டி.
							1 48.5	1 62	

S. DHANASUKUMAR (Geo)
RQP/MAS/225 1/A

M. Ramani
R. Vignesh

ANNEXURE - VII



FORM C

[See rule 9(a)]

Acknowledgement of Registration of Firms

The Registrar of Firms, TamilNadu, hereby acknowledges the receipt of the statement prescribed by Section 58(1) of the Indian Partnership Act, 1932. The statement has been filed and the name of the firm **RV ENTERPRISES** has been entered in the Register of Firms as No **FR/Krishnagiri/197/2021**.



Date :24-Aug-2021

Station : Krishnagiri

Digitally Signed by Thiru/ Tmt/ Selvi
SENTHILKUMAR VELMURUGAN
Registrar of Firms

Handwritten signature in Tamil

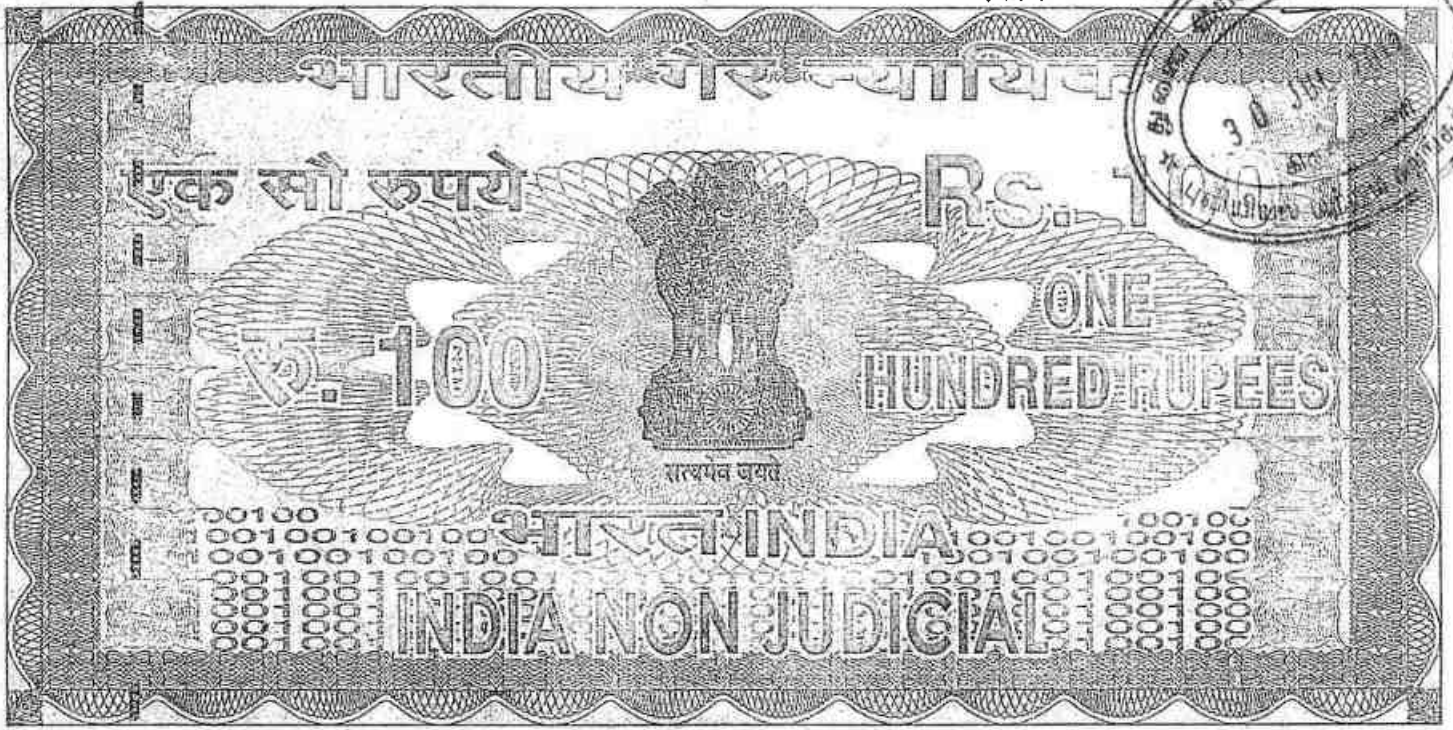
24/8/2021

Handwritten signature
S.DHANASEKAR, M.Sc.(Geo)
RQP/MAS/225/2011/A

Handwritten signatures: M. Ramasubramanian, R. Vigneshwaran

Document verified by Senthilkumar Velmurugan
Digitally signed by Senthilkumar Velmurugan
Date: 2021.08.24 13:09:48 IST

ANNEXURE VII



தமிழ்நாடு தமில்நாடு TAMILNADU

BK 591162



Rs. 100/-
8/3/19

R. V Enterprises
Megalur

Parimala
M.D. PARIMALA,
Stamps Vendor
L.No. 5/2008, R.G.I., HOSUR, T.N.

PARTNERSHIP DEED

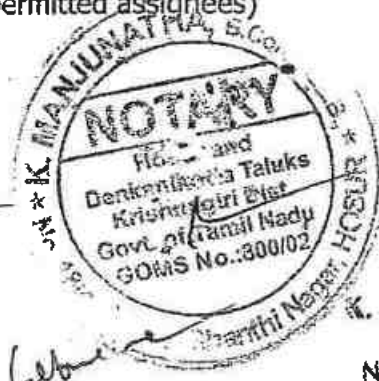
The deed of Partnership made and executed at Hosur on this 8th day of March 2019 between:

Mr.M.Ramamoorthy, aged about 40 years, S/o.Muthappa, residing at No.27/1/64-A, Machinayakanapalli Village, Panchakshipuram Post, Hosur Taluk-635 110, Krishnagiri District, Tamil Nadu. Hereinafter called the party of the **FIRST PART** (which expression shall mean and includes unless opposed to the context, his heirs, executors, legal representatives and permitted assignees)

AND

Mr.Venkatachalapathy.R., aged about 30 years, S/o.Ramachandrappa, residing at No.2/157, H.Chettipalli Village, Karapalli Post, Denkanikotta Taluk, Krishnagiri District, Tamil Nadu. Hereinafter called the party of the **SECOND PART** (which expression shall mean and includes unless opposed to the context, his heirs, executors, legal representatives and permitted assignees)

M. Ramamoorthy



R. Venkatachalapathy

K. MANJUNATHA, S. Gov., LLB
ADVOCATE & NOTARY
No: 18/42 E 11A, Shanthi Nagar
HOSUR-635 109.



தமிழ்நாடு தமிழ்நாடு TAMILNADU

BK 591163

R. V Enterprises
Mugalur

Parimala

N.B. PARIMALA,
Stamp Vendor
L.No. 5/2008, KCL, HOSUR, TN.

WHEREAS four the parties to this deed intend to carry on the partnership business.

WHEREAS the parties to this deed have agreed to their terms and conditions orally.

Whereas the parties to this deed are now desirous of embodying their terms and conditions in a written instrument.

NOW THIS INSTRUMENT WITNESS THE FOLLOWING TERMS AND CONDITIONS HEREINAFTER SET FORTH:

1. The partnership business shall continue under the name style of "M/s.RV ENTERPRISES", Hosur.

M. Parimala

R. V. Enterprises



N. C. MANJUNATHA, B.Com., LL.B.
ADVOCATE & NOTARY
No: 18/42 S 11A, Shanivar Nagar



தமிழ்நாடு தமில்நாடு TAMILNADU

BK 591164

100/-

R. v Enterprises
Mugalur

Parimala

N.S. PAKHIALA,

Stamp Vendor

L.No. 5/2008,KGI,HOSUR,T.N.

Sl. No. _____

Date: 8/3/19

2. The office and factory of the partnership shall be situated at **Mugalur Village and Post, Hosur Taluk, Krishnagiri District**. The Office and factory may be shifted to any other place or places as the parties to this deed may from time to time, mutually agree upon.
3. The terms of the partnership shall come into force with effect from **08.03.2019**.
4. The duration of the partnership business for **10 years**.
5. The partnership shall carry on the business of manufacturing **Quarry work** and to do my business beneficial to the partnership.

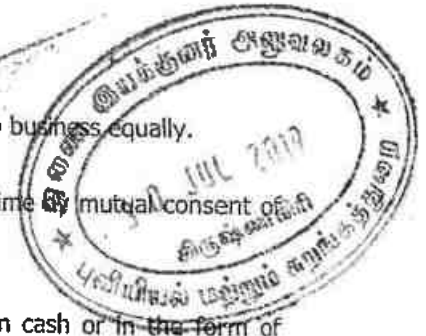
H. Ramaswamy

R. Uthay



N. MANJUNATHA, B.Com., LL.B.
ADVOCATE & NOTARY
No: 18/42 E 11A, Shanthi Nagar,
HOSUR-635 109.

6. The first and second party invest money for the partnership business equally.
7. The capital may be increased or decreased from time to time by mutual consent of all the parties to this deed.
8. The parties to this deed may bring in additional capital in cash or in the form of properties as may be mutually agreed upon.
9. Four parties to this deed shall devote their time and attention to the affairs of the firm and each shall be paid a monthly remuneration of **Rs.50,000/- (Rupees Fifty Thousand Only)** per month.
10. The profit or losses of the partnership after remuneration and interest on capital shall be shared as under.
11. The partnership may raise loan/loans for the purpose of the business which shall be only with the consent of all the parties to this instrument and be borrowed only in the same of partnership business. All the parties to this deed are severally liable for any loan raised by the partnership business.
12. Death, insolvency or retirement of the partner shall not dissolve the partnership business as to the other partner. The existing partner should pay back the capital investment amount to the partner or his legal heirs. In the event of retirement of one of the partner before partnership period the out going partner should be paid his initial investment by the partner who continue to carryon business.
13. The bank account or accounts including overdraft account of the partnership business which may be opened with any bank/banks shall be operated by **Mr.M.Ramamoorthy** (First Partner) of the parties to this deed.
14. Every party to this instrument shall be entitled to act for and on behalf of the partnership business in all matters pertaining to the partnership business other than those terms as may be mutually agreed upon.
15. **Mr.M.Ramamoorthy** (First Partner) party to this instrument shall be entitled to collect monies due to the partnership, give discharge for monies received on behalf of the partnership and shall be accountable to the firm for such amounts and make representations before any Government, Local Authority of such similar bodies or any Court of enquiry duly constituted in respect of all matters and proceedings relating to the business of the partnership.



M. Ramamoorthy

Let



[Handwritten Signature]

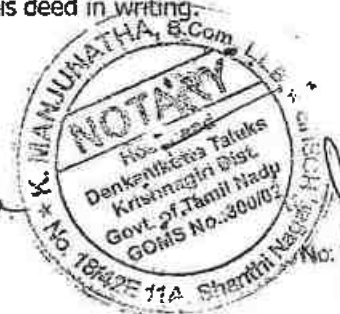
MANJUNATH REDDY, B.Com., LL.B.
NOTARY
 No. 11A, Shanthi Nagar,
 HOSUR-505 109.

16. Every party to this instrument shall diligently discharge his duties in the conduct of the partnership business.
17. Every party to this instrument shall indemnify any loss or damage caused to this partnership by his fraud or willful neglect in the conduct of the partnership business.
18. Any new partners can be admitted into the partnership business by mutual consent of all the parties to this instrument.
19. On the 31st March every year a general account shall be taken of all the assets and liabilities of the partnership business on all dealings and transactions of the partnership during the preceding year and the account shall be audited by a duly qualified Chartered accountant or a firm of Chartered accountants. A profit and loss account shall be prepared and signed by all the parties to this instrument and on such signing each shall be binding on them and save that in the event any manifest error be found therein, such error shall be rectified within one calendar month thereof. The accounts for the first period shall be closed on 31st March 2020.
20. No party to this instrument shall except with the written consent of the other party, in any way;
- Charge, pledge, or mortgage or assign his share of interest or any part thereof in the partnership assets or profits or losses if any, if applicable.
 - Do or suffer anything whereby the partnership business or property may be endangered.
21. No party to this instrument without the previous consent of other party shall directly or indirectly interest themselves in any business which is of competitive nature to this partnership business.
22. The death, retirement or insolvency of any partner shall not dissolve the firm. In the event of the death of the partnership, unless otherwise agreed upon by all the partners to this deed, their legal heirs shall succeed them and continue to carry on the partnership business.
23. Any partner intend to retire from the business shall give there 3 months notice in writing to the other partner. The retiring partner shall be entitled to only the amount at his credit in the accounts of the firm (inclusive of profit or loss up to that period). In the event of debit balance in the account of the retiring partner he shall pay the same forthwith.
24. The terms of the partnership can be altered, amended, substituted or added to by mutual consent of the parties to this deed in writing.



M. Ramanathan

Subi



R. Upathy

B.Com, LL.B
NOTARY
Shanthi Nagar
HOSUR-635 109.



25. Any notice hereby requested or authorized to be given to any of the said partners shall be sufficiently given by leaving the same addressed to him/her the principal place of business of the firm or by sending the same by registered post to him/her at the principal place of business of the firm or by sending the same by registered post to his/her usual or last known place of address.

IN WITNESS WHEREOF THE PARTIES HERETO HAVE SET AND SUBSCRIBED THEIR RESPECTIVE HANDS ON THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

M. Ramamoorthy
M. Ramamoorthy
 (First Party)

V. Venkatachalapathy.R
Venkatachalapathy.R
 (Second Party)

WITNESS

1. V. Anil Kumar. 64-A, Mahinayakanapalem, Hosur.
2. N. Bharath. S/o Narayanappa

Signed before me
 8/3/19

K. MANJUNATHA, B.Com., LL.B.
 ADVOCATE & NOTARY
 No: 18/42 E 11A, Shanthi Nagar
 HOSUR-535 100.



S. Dhanasekar
S. DHANASEKAR, M.Sc. (Geo)
 ROP/MAS/225/2011/A

ANNEXURE - IX
30 JUL 2019
கிடுஷ்ணகிரி
பெரியியல் மற்றும் சுற்றுச்சூழல்
ஆய்வுகளுக்கான அலுவலகம்

உங்கள் ஆதார் எண் / Your Aadhaar No.
4337 0034 0253

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

இந்திய அரசாங்கம்
சமூக நல அமைச்சு

ரமமூர்த்தி முத்தப்பா
Remamoorthy Muthappa
பிறந்த நாள் / DOB : 10/06/1978
ஆண்பால் / Male

4337 0034 0253

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

M. Remmthy

S. DHANASEKAR, M.Sc. (Geo)
RQP/MAS/225/2011/A



**CERTIFICATE OF RECOGNITION AS
QUALIFIED PERSON TO PREPARE MINING PLANS
(Under Rule 22 C of Mineral Concession Rules 1960)**


Shri S. DHANASEKAR resident of Old No.6, New No.8/3, Kullappan Street, Opp. Indian Bank Line, Omalur (P.O), Salem - 636 455, son of Shri A. SUNDARAM having given satisfactory evidence of his qualifications and experience is hereby granted recognition under Rule 22C of the Mineral Concession Rules, 1960 as a Qualified Person to prepare Mining Plans.

His registration number is

RQP/MAS/225/2011/A

recognition is valid for a period of ten years ending 12.01.2021.

*Place : Chennai
Date : 13.01.2011*


Regional Controller of Mines
Indian Bureau of Mines
Chennai Region


S. DHANASEKAR, M.Sc. (Geo)
RQP/MAS/225/2011/A

PHOTO SHOWN APPLIED LEASE AREA VIEW-1

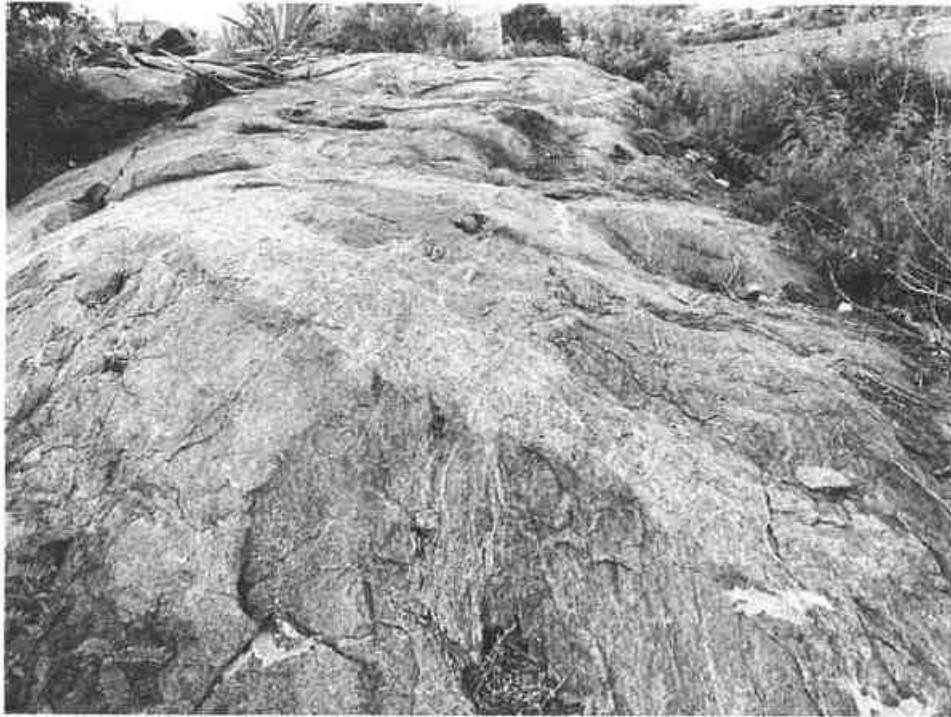
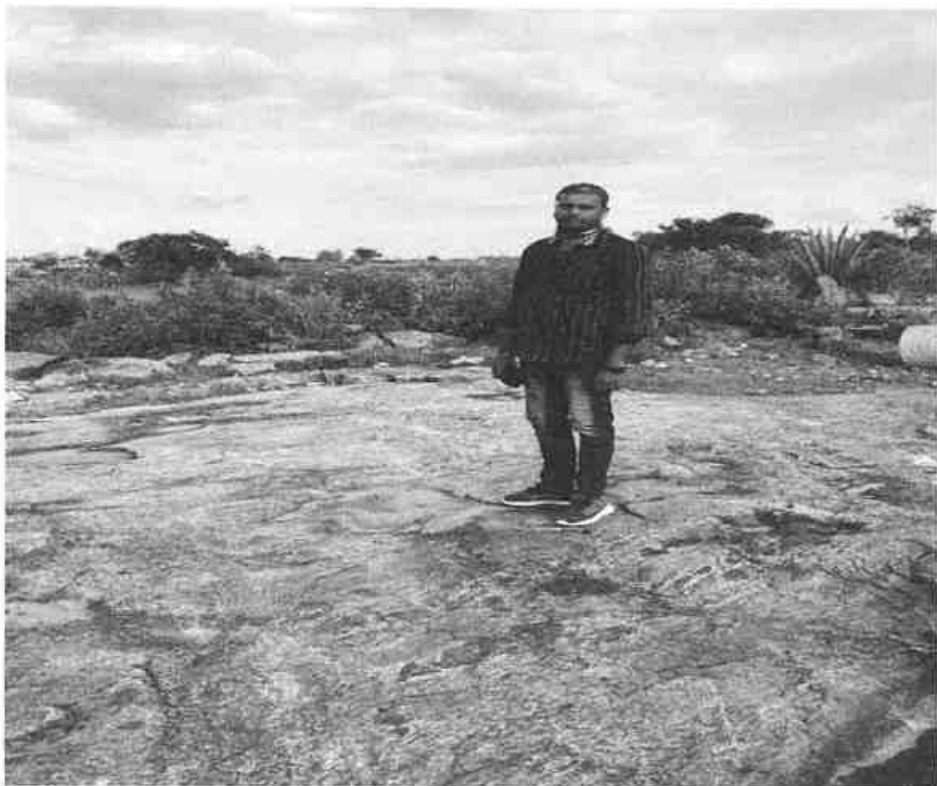


PHOTO SHOWN APPLIED LEASE AREA VIEW-2

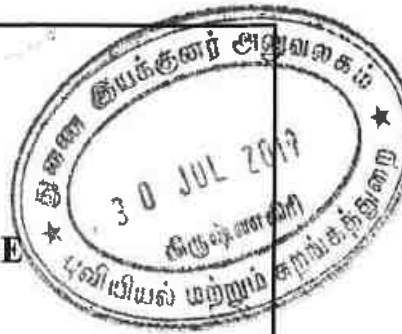


M. Ramulu

P. Vignesh


S.DHANASEKAR, M.Sc., (Geo)
RQP/MAS/225/2011/A

12° 37' 26.3788" N
77° 48' 50.1416" E



12° 37' 23.5847" N
77° 48' 49.2256" E

12° 37' 25.9249" N
77° 48' 56.4872" E



12° 37' 19.5633" N
77° 48' 54.2857" E

PLATE NO: I	
DATE OF SURVEY: 24-06-2019	
APPLICANT ADDRESS:	
M/S. R.V. ENTERPRISES, PARTNER M. RAMAMOORTHY, S/o. MUTHAPPA, No.1/16, MACHINAYAKANAPALLI VILLAGE, PANCHAKSHIPURAM POST, HOSUR TALUK, KRISHNAGIRI DISTRICT-635 110.	
INDEX	
QUARRY LEASE AREA :	
TOPO SHEET NO. :	57-H/14
LATITUDE :	12° 37' 25.9249" N to 12° 37' 23.5847" N
LONGITUDE :	77° 48' 56.4872" E to 77° 48' 49.2256" E
LOCATION OF QUARRY	
EXTENT :	2.40.0 Ha
S.F.NO :	232/2(PART)
VILLAGE :	MUGALUR
TALUK :	SHOOLAGIRI
DISTRICT :	KRISHNAGIRI
LOCATION PLAN	
NOT TO SCALE	
PREPARED BY:	
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE	
 S. DHANASEKAR, M.Sc., RECOGNIZED QUALIFIED PERSON RQP/MAS/225/2011/A	

M. Ramamoorthy
P. Muthappa

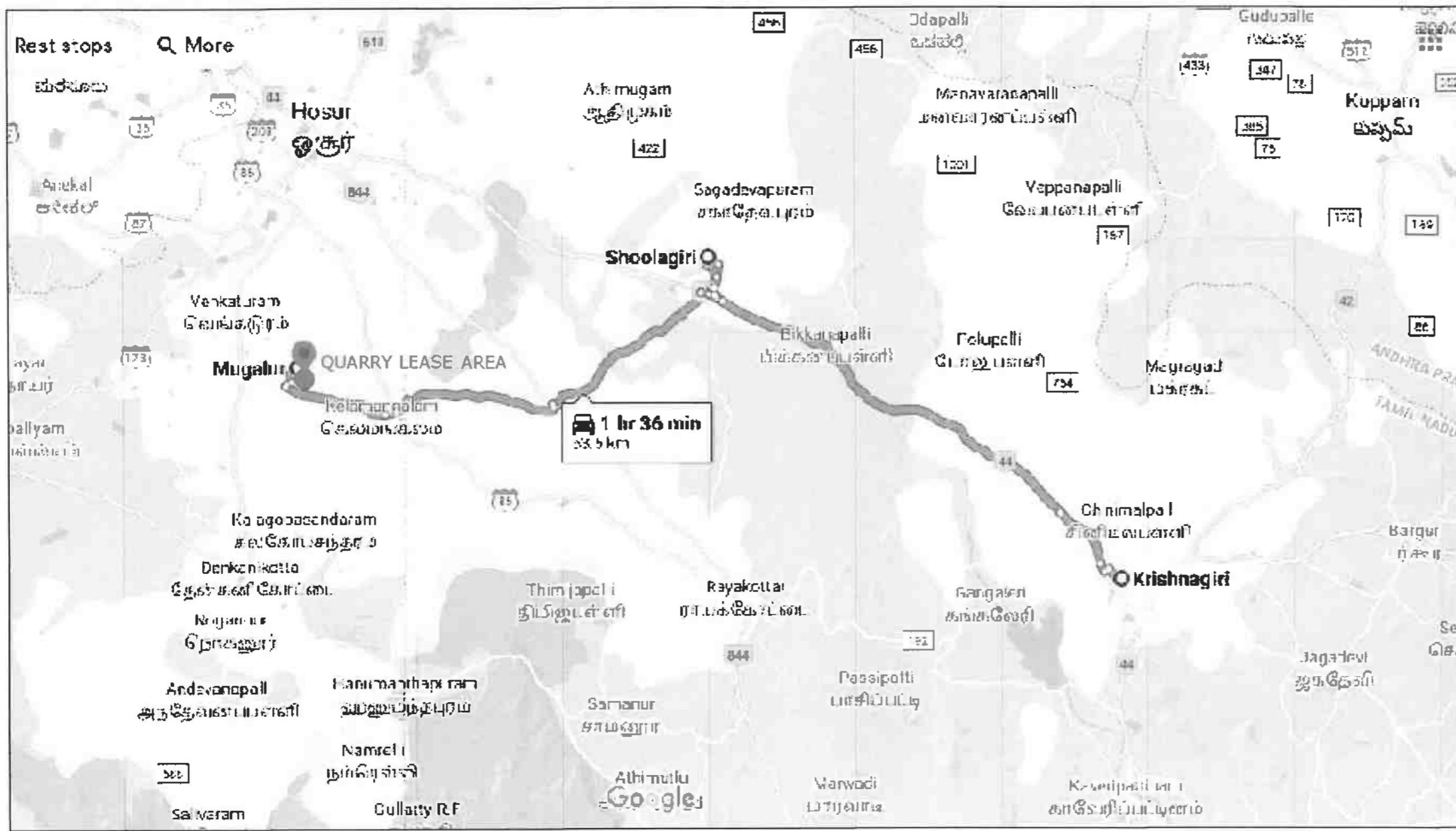


PLATE NO:IA
 DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:
 M/S. R.V.ENTERPRISES,
 PARTNER M.RAMAMOORTHY,
 S/o. MUTHAPPA,
 No.1/16,MACHINAYAKANAPALLI VILLAGE,
 PANCHAKSHIPURAM POST,
 HOSUR TALUK,
 KRISHNAGIRI DISTRICT-635 110.

INDEX

QUARRY LEASE BOUNDARY

ROAD

LOCATION OF QUARRY

EXTENT : 2.40.0 Ha
 S.F.NO : 232/2(PART)
 VILLAGE : MUGALUR
 TALUK : SHOOLAGIRI
 DISTRICT : KRISHNAGIRI

ROUTE MAP

NOT TO SCALE

PREPARED BY:
 I DO HEREBY CERTIFY THAT THE PLATE
 HAS BEEN CHECKED BY ME AND IS CORRECT
 TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
 RECOGNIZED QUALIFIED PERSON
 RQP/MAS/225/2011/A

M. Ramamoorthy
P. Muthappa

12° 37' 25.9249" N



77° 48' 49.2256" E

77° 48' 56.4872" E

12° 37' 23.5847" N

PLATE NO-IB

DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:

M/S. R.V. ENTERPRISES,
PARTNER M.RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16, MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 110.

INDEX

QUARRY LEASE AREA :



5KM RADIUS



TOPO SHEET NO. : 57-H/14

LATITUDE : 12° 37' 25.9249" N to 12° 37' 23.5847" N

LONGITUDE : 77° 48' 56.4872" E to 77° 48' 49.2256" E

LOCATION OF QUARRY:

EXTENT : 2.40.0 Ha
S.F.NO : 232/2(PART)
VILLAGE : MUGALUR
TALUK : SHOOLAGIRI
DISTRICT : KRISHNAGIRI

TOPO SHEET MAP

NOT TO SCALE

Prepared By:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR, M.Sc.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/225/2011/A

M. Ramamoorthy
R. Muthappa

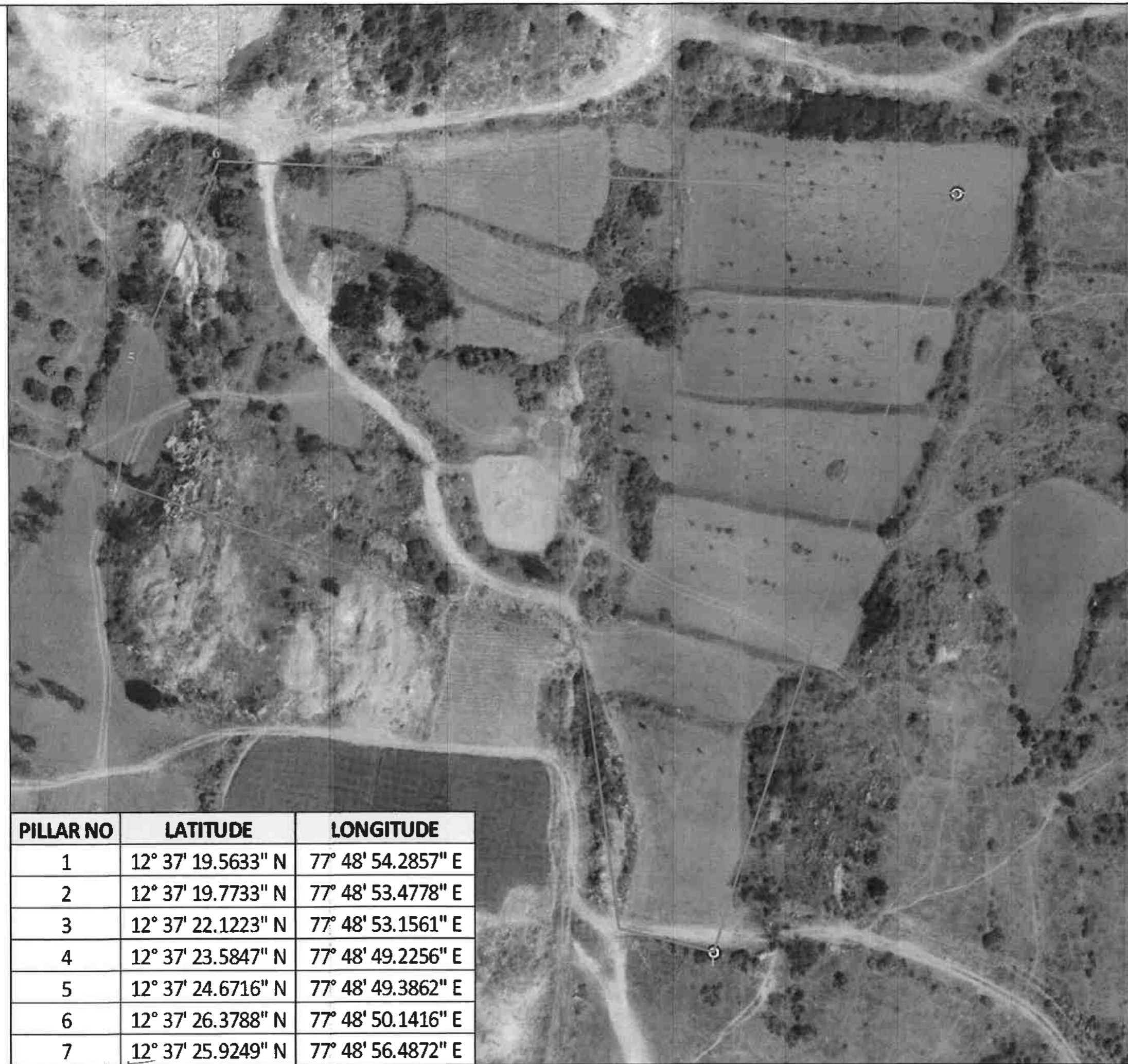


PLATE NO:IC

DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:

M/S. R.V.ENTERPRISES,
PARTNER M.RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16,MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 110.

INDEX

QUARRY LEASE BOUNDARY 

LOCATION OF QUARRY

EXTENT : 2.40.0 Ha
S.F.NO : 232/2(PART)
VILLAGE : MUGALUR
TALUK : SHOOLAGIRI
DISTRICT : KRISHNAGIRI

SATELLITE IMAGE

(LEASE AREA)

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE
HAS BEEN CHECKED BY ME AND IS CORRECT
TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR.M.Sc.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/225/2011/A

PILLAR NO	LATITUDE	LONGITUDE
1	12° 37' 19.5633" N	77° 48' 54.2857" E
2	12° 37' 19.7733" N	77° 48' 53.4778" E
3	12° 37' 22.1223" N	77° 48' 53.1561" E
4	12° 37' 23.5847" N	77° 48' 49.2256" E
5	12° 37' 24.6716" N	77° 48' 49.3862" E
6	12° 37' 26.3788" N	77° 48' 50.1416" E
7	12° 37' 25.9249" N	77° 48' 56.4872" E

M. Ramamoorthy
R. Muthappa

12° 37' 26.3788" N
77° 48' 50.1416" E



12° 37' 23.5847" N
77° 48' 49.2256" E

12° 37' 25.9249" N
77° 48' 56.4872" E

12° 37' 19.5633" N
77° 48' 54.2857" E

M. Ramamoorthy
P. Muthappa



PLATE NO:ID	
DATE OF SURVEY: 24-06-2019	
APPLICANT ADDRESS:	
M/S. R.V.ENTERPRISES, PARTNER M.RAMAMOORTHY, S/o. MUTHAPPA, No.1/16,MACHINAYAKANAPALLI VILLAGE, PANCHAKSHIPURAM POST, HOSUR TALUK, KRISHNAGIRI DISTRICT-635 110.	
INDEX	
QUARRY LEASE BOUNDARY	
500M RADIUS	
300M RADIUS	
LOCATION OF QUARRY	
EXTENT	: 2.40.0 Ha
S.F.NO	: 232/2(PART)
VILLAGE	: MUGALUR
TALUK	: SHOOLAGIRI
DISTRICT	: KRISHNAGIRI
SATELLITE IMAGE (500M RADIUS) SCALE: 1:5000	
PREPARED BY:	
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE	
 S.DHANASEKAR,M.Sc., RECOGNIZED QUALIFIED PERSON RQP/MAS/225/2011/A	

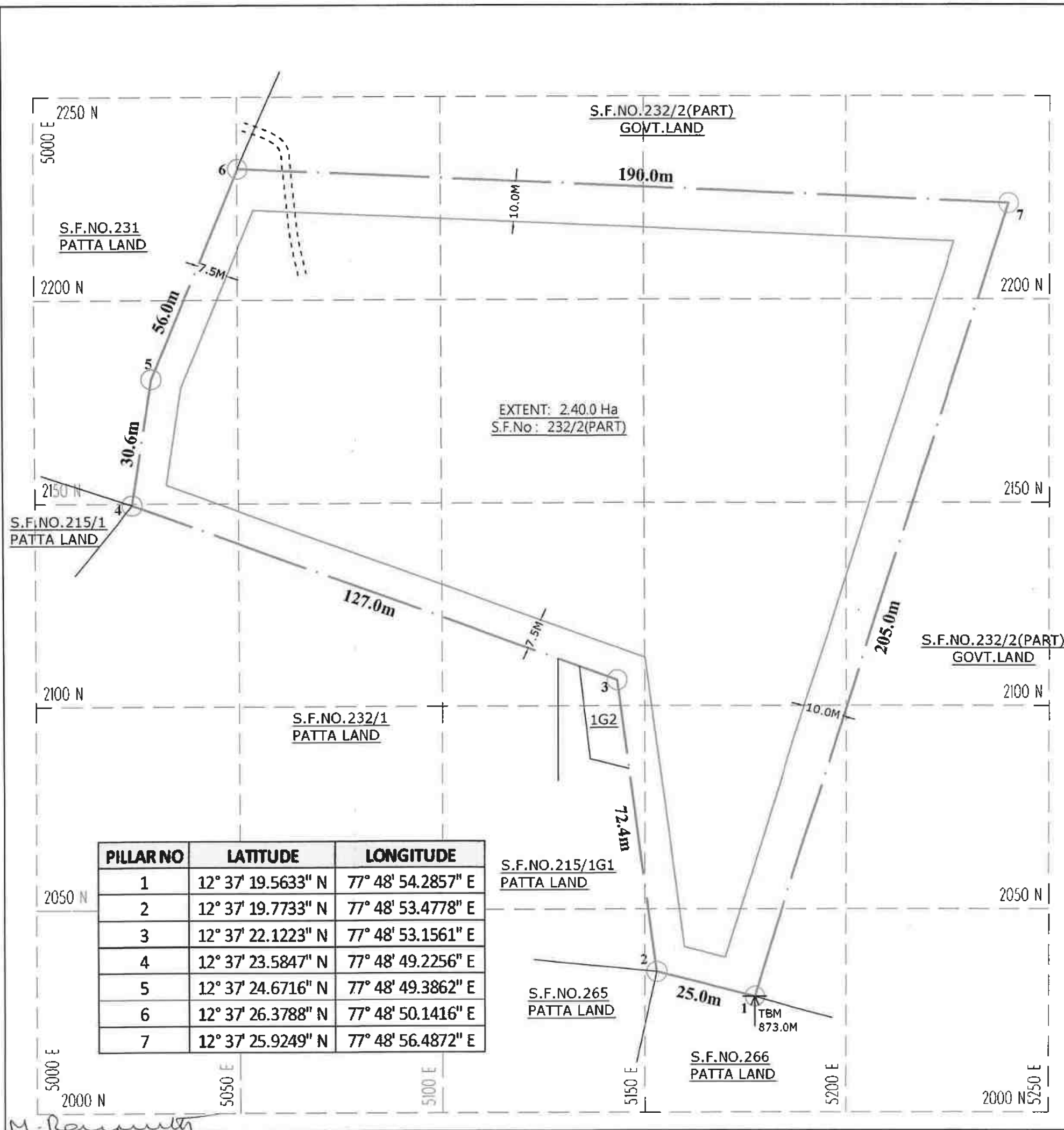


PLATE NO:II

DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:
 M/S. R.V.ENTERPRISES,
 PARTNER M.RAMAMOORTHY,
 S/o. MUTHAPPA,
 No.1/16,MACHINAYAKANAPALLI VILLAGE,
 PANCHAKSHIPURAM POST,
 HOSUR TALUK,
 KRISHNAGIRI DISTRICT-635 110.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- APPROACH ROAD
- BOUNDARY PILLARS

LOCATION OF QUARRY

EXTENT : 2.40.0 Ha
 S.F.NO : 232/2(PART)
 VILLAGE : MUGALUR
 TALUK : SHOOLAGIRI
 DISTRICT : KRISHNAGIRI.

MINE LEASE PLAN

SCALE: 1:1000

PREPARED BY:
 I DO HEREBY CERTIFY THAT THE PLATE
 HAS BEEN CHECKED BY ME AND IS CORRECT
 TO THE BEST OF MY KNOWLEDGE

S. Dhanasekar
 S.DHANASEKAR,M.Sc.,
 RECOGNIZED QUALIFIED PERSON
 RQP/MAS/225/2011/A



PLATE NO:III
 DATE OF SURVEY: 24-06-2019
APPLICANT ADDRESS:
 M/S. R.V.ENTERPRISES,
 PARTNER M.RAMAMOORTHY,
 S/o. MUTHAPPA,
 No.1/16,MACHINAYAKANAPALLI VILLAGE,
 PANCHAKSHIPURAM POST,
 HOSUR TALUK,
 KRISHNAGIRI DISTRICT-635 110.

INDEX

QUARRY LEASE BOUNDARY	
7.5m & 10.0m SAFETY DISTANCE	
TEMPORARY BENCH MARK	
BOUNDARY PILLARS	
TOP SOIL	
ROUGH STONE	
QUARRY ROAD	
STRIKE & DIP	
SHRUB	

LOCATION OF QUARRY

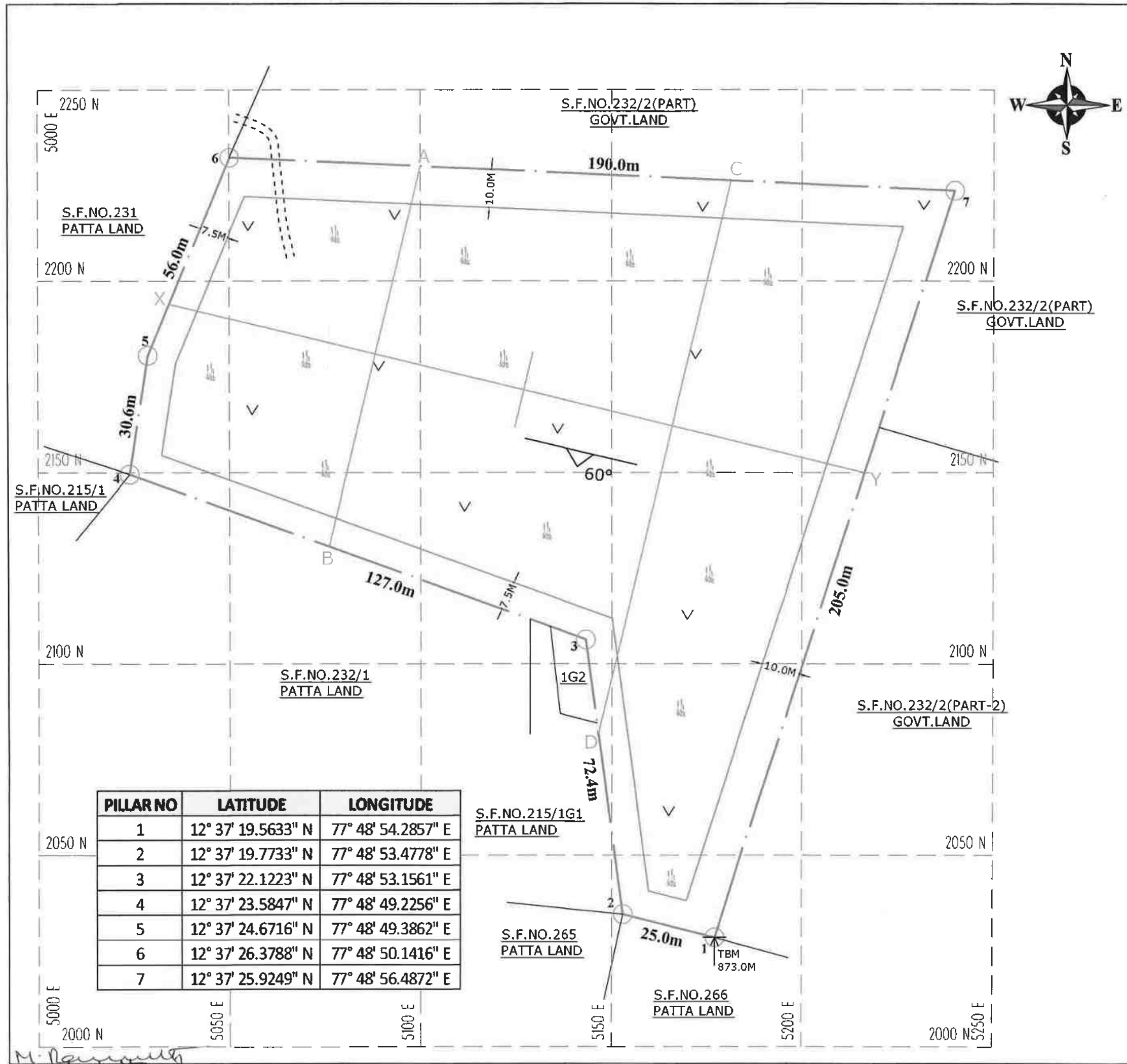
EXTENT : 2.40.0 Ha
 S.F.NO : 232/2(PART)
 VILLAGE : MUGALUR
 TALUK : SHOOLAGIRI
 DISTRICT : KRISHNAGIRI.

SURFACE AND GEOLOGICAL PLAN

SCALE: 1:1000

PREPARED BY:
 I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S. Dhanasekar
 S.DHANASEKAR,M.Sc.,
 RECOGNIZED QUALIFIED PERSON
 RQP/MAS/225/2011/A

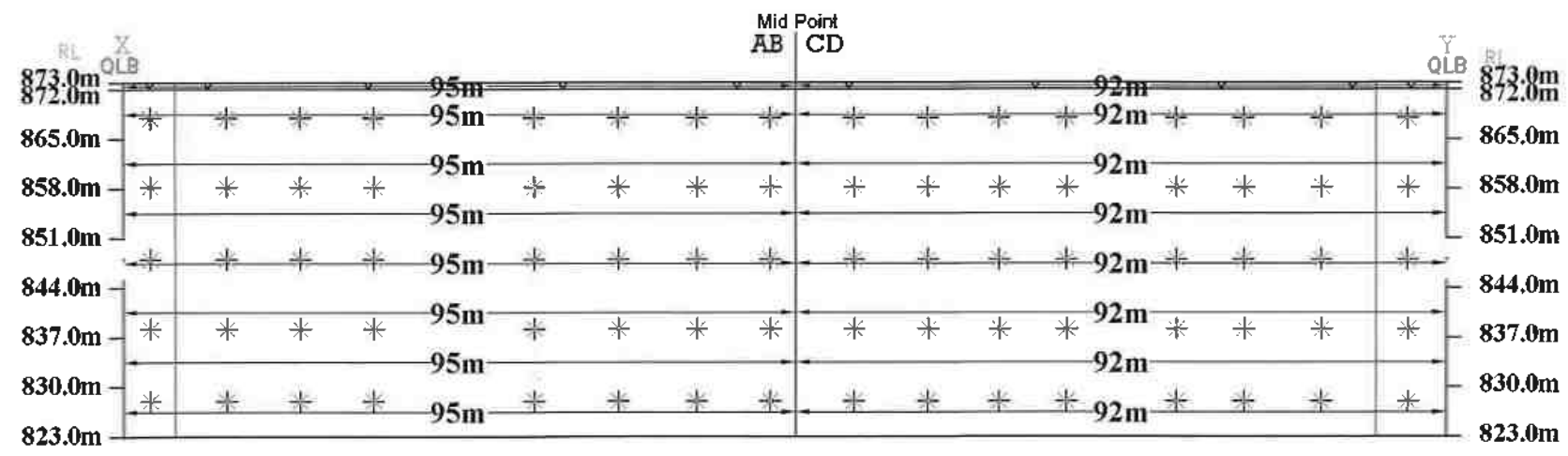


PILLAR NO	LATITUDE	LONGITUDE
1	12° 37' 19.5633" N	77° 48' 54.2857" E
2	12° 37' 19.7733" N	77° 48' 53.4778" E
3	12° 37' 22.1223" N	77° 48' 53.1561" E
4	12° 37' 23.5847" N	77° 48' 49.2256" E
5	12° 37' 24.6716" N	77° 48' 49.3862" E
6	12° 37' 26.3788" N	77° 48' 50.1416" E
7	12° 37' 25.9249" N	77° 48' 56.4872" E

M. Ramamoorthy
P. Muthappa



SECTION ALONG WITH X-Y



TOTAL DEPTH = 50m

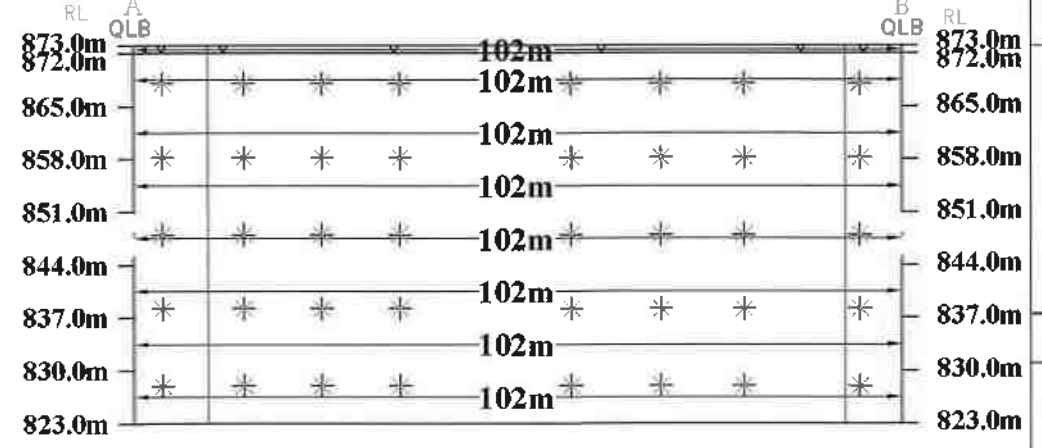
PLATE NO:III-A

DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:

M/S. R.V.ENTERPRISES,
PARTNER M.RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16,MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 110.

SECTION ALONG WITH A-B



GEOLOGICAL RESERVES								
Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In m ³	Geological Roughstone Reserves in m ³ @ 95%	Mine waste in m ³ @ 5%	Top Soil in m ³
XY-AB	I	95	102	1				9690
	II	95	102	7	67830	64439	3391	
	III	95	102	7	67830	64439	3391	
	IV	95	102	7	67830	64439	3391	
	V	95	102	7	67830	64439	3391	
	VI	95	102	7	67830	64439	3391	
	VII	95	102	7	67830	64439	3391	
	VIII	95	102	7	67830	64439	3391	
TOTAL					474810	451073	23737	9690
XY-CD	I	92	149	1				13708
	II	92	149	7	95956	91158	4798	
	III	92	149	7	95956	91158	4798	
	IV	92	149	7	95956	91158	4798	
	V	92	149	7	95956	91158	4798	
	VI	92	149	7	95956	91158	4798	
	VII	92	149	7	95956	91158	4798	
	VIII	92	149	7	95956	91158	4798	
TOTAL					671692	638106	33586	13708
GRAND TOTAL					1146502	1089179	57323	23398

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL V V V
- ROUGH STONE * * *

LOCATION OF QUARRY

EXTENT : 2.40.0 Ha
S.F.NO : 232/2(PART)
VILLAGE : MUGALUR
TALUK : SHOOLAGIRI
DISTRICT : KRISHNAGIRI

GEOLOGICAL SECTIONS

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S. Dhanasekar
S.DHANASEKAR,M.Sc.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/225/2011/A

M. Ramamurthy
R. Muthappa



PLATE NO:IV
 DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:
 M/S. R.V. ENTERPRISES,
 PARTNER M.RAMAMOORTHY,
 S/o. MUTHAPPA,
 No.1/16, MACHINAYAKANAPALLI VILLAGE,
 PANCHAKSHIPURAM POST,
 HOSUR TALUK,
 KRISHNAGIRI DISTRICT-635 110.

INDEX

QUARRY LEASE BOUNDARY	
7.5m & 10.0m SAFETY DISTANCE	
TEMPORARY BENCH MARK	
BOUNDARY PILLARS	
TOP SOIL	
ROUGH STONE	
QUARRY ROAD	
PROPOSED DUMP	

LOCATION OF QUARRY

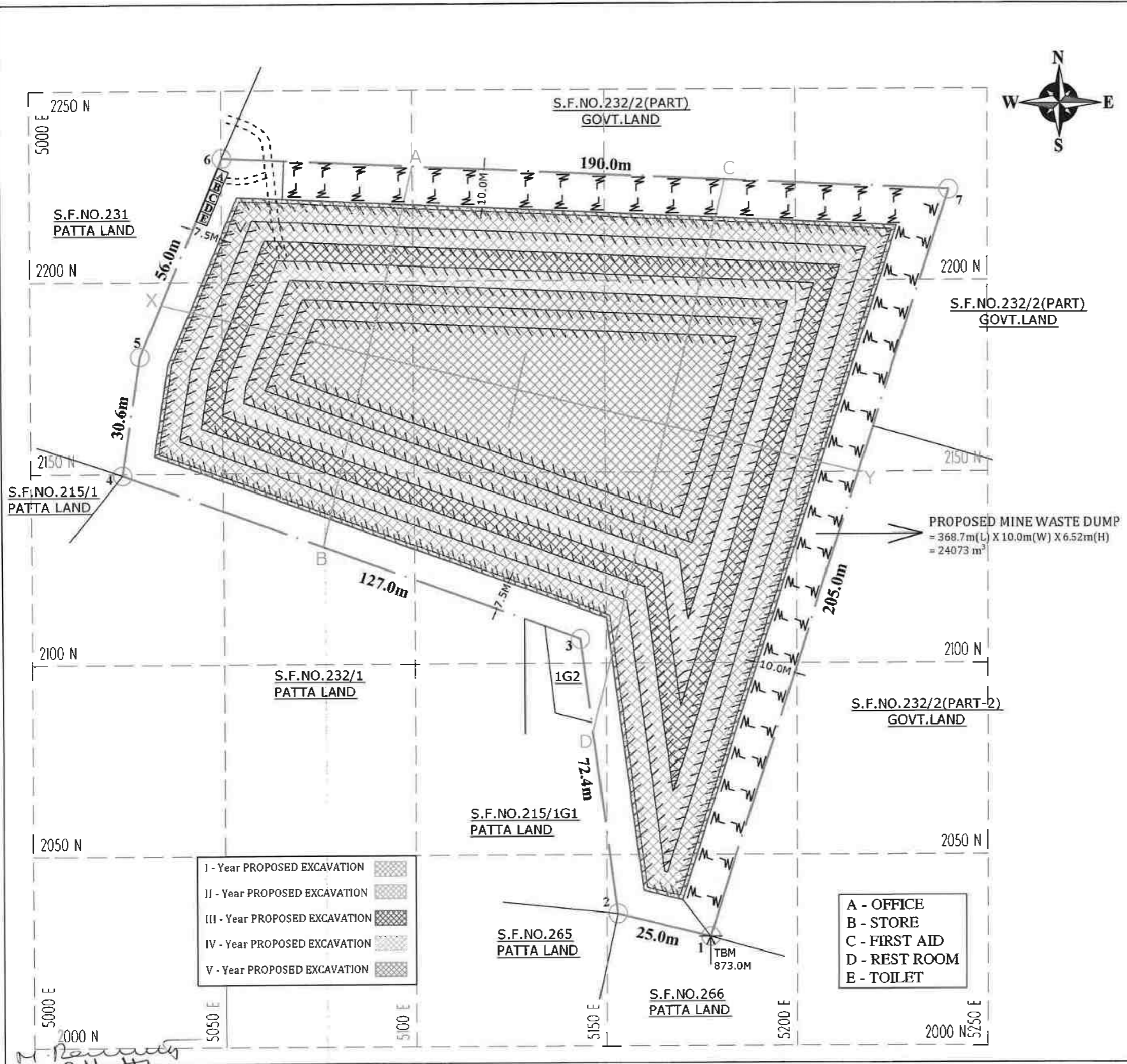
EXTENT : 2.40.0 Ha
 S.F.NO : 232/2(PART)
 VILLAGE : MUGALUR
 TALUK : SHOOLAGIRI
 DISTRICT : KRISHNAGIRI

YEARWISE DEVELOPMENT AND PRODUCTION PLAN

SCALE: 1:1000

PREPARED BY:
 I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

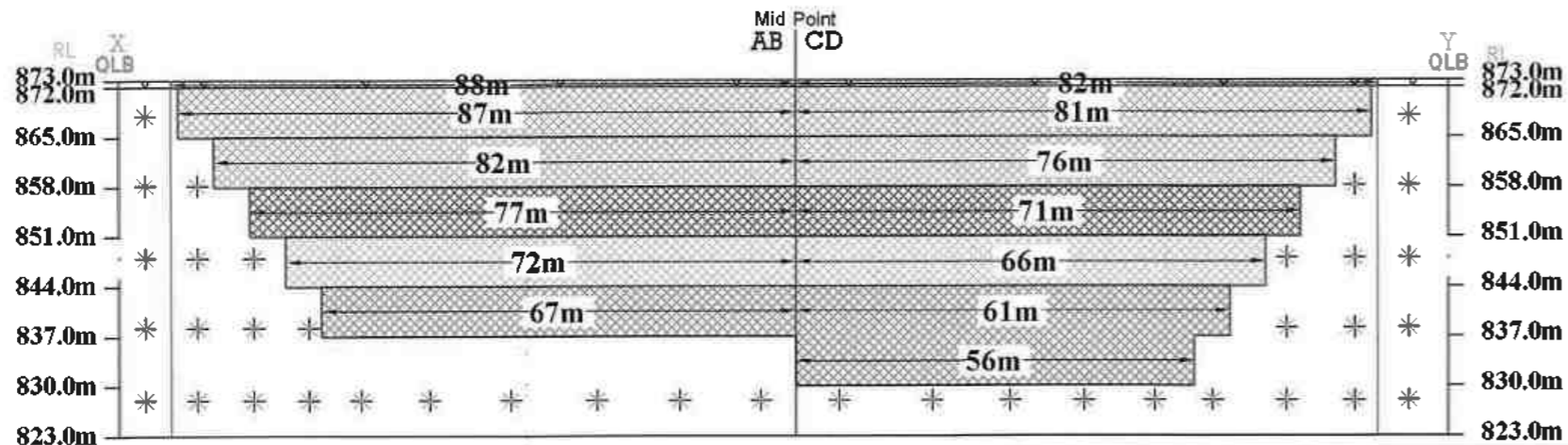
S.DHANASEKAR, M.Sc.,
 RECOGNIZED QUALIFIED PERSON
 RQP/MAS/225/2011/A



M. Ramamoorthy
R. Muthappa



SECTION ALONG WITH X-Y



TOTAL DEPTH = 43m

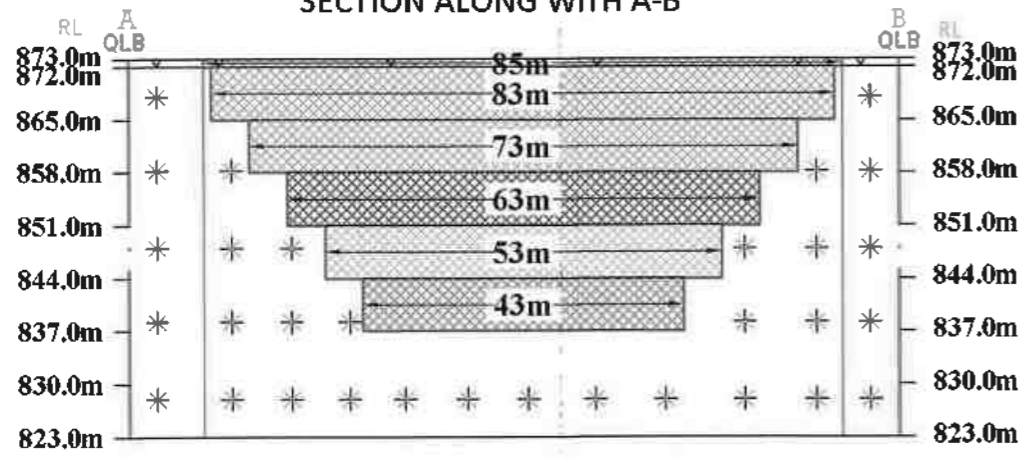
PLATE NO:IV-A

DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:

M/S. R.V.ENTERPRISES,
PARTNER M.RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16,MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 110.

SECTION ALONG WITH A-B



YEARWISE DEVELOPMENT AND PRODUCTION RESERVES

YEAR	Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In MB	RESERVES in m ³ @ 95%	Mire waste in m ³ @ 5%	Top Soil in m ³	
I-YEAR	XY - AB	I	88	85	1				7480	
		II	87	83	7	50547	48020	2527		
	XY - CD	I	82	132	1				10824	
		II	81	130	7	73710	70025	3685		
TOTAL						124257	118045	6212	18304	
II-YEAR	XY - AB	III	82	73	7	41902	39807	2095		
		III	76	120	7	63840	60648	3192		
	TOTAL						105742	100455	5287	
	III-YEAR	XY - AB	IV	77	63	7	33957	32259	1698	
IV			71	110	7	54670	51937	2733		
TOTAL						88627	84196	4431		
IV-YEAR		XY - AB	V	72	53	7	26712	25376	1336	
	V		66	100	7	46200	43890	2310		
	TOTAL						72912	69266	3646	
	V-YEAR	XY - AB	VI	67	43	7	20167	19159	1008	
VI			61	90	7	38430	36509	1921		
XY - CD		VII	56	80	7	31360	29792	1568		
		TOTAL						89957	85460	4497
GRAND TOTAL						481495	457422	24073	18304	

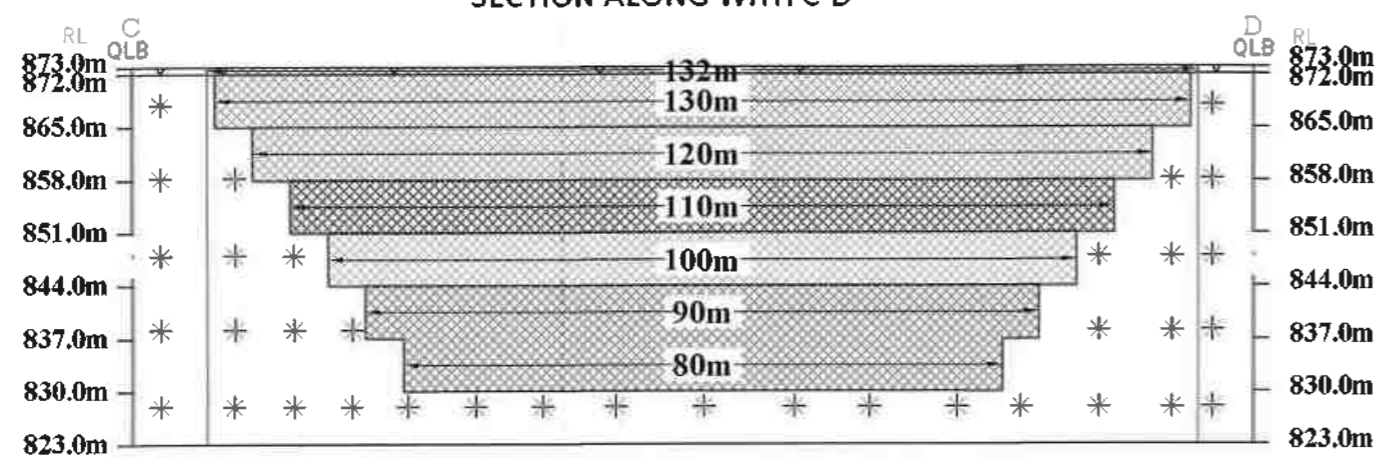
INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL
- ROUGH STONE

LOCATION OF QUARRY

EXTENT : 2.40.0 Ha
S.F.NO : 232/2(PART)
VILLAGE : MUGALUR
TALUK : SHOOLAGIRI
DISTRICT : KRISHNAGIRI

SECTION ALONG WITH C-D



- I - Year PROPOSED EXCAVATION
- II - Year PROPOSED EXCAVATION
- III - Year PROPOSED EXCAVATION
- IV - Year PROPOSED EXCAVATION
- V - Year PROPOSED EXCAVATION

YEARWISE DEVELOPMENT AND PRODUCTION SECTIONS

SCALE: 1:1000

PREPARED BY:

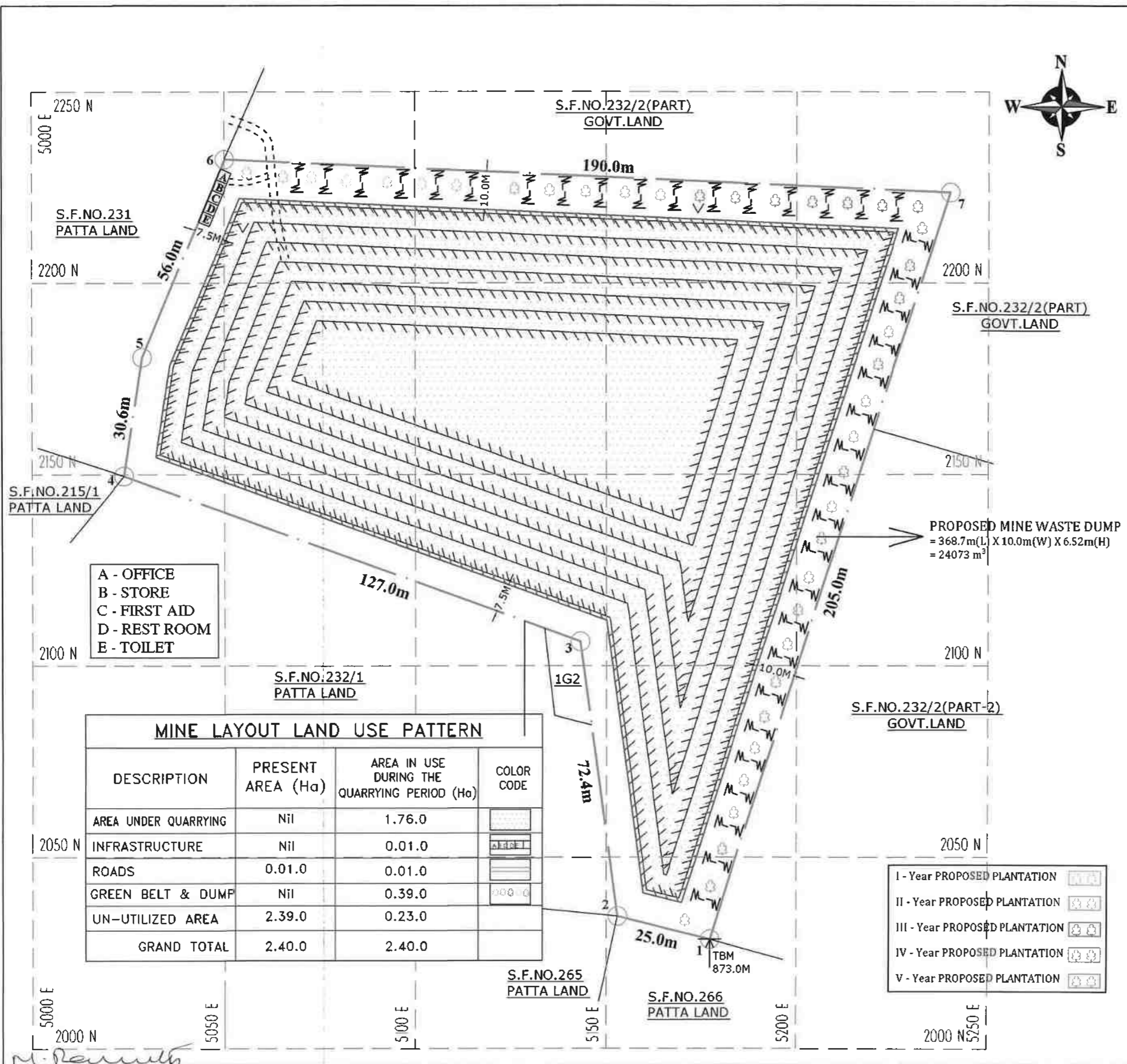
I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR.M.Sc.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/225/2011/A

M. Ramamoorthy
R. Muthappa



PLATE NO:V
 DATE OF SURVEY: 24-06-2019
 APPLICANT ADDRESS:
 M/S. R.V.ENTERPRISES,
 PARTNER M.RAMAMOORTHY,
 S/o. MUTHAPPA,
 No.1/16,MACHINAYAKANAPALLI VILLAGE,
 PANCHAKSHIPURAM POST,
 HOSUR TALUK,
 KRISHNAGIRI DISTRICT-635 110.



- A - OFFICE
- B - STORE
- C - FIRST AID
- D - REST ROOM
- E - TOILET

MINE LAYOUT LAND USE PATTERN			
DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	Nil	1.76.0	[Pattern]
INFRASTRUCTURE	Nil	0.01.0	[Pattern]
ROADS	0.01.0	0.01.0	[Pattern]
GREEN BELT & DUMP	Nil	0.39.0	[Pattern]
UN-UTILIZED AREA	2.39.0	0.23.0	[Pattern]
GRAND TOTAL	2.40.0	2.40.0	

- I - Year PROPOSED PLANTATION [Pattern]
- II - Year PROPOSED PLANTATION [Pattern]
- III - Year PROPOSED PLANTATION [Pattern]
- IV - Year PROPOSED PLANTATION [Pattern]
- V - Year PROPOSED PLANTATION [Pattern]

INDEX	
QUARRY LEASE BOUNDARY	[Symbol]
7.5m & 10.0m SAFETY DISTANCE	[Symbol]
TEMPORARY BENCH MARK	[Symbol]
BOUNDARY PILLARS	[Symbol]
TOP SOIL	[Symbol]
ROUGH STONE	[Symbol]
QUARRY ROAD	[Symbol]
PROPOSED DUMP	[Symbol]
MINE LAYOUT	[Symbol]

LOCATION OF QUARRY

EXTENT : 2.40.0 Ha
 S.F.NO : 232/2(PART)
 VILLAGE : MUGALUR
 TALUK : SHOOLAGIRI
 DISTRICT : KRISHNAGIRI

MINE LAYOUT, LAND USE PATTERN & AFFORESTATION PLAN

SCALE: 1:1000

PREPARED BY:
 I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE
 S.DHANASEKAR,M.Sc.,
 RECOGNIZED QUALIFIED PERSON
 RQP/MAS/225/2011/A

M. Ramamoorthy
 R. Muthappa

12° 37' 26.3788" N
77° 48' 50.1416" E



PLATE NO: VI

DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS

M/S. R.V.ENTERPRISES,
PARTNER M.RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16,MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 110.

INDEX

Q.L.BOUNDARY	
500m RADIUS	
300m RADIUS	
60M RADIUS	
TREES	
CART TRACK	
QUARRY ROAD	
WIND DIRECTION	
INFRASTRUCTURES	
DRY AGRICULTURAL LAND	
SHRUB	
ADJACENT QUARRY	
CRUSHER UNIT	

LOCATION OF QUARRY:

EXTENT : 2.40.0 Ha
S.F.NO : 232/2(PART)
VILLAGE : MUGALUR
TALUK : SHOOLAGIRI
DISTRICT : KRISHNAGIRI

ENVIRONMENT PLAN

SCALE- 1:5000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/225/2011/A

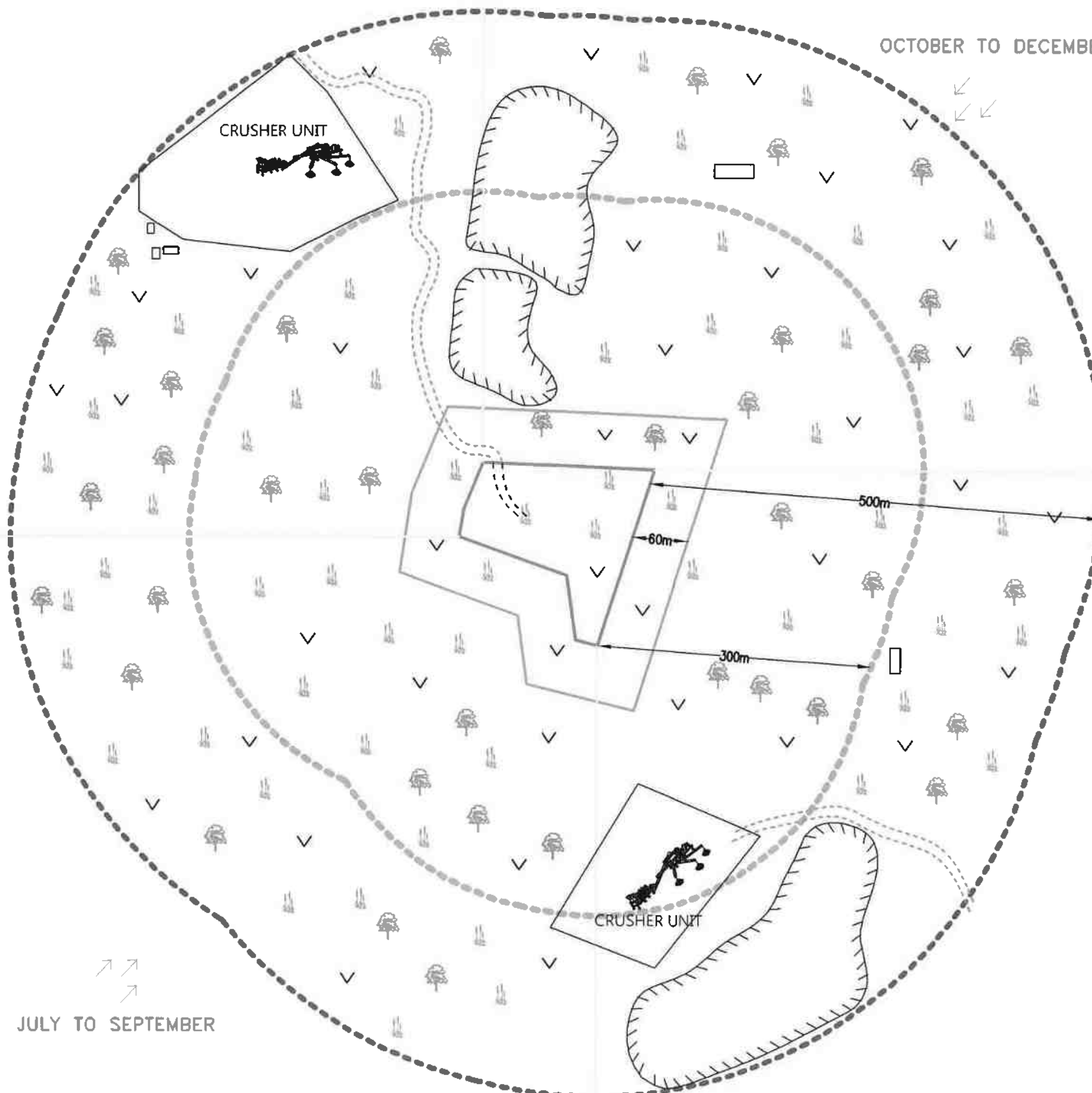
12° 37' 23.5847" N
77° 48' 49.2256" E

12° 37' 25.9249" N
77° 48' 56.4872" E

12° 37' 19.5633" N
77° 48' 54.2857" E

JULY TO SEPTEMBER

OCTOBER TO DECEMBER



M. Ramamoorthy
R. Muthappa

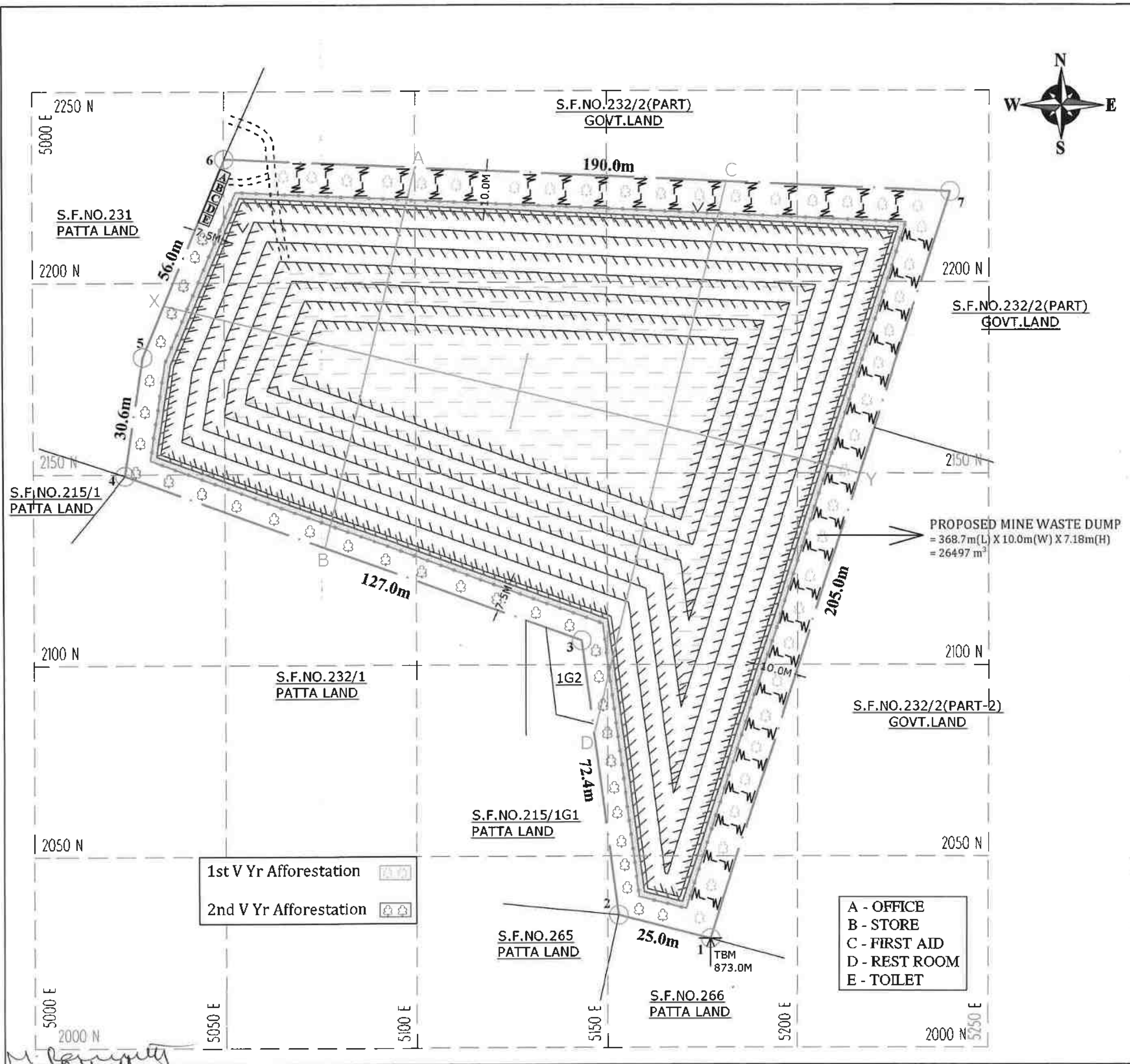


PLATE NO:VII
 DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:
 M/S. R.V.ENTERPRISES,
 PARTNER M.RAMAMOORTHY
 S/o. MUTHAPPA,
 No.1/16,MACHINAYAKANAPALLI VILLAGE,
 PANCHAKSHIPURAM POST,
 HOSUR TALUK,
 KRISHNAGIRI DISTRICT-635 110.



INDEX

QUARRY LEASE BOUNDARY	
7.5m & 10.0m SAFETY DISTANCE	
TEMPORARY BENCH MARK	
TOP SOIL	
ROUGH STONE	
QUARRY ROAD	
PROPOSED DUMP	
FENCING	
PARAPET WALL	
ULTIMATE PIT LIMIT	
PROPOSED WATER STORAGE	

LOCATION OF QUARRY

EXTENT	: 2.40.0 Ha
S.F.NO	: 232/2(PART)
VILLAGE	: MUGALUR
TALUK	: SHOOLAGIRI
DISTRICT	: KRISHNAGIRI

CONCEPTUAL / FINAL MINE CLOSURE PLAN

SCALE: 1:1000

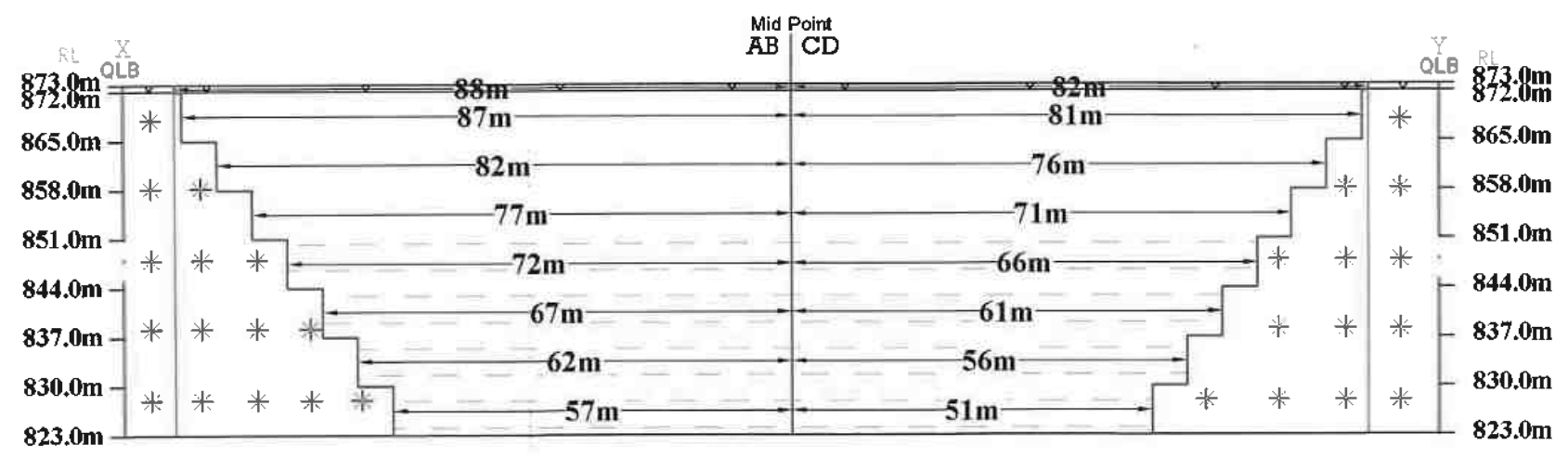
PREPARED BY:
 I DO HEREBY CERTIFY THAT THE PLATE
 HAS BEEN CHECKED BY ME AND IS CORRECT
 TO THE BEST OF MY KNOWLEDGE

S.DHANASEKAR,M.Sc.,
 RECOGNIZED QUALIFIED PERSON
 RQP/MAS/225/2011/A

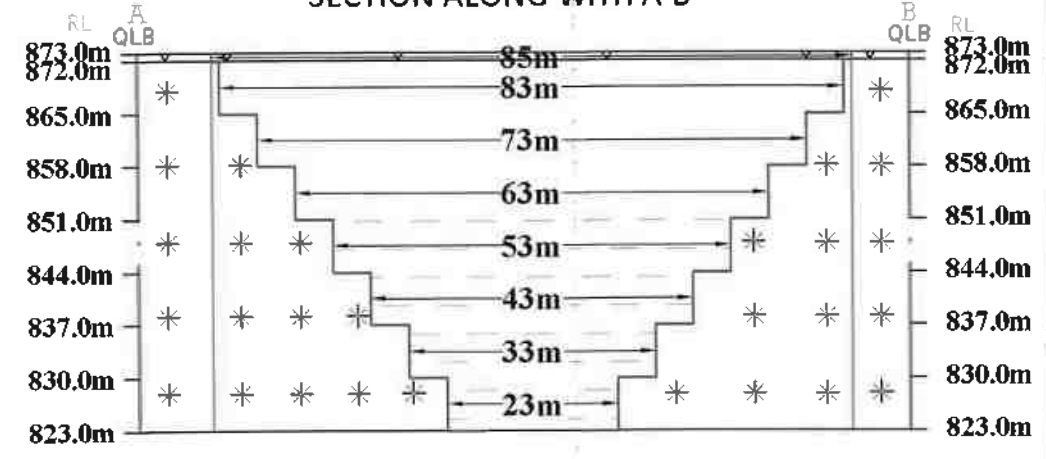


TOTAL DEPTH = 50m

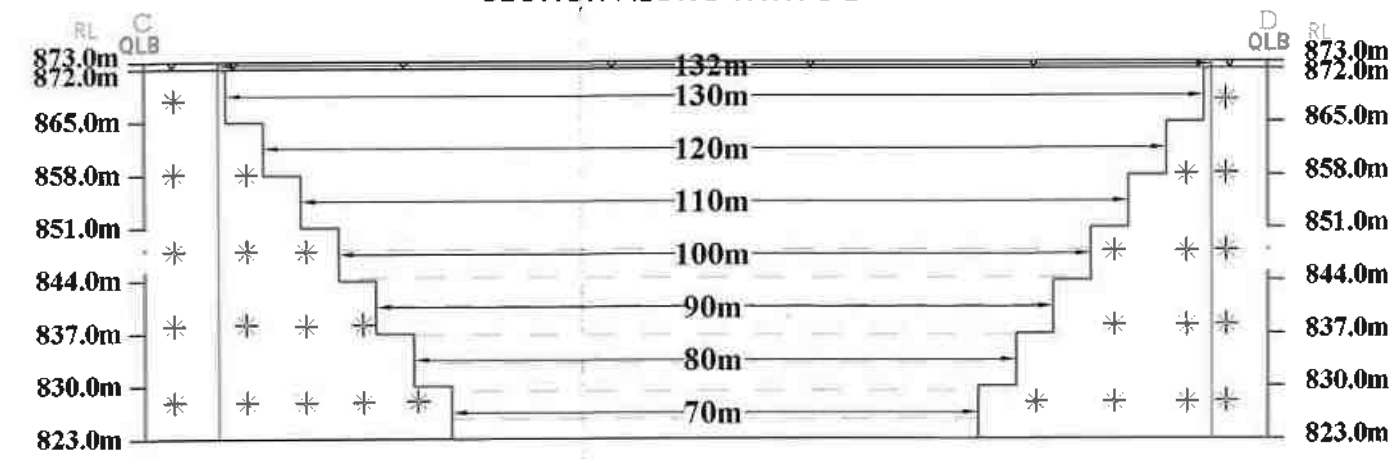
SECTION ALONG WITH X-Y



SECTION ALONG WITH A-B



SECTION ALONG WITH C-D



MINEABLE RESERVES

Section	Bench	Length in (m)	Width in (m)	Depth in (m)	Volume In m ³	Mineable Roughstone Reserves in m ³ @ 95%	Mine waste in m ³ @ 5%	Top Soil in m ³
XY-AB	I	88	85	1				7480
	II	87	83	7	50547	48020	2527	
	III	82	73	7	41902	39807	2095	
	IV	77	63	7	33957	32259	1698	
	V	72	53	7	26712	25376	1336	
	VI	67	43	7	20167	19159	1008	
	VII	62	33	7	14322	13606	716	
	VIII	57	23	7	9177	8718	459	
TOTAL					196784	186945	9839	7480
XY-CD	I	82	132	1				10824
	II	81	130	7	73710	70025	3685	
	III	76	120	7	63840	60648	3192	
	IV	71	110	7	54670	51937	2733	
	V	66	100	7	46200	43890	2310	
	VI	61	90	7	38430	36509	1921	
	VII	56	80	7	31360	29792	1568	
	VIII	51	70	7	24990	23741	1249	
TOTAL					333200	316542	16658	10824
GRAND TOTAL					529984	503487	26497	18304

ULTIMATE PIT DIMENSION = 170.0m(L) X 108.0m(W)(AVG) X 50.0m(D)

PLATE NO:VII-A

DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:

M/S. R.V. ENTERPRISES,
PARTNER M.RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16,MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 110.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TOP SOIL
- ROUGH STONE
- ULTIMATE PIT SLOPE
- PROPOSED WATER STORAGE

LOCATION OF QUARRY

EXTENT : 2.40.0 Ha
S.F.NO : 232/2(PART)
VILLAGE : MUGALUR
TALUK : SHOOLAGIRI
DISTRICT : KRISHNAGIRI

CONCEPTUAL / FINAL MINE CLOSURE SECTIONS

SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S. Dhanasekar

S.DHANASEKAR,M.Sc.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/225/2011/A

M. Ramamoorthy
R. Muthappa



PLATE NO:VIII

DATE OF SURVEY: 24-06-2019

APPLICANT ADDRESS:

M/S. R.V.ENTERPRISES,
PARTNER M.RAMAMOORTHY,
S/o. MUTHAPPA,
No.1/16,MACHINAYAKANAPALLI VILLAGE,
PANCHAKSHIPURAM POST,
HOSUR TALUK,
KRISHNAGIRI DISTRICT-635 110.

INDEX

- QUARRY LEASE BOUNDARY
- 7.5m & 10.0m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- BOUNDARY PILLARS
- TOP SOIL
- ROUGH STONE
- QUARRY ROAD
- PROPOSED DUMP
- MINE LAYOUT

LOCATION OF QUARRY

EXTENT : 2.40.0 Ha
S.F.NO : 232/2(PART)
VILLAGE : MUGALUR
TALUK : SHOOLAGIRI
DISTRICT : KRISHNAGIRI.

PROGRESSIVE MINE CLOSURE PLAN

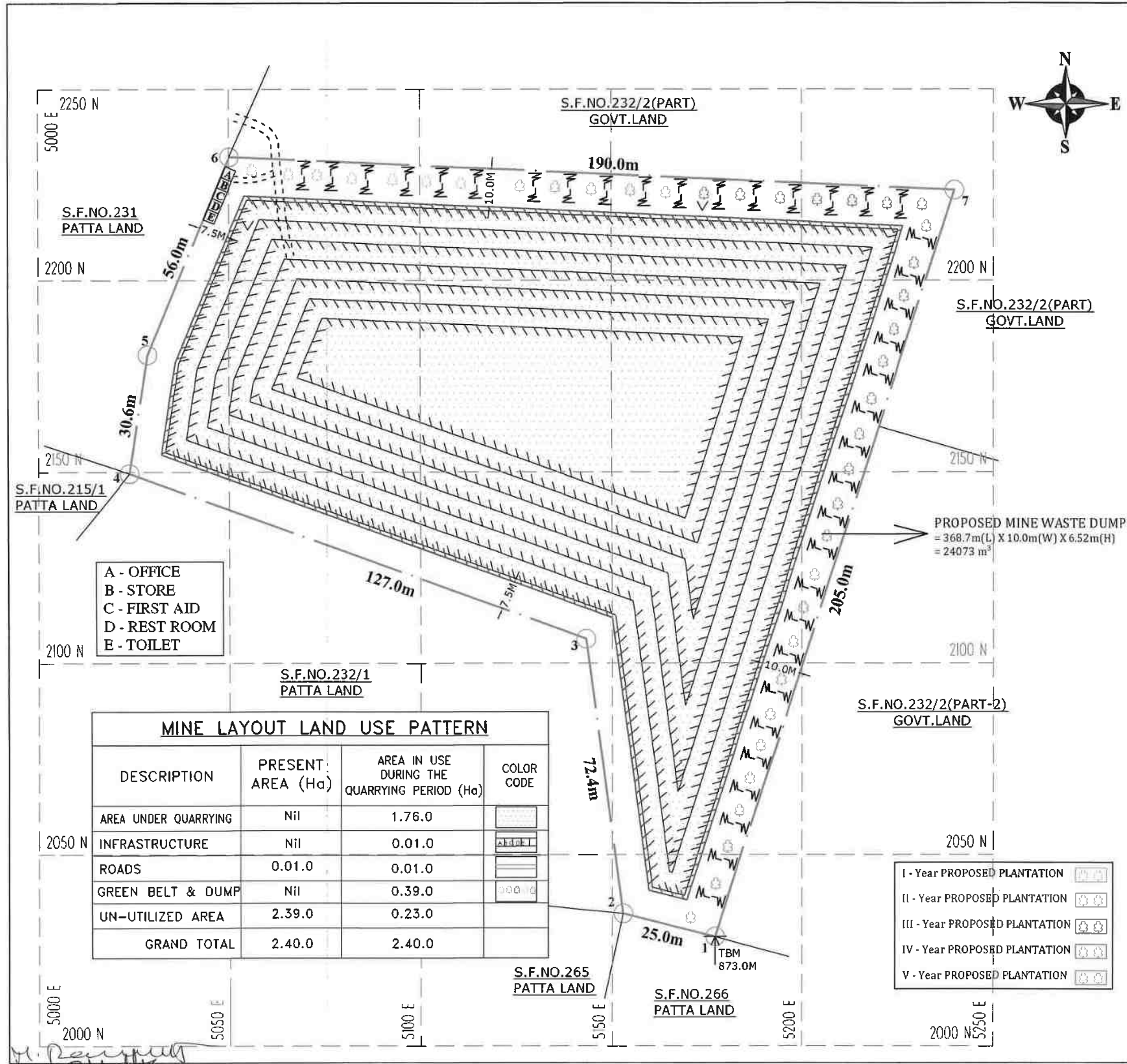
SCALE: 1:1000

PREPARED BY:

I DO HEREBY CERTIFY THAT THE PLATE HAS BEEN CHECKED BY ME AND IS CORRECT TO THE BEST OF MY KNOWLEDGE

S. Dhanasekar

S.DHANASEKAR.M.Sc.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/225/2011/A



- A - OFFICE
- B - STORE
- C - FIRST AID
- D - REST ROOM
- E - TOILET

MINE LAYOUT LAND USE PATTERN

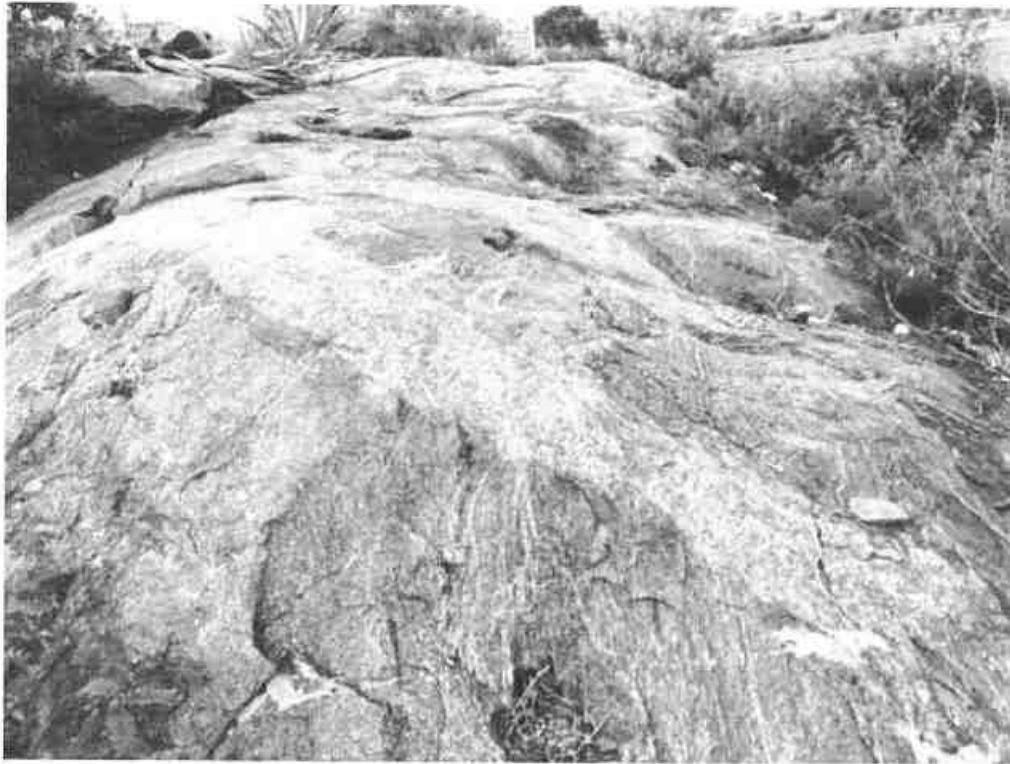
DESCRIPTION	PRESENT AREA (Ha)	AREA IN USE DURING THE QUARRYING PERIOD (Ha)	COLOR CODE
AREA UNDER QUARRYING	Nil	1.76.0	
INFRASTRUCTURE	Nil	0.01.0	
ROADS	0.01.0	0.01.0	
GREEN BELT & DUMP	Nil	0.39.0	
UN-UTILIZED AREA	2.39.0	0.23.0	
GRAND TOTAL	2.40.0	2.40.0	

- I - Year PROPOSED PLANTATION
- II - Year PROPOSED PLANTATION
- III - Year PROPOSED PLANTATION
- IV - Year PROPOSED PLANTATION
- V - Year PROPOSED PLANTATION

ANNEXURE-VII
VAO CERTIFICATE

Thiru. R.V. ENTERPRISES, Roughstone quarry in the S.F.No.232/2(Part) over an extent of 2.40.0ha. in Mugalur Village, Shoolagiri Taluk, Krishnagiri District.

GENERAL VIEW OF THE QUARRY LEASE AREA



For M/s. R.V. Enterprises,

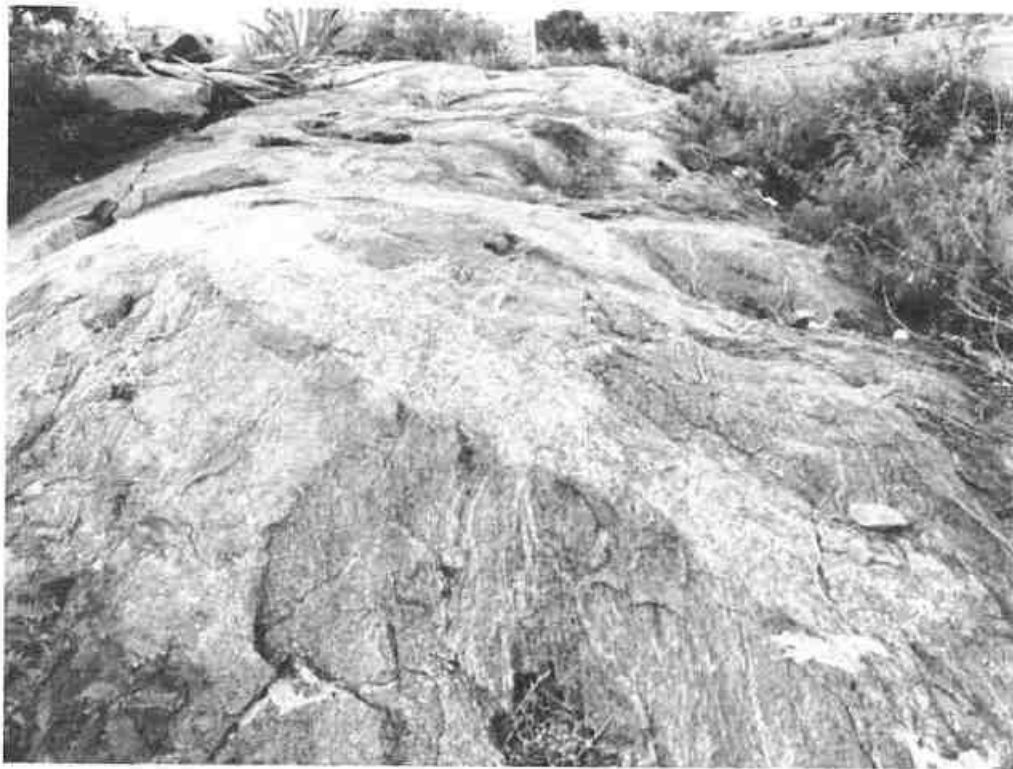
M. Nammy
P. Vythty
(Deponent)

Reference only |

[Signature]
Village Administrative Officer
(VAO) Mugalur Village, 1/22
Hosur Taluk

Thiru. R.V. ENTERPRISES, Roughstone quarry in the S.F.No.232/2(Part) over an extent of 2.40.0ha. in Mugalur Village, Shoolagiri Taluk, Krishnagiri District.

GENERAL VIEW OF THE QUARRY LEASE AREA



For M/s. R.V. Enterprises,

M. Ramamurthy
R. Vignesh
(Deponent)

Reference only

Shrinivas
Village Administrative Officer
(VAO) of Village
- Hosur Taluk

சீர்திரு
கிழங்குகள் டாண்டி, டீக்காண்டி,

மத்திய ரீதி அட்டம், 84. சீக்காண்டி

கிராம ஹாண்டி : 292 / 2 பரப்பளவு 15.86.5

Here தீர்வை அறிவிக்கப்படுகிறது தரிக் -ல்
R.V. Enterprises ஹாண்டி AC. 04.85

Cents-ல் Quarry Lease Area-விற்கு

E.C வழங்கி அளிக்கப்படுகிறது ஹாண்டி-விற்கு

அல்லது இது ஹாண்டி-விற்கு தரிக் கோரிக்கையாக,

இருக்கக்கூடிய பங்குகளாக, வழியாக 106 தீர்வைகளை,

ஹாண்டி சீர்திருத்த கோரி, பங்குகள் பட்டிகளாக,

கிராம ஹாண்டி-விற்கு இலாபம் ஹாண்டி-விற்கு

ஒத்தியலாகிறது.


Village Administrative Officer
84, Mugalur Village
Hosur Taluk

ANNEXURE-VIII BLASTING AGREEMENT



VISHNU EXPLOSIVES



No.235/9, R.G. Nagar Engineer's Colony Extension, Jagir Reddipatty, Salem - 636 302.

Ref: To

Date : 17.02.2022

M/s. R.V. Enterprises,
Partner M. Ramamoorthy,
No.1/16, Machinayakanapalli Village,
Panchakshipuram Post,
Hosur Taluk,
Krishnagiri - 635 110.

Sir,

Sub: Willingness to do Explosives Blasting Works - Reg.

With respect to the above subject, we would like to introduce myself as the Explosives Blasting Contractors, for which our LICENCE NO: E/HQ/TN/22/335(E64278) & E/SC/TN/22/463(E37227) S.F.No.344/3B, Paiyur Village, Krishnagiri Taluk magazine is situated in No.273-A, Keel Paiyur Village, Kaveripattinam, Krishnagiri, Tamilnadu-635 112.

We were engaged in professional blasting contract works with all facilities and License holders to carry out blasting works in specified time and period covered under Explosives Rules, 2008.

We kindly request yourself to engage us to do Explosives Blasting Works in your proposed Rough stone Quarry situated at S.F.No:232/2(P) in Mugalur Village, Shoolagiri Taluk, Krishnagiri District over an extent of 2.40.0 hectares.

SERVING BEST AT ALL TIMES

Thanking you.

For VISHNU EXPLOSIVES,
For VISHNU EXPLOSIVES

G. R. S. S. S. S. S.
Proprietor

Enclosure: Magazine License Copy.

**ANNEXURE-IX AFFIDAVIT AND CER
DETAILS**



தமிழ்நாடு தமில்நாடு TAMILNADU 19.3.2022 / ரூ.50 BD 280434

M/s. R.V. Enterprises
Krishnagiri

M. Ramamoorthy
முத்திரைத்தாள் பிழைப்பாளர்
உரிமம் எண். 1/2003
கும்பமணிய நகர் விரிவாக்கம்.
கரமங்கலம், சேலம்-5, தமிழ்நாடு



AFFIDAVIT TO SEIAA, TAMIL NADU

M/s. R.V. Enterprises, Partner: M.Ramamoorthy, residing at No.1/16, Machinayakanapalli Village, Panchakshipuram Post, Krishnagiri District do hereby solemnly declare and sincerely affirm that, I have applied for getting environment clearance to SEIAA, Tamil Nadu for quarry lease for Rough Stone quarry at Survey No.232/2 (Part) over an area of 2.40.0 Ha in Mugalur village, Hosur (formerly Shoolagiri) Taluk, Krishnagiri District, Tamil Nadu.

1. I swear to state and confirm that within 10km area of the quarry site, i have applied for environmental clearance, none of the following is situated
 - a. Protected areas notified under the wild life (Protection) Act, 1972 (NBWL).
 - b. Critically polluted areas as notified by the central pollution control board constituted under water (Prevention and control of Pollution) Act 1974.
 - c. Eco sensitive area as notified.
 - d. Interstate boundaries and international boundaries within 10km radius from the boundary of the proposed site.



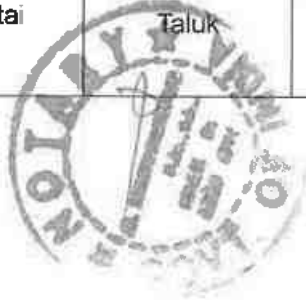
M. Ramamoorthy
& P. Upthay

2. I will complete the following Corporate Environment Responsibility (CER) activities before commencement of the quarrying activities.

CER Activity	Project cost (Rs)	CER cost (Rs)
Carrying out various developmental works in the nearby region based on the need of the locals.	Rs.1,44,60,000/-	Rs.5,00,000/-
Total cost Allocation	Rs.1,44,60,000/-	Rs.5,00,000/-

3. Details of quarry within 500m radius from the applied area:

S. No	Name and address of the lessee	Village & Taluk.	Minerals	SF.No	Extent in Hectare	G.O. No. & date	Lease Status
Existing Quarries							
1	Thiru. P. Nagaraja Reddy, S/o.Pappi Reddy, No.2/32, Balageri village, Mudhuganapalli post,Hosur Taluk, Krishnagiri.	Hosapuram Village & Denkanikottai Taluk	Rough Stone	457/(P-1)	2.00.0 Ha.	Roc.No.111/2016/ Mines dt:08.08.2016	17.08.2016 to 16.08.2026
2	Thiru.P.Venkata Reddy, S/o.Pedha Obul Reddy,No.3/213, Periya Kodipalli Village,Kempatt, Muthur Post, Denkanikottai Taluk, Krishnagiri District.	Hosapuram Village & Denkanikottai Taluk	Rough Stone	457/(P-2)	3.70.0 Ha.	Roc.No.112/2016/ Mines dt:26.02.2020	26.02.2020 to 25.02.2030
3	Thiru.C.Venkatadri, Pothachadiram Village, Kundumaranapalli Post, Denkanikottai Taluk,Krishnagiri District.	Mugalur Village & Denkanikottai Taluk	Rough Stone	257/1A, 257/2A, 257/2B(P) 272/1A(P)	0.39.8 0.04.45 0.97.0 0.90.5 2.31.75 Ha	Roc.No.402/2017/ Mines dt:04.06.2018	13.06.2018 to 12.06.2023



M. Ramesh
& R. Upathy.

Abandoned/ old Quarries						
S. No	Name and address of the lessee	Village & Taluk	SF.No.	Extent in Hectare	G.O. No. & date	Lease Status
1	Thiru M.R. Sivalingappa, S/o Ramaiha, Perandapalli village & post, Hosur Taluk, Krishnagiri District.	Mugalur Village Hosur	270 (Part)	5.00.0 Ha.	Roc.No.110/2008/ Mines-2 dt:26.03.2008	04.09.2008 To 03.09.2018
2	Thiru. Annaiya Reddy, S/o Venkata Reddy, No.40, shakambri Layout, Anekal Road, Attibele, Anekal Taluk, Krishnagiri district.	Mugalur Village Hosur	231/4e1	0.81.0 Ha.	Roc.No.175/2010/ Mines-2 dt:25.12.2010	31.01.2011 To 30.01.2016

S. No	Name and address of the lessee	Village & Taluk	SF.No.	Extent in Hectare	G.O. No. & date	Lease Status
1	Thiru R.V. Enterprises, Partner. M.Ramamoorthy, S/o Muthappa, D.No.1/16, Masinayanapalli Village, Panchachipuram Post, Hosur Taluk, Krishnagiri District.	Mugalur Village Shoolagiri	232/2 (Part)	2.40.0 Ha.	Roc.No.220/2019/ Mines-2 dt:13.06.2019	Precise area given Instant Proposal

Proposed Quarries						
S. No	Name and address of the lessee	Village & Taluk	SF.No.	Extent in Hectare	G.O. No. & date	Lease Status
-Nil-						



M. Ramulu
& P. Upplu

4. There will not be hindrance or disturbance to the people living no enrooted/ nearby my quarry site while transporting the mineral and due to quarrying activities.
5. There is no approved habitation within 300m radius from the periphery of my applied quarry.
6. I swear that afforestation will be carried out during the course of quarrying operation and maintained.
7. The required insurance will be taken in the name of the laborers working in my quarry site.
8. The existing road from the main road to quarry is in good condition and the same will be maintained and utilized for Transportation of Rough Stone.
9. I will not engage any child labor in my quarry site and I am aware that engaging child labor is punishable under the law.
10. All types of safety / protective equipment will be provided to all the laborers working in my quarry.
11. No permanent structures, temple etc., are located within 500m radius from the periphery of my quarry.

I ensure to do the social and Environment commitment as mentioned in the Mining plan to the best of my knowledge.

For M/s. R.V Enterprises,

R. Ramesh
R. Ramesh
(Deponent)



S. Saravanakumar
30/4/2022
Cell:(0)9443286345
M.SARAVANAKUMAR.S.SC.,B.L.
ADVOCATE & NOTARY,
(GOVT. OF INDIA)
NO:11,A.V.Mansion,
1st Gate, Near Sona College,
Junction Main Road. SALEM-636 005.

ANNEXURE-X NABET CERTIFICATE



National Accreditation Board for Education and Training



Certificate of Accreditation

Eco Tech Labs Pvt Ltd.,

48, 2nd Main Road, Ram Nagar South Extension, Pallikaranai, Chennai- 600100, T.N.

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

S. No	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1	Mining of minerals - including Open cast only	1	1 (a) (i)	B
2	Thermal power plants	4	1(d)	A
3	Coal washeries	6	2 (a)	B
4	Metallurgical industries - Ferrous only	8	3 (a)	B
5	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	21	5 (f)	A
6	Airports	29	7 (a)	A
7	Industrial estates/ parks/ complexes/areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes	31	7 (c)	A
8	Building and construction projects	38	8 (a)	B
9	Townships and Area development projects	39	8 (b)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in SAAC minutes dated Apr. 20, 2021 and supplementary minutes dated Oct.19, 2021 posted on QCI-NABET website

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACO/22/2217 dated Jan. 19, 2022. The accreditation needs to be renewed before the expiry date by Eco Tech Labs Pvt. Ltd., Chennai following due process of assessment.

NABET

Sr. Director, NABET
Dated: Jan. 19, 2022

Certificate No.
NABET/EIA/2124/SA 0147

Valid up to
Sep. 15, 2023

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

