

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

(Public Hearing Upgraded after Terms of Reference (ToR) as per the provisions of  
EIA Notification 2006 & amendments thereof)

APPROVED TOR VIDE TOR IDENTIFICATION No. TO25B0108TN5921018N (FILE NO. 12354) DATED: 30.07.2025

| PROPOSED QUARRY LEASE DETAILS                                                           |                                      |
|-----------------------------------------------------------------------------------------|--------------------------------------|
| SURVEY NOS                                                                              | 10/1 (BLOCK-1)                       |
| VILLAGE                                                                                 | PADALUR (EAST)                       |
| TALUK                                                                                   | ALATHUR                              |
| DISTRICT                                                                                | PERAMBALUR                           |
| EXTENT                                                                                  | 1.50.00 Ha                           |
| CLUSTER EXTENT                                                                          | 16.03.6 Ha                           |
| MINEABLE RESERVES<br>(upto 56m (26m AGL and 30m BGL)                                    | ROUGH STONE: 3,12,605 m <sup>3</sup> |
| PROPOSED PRODUCTION QUANTITY FOR<br>FIRST FIVE YEARS (upto 56m (26m AGL<br>and 30m BGL) | ROUGH STONE: 3,12,605 m <sup>3</sup> |
| LAND                                                                                    | GOVERNMENT LAND                      |

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

Category of the Project: B1 Cluster Mining, Total Cluster Area – 16.03.6 Ha

Baseline Monitoring Period – March 2025 – May 2025

## APPLICANT

**THIRU. R. RAJKUMAR,**

S/o. Rajaram, No.4C, 4th Floor,

Sivam Sri Madhav, Kuttimani Nagar, Pichandar Kovil,

Trichy-621 216

| ENVIRONMENTAL CONSULTANT                                                                                                                                                                                                                                                                                                                                                                                          | LABORATORY                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>M/s. GLOBAL MINING SOLUTIONS</b><br>(NABET Accredited & ISO 9001 Certified Consultant)<br>Plot No. 6, S.F.No. 13/2, A2, VS City,<br>RC Chettypatty, Kottamettupatty, Omalur,<br>Salem, Tamil Nadu – 636 455.<br>NABET Accreditation No: NABET/EIA/23-26/SA 0241<br>Valid up to: 04.01.2026<br>Contact: 97502 23535 & 94446 54520<br>Email: infoglobalmining@gmail.com,<br>globalminingsolutionssalem@gmail.com | <b>M/s. SHRIENT ANALYTICAL &amp;<br/>RESEARCH LABS PRIVATE LIMITED</b><br>(NABL Accredited Testing Laboratory)<br>Valid up to: 29.09.2025<br>#416/15, Dhargas Road, Perungalathur,<br>West Tambaram, Chennai,<br>Tamil Nadu, India. |



SEPTEMBER 2025



## **AMENDMENT PAGE**

| <b>SL</b> | <b>Page No.</b> | <b>Section / Clause / Para / Line (as Applicable)</b> | <b>Date of Amendment</b> | <b>Amendment Made</b> | <b>Reasons of amendment</b> | <b>Signature of Person Authorizing Amendment</b> |
|-----------|-----------------|-------------------------------------------------------|--------------------------|-----------------------|-----------------------------|--------------------------------------------------|
| 1         |                 |                                                       |                          |                       |                             |                                                  |
| 2         |                 |                                                       |                          |                       |                             |                                                  |
| 3         |                 |                                                       |                          |                       |                             |                                                  |
| 4         |                 |                                                       |                          |                       |                             |                                                  |
| 5         |                 |                                                       |                          |                       |                             |                                                  |
| 6         |                 |                                                       |                          |                       |                             |                                                  |
| 7         |                 |                                                       |                          |                       |                             |                                                  |
| 8         |                 |                                                       |                          |                       |                             |                                                  |
| 9         |                 |                                                       |                          |                       |                             |                                                  |
| 10        |                 |                                                       |                          |                       |                             |                                                  |

## **ACKNOWLEDGEMENT**

*M/s. Global Mining Solutions, Salem is very much thankful Thiru. R. Rajkumar S/o. Rajaram, Lessee for the confidence and trust placed on the organization for carrying out Environmental Impact Assessment (EIA) study for the proposed Rough Stone quarry over a lease extent of 1.50.00 Ha., & Cluster extent of 16.03.6 Ha., located at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State and formulating the Environmental Management Plan (EMP). We also gratefully acknowledge the cooperation and assistance provided by concerned government authorities for collection of secondary information for the preparation of Draft EIA/EMP report. Our sincere thanks to the local people of Padalur (East) Village and the nearby villages for their whole hearted cooperation and constant involvement during the entire field study without which the study would not have been possible.*

*For: M/s. Global Mining Solutions*



(M. Prabu)

Managing Director

## **UNDERTAKING**

*In line with MoEF OM No. J – 11013/41/2006-IA. II (I) dated 5<sup>th</sup> October 2011, we hereby give our undertaking for owning the content and information in the EIA/EMP report submitted for EC of the proposed Rough Stone quarry over a lease extent of 1.50.00 Ha & Cluster extent of 16.03.6 Ha., located at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State.*

*For: M/s. Global Mining Solutions*



*Name: M.Manikandan*

*EIA Coordinator – Mining*



## **UNDERTAKING**

*In Line with OM no. J-11013/41/2006-IA.II (1) dated 4th Aug 2009 and its Amendments, we hereby confirm that all Terms of Reference issued by Ministry of Environment, Forest and Climate Change vide ToR Identification No. TO25B0108TN5921018N dated 30.07.2025 of Draft EIA/EMP report for the proposed Stone Quarry over a lease extent of 1.50.00 Ha., & Cluster extent of 16.03.6 Ha., located at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State for the proposed production for first five years is 56m (26m AGL and 30m BGL) 3,12,605 m<sup>3</sup> of Rough Stone, from the proposed lease area and the details has been complied in the Draft EIA/EMP report is factually correct.*

*The EIA/EMP report has been prepared by M/s. Global Mining Solutions (GMS), Salem. GMS is a NABET accredited consultant for preparation of EIA/EMP report of Mining of Minerals (Opencast only) vide certificate No. NABET/EIA/2326/IA 0110, valid till 04.01.2026.*

*For: M/s. Global Mining Solutions*

  
Name: M.Manikandan

EIA Coordinator – Mining



## National Accreditation Board for Education and Training

### Certificate of Accreditation

#### Global Mining Solutions

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

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

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

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in SAAC minutes dated May 20, 2025, 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/25/3638 dated May 30, 2025. The accreditation needs to be renewed before the expiry date Eco Chem Sales and Services, Surat following due process of assessment.

Valid up to  
January 4, 2026



Certificate No.  
NABET/EIA/23-26/SA 0241

Issue Date  
May 30, 2025

Prof (Dr) Varinder S Kanwar  
CEO - NABET

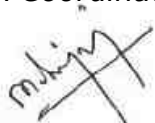
For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.

## **DECLARATION BY EXPERTS**

*Declaration by Experts contributing to the proposed Stone Quarry over a lease extent of 1.50.00 Ha. & Cluster extent of 16.03.6 Ha in Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State.*

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

*EIA Coordinator Name: M. Manikandan*



*Signature & Date*

*Period of involvement: March 2025 to May 2025.*

### **Contact information:**

**M/s Global Mining Solutions**

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

**Kottamettupatty, Omalur,**

**Salem, Tamil Nadu – 636 455.**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

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

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

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

## **EIA CONTENT**

| <b>CHAPTER NO</b> | <b>TITLE</b>                                                                            | <b>PAGE NO</b> |
|-------------------|-----------------------------------------------------------------------------------------|----------------|
| <b>1</b>          | <b>INTRODUCTION</b>                                                                     | <b>48</b>      |
| 1.1               | PURPOSE OF THE REPORT                                                                   | 48             |
| 1.2               | IDENTIFICATION OF PROJECT AND PROJECT PROPONENT                                         | 51             |
| 1.3               | BRIEF DESCRIPTION OF THE PROJECT                                                        | 51             |
| 1.4               | IMPORTANCE OF THE PROJECT TO THE REGION                                                 | 54             |
| 1.5               | REGULATORY COMPLIANCES                                                                  | 54             |
| 1.6               | NEED AND JUSTIFICATION OF THE PROJECT                                                   | 58             |
| 1.7               | STRUCTURE OF THE REPORT                                                                 | 59             |
| <b>2</b>          | <b>PROJECT DESCRIPTION</b>                                                              | <b>61</b>      |
| 2.1               | TYPE OF PROJECT                                                                         | 61             |
| 2.2               | NEED FOR THE PROJECT                                                                    | 61             |
| 2.3               | LOCATION OF THE PROJECT                                                                 | 61             |
| 2.4               | LAND USE PATTERN OF THE PROJECT AREA                                                    | 71             |
| 2.5               | SIZE AND MAGNITUDE OF OPERATION                                                         | 71             |
| 2.6               | TOPOGRAPHY AND DRAINAGE                                                                 | 72             |
| 2.7               | GEOLOGY                                                                                 | 72             |
| 2.8               | RESOURCES AND RESERVES                                                                  | 74             |
| 2.9               | PROCESS DESCRIPTION AND TECHNOLOGY                                                      | 78             |
| 2.10              | CONCEPTUAL MINING PLAN / FINAL MINE CLOSURE PLAN                                        | 85             |
| 2.11              | PROJECT REQUIREMENT                                                                     | 87             |
| <b>3</b>          | <b>DESCRIPTION OF THE ENVIRONMENT</b>                                                   | <b>91</b>      |
| 3.1               | INTRODUCTION                                                                            | 91             |
| 3.2               | STUDY AREA                                                                              | 91             |
| 3.3               | STUDY PERIOD                                                                            | 92             |
| 3.4               | MONITORING LAB                                                                          | 92             |
| 3.5               | ENUMERATION OF THE STRUCTURES LOCATED WITHIN 300 M RADIUS FROM THE PROPOSED QUARRY SITE | 92             |
| 3.6               | ENVIRONMENTAL SETTINGS OF THE PROJECT                                                   | 97             |
| 3.7               | EXISTING ENVIRONMENTAL SCENARIO                                                         | 101            |
| <b>4</b>          | <b>ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>                        | <b>144</b>     |
| 4.1               | GENERAL                                                                                 | 144            |
| 4.2               | PROJECT SPECIFIC IMPACTS AND MITIGATION MEASURES                                        | 144            |
| 4.3               | EMISSIONS FROM THE PROPOSED PROJECT                                                     | 155            |
| 4.4               | IMPACT DUE TO NOISE AND VIBRATION                                                       | 164            |
| <b>5</b>          | <b>ANALYSIS OF ALTERNATIVES (TECHNOLOGY &amp; SITES)</b>                                | <b>177</b>     |
| 5.1               | ALTERNATE TECHNOLOGY                                                                    | 177            |
| 5.2               | ALTERNATE SITE                                                                          | 177            |
| <b>6</b>          | <b>ENVIRONMENTAL MONITORING PROGRAMME</b>                                               | <b>178</b>     |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|           |                                                           |            |
|-----------|-----------------------------------------------------------|------------|
| 6.1       | GENERAL                                                   | 178        |
| 6.2       | MONITORING MECHANISM                                      | 178        |
| 6.3       | ENVIRONMENTAL MONITORING SCHEDULE AND FREQUENCY           | 178        |
| 6.4       | BUDGET FOR IMPLEMENTAION                                  | 179        |
| 6.5       | SUBMISSION OF PERIODICAL REPORTS                          | 180        |
| <b>7</b>  | <b>ADDITIONAL STUDIES</b>                                 | <b>181</b> |
| 7.1       | PUBLIC CONSULTATION                                       | 181        |
| 7.2       | RISK ASSESSMENT                                           | 181        |
| 7.3       | DISASTER MANAGEMENT PLAN                                  | 185        |
| 7.4       | CLUSTER MINE CLOSURE PLAN                                 | 187        |
| 7.5       | SLOPE STABILITY PLAN                                      | 187        |
| <b>8</b>  | <b>PROJECT BENEFITS</b>                                   | <b>189</b> |
| <b>9</b>  | <b>ENVIRONMENTAL COST BENEFIT ANALYSIS</b>                | <b>191</b> |
| <b>10</b> | <b>ENVIRONMENTAL MANAGEMENT PLAN</b>                      | <b>192</b> |
| 10.1      | ENVIRONMENTAL POLICY                                      | 192        |
| 10.2      | ENVIRONMENTAL MANAGEMENT PLAN                             | 192        |
| 10.3      | ADMINISTRATION AND TECHNICAL SETUP                        | 195        |
| 10.4      | OCCUPATIONAL SAFETY & HEALTH MANAGEMENT                   | 197        |
| 10.5      | BUDGETARY PROVISION FOR ENVIRONMENTAL MANAGEMENT          | 197        |
| 10.6      | CONCLUSION                                                | 199        |
| <b>11</b> | <b>SUMMARY AND CONCLUSIONS</b>                            | <b>200</b> |
| 11.1      | INTRODUCTION                                              | 200        |
| 11.2      | PROJECT DESCRIPTION                                       | 200        |
| 11.3      | DESCRIPTION OF THE ENVIRONMENT                            | 203        |
| 11.4      | ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES | 206        |
| 11.5      | ANALYSIS OF ALTERNATIVES                                  | 213        |
| 11.6      | ENVIRONMENTAL MONITORING PROGRAM                          | 213        |
| 11.7      | ADDITIONAL STUDIES                                        | 213        |
| 11.8      | PROJECT BENEFITS                                          | 215        |
| 11.9      | CONCLUSION                                                | 215        |
| <b>12</b> | <b>DISCLOSURE OF CONSULTANTS</b>                          | <b>217</b> |

## **FIGURE LIST**

| <b>FIGURE NO</b> | <b>TITLE</b>                                                                                 | <b>PAGE NO</b> |
|------------------|----------------------------------------------------------------------------------------------|----------------|
| 1.1              | SATELLITE IMAGE SHOWING CLUSTER QUARRIES                                                     | 50             |
| 1.2              | ENVIRONMENTAL SENSITIVITY WITHIN 1KM RADIUS                                                  | 55             |
| 2.1              | LOCATION MAP                                                                                 | 62             |
| 2.2              | GOOGLE IMAGE OF THE PROJECT SITE WITH BOUNDARY COORDINATES                                   | 63             |
| 2.3              | SITE CONNECTIVITY MAP                                                                        | 65             |
| 2.4              | TOPO MAP OF THE PROJECT 10 KM RADIUS                                                         | 68             |
| 2.5              | LEASE PLAN                                                                                   | 69             |
| 2.6              | VILLAGE MAP                                                                                  | 70             |
| 2.7              | SITE PHOTOGRAPHS                                                                             | 71             |
| 2.8              | GEOLOGY MAP – 10KM RADIUS FROM THE PROJECT SITE                                              | 73             |
| 2.9              | PROCESS FLOW DIAGRAM                                                                         | 79             |
| 2.10             | YEAR WISE DEVELOPMENT & PRODUCTION PLAN & SECTIONS                                           | 80             |
| 2.11             | CONCEPTUAL PLAN AND CROSS SECTION                                                            | 86             |
| 2.12             | WATER BALANCE CHART                                                                          | 87             |
| 2.13             | TRAFFIC MAP WITH DISTANCE OF NEAREST CRUSHER                                                 | 89             |
| 3.1              | GOOGLE IMAGE SHOWING STRUCTURES LOCATED WITHIN 300 M RADIUS                                  | 93             |
| 3.2              | PHOTOGRAPHS OF THE STRUCTURES LOCATED WITHIN 300 M RADIUS                                    | 94             |
| 3.3              | EXISTING FEATURES WITHIN 500M RADIUS                                                         | 95             |
| 3.4              | ENUMERATION OF TEMPLE, SCHOOL AND INHABITED VILLAGE WITHIN 500M RADIUS FROM THE PROJECT SITE | 96             |
| 3.5              | SATELLITE IMAGE OF THE STUDY AREA                                                            | 99             |
| 3.6              | TOPO MAP SHOWING STUDY AREA                                                                  | 100            |
| 3.7              | GOOGLE IMAGE SHOWING 1 KM RADIUS                                                             | 101            |
| 3.8              | WIND ROSE DIAGRAM – BLOWING FROM (MARCH 2025 – MAY 2025)                                     | 103            |
| 3.9              | AMBIENT AIR QUALITY MONITORING LOCATIONS                                                     | 106            |
| 3.10             | GRAPHICAL REPRESENTATION OF AIR QUALITY DATA                                                 | 108            |
| 3.11             | GROUND WATER MONITORING LOCATIONS                                                            | 114            |
| 3.12             | NOISE MONITORING LOCATION                                                                    | 120            |
| 3.13             | NOSIE MONITORING RESULTS                                                                     | 121            |
| 3.14             | SOIL MAP OF THE STUDY AREA                                                                   | 123            |
| 3.15             | SOIL SAMPLING STATIONS                                                                       | 124            |
| 3.16             | LAND USE MAP OF THE STUDY AREA                                                               | 127            |
| 3.17             | DRAINAGE MAP OF THE STUDY AREA                                                               | 135            |
| 3.18             | GEOMORPHOLOGY MAP OF THE STUDY AREA                                                          | 136            |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

---

|      |                                              |     |
|------|----------------------------------------------|-----|
| 3.19 | GEOLOGY MAP OF THE STUDY AREA                | 137 |
| 3.20 | VILLAGE MAP OF THE STUDY AREA                | 139 |
| 3.21 | GENDER-WISE POPULATION DISTRIBUTION          | 142 |
| 3.22 | GENDER WISE LITERACY DISTRIBUTION            | 142 |
| 3.23 | OCCUPATIONAL STRUCTURE WITHIN BUFFER ZONE    | 143 |
| 4.1  | WATER BALANCE DIAGRAM                        | 149 |
| 4.2  | ISOPLETH OF GLC PREDICTION FOR PM2.5         | 156 |
| 4.3  | ISOPLETH OF GLC PREDICTION FOR PM10          | 157 |
| 4.4  | CLUSTER ISOPLETH OF GLC PREDICTION FOR PM2.5 | 163 |
| 4.5  | CLUSTER ISOPLETH OF GLC PREDICTION FOR PM10  | 164 |
| 8.1  | CER LETTER & SCHOOL PLANTATION PHOTOS        | 189 |
| 10.1 | ORGANIZATION CHART                           | 196 |

## **TABLE LIST**

| <b>TABLE NO</b> | <b>TITLE</b>                                            | <b>PAGE NO</b> |
|-----------------|---------------------------------------------------------|----------------|
| 1.1             | DETAILS OF QUARRIES WITHIN 500M RADIUS                  | 48             |
| 1.2             | PROJECT IDENTIFICATION                                  | 51             |
| 1.3             | DETAILS OF PROJECT PROPONENT                            | 51             |
| 1.4             | BRIEF DESCRIPTIONS OF THE PROJECT                       | 52             |
| 1.5             | PRESENT LEGAL STATUS                                    | 56             |
| 2.1             | BOUNDARY COORDINATES OF THE PROJECT SITE                | 62             |
| 2.2             | MINE LEASE AREA AND ITS OWNERSHIP                       | 63             |
| 2.3             | SITE CONNECTIVITY                                       | 64             |
| 2.4             | SALIENT FEATURES OF THE PROJECT                         | 66             |
| 2.5             | ENVIRONMENTAL SETTINGS OF THE PROJECT SITE              | 67             |
| 2.6             | LAND USE PATTERN OF THE PROJECT AREA                    | 71             |
| 2.7             | AVAILABLE GEOLOGICAL RESOURCES                          | 74             |
| 2.8             | AVAILABLE MINEABLE RESERVES                             | 76             |
| 2.9             | MACHINERY DETAILS                                       | 81             |
| 2.10            | DETAILS OF BLASTING                                     | 81             |
| 2.11            | YEAR WISE PRODUCTION PLAN                               | 82             |
| 2.12            | ULTIMATE PIT DIMENSION AT THE END OF LEASE PERIOD       | 85             |
| 2.13            | LAND USE PATTERN OF THE PROJECT SITE                    | 85             |
| 2.14            | DETAILS OF WATER REQUIREMENT                            | 87             |
| 2.15            | DETAILS OF FUEL (HSD) REQUIREMENT                       | 88             |
| 2.16            | DETAILS OF MANPOWER REQUIREMENT                         | 88             |
| 2.17            | SUMMARY ON TRAFFIC VOLUME                               | 90             |
| 2.18            | MODIFIED LEVEL OF SERVICE                               | 90             |
| 3.1             | STRUCTURES WITHIN 300 M RADIUS                          | 92             |
| 3.2             | ENVIRONMENTAL SETTINGS OF THE STUDY AREA – 10 KM RADIUS | 97             |
| 3.3             | RAINFALL DATA                                           | 102            |
| 3.4             | METEOROLOGICAL DATA RECORDED AT SITE                    | 102            |
| 3.5             | METHODOLOGY FOR AIR QUALITY MONITORING                  | 104            |
| 3.6             | AMBIENT AIR QUALITY MONITORING LOCATIONS                | 105            |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|      |                                                             |     |
|------|-------------------------------------------------------------|-----|
| 3.7  | AMBIENT AIR QUALITY DATA                                    | 107 |
| 3.8  | AQI FOR AAQ MONITORING LOCATIONS                            | 111 |
| 3.9  | ENVIRONMENTAL PARAMETERS: GROUND WATER QUALITY ANALYSIS     | 113 |
| 3.10 | WATER SAMPLING LOCATIONS                                    | 113 |
| 3.11 | GROUND WATER QUALITY – ANALYSIS RESULT                      | 115 |
| 3.12 | NOISE MONITORING LOCATIONS                                  | 120 |
| 3.13 | NOISE MONITORING RESULT                                     | 121 |
| 3.14 | SOIL SAMPLING LOCATIONS                                     | 123 |
| 3.15 | SOIL TESTING RESULT                                         | 125 |
| 3.16 | LAND USE PATTERN OF THE PROJECT SITE                        | 126 |
| 3.17 | LAND USE PATTERN OF THE STUDY AREA OF 10 KM RADIUS          | 126 |
| 3.18 | ASSESSMENT OF TREES                                         | 129 |
| 3.19 | ASSESSMENT OF SHRUBS                                        | 130 |
| 3.20 | ASSESSMENT OF HERBS AND GRASSES                             | 131 |
| 3.21 | EVENNESS AND SPECIES RICHNESS BY MARGALEAF                  | 132 |
| 3.22 | LIST OF FAUNA                                               | 133 |
| 3.23 | POPULATION PROFILE OF THE STUDY AREA                        | 139 |
| 3.24 | POPULATION PROFILE – PADALUR EAST VILLAGE                   | 140 |
| 3.25 | KEY SOCIO-ECONOMIC INDICATOR                                | 141 |
| 4.1  | LAND USE PATTERN OF THE PROJECT SITE                        | 145 |
| 4.2  | RAINWATER HARVESTING PLAN                                   | 150 |
| 4.3  | MITIGATIVE MEASURES FOR AIR ENVIRONMENT                     | 152 |
| 4.4  | TYPES OF SOURCES FOR AIR POLLUTION IN MINING                | 154 |
| 4.5  | EMISSION FACTORS FOR MINING ACTIVITIES                      | 154 |
| 4.6  | PM 10 AND PM 2.5 EMISSION FROM MINING ACTIVITIES            | 155 |
| 4.7  | AREA EMISSIONS – TOTAL MATERIAL HANDLING                    | 155 |
| 4.8  | LINE SOURCE – TRANSPORT OF ROUGH STONE FROM PIT TO BOUNDARY | 156 |
| 4.9  | CONCENTRATIONS OF PM 2.5 AFTER PROJECT IMPLEMENTATION       | 157 |
| 4.10 | CONCENTRATIONS OF PM 10 AFTER PROJECT IMPLEMENTATION        | 158 |
| 4.11 | THE LIKELY NOISE LEVEL IN THE LEASE AREA                    | 165 |
| 4.12 | ECOLOGICAL IMPACT ASSESSMENTS AND ITS MITIGATIONS - PART 1  | 167 |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

---

|      |                                                            |     |
|------|------------------------------------------------------------|-----|
| 4.13 | ECOLOGICAL IMPACT ASSESSMENTS AND ITS MITIGATIONS - PART 2 | 170 |
| 4.14 | GREENBELT DEVELOPMENT PLAN                                 | 173 |
| 6.1  | ENVIRONMENTAL MONITORING SCHEDULE                          | 179 |
| 7.1  | RISK ASSESSMENT AND CONTROL MEASURES                       | 182 |
| 8.1  | CER ACTIVITIES                                             | 190 |
| 10.1 | ENVIRONMENTAL MANAGEMENT PLAN                              | 193 |
| 10.2 | ENVIRONMENTAL MANAGEMENT PLAN BUDGET                       | 197 |
| 11.1 | SALIENT FEATURES OF THE PROJECT                            | 200 |
| 11.2 | ENVIRONMENTAL SETTINGS OF THE PROJECT SITE                 | 202 |
| 11.3 | LAND USE PATTERN OF THE STUDY AREA                         | 203 |

## **LIST OF ANNEXURES**

| <b>S. NO</b> | <b>CONTENTS</b>                   | <b>ANNEXURE NO</b> |
|--------------|-----------------------------------|--------------------|
| 1            | TERMS OF REFERENCE (TOR)          | 1                  |
| 2            | PRECISE AREA COMMUNICATION LETTER | 2                  |
| 3            | APPROVED MINING PLAN WITH PLATES  | 3                  |
| 4            | 500-METER RADIUS LETTER           | 4                  |
| 5            | VAO CERTIFICATE                   | 5                  |
| 6            | LAND DOCUMENT                     | 6                  |
| 7            | MONITORING REPORT                 | 7                  |
| 8            | LAB NABL CERTIFICATE              | 8                  |
| 9            | CER LETTER                        | 9                  |

Table 1 ToR and its Compliance

| S. No.                                    | ToR Points                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Compliance                                                                                                                                                                                                                                                     | Page No. |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>1. SEIAA Specific Conditions</b>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |          |
| 1.1.                                      | After detailed discussions, the Authority accepts the recommendation of SEAC-I and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 3,12,605 m <sup>3</sup> of Rough Stone up to the depth of 56m (26m AGL + 30m BGL) as per the approved mining plan, under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-I & normal conditions & the conditions mentioned below. | Noted                                                                                                                                                                                                                                                          |          |
| <b>2. SEAC Conditions – Site Specific</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |          |
| 2.1.                                      | 1. A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic & scientific approach with appointment of statutory personnel, appropriate environmental monitoring, good maintenance of haul roads and village/panchayat roads, authorized blasting operation etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal                            | The affidavit showing the Copy of the agreement forming CMC, The Organisation chart of the Committee with defining the role of the members and the 'Standard Operating Procedures' (SOP) executing the planned activities will be enclosed in Final EIA Report |          |
|                                           | i. Copy of the agreement forming CMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                |          |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|  |                                                                                                                                                                        |                                                                                                            |  |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--|
|  | ii. The Organisation chart of the Committee with defining the role of the members                                                                                      |                                                                                                            |  |
|  | iii. The 'Standard Operating Procedures' (SoP) executing the planned activities.                                                                                       |                                                                                                            |  |
|  | 2. The PP should submit an affidavit to follow the scientific formation of benches for 5m*5m properly during mining as per the approved mining plan.                   | The same is enclosed as Annexure                                                                           |  |
|  | 3. The PP shall obtain Modified Mining Plan for the proposed changes (restricting the mining depth upto 50m) during the EIA Appraisal                                  | The mining plan revision is in progress. The revised mining plan will be submitted in the final EIA Report |  |
|  | 4. The PP shall install the CCTV camera for the continuous surveillance of mining activity & furnish the photographic/videographic evidence along with the EIA report. | The photos of CCTV camera installed in the site will be furnished during the Final Appraisal               |  |

**3. SEAC Standard Conditions**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                   |  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--|
| 3.1 | <p>1. In the case of existing/operation mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following:</p> <ul style="list-style-type: none"> <li>i. Original pit dimension</li> <li>ii. Quantity achieved Vs EC Approved Quantity</li> <li>iii. Balance Quantity as per Mineable Reserve calculated</li> <li>iv. Mined out Depth as on date Vs EC Permitted depth</li> <li>v. Details of illegal/illicit mining</li> <li>vi. Violation in the quarry during the past working</li> <li>vii. Quantity of material mined out outside the lining lease area</li> <li>viii. Condition of Safety zone/benches</li> </ul> | Not applicable. The existing quarry was operated by some other lessee before 2015 and hence CCR is not applicable |  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--|

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----|
| ix. Revised/Modified Mining Plan showing the benches of not exceeding 6m height and ultimate depth of not exceeding 50m.                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                   |    |
| 2. Details of habitations around the proposed mining area and latest VAO Certificate regarding the location of habitations within 300m radius from the periphery of the site.                                                                                                                                                                                                                                                                                                                              | The letter detailing habitations around the proposed mining is obtained from VAO is enclosed as Annexure – 5.                     |    |
| 3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc | The enumeration of structures is detailed in 3.5 of Chapter 3                                                                     | 90 |
| 4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry.                                                                                                                                                                                                                                                                                                | The detailed hydrogeology report will be furnished in the final EIA report                                                        |    |
| 5. The Project Proponent shall carry out Bio-diversity study through reputed institution and the same shall be included in the EIA report.                                                                                                                                                                                                                                                                                                                                                                 | The same will be complied in the final EIA report                                                                                 |    |
| 6. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries. Tiger reserve etc. upto a radius of 25 km from the proposed site.                                                                                                                                                                                                                                                                                                                                  | The DFO letter stating that the proximity distance of RF & PF will be incorporated in the final EIA report                        |    |
| 7. In case of proposed lease in an existing (or old) quarry where the benches are not formed(or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches                                                                                                                                                                                                                     | Not applicable. Not applicable. The existing quarry was operated by some other lessee before 2015 and hence CCR is not applicable |    |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                           |     |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|     | to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic institutions-CSIR Central Institute of Mining & Fuel Research/Dhanbad, NIRM/ Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Suratkal and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC. |                                                                                                                                                                                                           |     |
| 8.  | However, in case of the fresh/virgin quarries, the project shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30m below ground level.                                                                                                                                                                                                                                                          | Detailed slope stability study will be carried out after commencement of the mining operation while reach mine depth after 25 m. The details of slope stability is elaborated in section 7.5 of Chapter 7 | 184 |
| 9.  | The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent                                                                                                                                                                                                                                                 | The same will be furnished during the final EIA report.                                                                                                                                                   | 181 |
| 10. | The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.                                                                                                                                                                                                                        | The PP will use controlled blasting techniques with Nonel to ensure that dust generation, noise, and vibration levels remain within the prescribed limits.                                                |     |
| 11. | The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the                                                                                                                                                                                                                                                                                                                                                                                  | The PP has not carried out any quarrying operation before this project.                                                                                                                                   |     |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                |                      |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|  | same location or elsewhere in the State with video and photographic evidences.                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                |                      |
|  | 12.If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines                                                                                                                                                                                                                                                                                                                              | Not applicable. The existing quarry was operated by some other lessee before 2015                                                                                                                                                                                                                                                              |                      |
|  | 13. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?                                                                                                                                                                                                                                                                                                                                                                                               | Not applicable. The existing quarry was operated by some other lessee before 2015                                                                                                                                                                                                                                                              |                      |
|  | <p>14. Quantity of minerals mined out.</p> <ul style="list-style-type: none"> <li>• Highest production achieved in any one year.</li> <li>• Detail of approved depth of mining.</li> <li>• Actual depth of the mining achieved earlier.</li> <li>• Name of the person already mined in that leases area.</li> <li>• If EC and CTO already obtained, the copy of the same shall be submitted.</li> </ul> <p>Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches</p> | Not applicable. Not applicable. The existing quarry was operated by some other lessee before 2015 and hence CCR is not applicable                                                                                                                                                                                                              |                      |
|  | 15. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).                                                                                                                                                               | Project coordinates superimposed in satellite imagery and given as Figure No – 2-2 in Chapter – 2. The geology and geomorphology map are provided in Figure No.3.18 and 3.19 in Chapter 3. The Soil map is provided under Figure No. 3-14, Chapter-3. The 10km Radius Index plan showing buffer zone is given in Figure No.3-5 in Chapter – 3. | 65, 133,134, 119,137 |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing etc.,                                                                                                                                                                                                                                                                        | The condition will be complied after commencement of the mining operation.                                                                                                                                                                                                                                                                     |     |
| 17. The proponent shall furnish photographs of adequate fencing, greenbelt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan                                                                                                               | There are no trees within ML area. Fencing and plantations are under process (80 % of the work completed).<br>Greenbelt / Plantation is being carried out in the safety zone to enhance the vegetative growth and aesthetic in the safety zone area. In the post mining stage, an area of 0.23.0 Ha will be under greenbelt and plantation.    |     |
| 18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding, environment and the remedial measures for the same.                                                               | The geological reserves - rough stone 627205 m <sup>3</sup> .<br>The mineable reserves: Rough stone 3,12,605 m <sup>3</sup> .<br>The proposed production is rough stone 3,12,605 m <sup>3</sup> of Rough Stone (Five year) by Opencast Mechanized mining method. The anticipated impact and its mitigation measures are detailed in Chapter 4. | 147 |
| 19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of Mines Act'1952 and the MMR" 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment. | Complied. Please refer section 2.11.4 of Chapter 2                                                                                                                                                                                                                                                                                             | 181 |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                        |                    |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|  | <p>20. The Project Proponent shall conduct the Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping &amp; open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD/TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitoring data, it may clearly be shown whether working all intersect ground water. Necessary data and documentation in this regard may be provided.</p> | <p>The hydrogeological study report will be furnished during the final EIA report</p>                                                                                                                                                                                                                                  |                    |
|  | <p>21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality&amp; flora/fauna including traffic/vehicular movement study.</p>                                                                                                                                                                                                                                                                                                                                                                          | <p>The baseline data for all environments is collected for the Summer Season (March 2025 to May 2025).</p>                                                                                                                                                                                                             |                    |
|  | <p>22. The Proponent shall carry out the cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of air pollution, water pollution, &amp; health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.</p>                                                                                                                                                                                                                                 | <p>Cumulative impact study has been carried covering existing and this proposed quarries in the cluster and the same is incorporated in the Chapter 4. Accordingly, a detailed Environment Management Plan is prepared considering air, water, noise and soil environment and the details are given in Chapter 10.</p> | <p>148 and 192</p> |
|  | <p>23. Rain water harvesting management with recharging details along with water balance (both monsoon &amp; non-monsoon) be submitted.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>The runoff water during rainy season will be collected in the bottom quarry through proper drainage pattern and the collected water will be used for plantation and dust suppression during dry season.</p>                                                                                                         |                    |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                     |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | The Rain water harvesting plan is given chapter 4.                                                                                                                                  |         |
| 24. Land use of the study area delineating forest area, agricultural land, grazing land. Wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given. |  | The land use of the study area is described in Section 3.7.6.2 of Chapter 3. The anticipated impacts on the land environment and the mitigation measures are detailed in Chapter 4. | 123,143 |
| 25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area distance from mine lease, its land use, R&R issues, if any, should be provided.                                                                                                                                                                                                                               |  | Not applicable.<br>There is no generation of the OB & waste.                                                                                                                        |         |
| 26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.                             |  | No proximity to Critically polluted areas.                                                                                                                                          |         |
| 27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.                                                                                                                                                                                                                                                   |  | The impact of the mining operations due to this quarry on water environment is studied and mitigation measures are proposed. Rain water harvesting plan is given Chapter 4.         | 145     |
| 28. Impact on local transport infrastructure due to the Project should be indicated                                                                                                                                                                                                                                                                                                                                                          |  | Since the production is very less, only few trucks of 5/10T will be used for transport. The effect of                                                                               | 87      |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                                        |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                           |  | transport on local transport will be negligible. Traffic density survey was carried out to analyse the impact of Transportation in the study area as per IRC guidelines 1961 and it is inferred that there is no significant impact due to the proposed transportation from the project area. Details in section 2.6.5.1 of Chapter 2. |     |
| 29. A tree survey shall be carried out (Nos. name of species, age, diameter, etc) both within the mining lease applied area & 300m buffer zone and its management during mining activity                                                                                                                                                                                                                                  |  | There are no much trees within 300m buffer zone of the project area. The predominant flora noticed small tress of <i>Acacia nilotica</i> trees of very few numbers.                                                                                                                                                                    |     |
| 30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.                                                                                                                                                                                                                                                                                              |  | Detailed mine closure plan is given in Chapter 7.4                                                                                                                                                                                                                                                                                     | 184 |
| 31. As part of the study of flora and fauna around the vicinity of the proposed site, the EIA Coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, where ever possible                                                                                                                                                            |  | Accepted. It will be done.                                                                                                                                                                                                                                                                                                             |     |
| 32. The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix – I in consultation with the DFO, State Agriculture University and local school/college authorities. The plant species with dense/moderate |  | Green belt is proposed in an area of 0.23.0 ha. Green belt development plan is provided in section 2.13 of chapter 2.                                                                                                                                                                                                                  | 86  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                  |     |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----|
|     | canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.                                                                                                                                                                                                                                                                       |                                                                                                                  |     |
| 33. | Taller/one year old saplings raised in appropriate size of bags; preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/horticulturist with regard to site-specific choices. The proponent shall earmark the green belt area with GPS coordinates all along the boundary of the project site with at least 3 m wide and in between blocks in an organized manner | The same will be furnished in the final EIA report                                                               |     |
| 34. | A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.                                                                                                                                                                                                                                             | A disaster management plan is prepared and the details are given in Chapter 7.                                   | 182 |
| 35. | A risk assessment and Management plan shall be prepared and included in the EIA/EMP report for the complete life of the proposed quarry or till the end of the lease period                                                                                                                                                                                                                                     | Risk assessment and its management is given in Chapter 7.                                                        | 178 |
| 36. | Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.                      | Occupational Health Impacts of the project and preventive measures are detailed under Chapter 4.                 | 145 |
| 37. | Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.                                                                                                                                                                               | No major impact on public health will be there since the villages are located more than 1km from the lease area. | 186 |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                                          |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--|
|                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       | Details of CER and CSR are discussed under Chapter No. 8 |  |
| 38. The Socio-economic studies should be carried out within a 5km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation. | Socio economic study is conducted both by visits and secondary data collection.<br><br>Details are given in Chapter 3 | 135                                                      |  |
| 39. Details of litigation pending against the project, if any, with direction /order passed by any Court of law against the Project should be given.                                                                                                                                                                                                     | No litigation is pending                                                                                              |                                                          |  |
| 40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.                                                                                                                                                            | Benefits of the project is given in Chapter 8                                                                         | 186                                                      |  |
| 41. If any quarrying operations were carried out in the proposed quarrying site for which now EC is sought, the project proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF & CC, Regional Office, Chennai or the concerned DEE/TNPCB.             | Not applicable. This is a fresh quarry project.                                                                       |                                                          |  |
| 42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.                                                                                                                                                                                                  | The affidavit for EMP will be furnished during the final EIA report                                                   |                                                          |  |
| 43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the condition mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986                                                                         | Agreed                                                                                                                |                                                          |  |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

**4. SEIAA STANDARD CONDITIONS**

|     |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                   |  |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 4.1 | <b>Cluster Management Committee</b>                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                   |  |
|     | 1. Cluster management committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry                                                                                          | There is one existing quarry and 10 proposed quarries including this proposal within a 500-metre radius. The proponent will take the initiative to form a cluster management committee once environmental clearance is obtained for this quarry.                  |  |
|     | 2. The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc.,                                                                   | Agreed. Will be complied.                                                                                                                                                                                                                                         |  |
|     | 3. The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.                                                                               | Agreed. The list of members of the committee formed will be submitted to AD/mines after obtaining Environmental Clearance.                                                                                                                                        |  |
|     | 4. Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network.                 | Agreed. Details of the Operation plan for cluster mining operations will be submitted once we get environmental clearance.                                                                                                                                        |  |
|     | 5. The committee shall deliberate on risk management plan pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan. | Risk management plan for the individual quarry is given in this report. As far as cluster working condition is concerned, once the committee is formed, risk management as a cluster including inundation of clusters and the evacuation plan will be elaborated. |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                           |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 6. The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the environmental policy devised shall be given in detail. | Environmental policy for the cluster will be framed by the cluster management committee and the policy will be in accordance with EPA Act, 1986 and its amendments, guidelines by MoEF&CC/SEIAA and other regulatory bodies. This policy will be displayed in the quarry. |         |
| 7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.                                                                                                              | Agreed. It will be complied as mentioned in the Point No.4                                                                                                                                                                                                                |         |
| 8. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity.                                                                                                                                 | Agreed. It will be complied as mentioned in the Point No.4.                                                                                                                                                                                                               |         |
| <b>Agriculture &amp; Agro-Biodiversity</b>                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                           |         |
| 9. Impact on surrounding agricultural fields around the proposed mining Area.                                                                                                                                                                                                    | Agreed.                                                                                                                                                                                                                                                                   |         |
| 10. Impact on soil flora & vegetation around the project site.                                                                                                                                                                                                                   | Complied. The details are given in Chapter 3.                                                                                                                                                                                                                             | 124     |
| 11. Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetations all along the boundary of the proposed mining area shall committed mentioned in EMP.                                          | There is no standing trees or vegetation within the mine lease area.                                                                                                                                                                                                      |         |
| 12. The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.                                                                            | The ecological details have been provided in Chapter 3 and measures have been provided in Chapter 4.                                                                                                                                                                      | 124,164 |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                        |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 13. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.                   | The detailed action plan has been described in the EMP (Chapter 10) for the sustainable management for the project area and its surroundings.                                                                                                                                                                                                                          | 189 |
| 14. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.    | The impact of project on the land environment has been discussed in section 4.2.1 under Chapter 4.                                                                                                                                                                                                                                                                     | 142 |
| <b>Forests</b>                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                        |     |
| 15. The project proponent shall detailed study on impact of mining on Reserve Forests free ranging wildlife.                                                 | Nedungur, Maniyankurichi, Naranamangalam, Maramareddipalayam, Elur RF are located within 10 km radius and no other reserved forest located in the buffer zone. The fauna commonly found in the core and buffer zone is given in Chapter 3.                                                                                                                             | 136 |
| 16. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.            | There is no schedule I species of animals observed within study area as per Wildlife Protection Act, 1972 and no species falls in vulnerable, endangered or threatened category as per IUCN. There is no endangered red list species found in the study area. The anticipated impact and its mitigation measures for biological environment are detailed in Chapter 4. | 164 |
| 17. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection. | Not Applicable. This is a dry barren land.                                                                                                                                                                                                                                                                                                                             |     |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                 |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 18. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.                                                                                                                                                                                                                                                                                                                                                   | Nedungur, Maniyankurichi, Naranamangalam, Maramareddipalayam, Elur RF are located within 10 km radius and no other reserved forest located in the buffer zone.                                                  |     |
| <b>Water Environment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                 |     |
| 19. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) so as to assess the impacts on the nearby waterbodies due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided, covering the entire mine lease period. | The hydrogeological study report will be incorporated in the final EIA report.                                                                                                                                  |     |
| 20. Erosion Control measures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | There is no waste generation (OB) in this quarry has been envisaged. However, there may be erosion due to rainy season and that is limited within quarry area. The control measures are explained in Chapter 4. | 173 |
| 21. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas.                                                                                                                                                                                                                                                                                                                                | Anticipated impacts and its mitigation measures are detailed in Chapter 11.                                                                                                                                     | 203 |
| 22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.                                                                                                                                                                                                                                                                                                                                                                                            | There is no wastewater generation / discharge of wastewater from this Quarry, so this is not applicable.                                                                                                        |     |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                           |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 23. The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.                                                                                                                                                    | Fragmentation impact on environment may be due to drilling and blasting. The anticipated impacts and mitigation measures are discussed in Chapter 4.                                                                                                                                                                                                                      |     |
| 24. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.                     | An ecological and biodiversity study has been conducted and the same is incorporated in the Chapter 3 of the EIA/EMP report. However, there is no any features mentioned in this condition within the M.L area. However, the impacts anticipated with respect to the environment of the project area is very negligible and it will be minimized within the project area. | 164 |
| 25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.                                                                                                                                    | Agreed.                                                                                                                                                                                                                                                                                                                                                                   |     |
| 26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.                                                                                                                                                                       | Complied. The details are described in Chapter 4.                                                                                                                                                                                                                                                                                                                         | 141 |
| 27. The EIA shall include the impact of mining activity on the following:<br>a) Hydrothermal/Geothermal effect due to destruction in the Environment.<br>b) Bio-geochemical processes and its foot prints including environmental stress.<br>c) Sediment geochemistry in the surface streams. | The details will be incorporated in the final EIA report                                                                                                                                                                                                                                                                                                                  |     |
| <b>Energy</b>                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                           |     |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                       |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilize the Energy shall be furnished.                                                                                                                                          | Complied. The details are described in Chapter 4.                                                                                                                                                                                                                                                                                                                                                     | 145 |
| <b>Climate Change</b>                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                       |     |
| 29. The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities. | Only the best equipment will be used, and it will be properly and regularly maintained. Regular vehicular emission tests will be conducted on the transport vehicles to ensure minimal carbon emissions.<br><br>To further reduce carbon emissions, a good greenbelt plan has been planned.<br><br>The carbon emission and the measures to mitigate carbon emission have been discussed in Chapter 4. |     |
| 30. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock, soil health and physical, chemical & biological soil features.                                                                |                                                                                                                                                                                                                                                                                                                                                                                                       |     |
| 31. Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.                                                                                                                                                                    | The details are furnished in Chapter 4                                                                                                                                                                                                                                                                                                                                                                |     |
| <b>Mine Closure Plan</b>                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                       |     |
| 32. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.                                                                                                                                                               | Complied. Mine Closure Plan has been incorporated in the approved Mining Plan.                                                                                                                                                                                                                                                                                                                        |     |
| <b>EMP</b>                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                       |     |
| 33. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued and the scope for achieving SDGs.                                                            | Complied. The details are described in Chapter 10.                                                                                                                                                                                                                                                                                                                                                    |     |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                   |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 34. The Environmental Impact Assessment should hold detailed study on EMP with budget for green belt development and mine closure plan including disaster management plan.                                                                                                                                                                                                                  | Total EMP Cost for 5 years is 19.97 lakhs i.e. Capital Cost Rs. 9.14 Lakhs + Recurring Cost Rs. 10.83 for five years, which is including greenbelt cost and cost for mine closure plan. The breakup of the EMP cost is mentioned in table 10-2.                                                                   |  |
| <b>Risk Assessment</b>                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                   |  |
| 35. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.                                                                                                                                                                                                                                          | Complied. The details are described in Chapter 7.                                                                                                                                                                                                                                                                 |  |
| <b>Disaster Management Plan</b>                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                   |  |
| 36. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued. | Complied. The details are described in Chapter 7.                                                                                                                                                                                                                                                                 |  |
| <b>Others</b>                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                   |  |
| 37. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.                                                                                                               | There are no historical places, schools, cemeteries, temples, bird sanctuaries, and wildlife sanctuaries within 500 metres of the proposed project area. In this regard, the project proponent has received an official letter from the Village Administrative Officer. The letter copy enclosed as Annexure – 5. |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                     |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                 |  |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                     | 38. As per the MoEF& CC office memorandum F.NO.22-65/2017-1A.11I dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.                                                                    | Complied. The action plan of the public hearing will be furnished in the final EIA report                                                                                                                                                                                                       |  |
|                     | 39. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the environment. The ecological risks and impacts of plastic & microplastics on aquatic environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.               | The same will be complied in the final EIA report                                                                                                                                                                                                                                               |  |
| <b>STANDARD TOR</b> |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                 |  |
| 1.                  | Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force. w.r.t. the highest production achieved prior to 1994 | This is a fresh quarry                                                                                                                                                                                                                                                                          |  |
| 2.                  | A copy of the document in support of the fact that the proponent is the rightful lessee of the mine should be given.                                                                                                                                                                                                                  | It is a Government Poramboke Land and the applicant has obtained Tender. The copy of the Precise area communication letter received from the Assistant Director, Department of Geology & Mining, Perambalur District enclosed as Annexure – 2 and Adangal & A-Register enclosed as Annexure - 6 |  |
| 3.                  | All documents including approved mine plan, EIA and public Hearing should be compatible with one another in terms of the mine lease area,                                                                                                                                                                                             | Noted & agreed. All documents including approved mine plan, EIA and Public Hearing are compatible with one another in terms of the mine lease area,                                                                                                                                             |  |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                      |  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    | production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.                                                                                                                                                                                                            | production levels, waste generation and its management, mining technology etc. and is 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). | The following map in 1:50,000 Scale: Geology map of the project area covering 10km radius – Figure No. 3-17. Geomorphology Map of the Study Area covering 10 km radius – Figure No. 3-18. Important water bodies, streams and rivers are highlighted in Figure 3-6 and Soil Characteristics are shown in Figure 3-13 |  |
| 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.                                              | The following map in 1:50,000 Scale: Geology map of the project area covering 10km radius – Figure No. 3-17. Geomorphology Map of the Study Area covering 10 km radius – Figure No. 3-18. Important water bodies, streams and rivers are highlighted in Figure 3-6 and Soil Characteristics are shown in Figure 3-13 |  |
| 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.                                                                     | <b>a. Precise Area Communication:</b><br>The Project Proponent has obtained Precise area communication letter received from the Assistant Director, Department of Geology and Mining, Perambalur vide Rc.No. 123/G&M/2025, dated 09.04.2025. The letter copy is enclosed as Annexure – 2.                            |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                      |  |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>b. Mining Plan Approval:</b><br>The project proponent has prepared Mining Plan under rule 8, 41 & 42 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the same has been approved by the Assistant Director, Department of Geology and Mining, Perambalur vide Rc.No. 123/G&M/2025, dated 23.04.2025. The approval letter along with Mining Plan is enclosed as Annexure - 3 |  |
| 7. | It should be clearly stated whether the proponent company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report. | The proponent will frame a well-planned environmental policy. Its details are provided under Chapter 10.                                                                                                                                                                                                                                                                             |  |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The proposed quarrying operation is not underground mining and hence subsidence study is not applicable. Various risks likely to arise due to mining activities are detailed under section 7.3, Chapter-7. The impact                                                                                                                                                                |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                         |  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | due to ground vibrations due to blasting is given in para 4.4.4.5 of Chapter 4.                                                                                                                                                                                                                                                         |  |
| 9.  | The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.                                                                                                                                                                                                                                                                                                                 | Noted & Agreed<br>The study area considered for this study is 10 km radius and all data contained in the EIA report such as waste generation etc., is for the Life of the Mine / lease period.                                                                                                                                          |  |
| 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.                                                                                 | The land use of the study area was studied to demarcate various LULC categories and its details are provided under section 3.7.6.2 of Chapter-3. The land use pattern at present and at the end of the quarrying period has been provided in Table 3.16, Chapter-3. The Conceptual plan of mine lease area is shown in Figure No- 2-11. |  |
| 11. | Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.                                                                                                                                                                                                                                                                                                                                          | There is no overburden anticipated during the entire rough stone quarrying operation.                                                                                                                                                                                                                                                   |  |
| 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 | There is no Forest Land involved in the proposed project area.                                                                                                                                                                                                                                                                          |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                          |  |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|     | 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.                                                                 | Not Applicable. The proposed project area does not involve any 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. The project doesn't attract Recognition of Forest Rights Act, 2006.                                                                                                                                                                                      |  |
| 15. | The vegetation in the RF / PF areas in the study area, with necessary details, should be given.                                                                                                                                                                                                                                       | The list of RF in the study area are:<br>Naranamangalam R.F.- 2.93km (NW), Nedungur R.F.- 4.18km (SW), Velur R.F.- 5.27km (NW)<br>Maniyankurichi R.F.- 5.96km (SW),<br>Maramareddipalayam R.F.- 8.26km (SW)<br>The figure showing the same is illustrated in Figure 2-5. |  |
| 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. | Not applicable                                                                                                                                                                                                                                                           |  |
| 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                                                                                                                        | Not applicable.                                                                                                                                                                                                                                                          |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                             |  |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|     | 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 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. | The detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] is carried out and the details are incorporated in section 3.7.7 of Chapter 3 |  |
| 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.                                                                                                                                                                                                                                                                                           | Not Applicable                                                                                                                                                                                              |  |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Not Applicable                                                                                                                                                                                              |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                          |  |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|     | any, should be furnished. (Note: The Mining projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                          |  |
| 21. | R&R Plan/compensation details for the project Affected people (PAP) should be furnished. While preparing the R&R Plan, the relevant State/ National Rehabilitation & Resettlement policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the state Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report. | Not Applicable                                                                                                                                                                                                                                                           |  |
| 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                                                     | Baseline Data is collected in summer season (March 2025 – May 2025) for AAQ, WQ, NL and EB. Site-specific meteorological study data is collected. 2 Locations are chosen for upwind, 2 Locations for downwind and 2 Locations for crosswind apart from project location. |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                     |  |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|     | in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                     |  |
| 23. | 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 modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map. | Air Quality Modelling for prediction of incremental GLC's of pollutant was carried out using AERMOD view and Detailed in Chapter 4. Air Quality Modelling for Cluster are also detailed in Chapter 4 under section 4.2.4.3.                                                         |  |
| 24. | The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.                                                                                                                                                                                                                                                                                                                                                                 | The total water requirement for the project is 5.0 KLD. The required water will be procured from outside agencies initially and later rainwater harvested in the mine pit shall be used other than drinking purpose. Water Balance diagram is presented in Figure 2.12 of chapter 2 |  |
| 25. | Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.                                                                                                                                                                                                                                                                                                                                                                                                                                          | Water will be sourced from local vendors and ground water will not be extracted. Hence, not applicable.                                                                                                                                                                             |  |
| 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.                                                                                                                                                                                                                                                                                                                                                                                 | Details of water conservation measures in detailed in Chapter 4.                                                                                                                                                                                                                    |  |
| 27. | Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.                                                                                                                                                                                                                                                                                                                                                                                                    | Impact Studies and Mitigation Measures of Water Environment including Surface Water and Ground Water are discussed in Chapter 4                                                                                                                                                     |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                              |  |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 28. | Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished. | The quarrying activity will not intersect ground water table as quarrying is proposed up to a depth of 56 m (26m AGL and 30m BGL) and water table is found at a depth of 67 m BGL.                                           |  |
| 29. | Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.                                                                                                                                                                                                                                                                                                                                                                                                     | Not applicable                                                                                                                                                                                                               |  |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                               | ≈ 150 m from above MSL. Initial RL before commencement of Mining – 150m BGL and Final RL after completion of Mining Operation – 94m BGL<br>Working Depth: 56 m (26m AGL and 30m BGL)<br>Depth of Ground Water Table: 67m BGL |  |
| 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                                                                            | Greenbelt Development are detailed in Chapter 2<br>0.23.0 hectares of land are allotted for greenbelt development. A total of 230 trees will be planted in the ML area.                                                      |  |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                       |  |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|     | 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. | This is a small quarry and the production is very less. 4 Nos. of 5T/10T tippers will be used for transport. The trips will be minimum. Hence no major impact on transport is expected                                                                |  |
| 33. | Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Temporary Infrastructure & other facilities will be provided to the Mine Workers after the grant of quarry lease.                                                                                                                                     |  |
| 34. | Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.                                                                                                                                                                                                                                                                                                                                                                                                           | At the conceptual stage the quarried-out land will be fenced and lower benches will be allowed to collect rain water to act as a temporary reservoir and Greenbelt development will be carried out on the top bench, unutilized areas and haul roads. |  |
| 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                                                                                                                                                                                                                                                                                                      | Details of occupational health and safety aspects are given in section 4.4.7 of Chapter 4                                                                                                                                                             |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                 |  |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|     | occupational health mitigation measures with required facilities proposed in the mining area may be detailed.                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                 |  |
| 36. | Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.                                                         | No Public Health Implications anticipated due to this project. Details of CER and CSR are discussed under Chapter No. 8 under section 8.1                                                                                                                                                                       |  |
| 37. | Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.                                          | This project provides employment to 30 people directly. Local people will be hired for unskilled labour. Through CSR, nearby schools, hospitals will be benefitted. For CSR, INR 5.0 Lakh is allocated. Based on the demand of the people during public hearing, further funds will be allocated, if necessary. |  |
| 38. | Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project. | Environmental Management plan details are given in Chapter 10.                                                                                                                                                                                                                                                  |  |
| 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.                                   | The details of the public hearing will be included in Chapter 7 along with detailed action plan.                                                                                                                                                                                                                |  |
| 40. | Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.                                                                                                                                          | There is no litigation pending against the project.                                                                                                                                                                                                                                                             |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                                                  |                                                                                                                                                           |  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 41. | The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.                                                                                                         | Project Cost: 538.47 Lakhs<br>CER Cost: Rs. 5 Lakhs<br>EMP Cost: Rs. 19.97 Lakhs                                                                          |  |
| 42. | A Disaster management Plan shall be prepared and included in the EIA/EMP Report.                                                                                                                                                                 | Included in Chapter 7                                                                                                                                     |  |
| 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.                                                        | Outlined in Chapter 8                                                                                                                                     |  |
| 44. | Besides the above, the below mentioned general points are also to be followed: -                                                                                                                                                                 |                                                                                                                                                           |  |
| a.  | Executive Summary of the EIA/EMP Report                                                                                                                                                                                                          | Yes, Enclosed                                                                                                                                             |  |
| b.  | All documents to be properly referenced with index and continuous page numbering.                                                                                                                                                                | All the documents are 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.                                                                                                    | Yes, Complied                                                                                                                                             |  |
| 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, | Baseline monitoring results are detailed in Chapter 3. Original Baseline monitoring reports will be made available during final appraisal of the project. |  |
| e.  | Where the documents provided are in a language other than English, an English translation should be provided.                                                                                                                                    | Yes, complied                                                                                                                                             |  |
| f.  | The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.                                                                                                          | Yes, complied                                                                                                                                             |  |
| 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- I                                                                                                    | Noted & agreed                                                                                                                                            |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                      |       |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------|
|    | 1013/41/2006-IA.11 0) 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. | Noted & agreed                                                       |       |
| i. | As per the circular no. J-I I0I I161812010-1A.II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance 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.                                                                                                                                          | Yes, Complied                                                        |       |
| 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.                                                                                                                                                                                  | Surface Plan and Geological Plan – Figure No. 2-8 and Figure No. 2-9 | 26,28 |

## **1.0 INTRODUCTION**

### **1.1 PURPOSE OF THE REPORT**

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

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

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

Thiru. R. Rajkumar proposes to operate Rough Stone Quarry over an extent of 1.50.00 Ha Government land in S.F. No. 10/1 (Block 1) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State and ToR obtained vide ToR Identification No. TO25B0108TN5921018N Dated: 30.07.2025.

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

**Table 1.1 – Details of Quarries within 500m Radius**

| S. No               | Name of the Quarry Owner | S.F. Nos & Village                     | Lease Period             | Area    |
|---------------------|--------------------------|----------------------------------------|--------------------------|---------|
| a. Abandoned Quarry |                          |                                        |                          |         |
| 1.                  | M. Basakaran             | 4(1)(P), 4(2)(P), 7(3)(P), Padalur (E) | 24.01.2018 to 23.01.2023 | 2.00 Ha |
| 2.                  | K. Mathiyalagan          | 10/1 (Block 18), Padalur (E)           | 23.05.2007 to 22.05.2017 | 1.00 Ha |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                          |                            |                                 |                          |           |
|--------------------------|----------------------------|---------------------------------|--------------------------|-----------|
| 3.                       | Thiru. B. Senthilkumar     | 10/1 (part), Padalur (E)        | 12.04.2006 to 11.04.2016 | 1.00 Ha   |
| 4                        | Thiru. M. Ravi             | 10/1 (Block 20), Padalur (E)    | 11.05.2007 to 10.05.2017 | 1.00 Ha   |
| 5                        | V. Panneerselvam           | 10/1 (Block 22), Padalur (E)    | 31.05.2011 to 30.05.2021 | 1.00 Ha   |
| 6                        | Thiru. R. Suresh Babu      | 10/1 (Block 17), Padalur (E)    | 23.05.2007 to 22.05.2017 | 1.00 Ha   |
| b. Existing Quarry       |                            |                                 |                          |           |
| 1.                       | M. Baskaran                | 1/7F(P), 1/7G(P), 1/3(P)        | 23.08.2024 to 22.08.2034 | 1.33 Ha   |
| c. Expired Quarries      |                            |                                 |                          |           |
| 1.                       | Nil                        |                                 |                          |           |
| d. Proposed Quarry       |                            |                                 |                          |           |
| 1.                       | Thiru. R. Rajkumar         | 10/1 (Block-1), Padalur (East)  | Presently Proposed       | 2.10.0Ha  |
| 2.                       | Thiru. M. Thangaraj        | 10/1 (Block-5), Padalur (East)  |                          | 1.50 Ha   |
| 3                        | Thiru. Hariharan. L        | 10/1 (Block-2), Padalur (East)  |                          | 1.40.6 Ha |
| 4                        | Thiru. P. Velmurugan       | 10/1 (Block-3), Padalur (East)  |                          | 1.40.0 Ha |
| 5                        | M/s. Rajamalai Metals      | 10/1 (Block-4, Padalur (East)   |                          | 1.40.0 Ha |
| 6                        | M/s. SR Mines and Minerals | 10/1 (Block-6), Padalur (East)  |                          | 2.20.0 Ha |
| 7                        | M/s. Mars Mines            | 10/1 (Block-7), Padalur (East)  |                          | 1.30.0 Ha |
| 8                        | Thiru. Vinoth R            | 10/1 (Block-8), Padalur (East)  |                          | 1.20.0 Ha |
| 9                        | M/s. Anjaneya Minerals     | 10/1 (Block-9), Padalur (East)  |                          | 1.20.0 Ha |
| 10                       | Thiru. P. Velmurugan       | 10/1 (Block-13), Padalur (East) |                          | 1.00.0 Ha |
| Total Area Under Cluster |                            | 16.03.6                         |                          |           |

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

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

As per MoEF&CC OM: F.No.L-11011/175/2018-IA-II(M), dated 12.12.2018, the EIA/EMP report has to be prepared for the cluster area based on ToR recommended by SEIAA. Therefore, the applicant applied for ToR through Parivesh website vide online proposal no. SIA/TN/MIN/542082/2025 Dated 24.06.2025. The ToR proposal was placed in 587<sup>th</sup> SEAC meeting, dt 07.07.2025 and 859<sup>th</sup> SEIAA meeting, dated 24.07.2025. Then ToR has been issued by the SEIAA vide ToR Identification No. TO25B0108TN5921018N Dated: 30.07.2025 to prepare the draft EIA report as per the recommended ToR for conducting Public hearing and obtaining Environmental Clearance from the SEIAA.



**Figure1.1 Satellite Image showing cluster quarries**

## **1.2 IDENTIFICATION OF PROJECT AND PROJECT PROPONENT**

### **1.2.1 IDENTIFICATION OF PROJECT**

**Table -1.2 Project Identification**

|                         |                                                                                                       |
|-------------------------|-------------------------------------------------------------------------------------------------------|
| Name of the Project     | Thiru. R. Rajkumar Rough Stone Quarry                                                                 |
| S.F No.                 | S. F. No. 10/1(Block 1), Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Location of the Project | Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State                          |
| Extent                  | 1.50.0 Ha.                                                                                            |
| Type of Land            | Government Land and Tender has been obtained                                                          |

### **1.2.2 IDENTIFICATION OF PROJECT PROPONENT**

**Table -1.3- Details of Project PropONENT**

|                               |                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------|
| Name of the Project PropONENT | Thiru. R. Rajkumar                                                                                             |
| Communication address         | S/o. Rajaram,<br>No.4C, 4th Floor,<br>Sivam Sri MadhAv,<br>Kuttimani Nagar, Pichandar Kovil,<br>Trichy-621 216 |
| e-mail Address                | rajkumar6660@gmail.com                                                                                         |
| Mobile No.                    | 8754007369                                                                                                     |

## **1.3 BRIEF DESCRIPTION OF THE PROJECT**

### **1.3.1 NATURE AND SIZE OF THE PROJECT**

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



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

**Table – 1.4 Brief Descriptions of the Project**

|                                          |                                                                                                                                                                                                                                                                                     |                     |                                                          |                        |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------|------------------------|
| Name of the Quarry                       | Thiru. R. Rajkumar Rough Stone Quarry                                                                                                                                                                                                                                               |                     |                                                          |                        |
| Toposheet No                             | 58 I /16                                                                                                                                                                                                                                                                            |                     |                                                          |                        |
| Latitude between                         | 11°07'03.37"N to 11°07'08.76"N                                                                                                                                                                                                                                                      |                     |                                                          |                        |
| Longitude between                        | 78°50'24.25"E to 78°50'28.37"E                                                                                                                                                                                                                                                      |                     |                                                          |                        |
| The altitude of the area                 | 150 m (AMSL)                                                                                                                                                                                                                                                                        |                     |                                                          |                        |
| Proposed Depth of Mining                 | 56m (26m AGL AND 30m BGL)                                                                                                                                                                                                                                                           |                     |                                                          |                        |
| Geological Resources                     | 6,27,205 m <sup>3</sup>                                                                                                                                                                                                                                                             |                     |                                                          |                        |
| Mineable Reserves                        | 3,12605 m <sup>3</sup> – 49.8%                                                                                                                                                                                                                                                      |                     |                                                          |                        |
| Proposed Production                      | 3,12605 m <sup>3</sup>                                                                                                                                                                                                                                                              |                     |                                                          |                        |
| Ultimate pit Dimension                   | 140 m (L) X 89 m (W) X 56 m (26m AGL and 30m BGL) (D), Depth – 56 m BGL                                                                                                                                                                                                             |                     |                                                          |                        |
| Water Level in the area                  | 67 m BGL                                                                                                                                                                                                                                                                            |                     |                                                          |                        |
| Method of Mining                         | Opencast Mechanized Mining Method involving drilling and blasting                                                                                                                                                                                                                   |                     |                                                          |                        |
| Topography                               | The area applied for quarry lease is exhibits hilly terrain covered by covered by Topsoil formation. The massive Charnockite formation is noticed below 1m (Avg) Topsoil and sloping towards southwest side of the area, the altitude of the area is above 150m (maximum) from MSL. |                     |                                                          |                        |
| Machinery Proposed                       | Jack Hammer                                                                                                                                                                                                                                                                         | 5 Nos               |                                                          |                        |
|                                          | Compressor                                                                                                                                                                                                                                                                          | 2 Nos               |                                                          |                        |
|                                          | Excavator with bucket and rock breaker                                                                                                                                                                                                                                              | 2 Nos               |                                                          |                        |
|                                          | Tipper (5/10 T)                                                                                                                                                                                                                                                                     | 4 Nos               |                                                          |                        |
| Environmental Setting within 500m Radius | Kuttai – 275m (N)<br>Nearest Habitation - Nil within 500m Radius<br>Nearest RF -Nil within 500m Radius                                                                                                                                                                              |                     |                                                          |                        |
| Details of Habitation                    | S. No                                                                                                                                                                                                                                                                               | Name of the Village | Approximate distance & Direction from lease applied area | Approximate population |
|                                          | 1.                                                                                                                                                                                                                                                                                  | Pudhukurichi        | 2.8km - NE                                               | 500                    |
|                                          | 2.                                                                                                                                                                                                                                                                                  | Alathur             | 1.2km – NW                                               | 1500                   |
|                                          | 3.                                                                                                                                                                                                                                                                                  | Padalur             | 1.4Km-SE                                                 | 400                    |
|                                          | 4.                                                                                                                                                                                                                                                                                  | Padalur west        | 2.6km-SW                                                 | 2000                   |
| Proposed Manpower Development            | 30 Nos                                                                                                                                                                                                                                                                              |                     |                                                          |                        |
| Water Requirement                        | 5.0 KLD                                                                                                                                                                                                                                                                             |                     |                                                          |                        |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                |                                                                                                                           |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Greenbelt Development          | The safety zone of 0.23.0 Ha will be developed with about 230 Nos. of plantation.                                         |
| Fuel Requirement               | 250.084 KL of HSD (Entire ProjectLife)                                                                                    |
| Project Cost                   | Rs. 538.47 Lakhs (Including operational + Fixed Asset + EMP cost).                                                        |
| EMP Cost                       | Total EMP Cost for 05 years is 19.97 lakhs i.e., Rs.9.14 Lakhs of Capital + Recurring cost Rs. 10.83 lakhs for Five years |
| CER Cost                       | Rs. 5 Lakhs                                                                                                               |
| Applicability of CRZ Clearance | Not Applicable                                                                                                            |

### 1.3.2 NATURE OF THE PROJECT

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

### 1.3.3 LOCATION OF PROJECT

The proposed Quarry lease area is situated at S. F. No. 10/1 (Block 1) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. The area lies in the north latitude of **11°07'03.37"N to 11°07'08.76"N** and eastern longitude of **78°50'24.25"E to 78°50'28.37"E**. Location of the proposed project is shown in Figure 2.1 and the satellite imagery of the project site is shown in Figure 2.2. The details of Environmental Sensitivity within 1km radius are shown below:



**Figure 1.2 – Environmental Sensitivity within 1km radius**

#### **1.4 IMPORTANCE OF THE PROJECT TO THE REGION**

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

#### **1.5 REGULATORY COMPLIANCES**

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

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

---

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

### **1.5.1 PRESENT LEGAL STATUS**

**Table 1.5 – Present Legal Status**

| <b>Description</b>                      | <b>Issuing Authority</b>                                               | <b>Status</b> | <b>Letter number</b> | <b>Date</b> | <b>Reference</b> |
|-----------------------------------------|------------------------------------------------------------------------|---------------|----------------------|-------------|------------------|
| Precise Area Communication              | Assistant Director,<br>Department of Geology<br>and Mining, Perambalur | Received      | Rc.No. 123/G&M/2025  | 09.04.2025  | Annexure - 2     |
| Mine Plan Approval Letter               | Assistant Director,<br>Department of Geology<br>and Mining, Perambalur | Approved      | Rc.No. 123/G&M/2025  | 23.04.2025  | Annexure - 3     |
| 500m radius Cluster Letter              | Assistant Director,<br>Department of Geology<br>and Mining, Perambalur | Obtained      | Rc.No. 123/G&M/2025  | 16.06.2025  | Annexure - 4     |
| VAO NOC for features within 300m radius | VAO, Padalur (East) Village                                            | obtained      | -                    | 17.04.2025  | Annexure - 5     |

### **1.5.2 SCREENING**

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

### **1.5.3 SCOPING**

The proposal was placed in the 587<sup>th</sup> meeting of SEAC on 07.07.2025. Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Terms of Reference (ToR) to SEIAA and SEIAA recommended ToR in its 859<sup>th</sup> meeting dated 24.07.2025.

### **1.5.4 SCOPE OF THE STUDY**

In line with the prescribed Terms of Reference (TOR), the area comprising 10 km radius around the proposed mine lease boundary is considered as the study area. The EIA/EMP report has been prepared following the generic structure specified in the EIA Notification 2006. The detailed studies have been conducted as per prescribed Standard TOR issued by SEIAA, TamilNadu vide ToR Identification No. TO25B0108TN5921018N , dated: 30.07.2025. The point wise compliance for the ToR has been incorporated in this EIA/EMP report.

The main scope of the EIA study is to quantify the cumulative impact in the study area due to cluster quarries and formulate the effective mitigation measures for this applied project area. A detailed account of the emission sources, emissions control equipment, background Air quality levels, Meteorological measurements, Dispersion model and all other aspects of pollution like effluent discharge, Dust generation etc., have been discussed in this report. The baseline monitoring study

has been carried out during the Period of **March 2025 – May 2025** for various environmental components so as to assess the anticipated impacts due the cluster quarry projects on the environment and suggest suitable mitigation measures for likely adverse impacts due to this proposed project.

The scope of study broadly covered as below,

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

## **1.6 NEED AND JUSTIFICATION OF THE PROJECT**

- Proposed mining project will fulfill the local market requirement for real estate and infrastructure industry. This project will also provide employment to local people helping them earn livelihood.
- Employment generated consequent to the mining activity in the project will be benefit local and rural population and will have multiplier effects on local economy.
- The Project will give tremendous boosts to the local and regional economy benefiting the population.

- The social benefits arising out of this proposal can be expressed in terms of increase in the standards of living of local population, educational opportunities, training and development of skills etc.

## **1.7 STRUCTURE OF THE REPORT**

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

### **1. Introduction**

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

### **2. Project Description**

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

### **3. Description of the Environment**

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

### **4. Anticipated Environmental Impacts & Mitigation Measures**

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

### **5. Analysis of Alternatives (Site And Technology)**

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



## **6. Environmental Monitoring Program**

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

## **7. Additional Studies**

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

## **8. Project Benefits**

This chapter presents the benefits from this project

## **9. Environmental Management Plan**

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

## **10. Summary and Conclusion**

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

## **11. Disclosure of Consultant**

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

\*\*\*\*

## **2.0 PROJECT DESCRIPTION**

### **2.1 TYPE OF THE PROJECT**

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

This project proposed to produce 3,12,605 m<sup>3</sup> of Rough Stone for the period of 05 years with ultimate depth up to 56m (26m AGL and 30m BGL).

### **2.2 NEED FOR THE PROJECT**

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

### **2.3 LOCATION OF THE PROJECT**

This is a Rough Stone Quarry located in Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State. The area lies in the north latitude of **11°07'03.37"N to 11°07'08.76"N** and eastern longitude of **78°50'24.25"E to 78°50'28.37"E** and **toposheet number 58 I/16**. Location of the proposed project is shown in Figure 2.1 the satellite imagery of the project site is shown in Figure 2.2.

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

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

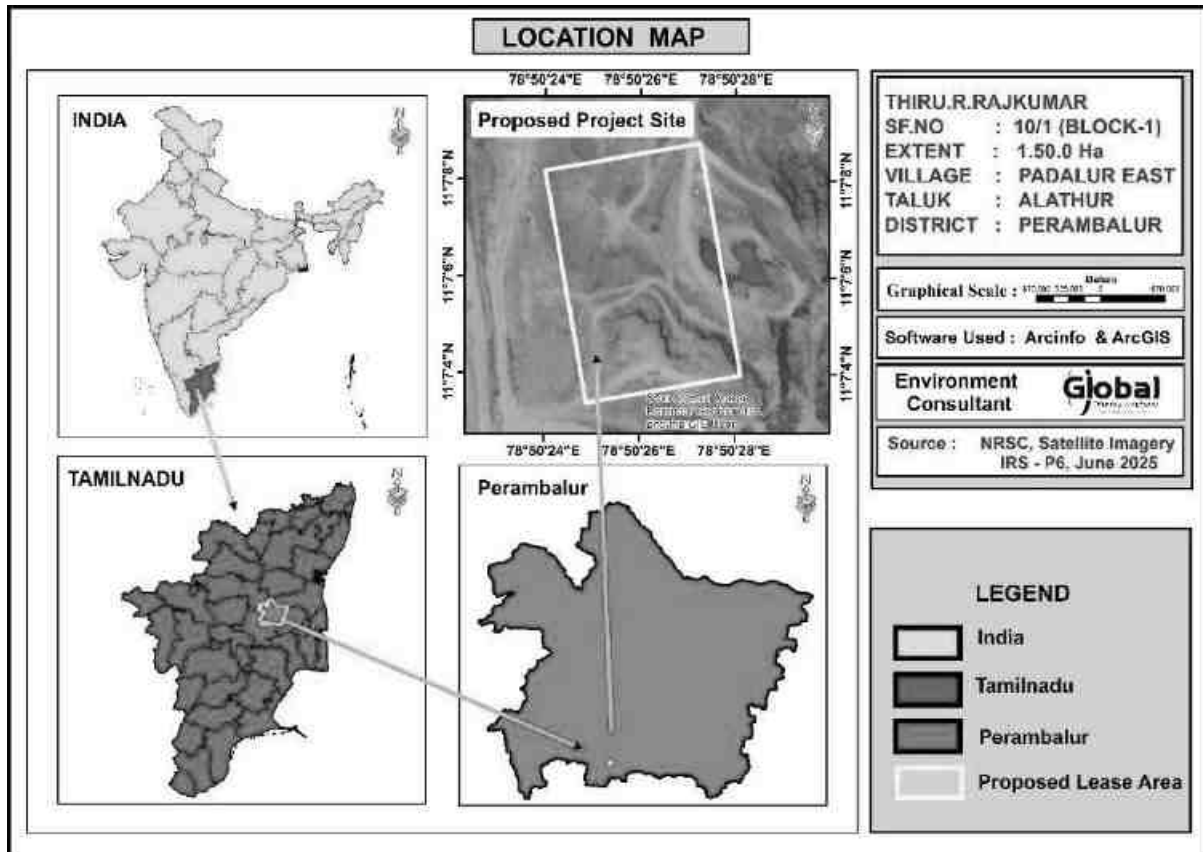


**Figure 2.1 Location Map**

**Table 2.1 Boundary Coordinates of the Project Site**

| Corners | Co- ordinates   |                 |
|---------|-----------------|-----------------|
|         | Latitude        | Longitude       |
| 1       | 11° 07' 03.37"N | 78° 50' 25.13"E |
| 2       | 11° 07' 08.18"N | 78° 50' 24.25"E |
| 3       | 11° 07' 08.76"N | 78° 50' 27.49"E |
| 4       | 11° 07' 03.96"N | 78° 50' 28.37"E |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

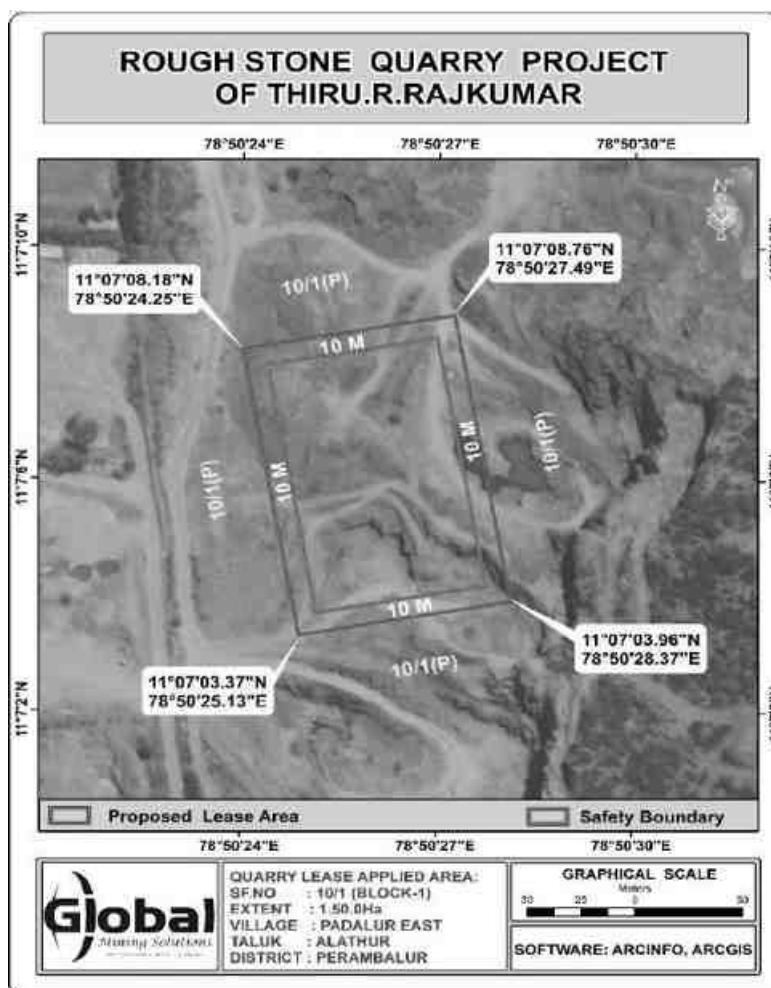


**Figure 2.2 Google Image of the project site with Boundary Coordinates**

**Table 2.2 Mine Lease Area and its Ownership**

| Location                                                   | S.F. No        | Area in Ha     | Land                      | Remarks                                                                                                        |
|------------------------------------------------------------|----------------|----------------|---------------------------|----------------------------------------------------------------------------------------------------------------|
| Padalur (East) Village, Alathur Taluk, Perambalur District | 10/1 (Block 1) | 1.50.00        | Government Poramboke Land | The applicant has obtained tender from the Government for quarrying for the tender amount of Rs. 4,29,00,000/- |
| <b>Total</b>                                               |                | <b>1.50.00</b> |                           |                                                                                                                |

**Table 2.3 Site Connectivity**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nearest Roadway         | <ul style="list-style-type: none"> <li>• There is an existing road from the area leads to Alathur – Padalur road on west side of the area.</li> <li>• The National Highway (NH-38) Viluppuram – Trichy is about 0.6km on west side of the area.</li> <li>• The State Highway (SH-142) Perambalur – Thuraiyur is about 11.8Km on northwest side of the area.</li> </ul> <p>The site is connected to NH-38 via Alathur-Padalur Road. The site has haul roads for the transportation of mined-out mineral with adequate width</p> |
| Nearest Village         | Irur – 735 m (NW)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Nearest Railway Station | Kallakkudi Palanganatham Railway Station – 20.01 km – SE                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Nearest Airport         | Tiruchurapalli International Airport- 41.31 km - S                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**



**Figure 2.3 Site Connectivity Map**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

**Table 2.4 Salient features of the Project**

| S. No. | Particulars                      | Details                                                                                                                                 |
|--------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1.     | Proponent Name                   | Thiru. R. Rajkumar                                                                                                                      |
| 2.     | Proposed project                 | Rough Stone Quarry of Thiru. R. Rajkumar                                                                                                |
| 3.     | Extent                           | 1.50.00 Ha and the cluster area within 500 m radius including the proposed mine is 16.03.6 Ha > 5 Ha                                    |
| 4.     | Location                         | S. No. 10/1 (Block 1), Padalur (E) Village, Alathur Taluk, Perambalur District                                                          |
| 5.     | Co-ordinates of the project site | Latitude: 11°07'03.37"N to 11°07'08.76"N<br>Longitude: 78°50'24.25"E to 78°50'28.37"E                                                   |
| 6.     | Topography                       | Plain Terrain                                                                                                                           |
| 7.     | Site Elevation above MSL         | ≈ 150 m from above MSL. Initial RL before commencement of Mining – 150m BGL and Final RL after completion of Mining Operation – 94m BGL |
| 8.     | Topo Sheet No.                   | 58 I /16                                                                                                                                |
| 9.     | Minerals of Mine                 | Rough Stone                                                                                                                             |
| 10.    | Proposed production in m3        | 3,12,605 m3 of Rough Stone up to the depth of 56m (26m AGL and 30m BGL) for the period of 5 years                                       |
| 11.    | Ultimate Depth of mining         | 56m (26m AGL and 30m BGL)                                                                                                               |
| 12.    | Method of Mining                 | Opencast Mining with a bench height of 5m and bench width of 5m is proposed                                                             |
| 13.    | Drilling/Blasting                | Drilling and controlled Blasting is proposed                                                                                            |
| 14.    | No. of Working days              | 300 Days                                                                                                                                |
| 15.    | Water requirement & Source       | 5.0 kLD and will be sourced from local vendors                                                                                          |
| 16.    | Manpower                         | 30 Nos.                                                                                                                                 |
| 17.    | Project Cost                     | Rs. 538.47 lakhs                                                                                                                        |
| 18.    | Mining Plan Approval             | Assistant Director, Department of Geology and Mining, Perambalur vide Rc.No. 123/G&M/2025, dated 23.04.2025                             |
| 19.    | Safety Zone                      | 0.23.0 Ha will be maintained as safety zone and tree saplings will be planted in this area                                              |
| 20.    | Ground water level               | 67m BGL                                                                                                                                 |
| 21.    | Distance of Stone Crusher        | 180m, SW                                                                                                                                |
| 22.    | Previous History & CCR           | The applied area was previously operated by some other lessee before 2015. Hence CCR is not applicable.                                 |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

**Table 2.5 Environmental Settings of the project site**

| <b>S. No.</b> | <b>Particulars</b>                                   | <b>Details</b>                                                                                                                                                                                                                                                 |
|---------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.            | Nearest Highway                                      | National Highway (NH-38) Viluppuram – Trichy - 0.6km - W<br>The State Highway (SH-142) Perambalur – Thuraiyur - 11.8Km - NW.                                                                                                                                   |
| 2.            | Interstate Boundary                                  | Not Applicable                                                                                                                                                                                                                                                 |
| 3.            | Nearest Railway Station                              | Kallakkudi Palanganatham Railway Station – 20.01 km – SE                                                                                                                                                                                                       |
| 4.            | Nearest Airport                                      | Trichy International Airport – 41.31 km - S                                                                                                                                                                                                                    |
| 5.            | Nearest Village                                      | Irur – 735 m (NW)                                                                                                                                                                                                                                              |
| 6.            | Water bodies                                         | Tank 0.52 km, S, Kuttai 275m (N), Tank 0.8 km, SE, Pudukurichi Eri – 2.9km, NE, Karai Big – 4.07km, NE, Therani Tank – 2.79km, SE, Thiruvallakuruchi Eri – 1.74 km, SE, Maruthadi Eri – 1.46km, SW, Perumalpalayam eri – 1.61km, SW, Nanthai River (4.3km, SE) |
| 7.            | Reserved Forest                                      | Naranamangalam R.F.- 2.93km (NW), Nedungur R.F.- 4.18km (SW)<br>R.F.- 5.27km (NW), Maniyankurichi R.F.- 5.96km<br>Maramareddipalayam R.F.- 8.26km (SW)                                                                                                         |
| 8.            | Eco Sensitive Zone and Wildlife Sanctuary (Notified) | Nil within 10km Radius<br>Karaivetti Birds Sanctuary – 26.76km km (SE)                                                                                                                                                                                         |
| 9.            | Archaeological important places                      | Nil within 10 km radius                                                                                                                                                                                                                                        |
| 10.           | Defense Installations                                | Nil within 10 km radius                                                                                                                                                                                                                                        |
| 11.           | Nearest Port                                         | Nil within 10 km radius                                                                                                                                                                                                                                        |
| 12.           | Seismic Zone                                         | Nil within 10 km radius                                                                                                                                                                                                                                        |





**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

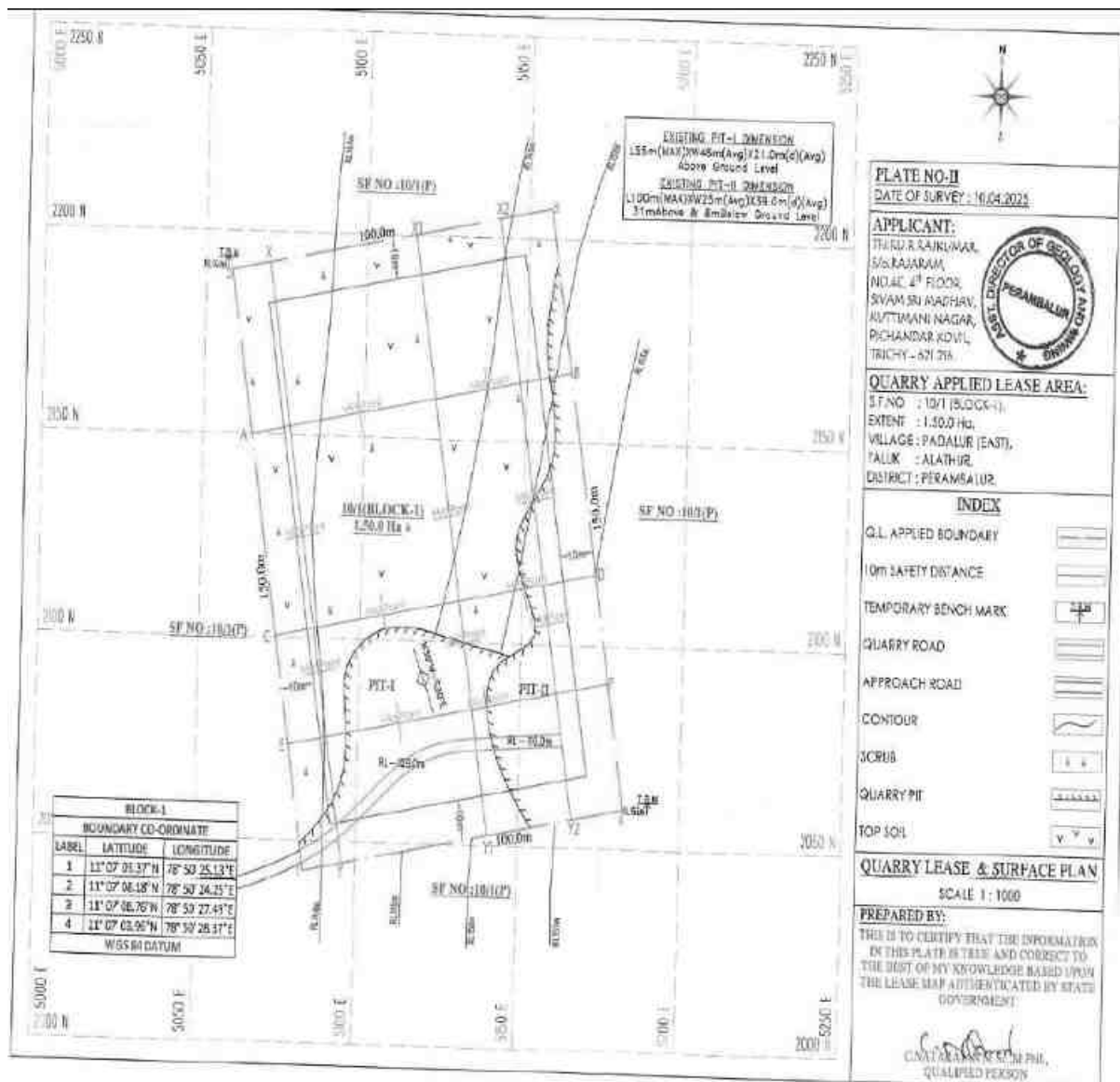


**Figure 2.5 Lease Plan**

# ROUGH STONE QUARRY PROJECT OF THIRU.R.RAJKUMAR

78°50'8"E 78°50'16"E 78°50'24"E 78°50'32"E 78°50'40"E

11°7'20"N

11°7'10"N

11°7'0"N

11°6'50"N

11°7'20"N

11°7'10"N

11°7'0"N

11°6'50"N

78°50'8"E 78°50'16"E 78°50'24"E 78°50'32"E 78°50'40"E

QUARRY LEASE APPLIED AREA:  
SF.NO : 10/1 (BLOCK-1)  
EXTENT : 1.50.0Ha  
VILLAGE : PADALUR EAST  
TALUK : ALATHUR  
DISTRICT : PERAMBALUR

GRAPHICAL SCALE

Meters

190 95 0 190

SOFTWARE: ARCFIN, ARCGIS



Global  
Product Journal

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

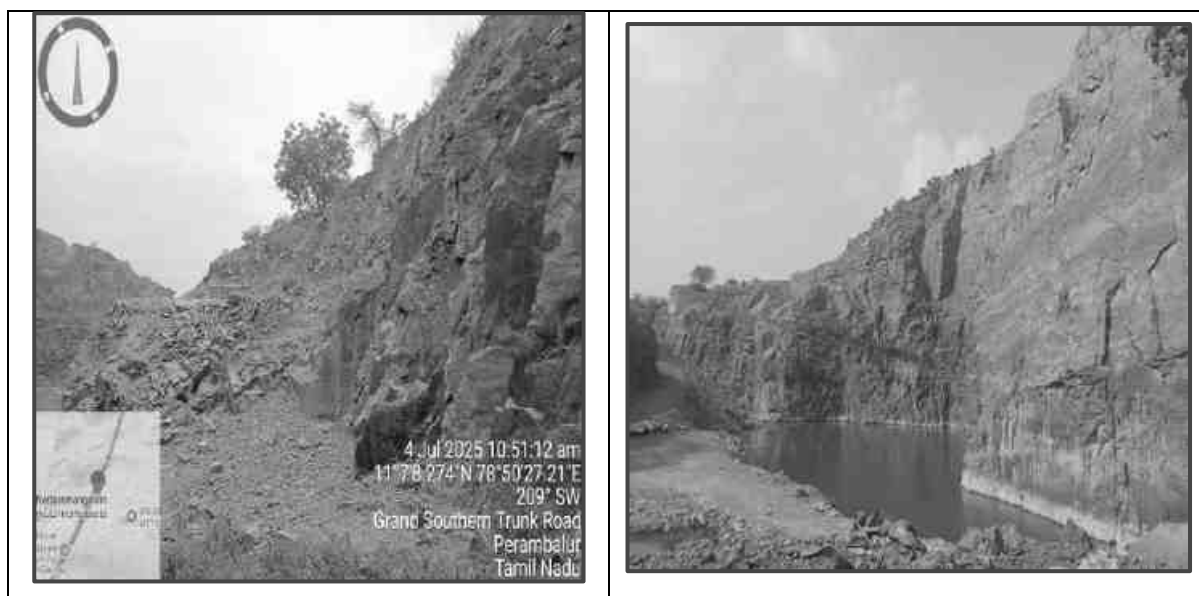


**Figure 2.7 Site Photographs**

## 2.4 LAND USE PATTERN OF THE PROJECT AREA

The entire project site is Government Land and the proponent has obtained Tender. The land use pattern of the mine lease area as of today and conceptual stage given in Table No. 2.6.

**Table 2.6 Land use pattern of the Project area**

| Description    | Present Area in Ha. | Area at the end of life of Quarry in Ha. |
|----------------|---------------------|------------------------------------------|
| Quarrying pit  | 0.52.0              | 1.25.0                                   |
| Infrastructure | Nil                 | 0.01.0                                   |
| Roads          | 0.01.0              | 0.01.0                                   |
| Greenbelt      | Nil                 | 0.23.0                                   |
| Unutilized     | 0.97.0              | Nil                                      |
| <b>Total</b>   | <b>1.50.0</b>       | <b>1.50.0</b>                            |

## 2.5 SIZE AND MAGNITUDE OF THE OPERATION

The proposed activity is the extraction of Rough Stone by open cast mechanized mining method over an extent of 1.50.0 Ha and to produce 3,12,605 m<sup>3</sup> of Rough Stone for the period of 05 years with ultimate depth up to 56m (26m AGL and 30m BGL). The details of geological and mineable reserves in the lease area have been provided below in the subsequent sub section.

## **2.6 TOPOGRAPHY AND DRAINAGE**

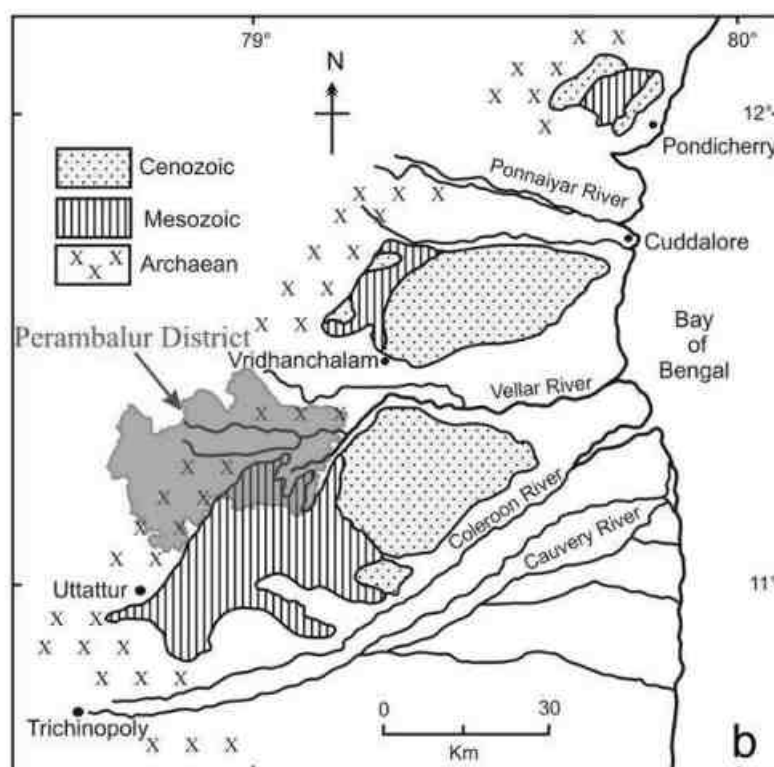
The area applied for quarry lease is exhibits hilly terrain covered by covered by Topsoil formation. The massive Charnockite formation is noticed below 1m (Avg) Topsoil and sloping towards southwest side of the area, the altitude of the area is above 150m (maximum) from MSL.

## **2.7 GEOLOGY**

### **2.7.1 REGIONAL GEOLOGY**

The north and western part of the district is mainly covered (> 80 %) with Archaean rocks and is mainly comprises of Hornblende Gneiss and Chaornockite and the eastern part is covered with cretaceous sediments (Fig. 5). The Sathyamangalam rocks are distributed along the east-west tract in central Tamil Nadu confined between Bhavani – Attur lineament in the north and Noyil – Cauvery lineament in the south (Subramanian and Selvan, 2001). Similar rocks are also known in the northwestern part of the state in Dharmapuri district. The equivalents of Sakarsanahalli (Sargur) supracrustals are described in Dimbam–Tattakarai areas of Kollegal – Krishnagiri terrane (GSI, 1998). Though the Sathyamangalam Group of rocks are said to be exposed within the Bhavani gneiss in the E-W trending belt in central Tamil Nadu in parts of Coimbatore, Salem, Namakkal, Perambalur and Tiruchirapalli districts.

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**



**Source: District Survey Report, Perambalur**

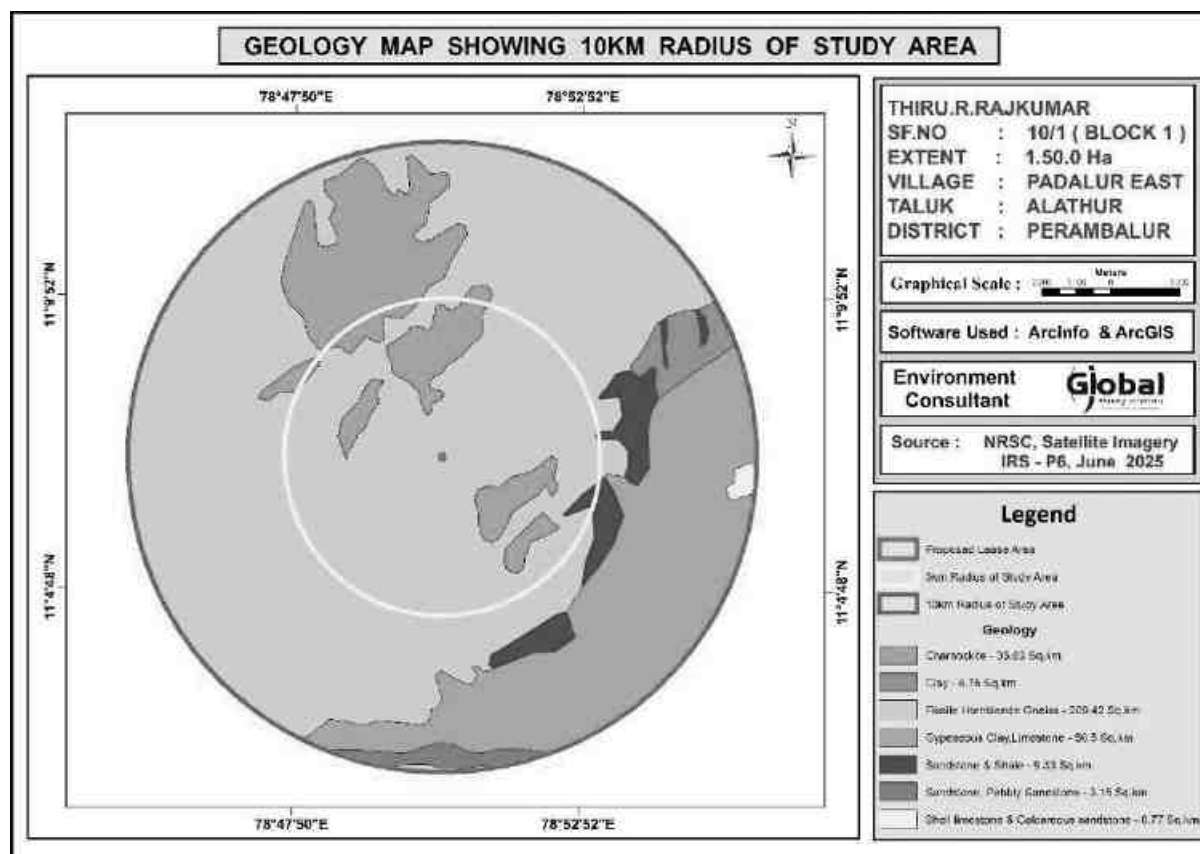


**Figure 2.8 Geology Map – 10km Radius from the Project Site**

## 2.7.2 LOCAL GEOLOGY

The geology map reveals that the area is predominantly covered with Fissile Hornblende Gneiss and the remaining area is covered with Charconite, Clays, gypseous clay, Limestone with Marl, Sandstone, Shales with Limestone and Shell Limestone. Both Primary data (Local Geology) and Secondary Data (regional Geology) reveals that the area is covered with Hornblende Gneiss and in this way, secondary data is validated with the Primary Data.

## 2.8 RESOURCES AND RESERVES

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

**Table 2.7 Available Geological Resources**

| Section | Topograp<br>hy           | Benc<br>h | Lengt<br>h in<br>(m) | Widt<br>h in<br>(m) | Dept<br>h in<br>(m) | Top<br>soil<br>m³ | Geologic<br>al<br>Resourc<br>es of<br>Rough<br>stone in<br>m³ | Bulk<br>Densit<br>y | Top soil<br>in Ts | Geological<br>Resources<br>of Rough<br>stone in Ts |
|---------|--------------------------|-----------|----------------------|---------------------|---------------------|-------------------|---------------------------------------------------------------|---------------------|-------------------|----------------------------------------------------|
| XY-AB   | Above<br>Ground<br>Level | I         | 68                   | 36                  | 1                   | 2448              | -                                                             | 2                   | 4896.00           | -                                                  |
|         |                          | II        | 57                   | 34                  | 5                   | -                 | 9690                                                          | 2.75                | -                 | 26647.50                                           |
|         |                          | III       | 68                   | 34                  | 5                   | -                 | 11560                                                         | 2.75                | -                 | 31790.00                                           |
|         |                          | IV        | 68                   | 34                  | 5                   | -                 | 11560                                                         | 2.75                | -                 | 31790.00                                           |
|         | Below<br>Ground<br>Level | V         | 68                   | 34                  | 5                   | -                 | 11560                                                         | 2.75                | -                 | 31790.00                                           |
|         |                          | VI        | 68                   | 34                  | 5                   | -                 | 11560                                                         | 2.75                | -                 | 31790.00                                           |
|         |                          | VII       | 68                   | 34                  | 5                   | -                 | 11560                                                         | 2.75                | -                 | 31790.00                                           |
|         |                          | VIII      | 68                   | 34                  | 5                   | -                 | 11560                                                         | 2.75                | -                 | 31790.00                                           |
|         |                          | IX        | 68                   | 34                  | 5                   | -                 | 11560                                                         | 2.75                | -                 | 31790.00                                           |
|         |                          | X         | 68                   | 34                  | 5                   | -                 | 11560                                                         | 2.75                | -                 | 31790.00                                           |
| Total   |                          |           |                      |                     |                     | 2448              | 102170                                                        | -                   | 4896.00           | 280967.50                                          |
| XY-CD   | Above<br>Ground<br>Level | I         | 31                   | 35                  | 1                   | 1085              | -                                                             | 2                   | 2170.00           | -                                                  |
|         |                          | II        | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
|         |                          | III       | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
|         |                          | IV        | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
|         | Below<br>Ground<br>Level | V         | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
|         |                          | VI        | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
|         |                          | VII       | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
|         |                          | VIII      | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
|         |                          | IX        | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
|         |                          | X         | 31                   | 34                  | 5                   | -                 | 5270                                                          | 2.75                | -                 | 14492.50                                           |
| Total   |                          |           |                      |                     |                     | 1085              | 47430                                                         | -                   | 2170.00           | 130432.50                                          |
| XY-EF   | Above<br>Ground<br>Level | I         | 34                   | 20                  | 1                   | 680               | -                                                             | 2                   | 1360.00           | -                                                  |
|         |                          | II        | 34                   | 8                   | 5                   | -                 | 1360                                                          | 2.75                | -                 | 3740.00                                            |
|         |                          | III       | 34                   | 18                  | 5                   | -                 | 3060                                                          | 2.75                | -                 | 8415.00                                            |
|         |                          | IV        | 51                   | 34                  | 5                   | -                 | 8670                                                          | 2.75                | -                 | 23842.50                                           |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|             |                          |      |    |    |   |      |        |      |         |           |
|-------------|--------------------------|------|----|----|---|------|--------|------|---------|-----------|
|             | Below<br>Ground<br>Level | V    | 51 | 34 | 5 | -    | 8670   | 2.75 | -       | 23842.50  |
|             |                          | VI   | 51 | 34 | 5 | -    | 8670   | 2.75 | -       | 23842.50  |
|             |                          | VII  | 51 | 34 | 5 | -    | 8670   | 2.75 | -       | 23842.50  |
|             |                          | VIII | 51 | 34 | 5 | -    | 8670   | 2.75 | -       | 23842.50  |
|             |                          | IX   | 51 | 34 | 5 | -    | 8670   | 2.75 | -       | 23842.50  |
|             |                          | X    | 51 | 34 | 5 | -    | 8670   | 2.75 | -       | 23842.50  |
| Total       |                          |      |    |    |   | 680  | 65110  | -    | 1360.00 | 179052.50 |
| X1Y1-<br>AB | Above<br>Ground<br>Level | I    | 70 | 29 | 1 | 2030 | -      | 2    | 4060.00 | -         |
|             |                          | II   | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             |                          | III  | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             |                          | VI   | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             |                          | V    | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             | Below<br>Ground<br>Level | VI   | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             |                          | VII  | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             |                          | VIII | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             |                          | IX   | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             |                          | X    | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
|             |                          | XI   | 70 | 27 | 5 | -    | 9450   | 2.75 | -       | 25987.50  |
| Total       |                          |      |    |    |   | 2030 | 94500  | -    | 4060.00 | 259875.00 |
| X1Y1-<br>CD | Above<br>Ground<br>Level | I    | 29 | 45 | 1 | 1305 | -      | 2    | 2610.00 | -         |
|             |                          | II   | 29 | 29 | 5 | -    | 4205   | 2.75 | -       | 11563.75  |
|             |                          | III  | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
|             |                          | IV   | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
|             |                          | V    | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
|             | Below<br>Ground<br>Level | VI   | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
|             |                          | VII  | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
|             |                          | VIII | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
|             |                          | IX   | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
|             |                          | X    | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
|             |                          | XI   | 29 | 44 | 5 | -    | 6380   | 2.75 | -       | 17545.00  |
| Total       |                          |      |    |    |   | 1305 | 61625  | -    | 2610.00 | 169468.75 |
| X1Y1-<br>EF | Above<br>Ground<br>Level | I    | 10 | 27 | 1 | 270  | -      | 2    | 540.00  | -         |
|             |                          | II   | 10 | 27 | 5 | -    | 1350   | 2.75 | -       | 3712.50   |
|             |                          | III  | 10 | 27 | 5 | -    | 1350   | 2.75 | -       | 3712.50   |
|             |                          | IV   | 10 | 27 | 5 | -    | 1350   | 2.75 | -       | 3712.50   |
|             |                          | V    | 10 | 27 | 5 | -    | 1350   | 2.75 | -       | 3712.50   |
|             |                          | VI   | 51 | 27 | 5 | -    | 6885   | 2.75 | -       | 18933.75  |
|             | Below<br>Ground<br>Level | VII  | 51 | 27 | 5 | -    | 6885   | 2.75 | -       | 18933.75  |
|             |                          | VIII | 51 | 27 | 5 | -    | 6885   | 2.75 | -       | 18933.75  |
|             |                          | IX   | 51 | 27 | 5 | -    | 6885   | 2.75 | -       | 18933.75  |
|             |                          | X    | 51 | 27 | 5 | -    | 6885   | 2.75 | -       | 18933.75  |
|             |                          | XI   | 51 | 27 | 5 | -    | 6885   | 2.75 | -       | 18933.75  |
|             |                          | XII  | 51 | 27 | 5 | -    | 6885   | 2.75 | -       | 18933.75  |
| Total       |                          |      |    |    |   | 270  | 53595  | -    | 540.00  | 147386.25 |
| X2Y2-<br>AB | Above<br>Ground<br>Level | I    | 71 | 40 | 1 | 2840 | -      | 2    | 5680.00 | -         |
|             |                          | II   | 33 | 39 | 5 | -    | 6435   | 2.75 | -       | 17696.25  |
|             |                          | III  | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             |                          | IV   | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             |                          | V    | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             |                          | VI   | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             | Below<br>Ground<br>Level | VII  | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             |                          | VIII | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             |                          | IX   | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             |                          | X    | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             |                          | XI   | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
|             |                          | XII  | 70 | 39 | 5 | -    | 13650  | 2.75 | -       | 37537.50  |
| Total       |                          |      |    |    |   | 2840 | 142935 | -    | 5680.00 | 393071.25 |
|             |                          | IX   | 30 | 22 | 2 | -    | 1320   | 2.75 | -       | 3630.00   |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|             |                    |      |    |    |       |        |       |          |            |          |
|-------------|--------------------|------|----|----|-------|--------|-------|----------|------------|----------|
| X2Y2-CD     | Below Ground Level | X    | 30 | 22 | 5     | -      | 3300  | 2.75     | -          | 9075.00  |
|             |                    | XI   | 30 | 22 | 5     | -      | 3300  | 2.75     | -          | 9075.00  |
|             |                    | XII  | 30 | 22 | 5     | -      | 3300  | 2.75     | -          | 9075.00  |
|             |                    | XIII | 30 | 22 | 5     | -      | 3300  | 2.75     | -          | 9075.00  |
| Total       |                    |      |    |    |       | -      | 14520 | -        | -          | 39930.00 |
| X2Y2-EF     | Above Ground Level | I    | 10 | 10 | 1     | 100    | -     | 2        | 200.00     | -        |
|             |                    | II   | 10 | 10 | 5     | -      | 500   | 2.75     | -          | 1375.00  |
|             |                    | III  | 10 | 10 | 5     | -      | 500   | 2.75     | -          | 1375.00  |
|             |                    | IV   | 10 | 10 | 5     | -      | 500   | 2.75     | -          | 1375.00  |
|             |                    | V    | 10 | 10 | 5     | -      | 500   | 2.75     | -          | 1375.00  |
|             |                    | VI   | 10 | 10 | 5     | -      | 500   | 2.75     | -          | 1375.00  |
|             | Below Ground Level | VII  | 10 | 10 | 5     | -      | 500   | 2.75     | -          | 1375.00  |
|             |                    | VIII | 10 | 10 | 5     | -      | 500   | 2.75     | -          | 1375.00  |
|             |                    | IX   | 10 | 10 | 5     | -      | 500   | 2.75     | -          | 1375.00  |
|             |                    |      | 40 | 29 | 2     | -      | 2320  | 2.75     | -          | 6380.00  |
|             |                    | X    | 50 | 39 | 5     | -      | 9750  | 2.75     | -          | 26812.50 |
|             |                    | XI   | 50 | 39 | 5     | -      | 9750  | 2.75     | -          | 26812.50 |
|             |                    | XII  | 50 | 39 | 5     | -      | 9750  | 2.75     | -          | 26812.50 |
| XIII        | 50                 | 39   | 5  | -  | 9750  | 2.75   | -     | 26812.50 |            |          |
| Total       |                    |      |    |    | 100   | 45320  | -     | 200.00   | 124630.00  |          |
| Grand Total |                    |      |    |    | 10758 | 627205 | -     | 21516.00 | 1724813.75 |          |

Topsoil Formation : 21,516 Ts

The Geological Resources of Rough stone : 17,24,813.75 Ts

### 2.8.1 MINEABLE RESERVES

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

**Table 2.8 – Available Mineable Reserves**

| Section | Topography         | Bench | Length in (m) | Width in (m) | Depth in (m) | Top soil in m³ | Mineable Reserves of Rough stone in m³ | Bulk Density | Top soil in Ts | Mineable Reserves of Rough stone in Ts |
|---------|--------------------|-------|---------------|--------------|--------------|----------------|----------------------------------------|--------------|----------------|----------------------------------------|
| XY-AB   | Above Ground Level | I     | 58            | 26           | 1            | 1508           | -                                      | 2            | 3016.00        | -                                      |
|         |                    | II    | 57            | 24           | 5            | -              | 6840                                   | 2.75         | -              | 18810.00                               |
|         |                    | III   | 58            | 24           | 5            | -              | 6960                                   | 2.75         | -              | 19140.00                               |
|         |                    | IV    | 58            | 24           | 5            | -              | 6960                                   | 2.75         | -              | 19140.00                               |
|         | Below Ground Level | V     | 58            | 24           | 5            | -              | 6960                                   | 2.75         | -              | 19140.00                               |
|         |                    | VI    | 53            | 19           | 5            | -              | 5035                                   | 2.75         | -              | 13846.25                               |
|         |                    | VII   | 48            | 14           | 5            | -              | 3360                                   | 2.75         | -              | 9240.00                                |
|         |                    | VIII  | 43            | 9            | 5            | -              | 1935                                   | 2.75         | -              | 5321.25                                |
| Total   |                    |       |               |              |              | 1508           | 38050                                  | -            | 3016.00        | 104637.50                              |
| XY-CD   | Above Ground Level | I     | 31            | 25           | 1            | 775            | -                                      | 2            | 1550.00        | -                                      |
|         |                    | II    | 31            | 24           | 5            | -              | 3720                                   | 2.75         | -              | 10230.00                               |
|         |                    | III   | 31            | 24           | 5            | -              | 3720                                   | 2.75         | -              | 10230.00                               |
|         |                    | IV    | 31            | 24           | 5            | -              | 3720                                   | 2.75         | -              | 10230.00                               |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|         |                    |      |    |    |   |      |       |      |         |           |
|---------|--------------------|------|----|----|---|------|-------|------|---------|-----------|
|         | Below Ground Level | V    | 31 | 24 | 5 | -    | 3720  | 2.75 | -       | 10230.00  |
|         |                    | VI   | 31 | 19 | 5 | -    | 2945  | 2.75 | -       | 8098.75   |
|         |                    | VII  | 31 | 14 | 5 | -    | 2170  | 2.75 | -       | 5967.50   |
|         |                    | VIII | 31 | 9  | 5 | -    | 1395  | 2.75 | -       | 3836.25   |
| Total   |                    |      |    |    |   | 775  | 21390 | -    | 1550.00 | 58822.50  |
| XY-EF   | Above Ground Level | I    | 34 | 10 | 1 | 340  | -     | 2    | 680.00  | -         |
|         |                    | II   | 34 | 8  | 5 | -    | 1360  | 2.75 | -       | 3740.00   |
|         |                    | III  | 34 | 8  | 5 | -    | 1360  | 2.75 | -       | 3740.00   |
|         |                    | IV   | 41 | 24 | 5 | -    | 4920  | 2.75 | -       | 13530.00  |
|         | Below Ground Level | V    | 41 | 24 | 5 | -    | 4920  | 2.75 | -       | 13530.00  |
|         |                    | VI   | 36 | 19 | 5 | -    | 3420  | 2.75 | -       | 9405.00   |
|         |                    | VII  | 31 | 14 | 5 | -    | 2170  | 2.75 | -       | 5967.50   |
|         |                    | VIII | 26 | 9  | 5 | -    | 1170  | 2.75 | -       | 3217.50   |
| Total   |                    |      |    |    |   | 340  | 19320 | -    | 680.00  | 53130.00  |
| X1Y1-AB | Above Ground Level | I    | 60 | 29 | 1 | 1740 | -     | 2    | 3480.00 | -         |
|         |                    | II   | 60 | 27 | 5 | -    | 8100  | 2.75 | -       | 22275.00  |
|         |                    | III  | 60 | 27 | 5 | -    | 8100  | 2.75 | -       | 22275.00  |
|         |                    | IV   | 60 | 27 | 5 | -    | 8100  | 2.75 | -       | 22275.00  |
|         |                    | V    | 60 | 27 | 5 | -    | 8100  | 2.75 | -       | 22275.00  |
|         | Below Ground Level | VI   | 60 | 27 | 5 | -    | 8100  | 2.75 | -       | 22275.00  |
|         |                    | VII  | 55 | 27 | 5 | -    | 7425  | 2.75 | -       | 20418.75  |
|         |                    | VIII | 50 | 27 | 5 | -    | 6750  | 2.75 | -       | 18562.50  |
|         |                    | IX   | 45 | 27 | 5 | -    | 6075  | 2.75 | -       | 16706.25  |
|         |                    | X    | 40 | 27 | 5 | -    | 5400  | 2.75 | -       | 14850.00  |
|         |                    | XI   | 35 | 22 | 5 | -    | 3850  | 2.75 | -       | 10587.50  |
| Total   |                    |      |    |    |   | 1740 | 70000 | -    | 3480.00 | 192500.00 |
| X1Y1-CD | Above Ground Level | I    | 29 | 45 | 1 | 1305 | -     | 2    | 2610.00 | -         |
|         |                    | II   | 29 | 29 | 5 | -    | 4205  | 2.75 | -       | 11563.75  |
|         |                    | III  | 29 | 44 | 5 | -    | 6380  | 2.75 | -       | 17545.00  |
|         |                    | IV   | 29 | 44 | 5 | -    | 6380  | 2.75 | -       | 17545.00  |
|         |                    | V    | 29 | 44 | 5 | -    | 6380  | 2.75 | -       | 17545.00  |
|         | Below Ground Level | VI   | 29 | 44 | 5 | -    | 6380  | 2.75 | -       | 17545.00  |
|         |                    | VII  | 29 | 44 | 5 | -    | 6380  | 2.75 | -       | 17545.00  |
|         |                    | VIII | 29 | 44 | 5 | -    | 6380  | 2.75 | -       | 17545.00  |
|         |                    | IX   | 29 | 44 | 5 | -    | 6380  | 2.75 | -       | 17545.00  |
|         |                    | X    | 29 | 39 | 5 | -    | 5655  | 2.75 | -       | 15551.25  |
|         |                    | XI   | 29 | 29 | 5 | -    | 4205  | 2.75 | -       | 11563.75  |
| Total   |                    |      |    |    |   | 1305 | 58725 | -    | 2610.00 | 161493.75 |
| X1Y1-EF | Above Ground Level | VI   | 41 | 27 | 5 | -    | 5535  | 2.75 | -       | 15221.25  |
|         | Below Ground Level | VII  | 41 | 27 | 5 | -    | 5535  | 2.75 | -       | 15221.25  |
|         |                    | VIII | 36 | 27 | 5 | -    | 4860  | 2.75 | -       | 13365.00  |
|         |                    | IX   | 31 | 27 | 5 | -    | 4185  | 2.75 | -       | 11508.75  |
|         |                    | X    | 26 | 27 | 5 | -    | 3510  | 2.75 | -       | 9652.50   |
|         |                    | XI   | 21 | 27 | 5 | -    | 2835  | 2.75 | -       | 7796.25   |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|             |                    |      |    |    |      |          |       |          |           |          |
|-------------|--------------------|------|----|----|------|----------|-------|----------|-----------|----------|
|             |                    | XII  | 16 | 22 | 5    | -        | 1760  | 2.75     | -         | 4840.00  |
| Total       |                    |      |    |    |      | -        | 28220 | -        | -         | 77605.00 |
| X2Y2-AB     | Above Ground Level | I    | 61 | 29 | 1    | 1769     | -     | 2        | 3538.00   | -        |
|             |                    | II   | 33 | 29 | 5    | -        | 4785  | 2.75     | -         | 13158.75 |
|             |                    | III  | 60 | 29 | 5    | -        | 8700  | 2.75     | -         | 23925.00 |
|             |                    | IV   | 60 | 29 | 5    | -        | 8700  | 2.75     | -         | 23925.00 |
|             |                    | V    | 60 | 29 | 5    | -        | 8700  | 2.75     | -         | 23925.00 |
|             |                    | VI   | 60 | 29 | 5    | -        | 8700  | 2.75     | -         | 23925.00 |
|             | Below Ground Level | VII  | 60 | 29 | 5    | -        | 8700  | 2.75     | -         | 23925.00 |
|             |                    | VIII | 55 | 24 | 5    | -        | 6600  | 2.75     | -         | 18150.00 |
|             |                    | IX   | 50 | 19 | 5    | -        | 4750  | 2.75     | -         | 13062.50 |
|             |                    | X    | 45 | 14 | 5    | -        | 3150  | 2.75     | -         | 8662.50  |
| XI          |                    | 35   | 9  | 5  | -    | 1575     | 2.75  | -        | 4331.25   |          |
| Total       |                    |      |    |    | 1769 | 64360    | -     | 3538.00  | 176990.00 |          |
| X2Y2-CD     | Below Ground Level | IX   | 30 | 12 | 2    | -        | 720   | 2.75     | -         | 1980.00  |
|             |                    | X    | 30 | 7  | 5    | -        | 1050  | 2.75     | -         | 2887.50  |
| Total       |                    |      |    |    | -    | 1770     | -     | -        | 4867.50   |          |
| X2Y2-EF     | Below Ground Level | IX   | 40 | 29 | 2    | -        | 2320  | 2.75     | -         | 6380.00  |
|             |                    | X    | 35 | 24 | 5    | -        | 4200  | 2.75     | -         | 11550.00 |
|             |                    | XI   | 30 | 19 | 5    | -        | 2850  | 2.75     | -         | 7837.50  |
|             |                    | XII  | 20 | 14 | 5    | -        | 1400  | 2.75     | -         | 3850.00  |
| Total       |                    |      |    |    | -    | 10770    | -     | -        | 29617.50  |          |
| Grand Total |                    |      |    |    | 7437 | 3,12,605 | -     | 14874.00 | 859663.75 |          |

The available mineable reserve is computed as 8,59,663.75Ts of rough stone and 14,874Ts of Topsoil up to a depth of 56m (26m above ground level and 30m below ground level) only.

## 2.9 PROCESS DESCRIPTION AND TECHNOLOGY

### 2.9.1 PROCESS DESCRIPTON

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

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

The process diagram is provided in Figure 2.9. The production plan and cross section and conceptual plan and conceptual cross section is given in Figure No. 2.10 and Figure No. 2.11 respectively.

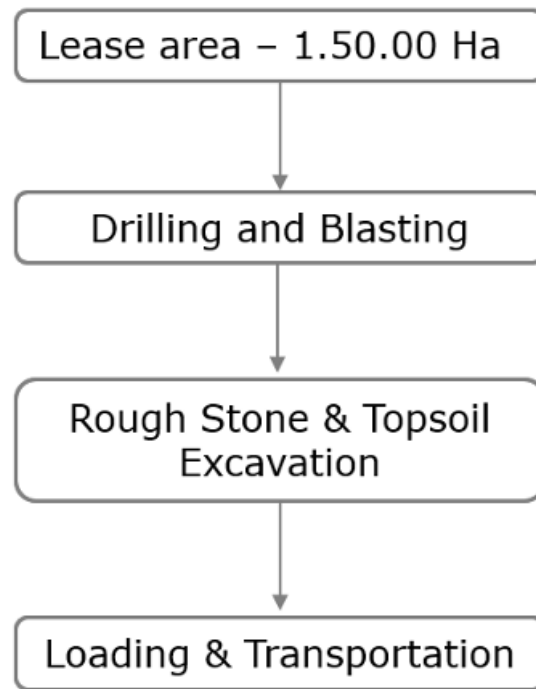
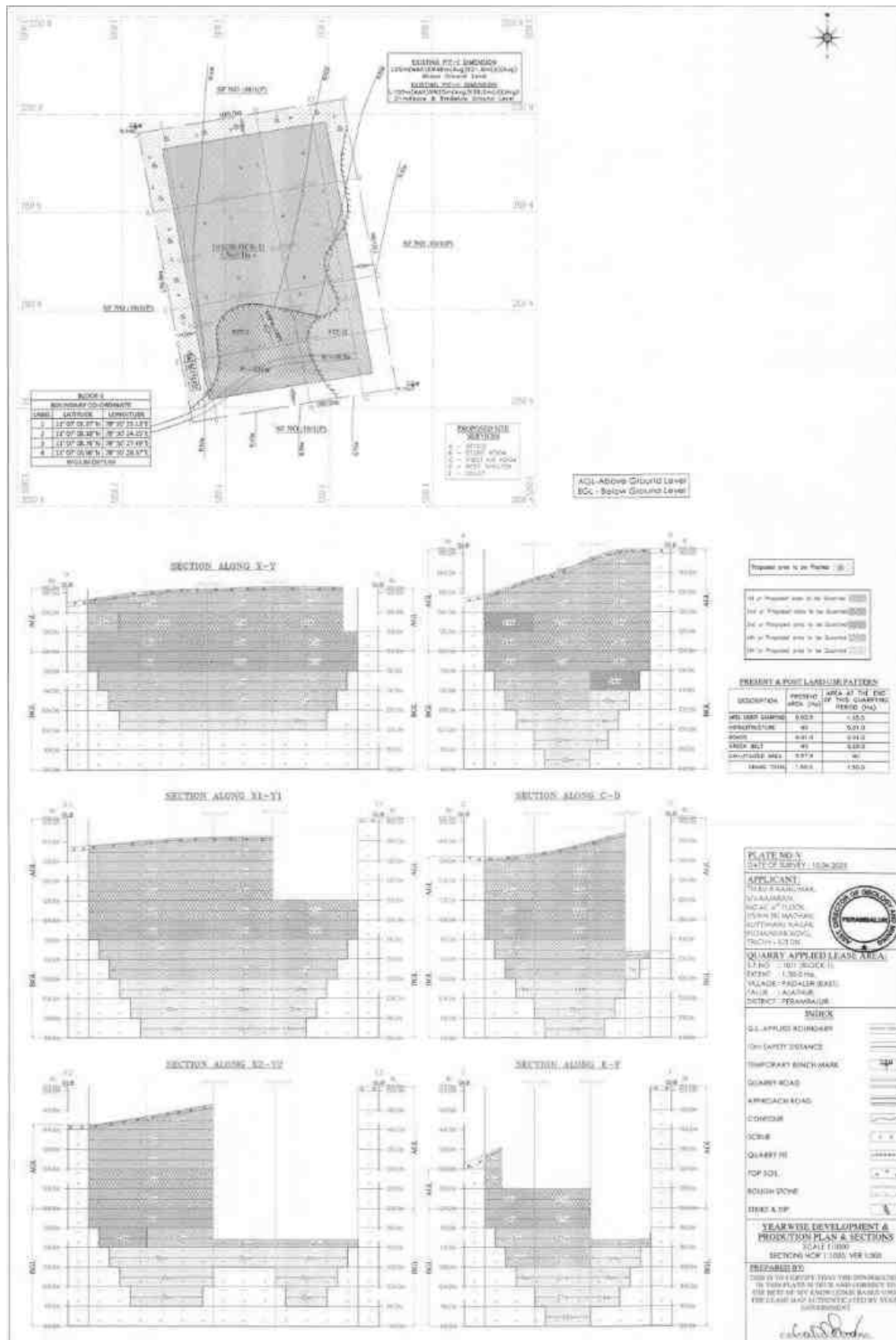


**Figure 2.9 Process Flow Diagram**



### Figure 2.10 Year wise Development & Production Plan & Sections

**Table 2.9 – Machinery Details**

| <b>S.No.</b> | <b>Name of the Equipment</b>           | <b>Capacity</b>     | <b>Requirement</b> |
|--------------|----------------------------------------|---------------------|--------------------|
| 1            | Excavator with Rock breaker attachment | 0.90 m <sup>3</sup> | 2                  |
| 2            | Compressor                             | 400 psi             | 2                  |
| 3            | Jack hammer                            | 1.2m to 6m          | 5                  |
| 4            | Tipper                                 | 5/10 T              | 4                  |

### **2.9.2 DRILLING AND BLASTING PARAMETERS**

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

**Table 2.10 – Details of Blasting**

|                          |                         |
|--------------------------|-------------------------|
| Diameter of the hole     | 32-36 mm                |
| Spacing                  | 0.6m                    |
| Depth                    | 1 to 1.5 m              |
| Burden of hole           | 0.6m                    |
| Pattern of hole          | Zig zag                 |
| Inclination of hole      | 70° from horizontal     |
| Number of holes          | 192                     |
| Powder factor            | 6Ts/Kg of Explosives    |
| Total explosive required | 96 Kg slurry Explosives |
| Charge / hole            | 0.5Kg                   |
| Blasting time            | 12-2 Pm                 |

### **2.9.3 TYPE OF EXPLOSIVE**

Slurry explosive is proposed for shattering and heaving effect for removal of rough stone. No deep hole drilling or primary blasting is proposed.

### **2.9.4 STORAGE OF EXPLOSIVES**

No proposal for storage of explosives within the project area, the applicant will engage authorized explosive agency to carry out the blasting and it will be

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

supervised by competent and statutory foreman / mines manager as per DGMS guidelines.

### 2.9.5 PRODUCTION SCHEDULE

The year wise production schedule upto lease period of first 5 years is given below, the year wise production plan is given in Figure 2.10.

**Table 2.11 Year wise Production Plan**

| Year  | Section | Topography         | Bench | Length in (m) | Width in (m) | Depth in (m) | Top soil m³ | Mineable Reserves of Rough stone in m³ | Bulk Density | Top soil in Ts | Mineable Reserves of Rough stone in Ts |
|-------|---------|--------------------|-------|---------------|--------------|--------------|-------------|----------------------------------------|--------------|----------------|----------------------------------------|
| I     | X2Y2-AB | Above Ground Level | I     | 61            | 29           | 1            | 1769        | -                                      | 2            | 3538.00        | -                                      |
|       |         |                    | II    | 33            | 29           | 5            | -           | 4785                                   | 2.75         | -              | 13158.75                               |
|       |         |                    | III   | 60            | 29           | 5            | -           | 8700                                   | 2.75         | -              | 23925.00                               |
|       |         |                    | IV    | 60            | 29           | 5            | -           | 8700                                   | 2.75         | -              | 23925.00                               |
|       | X1Y1-AB | Above Ground Level | I     | 60            | 29           | 1            | 1740        | -                                      | 2            | 3480.00        | -                                      |
|       |         |                    | II    | 60            | 27           | 5            | -           | 8100                                   | 2.75         | -              | 22275.00                               |
|       |         |                    | III   | 60            | 27           | 5            | -           | 8100                                   | 2.75         | -              | 22275.00                               |
|       | X1Y1-CD | Above Ground Level | I     | 29            | 45           | 1            | 1305        | -                                      | 2            | 2610.00        | -                                      |
|       |         |                    | II    | 29            | 29           | 5            | -           | 4205                                   | 2.75         | -              | 11563.75                               |
|       |         |                    | III   | 29            | 44           | 5            | -           | 6380                                   | 2.75         | -              | 17545.00                               |
|       | XY-EF   | Above Ground Level | I     | 34            | 10           | 1            | 340         | -                                      | 2            | 680.00         | -                                      |
|       |         |                    | II    | 34            | 8            | 5            | -           | 1360                                   | 2.75         | -              | 3740.00                                |
|       | XY-CD   | Above Ground Level | I     | 31            | 25           | 1            | 775         | -                                      | 2            | 1550.00        | -                                      |
|       |         |                    | II    | 31            | 24           | 5            | -           | 3720                                   | 2.75         | -              | 10230.00                               |
|       | XY-AB   | Above Ground Level | I     | 58            | 26           | 1            | 1508        | -                                      | 2            | 3016.00        | -                                      |
|       |         |                    | II    | 57            | 24           | 5            | -           | 6840                                   | 2.75         | -              | 18810.00                               |
|       |         |                    | III   | 15            | 24           | 5            | -           | 1800                                   | 2.75         | -              | 4950.00                                |
| Total |         |                    |       |               |              |              | 7437        | 62690                                  | -            | 14874          | 172397.50                              |
| II    | XY-AB   | Above Ground Level | III   | 43            | 24           | 5            | -           | 5160                                   | 2.75         | -              | 14190.00                               |
|       | XY-CD   | Above Ground Level | III   | 31            | 24           | 5            | -           | 3720                                   | 2.75         | -              | 10230.00                               |
|       | XY-EF   | Above Ground Level | III   | 34            | 8            | 5            | -           | 1360                                   | 2.75         | -              | 3740.00                                |
|       | X1Y1-CD | Above Ground Level | IV    | 29            | 44           | 5            | -           | 6380                                   | 2.75         | -              | 17545.00                               |
|       |         |                    | V     | 29            | 44           | 5            | -           | 6380                                   | 2.75         | -              | 17545.00                               |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|       |         |                    |      |    |    |   |      |       |       |          |           |
|-------|---------|--------------------|------|----|----|---|------|-------|-------|----------|-----------|
|       | X1Y1-AB | Above Ground Level | IV   | 60 | 27 | 5 | -    | 8100  | 2.75  | -        | 22275.00  |
|       |         |                    | V    | 60 | 27 | 5 | -    | 8100  | 2.75  | -        | 22275.00  |
|       | X2Y2-AB | Above Ground Level | V    | 60 | 29 | 5 | -    | 8700  | 2.75  | -        | 23925.00  |
|       |         |                    | VI   | 60 | 29 | 5 | -    | 8700  | 2.75  | -        | 23925.00  |
|       | XY1-EF  | Above Ground Level | VI   | 41 | 27 | 5 | -    | 5535  | 2.75  | -        | 15221.25  |
| Total |         |                    |      |    |    |   | -    | 62135 | -     | -        | 170871.25 |
| III   | XY-EF   | Above Ground Level | IV   | 41 | 24 | 5 | -    | 4920  | 2.75  | -        | 13530.00  |
|       |         | Below Ground Level | V    | 41 | 24 | 5 | -    | 4920  | 2.75  | -        | 13530.00  |
|       | XY-CD   | Above Ground Level | IV   | 31 | 24 | 5 | -    | 3720  | 2.75  | -        | 10230.00  |
|       |         | Below Ground Level | V    | 31 | 24 | 5 | -    | 3720  | 2.75  | -        | 10230.00  |
|       | XY-AB   | Above Ground Level | IV   | 58 | 24 | 5 | -    | 6960  | 2.75  | -        | 19140.00  |
|       |         | Below Ground Level | V    | 58 | 24 | 5 | -    | 6960  | 2.75  | -        | 19140.00  |
|       | X1Y1-EF | Below Ground Level | VII  | 41 | 27 | 5 | -    | 5535  | 2.75  | -        | 15221.25  |
|       | X1Y1-CD | Below Ground Level | VI   | 29 | 44 | 5 | -    | 6380  | 2.75  | -        | 17545.00  |
|       | X1Y1-AB | Below Ground Level | VI   | 60 | 27 | 5 | -    | 8100  | 2.75  | -        | 22275.00  |
|       | X2Y2-AB | Below Ground Level | VII  | 60 | 29 | 5 | -    | 8700  | 2.75  | -        | 23925.00  |
|       |         |                    | VIII | 23 | 24 | 5 | -    | 2760  | 2.75  | -        | 7590.00   |
|       | Total   |                    |      |    |    |   |      | -     | 62675 | -        | -         |
| IV    | X2Y2-AB | Below Ground Level | VIII | 32 | 24 | 5 | -    | 3840  | 2.75  | -        | 10560.00  |
|       | X2Y2-CD | Below Ground Level | IX   | 30 | 12 | 2 | -    | 720   | 2.75  | -        | 1980.00   |
|       | X2Y2-EF | Below Ground Level | IX   | 40 | 29 | 2 | -    | 2320  | 2.75  | -        | 6380.00   |
|       | X1Y1-EF | Below Ground Level | VIII | 36 | 27 | 5 | -    | 4860  | 2.75  | -        | 13365.00  |
|       |         |                    | IX   | 31 | 27 | 5 | -    | 4185  | 2.75  | -        | 11508.75  |
|       | X1Y1-CD | Below Ground Level | VII  | 29 | 44 | 5 | -    | 6380  | 2.75  | -        | 17545.00  |
|       |         |                    | VIII | 29 | 44 | 5 | -    | 6380  | 2.75  | -        | 17545.00  |
|       | X1Y1-AB | Below Ground Level | VII  | 55 | 27 | 5 | -    | 7425  | 2.75  | -        | 20418.75  |
|       |         |                    | VIII | 50 | 27 | 5 | -    | 6750  | 2.75  | -        | 18562.50  |
| XY-AB |         | VI                 | 53   | 19 | 5  | - | 5035 | 2.75  | -     | 13846.25 |           |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|             |         |                    |      |    |    |   |      |          |      |       |           |
|-------------|---------|--------------------|------|----|----|---|------|----------|------|-------|-----------|
|             |         | Below Ground Level | VII  | 48 | 14 | 5 | -    | 3360     | 2.75 | -     | 9240.00   |
|             | XY-CD   | Below Ground Level | VI   | 31 | 19 | 5 | -    | 2945     | 2.75 | -     | 8098.75   |
|             |         |                    | VII  | 31 | 14 | 5 | -    | 2170     | 2.75 | -     | 5967.50   |
|             | XY-EF   | Below Ground Level | VI   | 36 | 19 | 5 | -    | 3420     | 2.75 | -     | 9405.00   |
|             |         |                    | VII  | 31 | 14 | 5 | -    | 2170     | 2.75 | -     | 5967.50   |
| Total       |         |                    |      |    |    |   | -    | 61960    | -    | -     | 170390.00 |
| V           | X2Y2-EF | Below Ground Level | X    | 35 | 24 | 5 | -    | 4200     | 2.75 | -     | 11550.00  |
|             |         |                    | XI   | 30 | 19 | 5 | -    | 2850     | 2.75 | -     | 7837.50   |
|             |         |                    | XII  | 20 | 14 | 5 | -    | 1400     | 2.75 | -     | 3850.00   |
|             | X2Y2-CD | Below Ground Level | X    | 30 | 7  | 5 | -    | 1050     | 2.75 | -     | 2887.50   |
|             | X2Y2-AB | Below Ground Level | IX   | 50 | 19 | 5 | -    | 4750     | 2.75 | -     | 13062.50  |
|             |         |                    | X    | 45 | 14 | 5 | -    | 3150     | 2.75 | -     | 8662.50   |
|             |         |                    | XI   | 35 | 9  | 5 | -    | 1575     | 2.75 | -     | 4331.25   |
|             | X1Y1-AB | Below Ground Level | IX   | 45 | 27 | 5 | -    | 6075     | 2.75 | -     | 16706.25  |
|             |         |                    | X    | 40 | 27 | 5 | -    | 5400     | 2.75 | -     | 14850.00  |
|             |         |                    | XI   | 35 | 22 | 5 | -    | 3850     | 2.75 | -     | 10587.50  |
|             | X1Y1-CD | Below Ground Level | IX   | 29 | 44 | 5 | -    | 6380     | 2.75 | -     | 17545.00  |
|             |         |                    | X    | 29 | 39 | 5 | -    | 5655     | 2.75 | -     | 15551.25  |
|             |         |                    | XI   | 29 | 29 | 5 | -    | 4205     | 2.75 | -     | 11563.75  |
|             | X1Y1-EF | Below Ground Level | X    | 26 | 27 | 5 | -    | 3510     | 2.75 | -     | 9652.50   |
|             |         |                    | XI   | 21 | 27 | 5 | -    | 2835     | 2.75 | -     | 7796.25   |
|             |         |                    | XII  | 16 | 22 | 5 | -    | 1760     | 2.75 | -     | 4840.00   |
|             | XY-EF   | Below Ground Level | VIII | 26 | 9  | 5 | -    | 1170     | 2.75 | -     | 3217.50   |
|             | XY-CD   | Below Ground Level | VIII | 31 | 9  | 5 | -    | 1395     | 2.75 | -     | 3836.25   |
|             | XY-AB   | Below Ground Level | VIII | 43 | 9  | 5 | -    | 1935     | 2.75 | -     | 5321.25   |
| Total       |         |                    |      |    |    |   | -    | 63145    | -    | -     | 173648.75 |
| Grand Total |         |                    |      |    |    |   | 7437 | 3,12,605 | -    | 14874 | 859663.75 |

The Annual Peak production quantity of Rough Stone - 63145 m<sup>3</sup> (5<sup>th</sup> year)

### 2.9.6 DISPOSAL OF WASTE

There is no waste anticipated in this rough stone Quarry. The entire quarried minerals will be utilized. The overburden in the form of Gravel, after the excavation gravel will be directly loaded into tipper to the needy buyers for road project and construction works for filling and leveling of low lying areas.

## **2.10 CONCEPTUAL MINING PLAN / FINAL MINE CLOSURE PLAN**

Conceptual mining plan is prepared with an object of five years of systematic development of bench layouts, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructure etc.

The ultimate pit size is designed based on certain practical parameters such as economical depth of mining, safety zones, permissible area, etc. Conceptual cross section and mine closure plan is given in Figure 2.11.

**Table 2.12 - Ultimate Pit Dimension at the end of Lease period**

| <b>Pit</b> | <b>Length in m (Max)</b> | <b>Width in m (Max.)</b> | <b>Depth in m (Max.), bgl</b>                           |
|------------|--------------------------|--------------------------|---------------------------------------------------------|
| I          | 140                      | 89                       | 56m (26m above ground level and 30m below ground level) |

**Table 2.13 - Land use pattern of the Project site**

| <b>Description</b> | <b>Present Area in Ha.</b> | <b>Area at the end of life of Quarry in Ha.</b> |
|--------------------|----------------------------|-------------------------------------------------|
| Quarrying pit      | 0.52.0                     | 1.25.0                                          |
| Infrastructure     | Nil                        | 0.01.0                                          |
| Roads              | 0.01.0                     | 0.01.0                                          |
| Greenbelt          | Nil                        | 0.23.0                                          |
| Unutilized         | 0.97.0                     | Nil                                             |
| <b>Total</b>       | <b>1.50.0</b>              | <b>1.50.0</b>                                   |

- At the end of life of mine, the excavated mine pit / void of 1.25.0 Ha will act as artificial reservoir for collecting rain water and helps to meet out the demand or crises during drought season.
- After mine closure the greenbelt (0.23.0 Ha.) will be developed along the safety barrier and top benches and 0.02 Ha are approach road and Infrastructure.

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**



**Figure 2.11 Conceptual Plan and Cross Section**

## **2.11 PROJECT REQUIREMENT**

### **2.11.1 WATER REQUIREMENT AND SOURCE**

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

**Table 2.14 Details of Water requirement**

| <b>Activity</b>       | <b>Water Requirement in KLD</b> |
|-----------------------|---------------------------------|
| Drinking & Domestic   | 1.5                             |
| Dust Suppression      | 1.5                             |
| Greenbelt Development | 2.0                             |
| <b>Total</b>          | <b>5.0</b>                      |

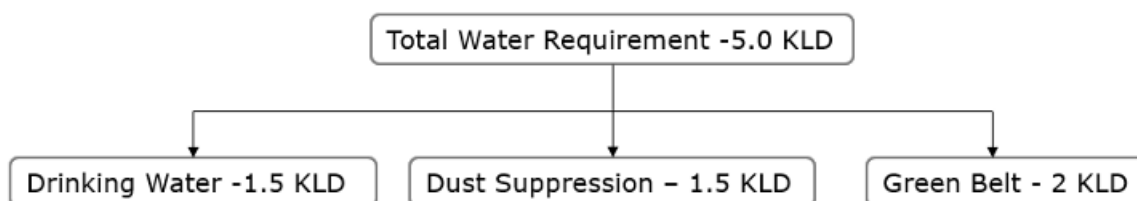


**Figure 2.12 Water Balance Chart**

### **2.11.2 POWER REQUIREMENT**

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

### **2.11.3 FUEL REQUIREMENT**

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

**Table 2.15 Details of Fuel (HSD) Requirement**

i) For Rough Stone

|                                  |                                  |
|----------------------------------|----------------------------------|
| Per hour excavator will consume  | 16 liters /hr                    |
| Per hour excavator will excavate | 20 m <sup>3</sup> of Rough Stone |
| For 3,12,605 m <sup>3</sup>      | 3,12,605/20<br>= 15,630.25       |
| So, Diesel consumption           | = 15,630.25 X 16 liters          |
|                                  | =2,50,084 liters of HSD          |

The Total fuel consumption is around 250084 litres of HSD for the entire period of life (5 years).

#### **2.11.4 EMPLOYMENT GENERATION**

The project will provide employment opportunities totally to 30 persons directly and 30 indirectly.

**Table 2.16 Details of Manpower requirement**

|         |              |                |        |
|---------|--------------|----------------|--------|
| 1.      | Skilled      | Mines Manager  | 1 No.  |
|         |              | Foreman / Mate | 2 No.  |
|         |              | Operator       | 8 No.  |
|         |              | Mechanic       | 1 No.  |
| 2.      | Semi-skilled | Driver         | 4 No.  |
| 3.      | Unskilled    | Labours        | 14Nos  |
| Total = |              |                | 30 Nos |

#### **2.11.5 GREEN BELT REQUIREMENT**

The safety zone, covering an area of 0.23.0 Hectares, will be maintained as a green belt and planted with 230 Nos. of local species.

#### **2.11.6 VEHICULAR TRAFFIC DENSITY**

The proposed quarry is located in Padalur East village. The details of transport route from the crusher plant is shown below:

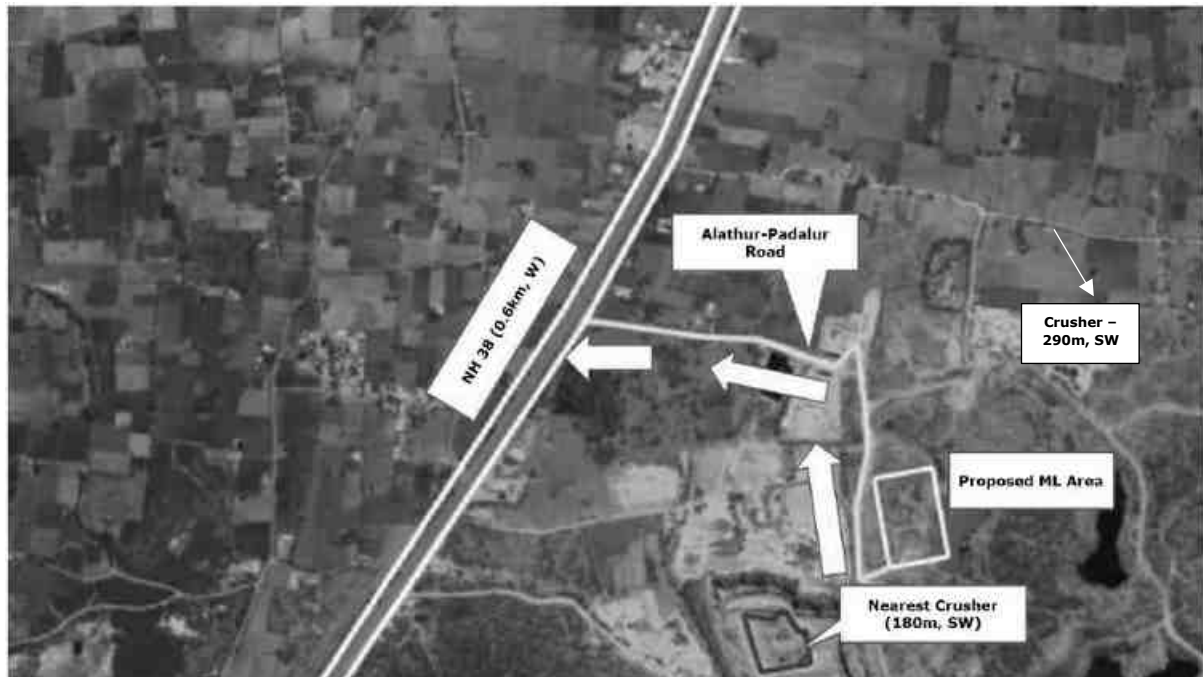


**Figure 2.13 Traffic Map with Distance of nearest Crusher**

The vehicular traffic survey will be carried out in the route through which mined out minerals are transported. Within 500 m radius, there are one existing quarry – Thiru. M. Baskaran and 10 proposed quarries including this quarry. The No. of trips per day for carrying the mine out mineral for this project is 18 Nos. The No. of trips per day for carrying the mine out mineral for existing and other proposed quarries is 215. Traffic Survey is conducted in NH-38.

### **Methodology**

#### **Vehicle Count**

The vehicles passing through the road (in both ways) were counted separately for 24 hours at the one elected location from 0600 hrs to 0600 hrs next day continuously. Category wise vehicle counting has been done continuously and recorded in the traffic volume count on hourly basis under respective categories.

#### **Categorization of Traffic**

The engine driven vehicles were categorized into various heads viz. two wheelers, three wheelers, four wheelers and trucks/bus. The level of service is given below.

**(Source: Recommended Design Service Volumes (PCUs per hour), IRC)**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

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

**Table 2.17 Summary on Traffic Volume**

| Route | Existing Traffic Survey in PCU | Incremental Traffic Survey due to project (cluster) | Total traffic survey volume | Hourly capacity in PCU as per IRC -1960 guidelines |
|-------|--------------------------------|-----------------------------------------------------|-----------------------------|----------------------------------------------------|
| NH 38 | 592                            | 29                                                  | 621                         | 2900                                               |

**Table 2.18 Modified Level of Service**

| Route | Existing Volume PCU/hr | Existing V/C Ratio | Additional Volume PCU/hr | Modified Volume PCU/hr | Modified V/C ratio | Modified LOS |
|-------|------------------------|--------------------|--------------------------|------------------------|--------------------|--------------|
| NH 38 | 592                    | 0.20               | 29                       | 0.01                   | 0.21               | A*           |

### 2.11.7 INFRASTRUCTURE REQUIREMENT

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

### 2.11.8 PROJECT COST

The total project cost of this Rough stone Quarry is Rs. 538.47 Lakhs

### 2.11.9 PROJECT IMPLEMENTATION SCHEDULE

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

\*\*\*

## **3.0 DESCRIPTION OF THE ENVIRONMENT**

### **3.1 INTRODUCTION**

As a precursor for the prediction of various types of environmental impacts likely to arise due to implementation of the project, it is essential to establish the baseline environmental setting of the project. Details of the baseline environmental parameters are required for decision making for the project design, implementation and operation from the environmental point of views. The data is to be generated through primary data collection (direct monitoring) and secondary sources (published data).

This chapter describes the environmental baseline data of core zone and surrounding areas of the project. The environmental baseline data includes the physical environment (comprising climate & meteorology, air, water, Noise and land components), biological environment and socio-economic environment, which may get affected due to this proposed project.

### **3.2 STUDY AREA**

The study area has been divided into two zones, namely, core and buffer zones. Core zone is considered as the total lease area of mine lease, while buffer zone encompasses an area of 10 km radius distance from the periphery of core zone. This chapter incorporates the description of existing environmental status in an area encompassed within 10 km radius from the boundary of mine lease. The environmental data for the following Environmental components were collected in the study area:

- Micro-meteorological monitoring in one of the representative locations.
- Ambient air quality study comprising gaseous, particulate matter at 7 different locations including Project Site
- Water quality analysis in 9 different locations (7 Ground Water Samples + 2 Surface water samples)
- Noise levels monitoring in 7 different locations including Project Site
- Soil quality analysis in 7 locations including Project Site.
- Ecology and Biodiversity study



- Land use & Land Cover.
- Socio-economic survey.

### **3.3 STUDY PERIOD**

The above-mentioned studies have been carried out systematically and meticulously as per relevant IS codes, CPCB, MoEF&CC guidelines during **March 2025 – May 2025**

### **3.4 MONITORING LAB**

The baseline information for Air, Water, Noise, And Soil was analyzed by M/s. Shrient Analytical and Research Labs Pvt Ltd, # 416/15, Dharga Road, Perungalathur, West Tambaram, Chennai – 600 045. (Accredited by NABL as ISO/IEC/17025:2017) between **March 2025 to May 2025**

### **3.5 ENUMERATION OF THE STRUCTURES LOCATED WITHIN 300 M RADIUS FROM THE PROPOSED QUARRY SITE**

A Site survey has been conducted to identify and list structures located within a 300 m radius from the proposed Quarry. The details structures located within 300 m radius are given in below table and Figure 3.1.

#### **1. Structures Details**

**Table 3.1 Structures within 300 m radius**

| <b>Range</b> | <b>No. of Structures</b> | <b>Structures Details</b>                    |
|--------------|--------------------------|----------------------------------------------|
| 0 – 50 m     | -                        | Nil                                          |
| 50-100 m     | 1                        | Crusher Unit                                 |
| 100-150      | 1                        | Crusher Office Room                          |
| 150 – 200 m  | 0                        | Nil                                          |
| 200 – 250 m  | 3                        | Car Shed, Crusher Office Room, Crusher       |
| 250 – 300 m  | 3                        | Crusher, Worker Shed and Crusher Office Room |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**



| S. No. | Name of the structure | Distance & Direction | Ownership         | Occupant | Type     | Age      |
|--------|-----------------------|----------------------|-------------------|----------|----------|----------|
| S1     | Crusher Unit          | 72m, W               | Not belongs to PP | Nil      | -        | >5 Years |
| S2     | Crusher Office Room   | 190m, W              |                   | Nil      | -        | >5 Years |
| S3     | Car Shed              | 230m, W              |                   | Nil      | GI Sheet | >5 Years |
| S4     | Crusher Office Room   | 230m, N              |                   | Nil      | -        | >5 Years |
| S5     | Crusher               | 240m, N              |                   | Nil      | -        | >5 Years |
| S6     | Crusher               | 280m, NE             |                   | Nil      | -        | >5 Years |
| S7     | Worker Shed           | 265m, NE             |                   | Nil      | Masonry  | >5 Years |
| S8     | Crusher Office Room   | 270m, NE             |                   | Nil      | Concrete | >5 Years |

**Figure 3.1 Google Image showing structures located within 300 m radius**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**



**S1 – Crusher Unit (72m, W)**



**S2 – Crusher Office Room (190m, W)**



**S3 – Car Shed (230m, W)**



**S4 – Crusher Office Room (230m, N)**



**S5 – Crusher Unit (240m, N)**



**S6 – Crusher Unit (280m, NE)**



**S7 – Worked Shed (265m, NE)**



**S8 – Crusher Office Room (270m, NE)**

**As per the field study, there are 8 structures observed within 300m radius of the project site, which are shown above. There are no houses/inhabited site within 300m radius of the project site.**

**Figure 3.2 Photographs of the structures located within 300 m radius**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**



**E1 – Panchayat Well (400m, SW)**

**Figure 3.3 Existing Features Within 500m Radius**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**



| S. No. | Radius   | School | Temple | Inhabited Village | Remarks               |
|--------|----------|--------|--------|-------------------|-----------------------|
| 1      | 0-100m   | Nil    | Nil    | Nil               | Nil                   |
| 2      | 100-200m | Nil    | Nil    | Nil               | Nil                   |
| 3      | 200-300m | Nil    | 1      | Nil               | Temple                |
| 4      | 300-400m | Nil    | Nil    | Nil               | Nil                   |
| 5      | 400-500m | Nil    | 1      | Nil               | Poongaliyamman Temple |



Temple, 225m, W

**Figure 3.4 Enumeration of Temple, School and Inhabited Village within 500m Radius from the Project Site**

### 3.6 ENVIRONMENTAL SETTINGS OF THE PROJECT

The Environmental settings of the project covering 10km radius of study area is given in Table 3.2. The study area map is given in Figure- 3.5 and satellite image showing 10 km radius is given in Figure 3.4.

**Table 3.2 Environmental Settings of the Study Area – 10 km radius**

| S.NO | Particulars              | Description                                                                                                                                                                                                                                                   |
|------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.   | Latitude & Longitude     | Latitude: 11°07'03.37"N to 11°07'08.76"N<br>Longitude: 78°50'24.25"E to 78°50'28.37"E                                                                                                                                                                         |
| 2.   | The altitude of the area | ≈ 150 m from above MSL. Initial RL before commencement of Mining – 150m BGL and Final RL after completion of Mining Operation – 94m BGL                                                                                                                       |
| 3.   | Topography               | Plain Terrain                                                                                                                                                                                                                                                 |
| 4.   | Land use of M.L. area    | Government Poramboke                                                                                                                                                                                                                                          |
| 5.   | Extent of the Lease area | 1.50.00 Ha                                                                                                                                                                                                                                                    |
| 6.   | Nearest Highway          | National Highway (NH-38) Viluppuram – Trichy - 0.6km - W<br>The State Highway (SH-142) Perambalur – Thuraiyur - 11.8Km -NW.                                                                                                                                   |
| 7.   | Nearest Railway Station  | Kallakkudi Palanganatham Railway Station – 20.01 km – SE                                                                                                                                                                                                      |
| 8.   | Nearest airport          | Trichy International Airport – 41.31 km - S                                                                                                                                                                                                                   |
| 9.   | Nearest Village          | Irur – 735 m (NW)                                                                                                                                                                                                                                             |
| 10.  | Nearest Town             | Alathur                                                                                                                                                                                                                                                       |
| 11   | Water Bodies             | Tank 0.52 km, S, Kuttai 275m (N), Tank 0.8 km, SE, Pudukurichi Eri – 2.9km, NE, Karai Big – 4.07km, NE, Therani Tank – 2.79km, SE, Thiruvallakuruchi Eri – 1.74 km, SE, Maruthadi Eri – 1.46km, SW, Perumalpalayam eri – 1.61km, SW, Nanthai River (4.3km, SE |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                                                                                                                                                                                                                       |                                                                                                                                                               |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12  | Historical Places/Places of Tourist/ Archeological site                                                                                                                                                               | NIL within 10 km radius                                                                                                                                       |
| 13. | Environmental sensitive areas, Protected areas as per Wildlife Protection Act, 1972 (Tiger reserve, Elephant reserve, Biospheres, National parks, Wildlife sanctuaries, community reserves and conservation reserves) | NIL within 10 km radius                                                                                                                                       |
| 14  | Reserved / Protected Forests                                                                                                                                                                                          | Naranamangalam R.F.- 2.93km (NW), Nedungur R.F.- 4.18km (SW), Velur R.F.- 5.27km (NW), Maniyankurichi R.F.- 5.96km (SW), Maramareddipalayam R.F.- 8.26km (SW) |
| 15  | Defence Installations                                                                                                                                                                                                 | NIL within 10 km radius                                                                                                                                       |
| 16  | Seismic Zone                                                                                                                                                                                                          | Zone II                                                                                                                                                       |
| 17  | Other Industries in the study area                                                                                                                                                                                    | NIL within 10 km radius                                                                                                                                       |
| 18  | Interstate boundary                                                                                                                                                                                                   | NIL                                                                                                                                                           |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

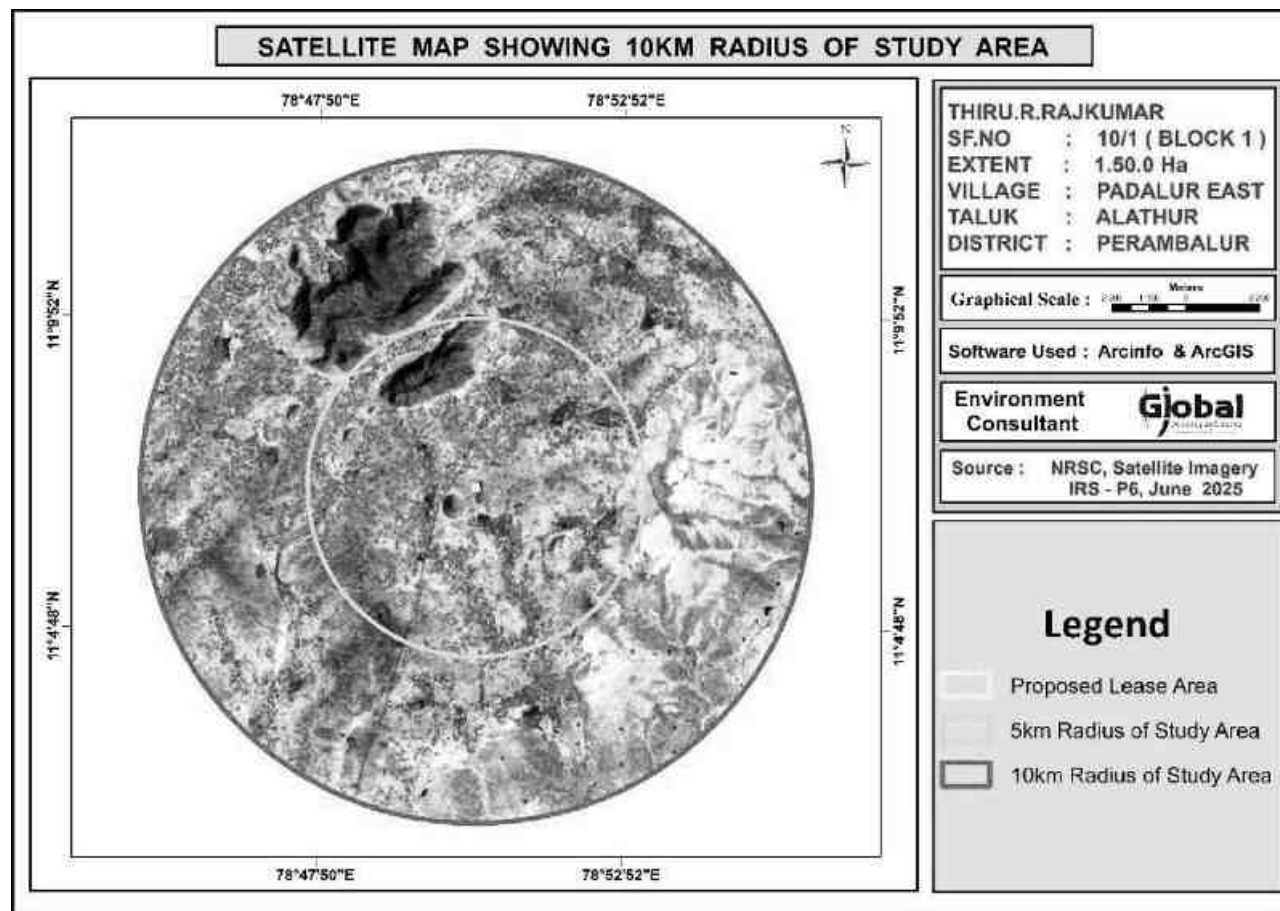


**Figure 3.5 Satellite Image of the Study Area**



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

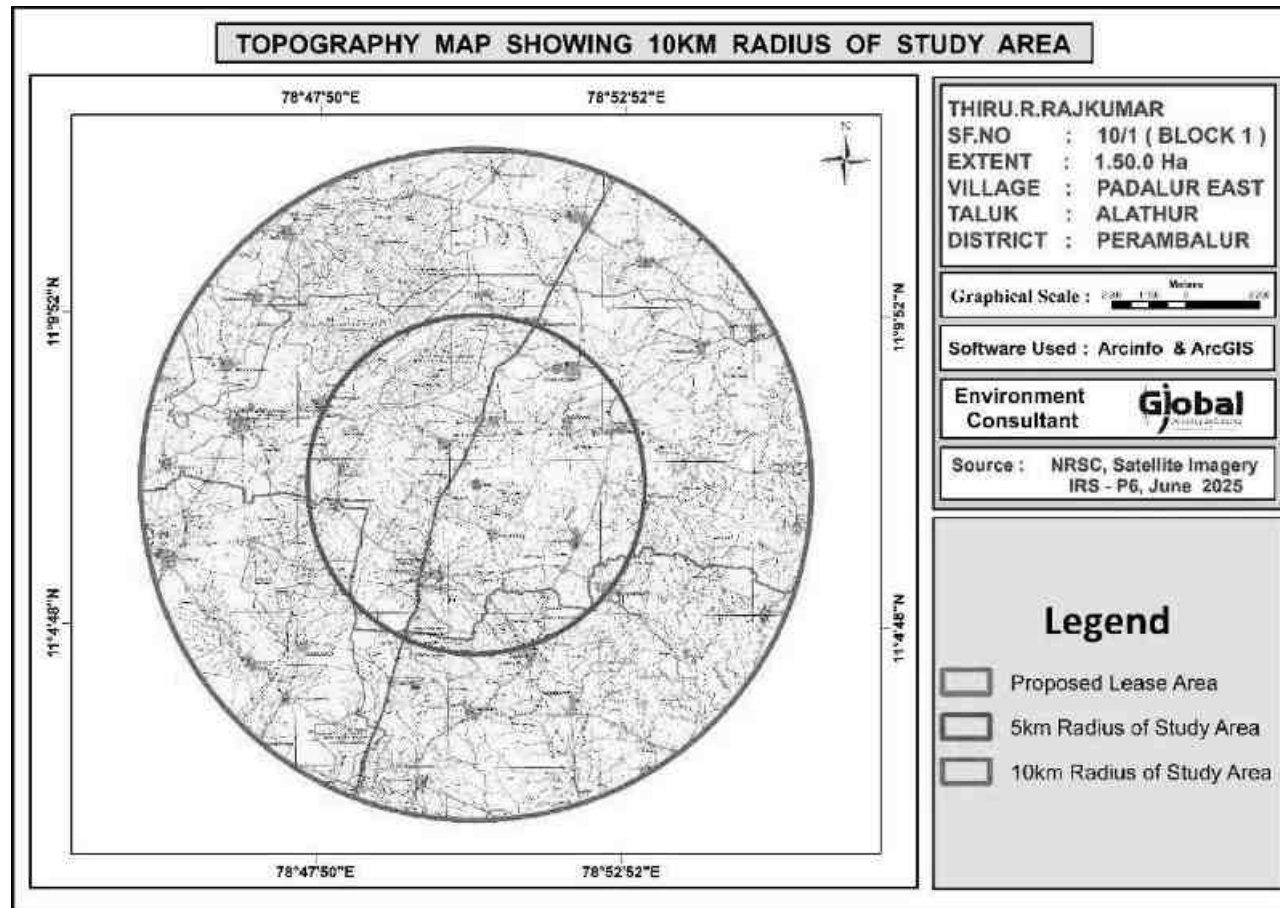


**Figure 3.6 Topo map Showing Study Area**



**Figure 3.7 Google Image showing 1 km radius**

### **3.7 EXISTING ENVIRONMENTAL SCENARIO**

#### **3.7.1 MICRO- METEOROLOGY**

Meteorology is the key to understand the Air quality. The essential relationship between meteorological condition and atmospheric dispersion involves the wind in the broadest sense. Wind fluctuations over a very wide range of time, accomplish dispersion and strongly influence other processes associated with them.

##### **3.7.1.1 CLIMATE AND RAINFALL DATA**

Perambalur district enjoys a typical semi-arid climate with hot summers and moderately cool winters. The hottest season is from March to May. During the

period the maximum temperature often exceeds 40°C. The winter season is spread over two months viz. January and February and the nights are cool and pleasant. The district generally has a high humidity.

**Table 3.3 Rainfall Data**

| Actual Rainfall in mm |       |        |        |      | Normal Rainfall in mm |
|-----------------------|-------|--------|--------|------|-----------------------|
| 2019                  | 2020  | 2021   | 2022   | 2023 |                       |
| 747.3                 | 629.2 | 1563.4 | 1043.8 | 737  | 816                   |

**Source: TWAD, Perambalur**

### **Seismic Sensitivity**

The proposed project site falls in the seismic Zone II, low damage risk zone as per BMTPC, Vulnerability Atlas of Seismic zone of India IS: 1893 – 2002.

**Table 3.4 Meteorological Data Recorded at Site**

| S.NO | Parameters            | March to May 2025                       |      |
|------|-----------------------|-----------------------------------------|------|
| 1.   | Temperature (°C)      | Min                                     | 13.5 |
|      |                       | Max.                                    | 38.7 |
|      |                       | Avg                                     | 26.0 |
| 2.   | Relative Humidity (%) | Min                                     | 59   |
|      |                       | Max                                     | 82   |
|      |                       | Avg                                     | 71   |
| 3.   | Wind Speed (km/h)     | Min                                     | 0    |
|      |                       | Max                                     | 8    |
|      |                       | Avg                                     | 4    |
| 4.   | Wind Direction        | Blowing From – W<br>Blowing Towards - E |      |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

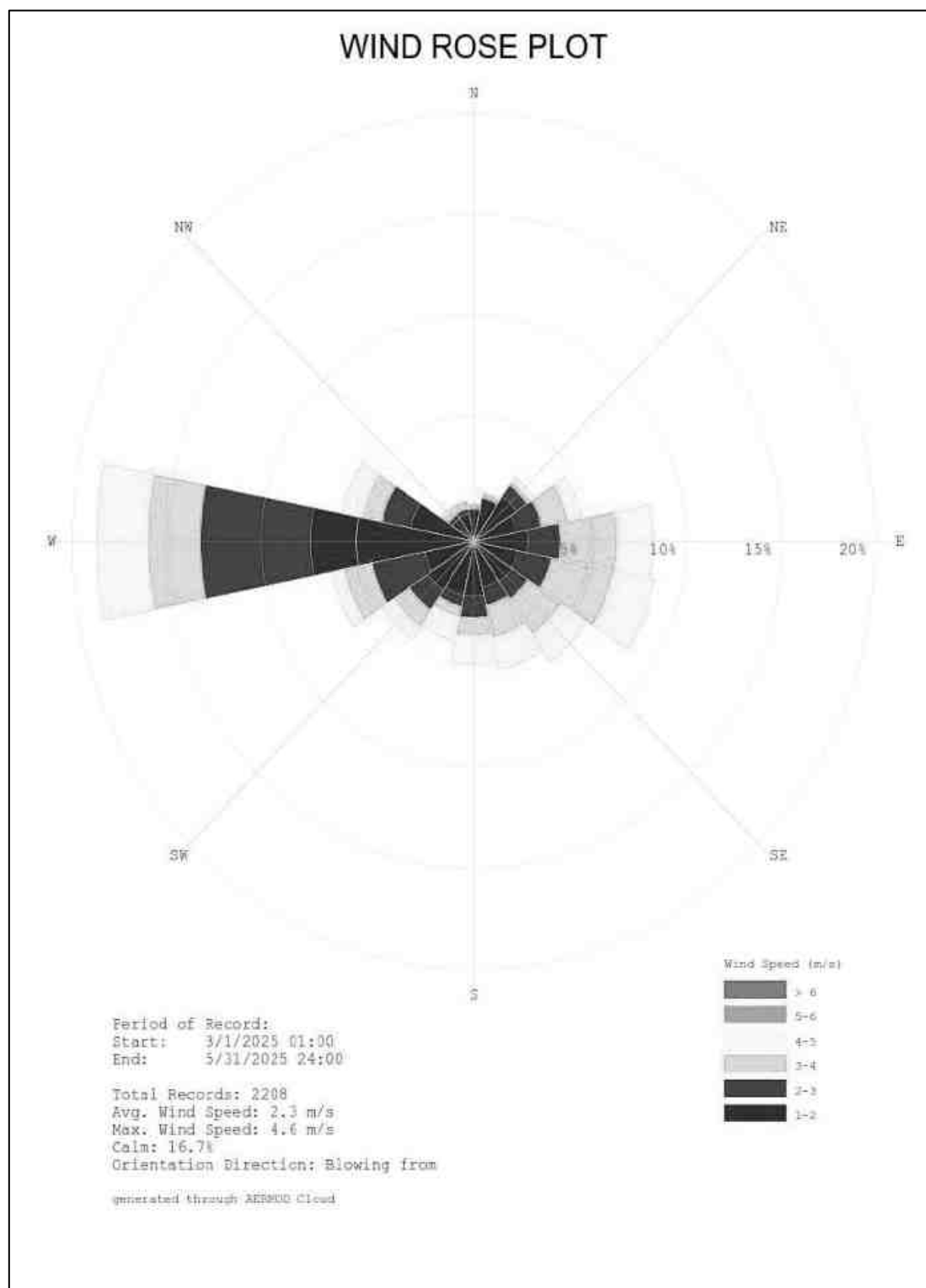


**Figure 3.8 Wind Rose Diagram – Blowing From (March 2025 – May 2025)**

### **3.7.2 AIR ENVIRONMENT**

The prime objective of the ambient air quality study is to assess the existing air quality of study area and its conformity to NAAQS. The observed sources of air pollution in the study area are industrial, traffic and domestic activities. The baseline status of the ambient air quality has been established through a scientifically designed ambient air quality monitoring network considering the followings:

- Meteorological condition on synoptic scale
- Topography of the study area;
- Representatives of regional background air quality for obtaining baseline status;
- Location of residential areas representing different activities;
- Accessibility and power availability; etc.,

#### **3.7.2.1 SAMPLING & ANALYTICAL TECHNIQUES**

**Table 3.5 Methodology for Air Quality Monitoring**

|                    |                                         |                                                                                                                                |
|--------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1.                 | Monitoring Period                       | Summer (March 2025 – May 2025)                                                                                                 |
| 2.                 | Monitoring Location                     | The monitoring locations for ambient air study is given in Table – 3.6 and Figure 3.8.                                         |
| 3.                 | Selection Criteria                      | The monitoring location is selected based on terrain & wind direction. Locations were chosen in upwind, downwind and crosswind |
| <b>Methodology</b> |                                         |                                                                                                                                |
| 4.                 | A. Sampling                             | (IS-5182:Part 1:2018)                                                                                                          |
|                    | B. Analysis                             |                                                                                                                                |
|                    | <b>Parameters</b>                       | <b>Protocol</b>                                                                                                                |
| 5.                 | Particulate Matter (PM <sub>10</sub> )  | Gravimetric (IS 5182: Part 23:2017)                                                                                            |
|                    | Particulate Matter (PM <sub>2.5</sub> ) | Gravimetric ( IS 5182: Part 24:2019)                                                                                           |
|                    | Sulphur Dioxide                         | Colorimetric (West & Gaeke Method) (IS 5182: Part 02: 2017)                                                                    |
|                    | Nitrogen Dioxide                        | Colorimetric (Modified Jacob & Hocheiser Method) (IS 5182: Part 06:2017)                                                       |
|                    | Carbon Monoxide                         | CO Monitor                                                                                                                     |
|                    | Monitoring Frequency                    | 2 days in a week, 4 weeks in a month for 3 months in a season.                                                                 |

### **3.7.2.2 FREQUENCY AND PARAMETERS FOR SAMPLING**

Ambient air quality monitoring has been carried out with a frequency of two samples per week at seven (7) locations, adopting a continuous 24 hourly (3 shift of 8-hour) schedule for the period **March 2025 – May 2025**. The baseline data of ambient air has been generated for PM<sub>10</sub>, PM<sub>2.5</sub>, Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Dioxide (NO<sub>2</sub>) and Carbon Monoxide Monitoring has been carried out as per the CPCB, MoEF & CC guidelines and notifications.

It was ensured that the equipment was placed preferably at a height of at least 3m above the ground level at each monitoring station, for negating the effects of wind-blown ground dust. The equipment was placed at open space free from trees and vegetation which otherwise act as a sink of pollutants resulting in lower levels in monitoring results.

### **3.7.2.3 AMBIENT AIR QUALITY MONITORING STATIONS**

Seven (7) monitoring stations were set up in the study area as depicted in Figure 3.8 for assessment of the existing ambient air quality. Details of the sampling locations are as per given below.

**Table 3.6 – Ambient Air Quality Monitoring Locations**

| <b>S. No.</b> | <b>Location Code</b> | <b>Monitoring Locations</b> | <b>Distance &amp; Direction from Site</b> | <b>Latitude and longitude</b>  |
|---------------|----------------------|-----------------------------|-------------------------------------------|--------------------------------|
| 1             | AAQ1                 | Within ML area              | -                                         | 11° 7' 3.37"N, 78° 50' 25.13"E |
| 2             | AAQ2                 | Therani                     | 3.84km, E                                 | 11° 7'19.04"N, 78°52'32.81"E   |
| 3             | AAQ3                 | Padalur East                | 1.74km, E                                 | 11° 7'0.78"N, 78°51'23.34"E    |
| 4             | AAQ4                 | Perumalpalayam              | 0.74 km, W                                | 11° 7'9.40"N, 78°50'3.92"E     |
| 5             | AAQ5                 | Koothanur                   | 4.19 km, W                                | 11° 7'16.10"N, 78°48'10.80"E   |
| 6             | AAQ6                 | Irur                        | 1.63 km, NW                               | 11° 7'45.99"N, 78°49'53.06"E   |
| 7             | AAQ7                 | Tiruvalankurichi            | 1.45 km, SE                               | 11° 6'17.82"N, 78°50'40.80"E   |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

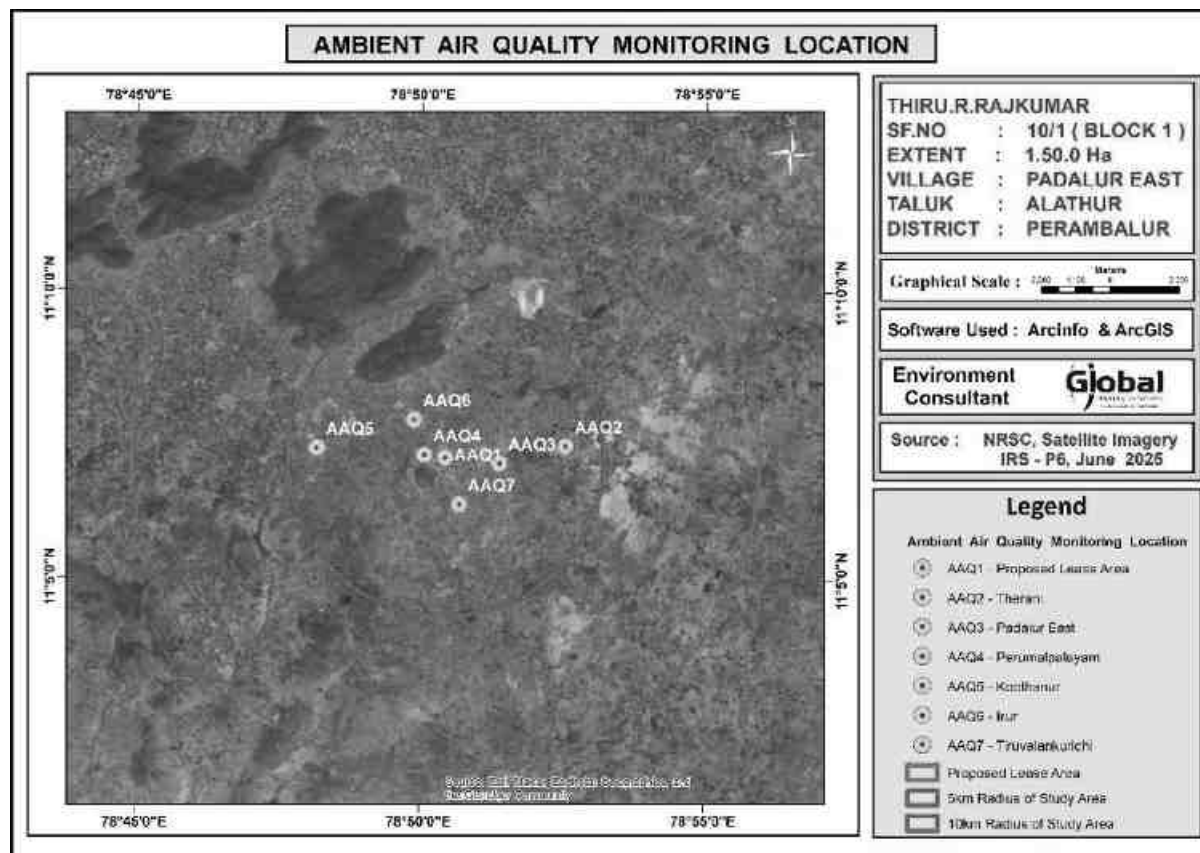


**Figure 3.9 Ambient Air Quality Monitoring Locations**

**Table 3.7 Ambient Air Quality Data**

| Code           | PM 10 ( $\mu\text{g}/\text{m}^3$ ) |      |      |                | PM 2.5 ( $\mu\text{g}/\text{m}^3$ ) |      |      |                | SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ ) |     |     |                | NO <sub>x</sub> ( $\mu\text{g}/\text{m}^3$ ) |     |      |                |
|----------------|------------------------------------|------|------|----------------|-------------------------------------|------|------|----------------|----------------------------------------------|-----|-----|----------------|----------------------------------------------|-----|------|----------------|
|                | Max                                | Min  | Avg  | 98 percentiles | Max                                 | Min  | Avg  | 98 percentiles | Max                                          | Min | Avg | 98 percentiles | Max                                          | Min | Avg  | 98 percentiles |
| AAQ 1          | 76.1                               | 53.7 | 65.1 | 75.5           | 36.5                                | 25.7 | 31.3 | 36.2           | 7.9                                          | 5.4 | 6.6 | 7.9            | 13.2                                         | 11  | 12.2 | 13.2           |
| AAQ 2          | 59.5                               | 46.7 | 53.4 | 59.3           | 28.6                                | 22.4 | 25.6 | 28.5           | 8.2                                          | 5.8 | 7   | 8.2            | 11                                           | 8.9 | 10   | 11             |
| AAQ 3          | 56.5                               | 45.7 | 49.8 | 55.9           | 26.7                                | 21   | 23.4 | 26.4           | 8.2                                          | 5.9 | 7.1 | 8.2            | 11.8                                         | 9.2 | 10.5 | 11.8           |
| AAQ 4          | 59.1                               | 47.8 | 53.4 | 58.7           | 29.4                                | 21.8 | 25.3 | 29.1           | 6.6                                          | 4.2 | 5.4 | 6.5            | 10.9                                         | 8.6 | 9.8  | 10.9           |
| AAQ 5          | 51.3                               | 41   | 45.7 | 50.6           | 24.7                                | 19.3 | 22   | 24.6           | 6.2                                          | 3.6 | 4.9 | 6.2            | 10.1                                         | 7.8 | 9    | 10.1           |
| AAQ 6          | 57.2                               | 44.3 | 50   | 56.8           | 27.1                                | 21   | 23.7 | 27             | 5.5                                          | 3.8 | 4.8 | 5.5            | 8.5                                          | 6.2 | 7.3  | 8.5            |
| AAQ 7          | 53.3                               | 42.3 | 47   | 52.8           | 25.4                                | 20.2 | 22.4 | 25.2           | 5.7                                          | 3.6 | 4.6 | 5.7            | 9.2                                          | 6.9 | 8.1  | 9.2            |
| NAAQ Standards | 100 ( $\mu\text{g}/\text{m}^3$ )   |      |      |                | 60( $\mu\text{g}/\text{m}^3$ )      |      |      |                | 80 ( $\mu\text{g}/\text{m}^3$ )              |     |     |                | 80 ( $\mu\text{g}/\text{m}^3$ )              |     |      |                |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

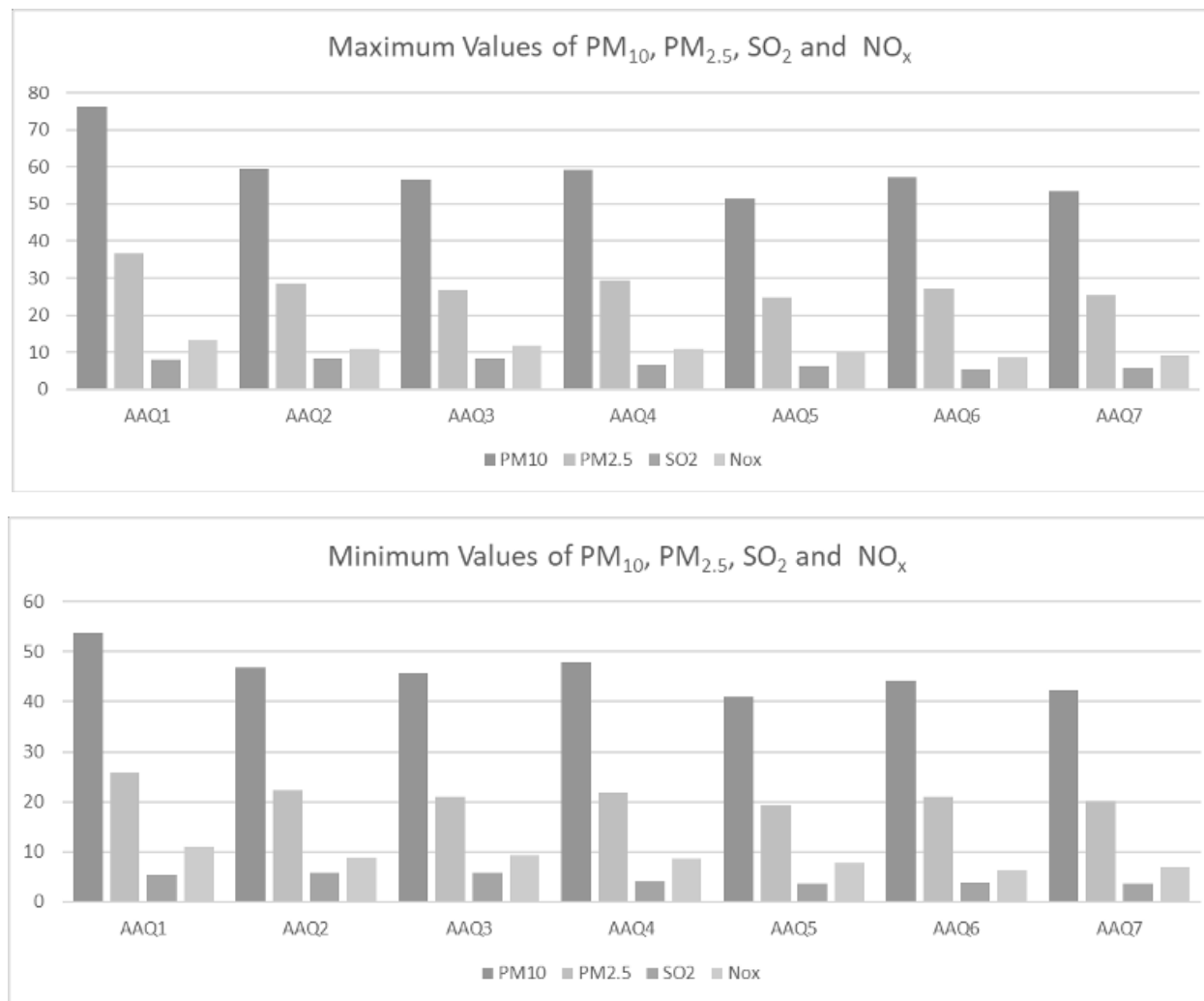


**Figure –3.10 - Graphical Representation of Air Quality Data**

### **3.7.2.4 INTERPRETATION**

#### **PM10 & PM2.5**

The main sources of PM include incomplete combustion, automobile emissions, Dust and also due to the chemical reactions in the atmosphere. From the monitoring locations, it is inferred that the maximum value of both PM 10 & PM 2.5 is observed in mine lease area. The main contributing factor is that there are one other existing quarry and almost 10 proposed quarries located near the project site within 500 m radius, where the vehicular traffic will be more. Approximately 233 trucks will be used for the transportation of mined out mineral from all the 11 quarries. Coupled to that, there is one crusher unit (180m, SW) and three M-Sand and Blue metal units from which there will more fugitive emissions, which is also a contributing factor. Also, few other quarries, crusher units along with Hindustan Petroleum HP Petrol Station and few commercial settlements are located within 1 km radius. The movement of trucks and other vehicles from these settlements and the movement of vehicles drop by the fuel point will increase the automobile emission leading to the increased value of PM 10 and PM 2.5 in the ML area.

The route for carrying out the mined-out mineral to NH 38 will be through Alathur - Padalur Road, which is one-way road, which may be an attributing factor.

The governing factors for the transport of PM are wind direction & wind speed. The baseline monitoring is done for the three months i.e., from **March 2025 to May 2025**. The predominant wind direction is blowing from west to east and the maximum wind speed is >6mps. The greater values of Particulate matter will have its impacts on Human Health. Short term exposure may cause coughing, shortness of breath, tightness of the chest, irritation of the eyes. The Long-term exposure may lead to reduced lung function, development of respiratory diseases and also premature death of people with lung diseases.

#### **Sox**

The main Source of SO<sub>x</sub> in mining operation can often be associated with the utilization of heavy machinery and equipment that may rely on fuel like diesel. Also mining activities such as drilling, blasting, crushing, and material transport can generate dust particles. These dust particles, particularly if finely divided, can

act as catalysts, accelerating the oxidation of sulfur compounds and contributing to SO<sub>2</sub> formation in the atmosphere.

The maximum value is observed in Therani and Padalur East & the minimum value is observed in Irur.

The high value in Therani and Padalur East is attributed to crushers present near the monitoring location – Saroja Crusher and 2 other Blue Metal unit. Also, the area is high residential settlement with commercial area like café and communal properties like temple, church is present, wherein the movement of vehicles and trucks will be more, thereby releasing SO<sub>2</sub> into the atmosphere.

The increased value of Sox can have detrimental effects on human health. Such effects include breathing problems, particularly in asthmatics, whereas short-term exposure can lead to chest tightness and coughing and wheezing. Continued exposure to sulfur dioxide has been linked with alterations of the lung's defenses and aggravation of existing cardiovascular disease.

Sulfur dioxide is a major precursor to particulate soot, which reduces air quality. Sulphur dioxide has an acidifying effect on the environment. Acidification harms plants and animals, both on land and in water. When the ground turns acidic, vital nutrients are leached from the soil, which eventually may result in reduced fertility of the soil.

### **Nox**

The sources of NO<sub>x</sub> pollution include emissions by automobiles, trucks and various non-road vehicles (e.g., construction equipment). NO<sub>x</sub> is released into the atmosphere by combustion of fuels, such as hydrocarbons, in air; especially at high temperatures, such as in car engines. In areas of high motor vehicle traffic, the nitrogen oxides emitted can be a significant source of air pollution.

The maximum value is observed in Mine Lease Area. This is mainly due to presence of crusher units, 10 other quarries within 500m radius and the proposed quarry is situated near NH 38 with fuel refilling point alongside of the highway, wherein the movement of vehicles and trucks will be more. Also, there are already 10 operating mines are present in the vicinity of the monitoring location, where blasting operations will be carried out. The blasting of explosives may produce Nox, which will be dispersed in air by the wind, which may be an attributing factor.

### 3.7.2.5 AIR QUALITY INDEX

According to Ott (1978), an air quality index is an overall system that converts the weighed values of several air pollution-related criteria (such as pollutant concentrations) into a single number or set of numbers. The goal of an AQI is to swiftly transmit information about air quality that includes a method to account for pollutants that have short-term effects (nearly in real-time). It is similarly important that the majority of these contaminants are regularly monitored online. Real-time information on the air quality is not available in the current situation because it has been manually measured twice a week for one season, 24 hours a day. The category of air quality in the relevant period can, however, be strongly described by the data gathered over a season. The AQI Category for each of monitoring station has been found to be Satisfactory.

**Table 3.8 AQI for AAQ Monitoring Locations**

| Monitoring Locations  | AAQ1         | AAQ2         | AAQ3         | AAQ4         | AAQ5         | AAQ6         | AAQ7         |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| AQI                   | 76           | 59           | 56           | 59           | 51           | 57           | 53           |
| Air Quality Condition | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory | Satisfactory |

|                     |                                                                                        |                  |                                                         |
|---------------------|----------------------------------------------------------------------------------------|------------------|---------------------------------------------------------|
| <b>Good</b>         | Minimal Impact                                                                         | <b>Poor</b>      | Breathing discomfort to people on prolonged exposure    |
| <b>(0-50)</b>       |                                                                                        | <b>(201-300)</b> |                                                         |
| <b>Satisfactory</b> | Minor breathing discomfort to sensitive people                                         | <b>Very Poor</b> | Respiratory illness to the people on prolonged exposure |
| <b>(51-100)</b>     |                                                                                        | <b>(301-400)</b> |                                                         |
| <b>Moderate</b>     | Breathing discomfort to the people with lung, heart disease, children and older adults | <b>Severe</b>    | Respiratory effects even on healthy people              |
| <b>(101-200)</b>    |                                                                                        | <b>(&gt;401)</b> |                                                         |

### 3.7.3 WATER ENVIRONMENT

The water resources, both surface and groundwater play a significant role in the development of the area. The purpose of this study is to assess the water quality characteristics for critical parameters and evaluate the impacts on agricultural productivity, domestic community usage, recreational resources and aesthetics in the vicinity. The water samples were collected and transported as per the standard guidelines issued by CPCB for analysis.

### **3.7.3.1 METHODOLOGY**

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

- Location of the major water bodies
- Location of project site, their water intake and effluent disposal locations
- Likely areas that can represent baseline conditions
- The water samples were collected and were analyzed for physical, chemical, and biological characteristics as per guidelines issued by IS code No.10500/2012.

### **3.7.3.2 GROUND WATER**

The water level is being monitored by State Ground & Surface Water Resources Data Centre from 1971 onwards from a network of 1746 observation wells (shallow open wells) located all over the State. The water level readings are observed in the first week of every month by the field officers. In Perambalur District, 131 observation wells and 13 piezometers, totally 144 wells are monitoring on Monthly basis. The Central Ground Water Board also monitors the water level from 900 numbers of wells spread all over the State. They observe water level four times in a year. (i.e. January, May, August and November). The collected water level data are uploaded in GWDES software and database is maintained regularly for analyzing the water level trend with rainfall. From the Monitoring network of wells, the selected representative wells are taken for Resource Estimation computations. In Perambalur District, during the pre-monsoon, the water level generally in declining trend ranges from G.L. to 15m. The depth of well below Ground Level 12.0m are become dry during hot season like May, June, July. In the post monsoon, the water level generally in upward trend due to rainfall and it may reach the Ground Level also.

**Source: NWM**

### **3.7.3.3 SAMPLING LOCATIONS**

Seven (7) ground water samples were collected from the study area and were analyzed for physio-chemical, heavy metals and bacteriological parameters in

order to assess the effect of mining and other activities on ground water. The samples were analyzed as per the procedures specified by CPCB, IS-10500:2012. The water sampling locations are given in Table 3.8 and shown as Figure 3.10.

**Table 3.9 Environmental Parameters: Ground water Quality Analysis**

|                         |                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------|
| Monitoring Period       | March 2025 – May 2025                                                                                                  |
| Design Criteria         | Based on the Environmental settings in the study area and Drainage Pattern                                             |
| 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                                                                                                       |

**Table 3.10 Water Sampling Locations**

| S. No. | Location Code | Monitoring Locations | Distance & Direction from Site | Latitude and longitude       |
|--------|---------------|----------------------|--------------------------------|------------------------------|
| 1      | WQ1           | Within ML area       | -                              | 11° 5'56.00"N, 78°51'30.60"E |
| 2      | WQ2           | Therani              | 3.84km, E                      | 11° 7'19.04"N, 78°52'32.81"E |
| 3      | WQ3           | Padalur East         | 1.74km, E                      | 11° 7'0.78"N, 78°51'23.34"E  |
| 4      | WQ4           | Perumalpalayam       | 0.74 km, W                     | 11° 7'9.40"N, 78°50'3.92"E   |
| 5      | WQ5           | Koothanur            | 4.19 km, W                     | 11° 7'16.10"N, 78°48'10.80"E |
| 6      | WQ6           | Irur                 | 1.63 km, NW                    | 11° 7'45.99"N, 78°49'53.06"E |
| 7      | WQ7           | Tiruvalankurichi     | 1.45 km, SE                    | 11° 6'17.82"N, 78°50'40.80"E |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

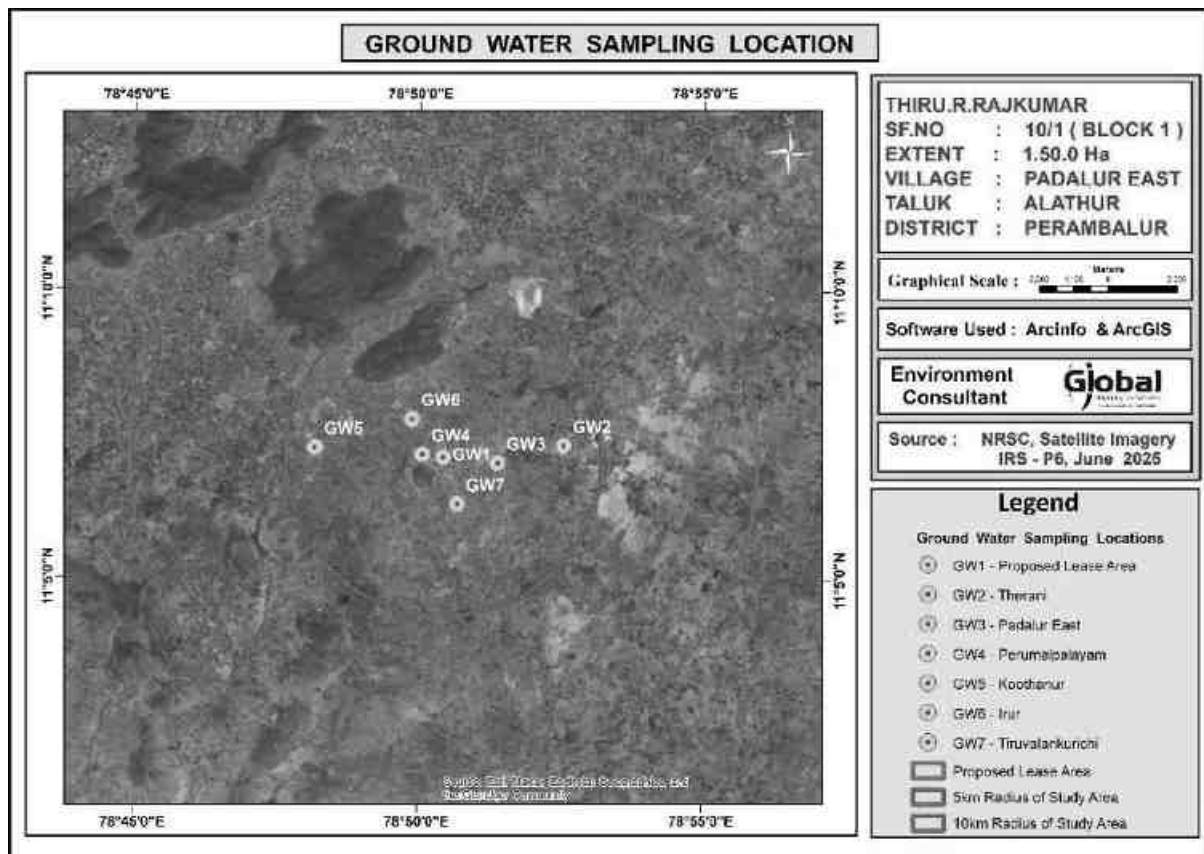


**Figure 3.11 – Ground Water Monitoring Locations**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

**Table 3.11 Ground Water Quality – Analysis Result**

| S. No. | Parameters                                 | GW1           | GW2           | GW3           | GW4           | GW5           | GW6           | GW7           |
|--------|--------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1      | Odour                                      | Agreeable     | Agreeable     | Agreeable     | Agreeable     | Agreeable     | Agreeable     | Agreeable     |
| 2      | Turbidity                                  | <1            | <1.0          | <1.0          | <1            | <1            | <1            | <1            |
| 3      | pH at 25 °C                                | 7.94          | 7.84          | 7.19          | 7.91          | 7.45          | 7.77          | 7.36          |
| 4      | Electrical Conductivity                    | 530.1         | 1665          | 1975.0        | 2068.0        | 1286.0        | 1989.0        | 2137.0        |
| 5      | Total Dissolved Solids                     | 318           | 1002          | 1186          | 1240          | 772           | 1194          | 1282          |
| 6      | Total hardness as CaCO <sub>3</sub>        | 180           | 354           | 392           | 424           | 235           | 385           | 454           |
| 7      | Calcium as Ca                              | 44.4          | 64.4          | 84            | 96.8          | 57.6          | 83.2          | 102           |
| 8      | Magnesium as Mg                            | 16.6          | 46.3          | 43.7          | 43.7          | 21.8          | 42.5          | 47.5          |
| 9      | Calcium as CaCO <sub>3</sub>               | 111           | 161           | 210           | 242           | 144           | 208           | 256           |
| 10     | Magnesium as CaCO <sub>3</sub>             | 69.0          | 193           | 182           | 182           | 91.0          | 177           | 198           |
| 11     | Total alkalinity as CaCO <sub>3</sub>      | 161           | 327           | 380           | 399           | 260           | 376           | 392           |
| 12     | Chloride as Cl <sup>-</sup>                | 75.5          | 342           | 365           | 380           | 241           | 363           | 510           |
| 13     | Free Residual chlorine as Cl <sup>-</sup>  | BDL(D.L-0.2)  | BDL(D.L-0.2)  | BDL(D.L-0.2)  | BDL(D.L-0.2)  | BDL(D.L-0.2)  | BDL(D.L-0.2)  | BDL(D.L-0.2)  |
| 14     | Sulphates as SO <sub>4</sub> <sup>2-</sup> | 56.9          | 270           | 342           | 355           | 206           | 338           | 212           |
| 15     | Iron as Fe                                 | 0.07          | 0.12          | 0.11          | 0.12          | 0.04          | BDL(D.L-0.01) | 0.03          |
| 16     | Nitrate as NO <sub>3</sub>                 | BDL(D.L-1.0)  | 2.14          | 4.65          | 5.23          | 4.32          | 5.62          | 5.51          |
| 17     | Fluoride as F                              | 0.23          | 0.48          | 0.55          | 0.62          | 0.42          | 0.63          | 0.58          |
| 18     | Manganese as Mn                            | BDL(D.L-0.05) | BDL(D.L-0.05) | BDL(D.L-0.05) | BDL(D.L-0.05) | BDL(D.L-0.05) | BDL(D.L-0.05) | BDL(D.L-0.05) |

### 3.7.3.4 DISCUSSION

#### Physical parameters of water

The basic physical parameters of the water include

**Odour:** The odour of the water is found to be agreeable in all the 7 monitoring locations.

#### pH:

Value observed in the project site: 7.94.

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 mildly alkaline.

#### Turbidity:

Value observed in the project site: <1 NTU.

Acceptable and permissible limits: 1 NTU & 5 NTU respectively. The value of turbidity generally indicates the presence of phytoplanktons and other sediments. The value in the project site indicates the water is not turbid and no any physical treatment is required to treat the turbidity of the water.



### **Total Dissolved Solids:**

Value observed in project site: 318 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. As per the Guidelines of WHO, if the value of TDS is greater than 1200 mg/L, it is designated as unacceptable. Since the value of the TDS is less than 1200 mg/L, it will not cause any adverse impact.

### **Chemical parameters of water:**

The chemical parameters of the drinking water include

#### **Calcium:**

Value observed in the project site: 44.4 mg/L.

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

Calcium is the essential macronutrient. The value of the calcium is within the prescribed permissible standards.

#### **Magnesium:**

Value observed in the project site: 16.6 mg/L.

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

The value of Magnesium in the project site is less than the permissible limit.

#### **Chloride**

Value observed in the project site: 75.5 mg/L.

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

The chloride level in the project site is less than the permissible limit. Hence it will not have any major impact.

#### **Hardness:**

Value observed in project site: 180 mg/L.

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

The value of Hardness in the project site is within than permissible limit.

### **Secondary Data:**

Following are the Analytical Results of samples collected from National Groundwater Monitoring Wells (May 2022)

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

| S.No | District   | Location   | Latitude | Longitude | PH   | EC * | TH <sup>+</sup> | Ca   | Mg  | Na  | K  | CO <sub>3</sub> | HCO <sub>3</sub> | Cl   | SO <sub>4</sub> | NO <sub>3</sub> | F    | T      |
|------|------------|------------|----------|-----------|------|------|-----------------|------|-----|-----|----|-----------------|------------------|------|-----------------|-----------------|------|--------|
|      |            |            |          |           |      |      |                 | mg/l |     |     |    |                 |                  |      |                 |                 |      | µg/l   |
| 639  | Perambalur | Mozaiamadu | 11.2366  | 78.8922   | 8.16 | 1640 | 90              | 10   | 16  | 329 | 1  | 0               | 439              | 142  | 153.6           | 124             | 1.26 | 16.37  |
| 640  | Perambalur | Nakkasalem | 11.3186  | 78.9171   | 7.40 | 7336 | 300             | 84   | 61  | 322 | 9  | 0               | 110              | 447  | 207.76          | 148             | 0.54 | 6.71   |
| 641  | Perambalur | Padalur    | 11.0960  | 78.8252   | 7.60 | 4136 | 1600            | 26   | 380 | 485 | 10 | 0               | 305              | 1702 | 438             | 25              | 1.29 | 194.00 |
| 642  | Perambalur | Palayur    | 11.3636  | 78.8575   | 7.52 | 1169 | 430             | 30   | 60  | 74  | 5  | 0               | 195              | 85   | 254.4           | 81              | 0.84 | 8.54   |

## Water Quality Index

WQI is defined as a rating reflecting the composite influence of different water quality parameters. WQI is calculated from the point of view of the suitability of water for human consumption. A quality rating scale (qi) for each parameter is assigned by dividing its concentration in each water sample by its respective standard according to the guidelines laid down in the BIS and the result multiply by 100.

$$qi = (Ci/Si) \times 100$$

Where qi is the quality rating, Ci is the concentration of each chemical parameter in each water sample in mg/l, and Si is the Indian drinking water standard for each chemical parameter in mg/l according to the guidelines. For computing the WQI, the SI is first determined for each chemical parameter, which is then used to determine the WQI as per the following equation

$$SII = Wi \times qi \quad QWI = \sum SII$$

SII is the sub-index of the ith parameter; qi is the rating based on concentration of ith parameter and n is the number of parameters. The computed WQI values are classified in to five types, "excellent water" to "water not suitable for drinking".

Water Quality Classification based on WQI Value

| WQI Value | Water Quality                   |
|-----------|---------------------------------|
| <50       | Excellent                       |
| 50-100    | Good water                      |
| 100-200   | Poor water                      |
| 200-300   | Very poor water                 |
| >300      | Water not suitable for drinking |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

## Ground Water:

The Water Quality Index based on weighted average of 9 parameters (Total Hardness as CaCO<sub>3</sub>, Calcium, Magnesium, TDS, Fluoride, pH, EC, Iron, Turbidity) has been found to be excellent in all the locations. The values are as shown below:

| Monitoring Location | GW1       | GW2       | GW3       | GW4       | GW5       | GW6       | GW7       |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| WQI Value           | 25.35     | 43.58     | 46.5      | 46.7      | 22.5      | 20.86     | 24.64     |
| WQI - Indicator     | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |

### 3.7.3.5 SURFACE WATER ANALYSIS

Surface water sampling was done in Nattarmangalam Eri, Nanthai River (Upstream and Downstream). The result of analysis is summarised below:

| S. No. | Parameters                                 | SW1           | SW2           | SW3           |
|--------|--------------------------------------------|---------------|---------------|---------------|
| 1      | Odour                                      | Agreeable     | Agreeable     | Agreeable     |
| 2      | Turbidity                                  | <1            | <1.0          | <1.0          |
| 3      | pH at 25 °C                                | 7.52          | 7.94          | 7.65          |
| 4      | Electrical Conductivity                    | 218.6         | 167.9         | 192.3         |
| 5      | Total Dissolved Solids                     | 132           | 102           | 115           |
| 6      | Total hardness as CaCO <sub>3</sub>        | 47.2          | 35.2          | 42.5          |
| 7      | Calcium as Ca                              | 10.56         | 10.36         | 9.6           |
| 8      | Magnesium as Mg                            | 4.99          | 2.23          | 4.3           |
| 9      | Calcium as CaCO <sub>3</sub>               | 26.4          | 25.9          | 24.5          |
| 10     | Magnesium as CaCO <sub>3</sub>             | 20.8          | 9.30          | 18.0          |
| 11     | Total alkalinity as CaCO <sub>3</sub>      | 45.6          | 37.2          | 42.2          |
| 12     | Chloride as Cl                             | 42.6          | 40.8          | 39.8          |
| 13     | Free Residual chlorine as Cl               | BDL(D.L-0.2)  | BDL(D.L-0.2)  | BDL(D.L-0.2)  |
| 14     | Sulphates as SO <sub>4</sub> <sup>2-</sup> | 15.2          | 16.9          | 16.1          |
| 15     | Iron as Fe                                 | 0.15          | 0.12          | 0.1           |
| 16     | Nitrate as NO <sub>3</sub>                 | BDL(D.L-1.0)  | 2.14          | 1.95          |
| 17     | Fluoride as F                              | 0.21          | 0.45          | 0.42          |
| 18     | Manganese as Mn                            | BDL(D.L-0.05) | BDL(D.L-0.05) | BDL(D.L-0.05) |
| 19     | COD                                        | BDL(D.L-4.0)  | BDL(D.L-4.0)  | BDL(D.L-4.0)  |
| 20     | BOD                                        | BDL(D.L-2.0)  | BDL(D.L-2.0)  | BDL(D.L-2.0)  |
| 21     | TSS                                        | 22.0          | 12.0          | 10.0          |
| 22     | DO                                         | 5.6           | 6.1           | 6.3           |

### Surface Water Quality Criteria as per CPCB

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

| Designated-Best-Use                                                         | Class of water | Criteria                                                                                                                                                                 |
|-----------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drinking Water Source without conventional treatment but after disinfection | <b>A</b>       | Total Coliforms Organism MPN/100ml shall be 50 or less<br>pH between 6.5 and 8.5<br>Dissolved Oxygen 6mg/l or more<br>Biochemical Oxygen Demand 5 days 20C 2mg/l or less |
| Outdoor bathing (Organised)                                                 | <b>B</b>       | Total Coliforms Organism MPN/100ml shall be 500 or less pH between 6.5 and 8.5<br>Dissolved Oxygen 5mg/l or more<br>Biochemical Oxygen Demand 5 days 20C 3mg/l or less   |
| Drinking water source after conventional treatment and disinfection         | <b>C</b>       | Total Coliforms Organism MPN/100ml shall be 5000 or less pH between 6 to 9<br>Dissolved Oxygen 4mg/l or more<br>Biochemical Oxygen Demand 5 days 20C 3mg/l or less       |
| Propagation of Wild life and Fisheries                                      | <b>D</b>       | pH between 6.5 to 8.5<br>Dissolved Oxygen 4mg/l or more<br>Free Ammonia (as N) 1.2 mg/l or less                                                                          |
| Irrigation, Industrial Cooling, Controlled Waste disposal                   | <b>E</b>       | pH between 6.0 to 8.5<br>Electrical Conductivity at 25C micro mhos/cm Max 2250<br>Sodium absorption Ratio Max. 26<br>Boron Max. 2mg/l                                    |

### Interpretation on surface water quality

The above table reveals the Physico-chemical characteristics of surface water samples collected from Nattarmangalam eri, Nanthai River (U/s and D/s). Based on the above classification, all the three surface water are designated as Class B – Outdoor bathing (Organised).

### 3.7.4 NOISE ENVIRONMENT

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

#### 3.7.4.1 SAMPLING LOCATIONS

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

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

methodology was chosen such that it best suited the purpose and objectives of the study. The noise monitoring locations are given in Figure 3.13 and in below table.

**Table 3.12 Noise Monitoring Locations**

| S. No. | Location Code | Monitoring Locations | Distance & Direction from Site | Latitude and longitude       |
|--------|---------------|----------------------|--------------------------------|------------------------------|
| 1      | ANL1          | Within ML area       | -                              | 11° 5'56.00"N, 78°51'30.60"E |
| 2      | ANL2          | Therani              | 3.84km, E                      | 11° 7'19.04"N, 78°52'32.81"E |
| 3      | ANL3          | Padalur East         | 1.74km, E                      | 11° 7'0.78"N, 78°51'23.34"E  |
| 4      | ANL4          | Perumalpalayam       | 0.74 km, W                     | 11° 7'9.40"N, 78°50'3.92"E   |
| 5      | ANL5          | Koothanur            | 4.19 km, W                     | 11° 7'16.10"N, 78°48'10.80"E |
| 6      | ANL6          | Irur                 | 1.63 km, NW                    | 11° 7'45.99"N, 78°49'53.06"E |
| 7      | ANL7          | Tiruvalankurichi     | 1.45 km, SE                    | 11° 6'17.82"N, 78°50'40.80"E |

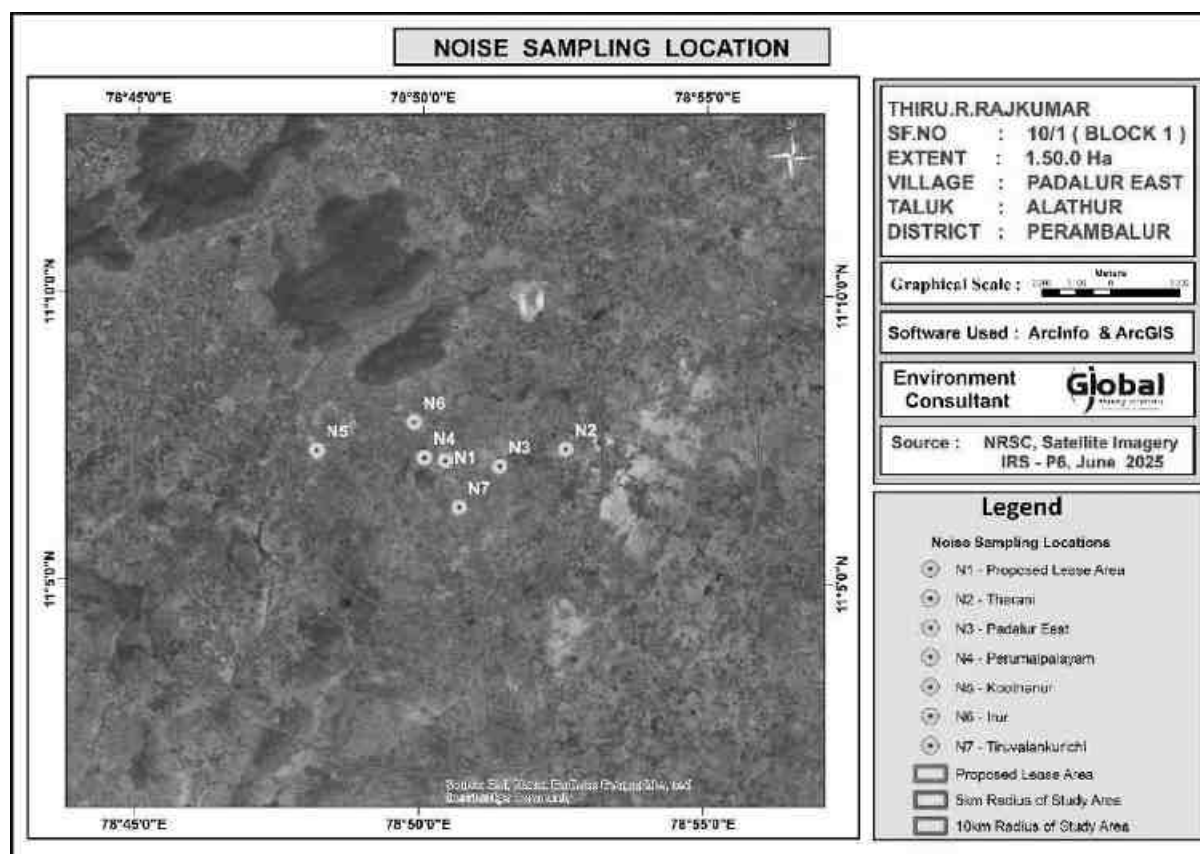


**Figure 3.12 Noise Monitoring Location**

### 3.7.4.2 METHOD OF MONITORING

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

### 3.7.4.3 NOISE MONITORING RESULT

An analysis of the different Leq data obtained during the study period has been made. Variation was noted during the day-time as well as night-time. The results are presented in below Table 3.12.

**Table 3.13 Noise Monitoring Result**

| DESCRIPTION      | ANL1 | ANL2 | ANL3 | ANL4 | ANL5 | ANL6 | ANL7 |
|------------------|------|------|------|------|------|------|------|
| DAY EQUIVALENT   | 50.5 | 50.0 | 49.1 | 47.9 | 45.1 | 49.4 | 50.8 |
| NIGHT EQUIVALENT | 38.0 | 38.3 | 41.9 | 41.1 | 37.5 | 43.3 | 39.2 |

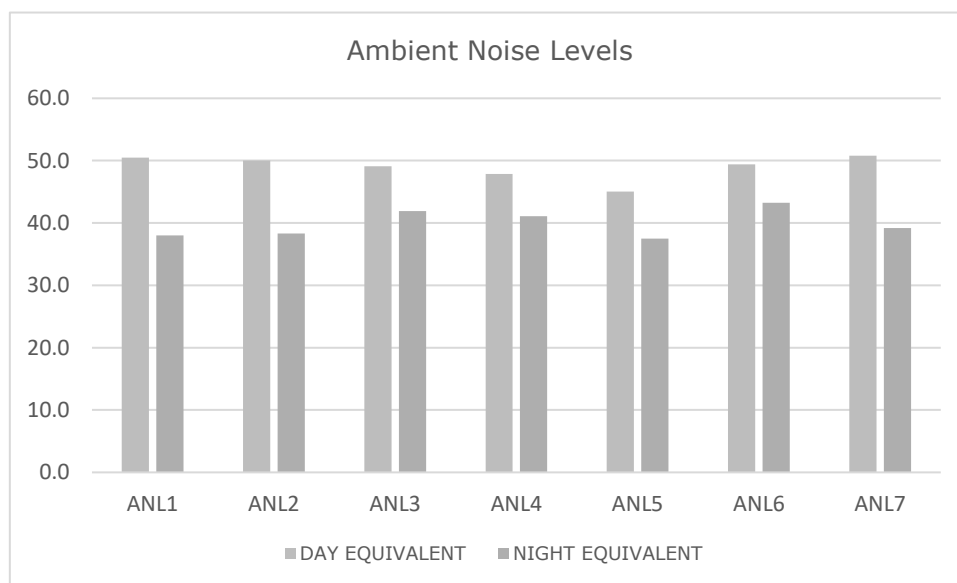


**Figure 3.13 Noise Monitoring Results**

### 3.7.4.4 DISCUSSION

Out of the 7 locations, the maximum value is observed in Tiruvalankurichi during day time. The maximum noise in the project site is due to the mining and crushing

activity near the project site and movement of vehicles and trucks are associated to transport the mined-out mineral, which is also an attributing factor. The maximum value during night is observed in Koothanur. koothanur is residential and the maximum noise in Koothanur is attributed to the movement of vehicles and trucks to NH 38 via village road.

### **3.7.5 SOIL ENVIRONMENT**

Soil quality of the study area is one of the important components of the land environment. The composite soil samples were collected from the study area and analyzed for different parameters. The locations of the monitoring sites are detailed in Table 3.13 and Figure 3.16. The soil type of the study area is detailed below.

| <b>Sl.No.</b> | <b>SOIL TYPE</b> | <b>Area in Sq.Km</b> | <b>Area in Percentage</b> |
|---------------|------------------|----------------------|---------------------------|
| 1             | Clay             | 96.64                | 30.3                      |
| 2             | Misc land        | 73.43                | 23.0                      |
| 3             | Rock Land        | 102.01               | 32.0                      |
| 4             | Sandy Clay Loam  | 46.98                | 14.7                      |
|               | <b>Total</b>     | <b>319.06</b>        | <b>100.00</b>             |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

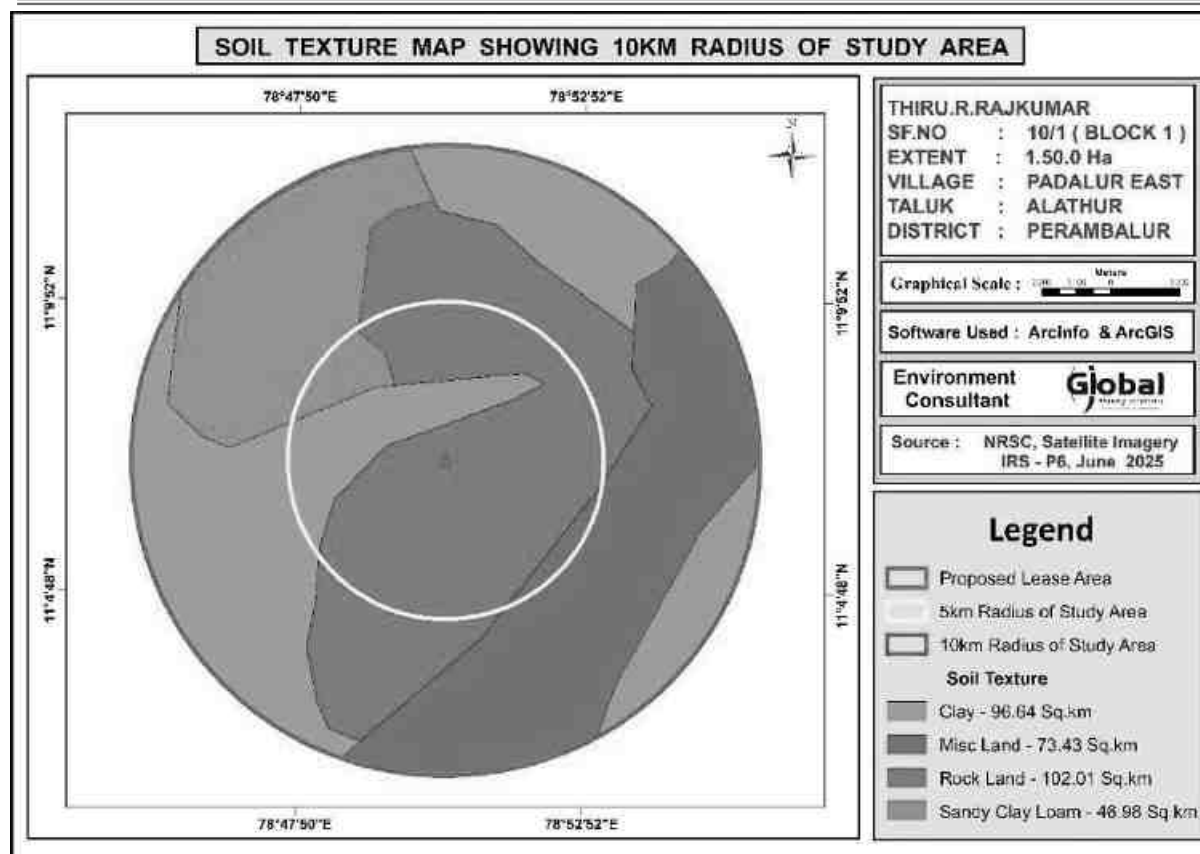


**Figure 3.14 - Soil Map of the Study Area**

### 3.7.5.1 MONITORING LOCATIONS

Soil samples were collected from 7 locations to assess the soil quality in and around the mines. Soil samples collected using sampling augers and field capacity apparatus.

**Table 3.14 – Soil Sampling Locations**

| S. No. | Location Code | Monitoring Locations | Distance & Direction from Site | Latitude and longitude       |
|--------|---------------|----------------------|--------------------------------|------------------------------|
| 1      | SQ1           | Within ML area       | -                              | 11° 5'56.00"N, 78°51'30.60"E |
| 2      | SQ2           | Therani              | 3.84km, E                      | 11° 7'19.04"N, 78°52'32.81"E |
| 3      | SQ3           | Padalur East         | 1.74km, E                      | 11° 7'0.78"N, 78°51'23.34"E  |
| 4      | SQ4           | Perumalpalayam       | 0.74 km, W                     | 11° 7'9.40"N, 78°50'3.92"E   |
| 5      | SQ5           | Koothanur            | 4.19 km, W                     | 11° 7'16.10"N, 78°48'10.80"E |
| 6      | SQ6           | Irur                 | 1.63 km, NW                    | 11° 7'45.99"N, 78°49'53.06"E |
| 7      | SQ7           | Tiruvalankurichi     | 1.45 km, SE                    | 11° 6'17.82"N, 78°50'40.80"E |



### 3.7.5.2 METHODOLOGY

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

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

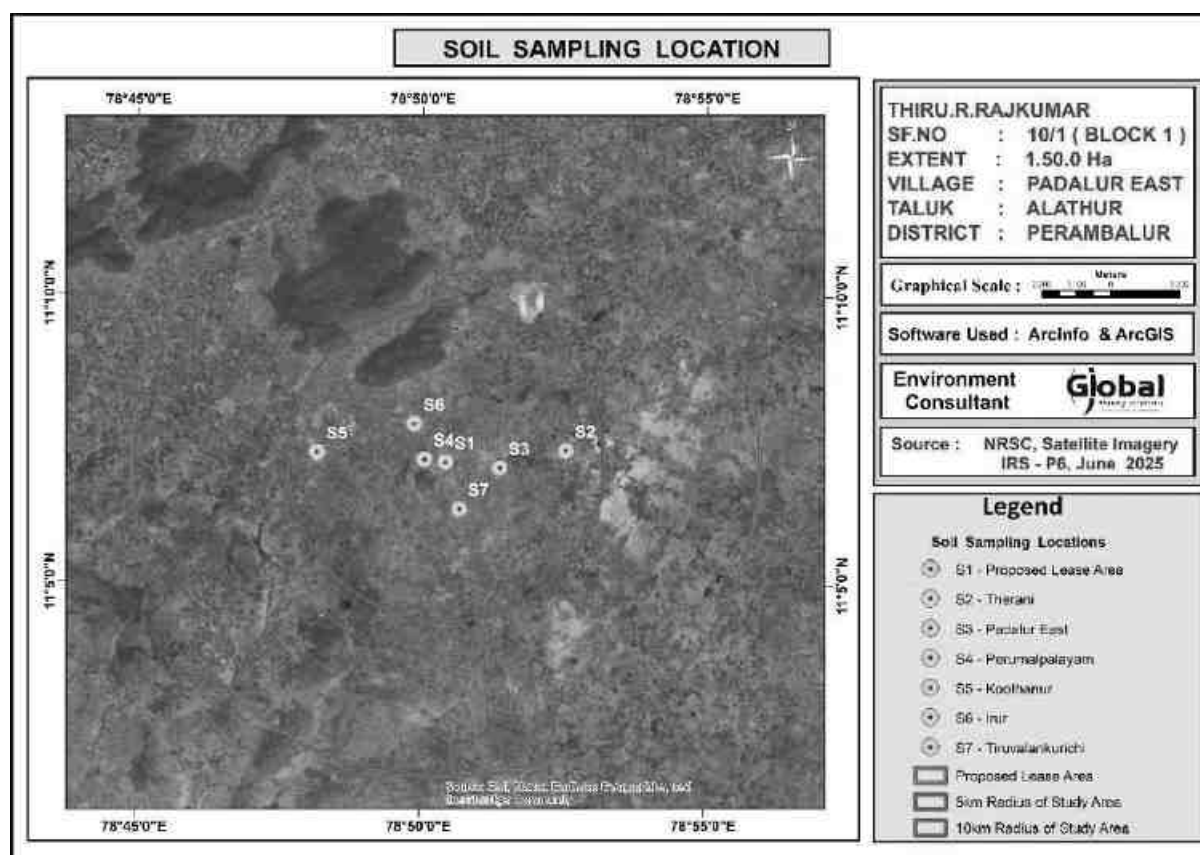


**Figure 3.15 - Soil Sampling Stations**

### 3.7.5.3 SOIL TESTING RESULT

Results of the soil samples show that the pH values were found to be 7.45 to 8.12 and Electrical Conductivity values were ranging between 190.2 – 295.6  $\mu$ mhos/cm. Soils are generally Silty Clay. Organic matter values were ranging between 0.77 – 1.32 %. Total Nitrogen values were ranging between 136 – 390 mg/kg. Phosphorus values were ranging between 1.21 – 1.69  $\mu$ g/g. Potassium values were ranging between 605 - 1030 mg/kg. Sodium values were ranging between 315 - 535 mg/kg. Total Sulphur values were observed to be BDL. The soil quality data for the 7 samples collected and analyzed are provided in Table no – 3.14.

**Table 3.15 - Soil Testing Result**

| S. No. | Parameters              | S1              | S2            | S3            | S4            | S5            | S6            | S7            |
|--------|-------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 1      | pH at 25 °C             | 7.45            | 7.94          | 8.06          | 7.95          | 7.69          | 8.12          | 7.92          |
| 2      | Electrical Conductivity | 198.9           | 290.8         | 220.4         | 273.5         | 190.2         | 295.6         | 265.7         |
| 3      | Dry matter content      | 96.44           | 96.52         | 97.21         | 86.54         | 97.25         | 93.67         | 92.58         |
| 4      | Water Content           | 3.56            | 3.48          | 2.79          | 13.46         | 2.75          | 6.33          | 7.42          |
| 5      | Organic Matter          | 0.97            | 0.95          | 0.82          | 1.32          | 0.77          | 0.95          | 1.03          |
| 6      | Soil texture            | Silty Clay loam | Silty Clay    | Silty Clay    | Clay          | Silty Clay    | Silty Clay    | Silty Clay    |
| 7      | Grain Size Distribution |                 |               |               |               |               |               |               |
|        | i. Sand                 | 15.86           | 10.42         | 8.55          | 17.05         | 13.22         | 10.79         | 7.89          |
|        | ii. Silt                | 45.89           | 44.33         | 42.75         | 38.97         | 42.75         | 45.65         | 41.32         |
|        | iii. Clay               | 38.25           | 45.25         | 48.7          | 43.98         | 44.02         | 43.55         | 50.79         |
| 10     | Phosphorous as P        | 1.35            | 1.62          | 1.24          | 1.67          | 1.36          | 1.61          | 1.74          |
| 11     | Sodium as Na            | 315             | 322           | 346           | 498           | 535           | 420           | 396           |
| 12     | Potassium as K          | 605             | 664           | 735           | 904           | 1030          | 634           | 652           |
| 13     | Total Nitrogen          | 324             | 405           | 146           | 205           | 254           | 312           | 175           |
| 14     | Total Sulphur           | BDL(D.L.0.02)   | BDL(D.L.0.02) | BDL(D.L.0.02) | BDL(D.L.0.02) | BDL(D.L.0.02) | BDL(D.L.0.02) | BDL(D.L.0.02) |
| 15     | Water Holding Capacity  | 42              | 38            | 40            | 41            | 42            | 40            | 42            |
| 16     | Porosity                | 19.1            | 19.4          | 17.9          | 17.1          | 18.9          | 18.2          | 17.3          |

### 3.7.6 LAND ENVIRONMENT

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

#### 3.7.6.1 LAND USE PATTERN OF THE PROJECT AREA

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

**Table 3.16 Land use pattern of the project site**

| <b>Description</b> | <b>Present Area in Ha.</b> | <b>Area at the end of life of Quarry in Ha.</b> |
|--------------------|----------------------------|-------------------------------------------------|
| Quarrying pit      | 0.52.0                     | 1.25.0                                          |
| Infrastructure     | Nil                        | 0.01.0                                          |
| Roads              | 0.01.0                     | 0.01.0                                          |
| Greenbelt          | Nil                        | 0.23.0                                          |
| Unutilized         | 0.97.0                     | Nil                                             |
| <b>Total</b>       | <b>1.50.0</b>              | <b>1.50.0</b>                                   |

- At the end of life of mine, the excavated mine pit / void of 1.25.0 Ha. will act as artificial reservoir for collecting rain water and helps to meet out the demand or crises during drought season.
- After mine closure the greenbelt (0.23.0 Ha.) will be developed along the safety barrier and top benches and 0.02 ha are approach road and Infrastructure.

### **3.7.6.2 LAND USE PATTERN OF THE STUDY AREA**

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

**Table 3.17 Land use pattern of the Study area of 10 km radius**

| <b>Sl.No.</b> | <b>LAND USE / LAND COVER</b> | <b>Area in Sq.Km</b> | <b>Area in Percentage</b> |
|---------------|------------------------------|----------------------|---------------------------|
| 1             | Built-up land                | 6.47                 | 2.03                      |
| 2             | Crop land                    | 207.65               | 65.3                      |
| 3             | Existing quarries            | 3.7                  | 1.16                      |
| 4             | Fallow land                  | 14.78                | 4.65                      |
| 5             | Hill and forest              | 31                   | 9.75                      |
| 6             | Land with scrub              | 16.67                | 5.24                      |
| 7             | Land without scrub           | 23.39                | 7.36                      |
| 8             | Plantations                  | 2.83                 | 0.89                      |
| 9             | Water bodies                 | 11.48                | 3.61                      |
|               | <b>Total Area</b>            | <b>291.37</b>        | <b>100.00</b>             |

**Source: Survey of India Toposheet and Landsat Satellite Imagery**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

From above table it is inferred that the majority of the land in the study area is Crop Land (65.30%)

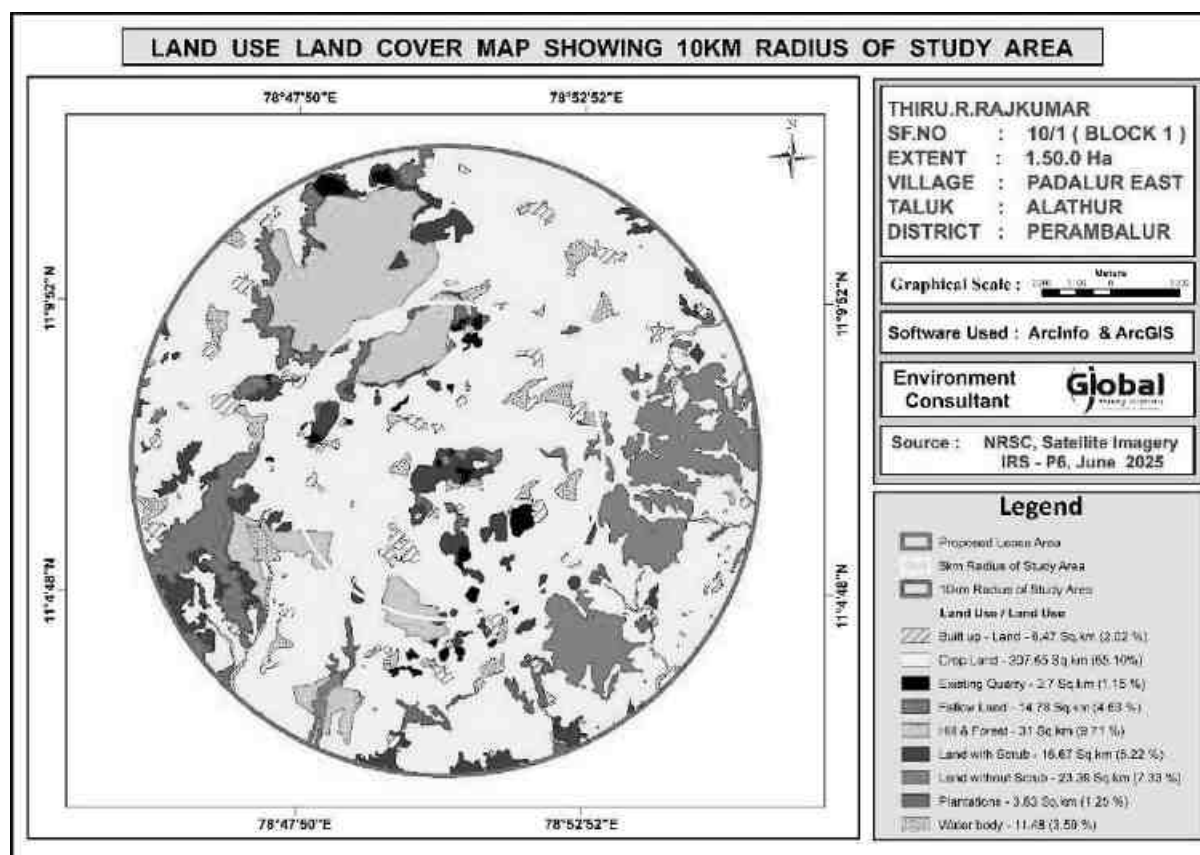


**Figure 3.16 Land use map of the study area**

### 3.7.7 BIOLOGICAL ENVIRONMENT

Study of the biological environment of any area comprises of well-planned ecological survey for the floristic and faunal composition of the areas through various scientifically planned techniques. Accordingly, the ecological survey for the proposed Rough Stone quarry area including core and buffer zone were carried out to identify various species occurring in the area.

#### 3.7.7.1 FLORA

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

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

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

#### **3.7.7.2 FLORISTIC COMPOSITION IN CORE ZONE**

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

#### **3.7.7.3 FLORISTIC SCENARIO IN BUFFER ZONE AREA**

The present report gives the review of published secondary data and the results of field sampling conducted during **March 2025 – May 2025** and there are no forest blocks in study area. The detailed ecological assessment of the study area has been carried out and are presented in below Table. Flora is assessed based on quadratic survey to calculate phytosociological parameters like density, frequency, dominance, relative density, relative frequency, relative dominance and importance value index

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

### Table 3.18 Assessment of trees

[illegible]

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|       |                      |                               |     |    |   |      |       |      |      |      |      |      |       |
|-------|----------------------|-------------------------------|-----|----|---|------|-------|------|------|------|------|------|-------|
| 17    | Erythrina variegata  | Kalyana murungai              | 2   | 1  | 4 | 0.50 | 25.00 | 2    | 0.10 | 1.80 | 1.92 | 2.07 | 5.79  |
| 18    | Borassus flabellifer | Palmyra palm                  | 5   | 2  | 4 | 1.25 | 50.00 | 2.5  | 0.16 | 4.50 | 3.85 | 3.42 | 11.77 |
| 19    | Thespesia lampas     | Common mallow, kattupparuthi  | 1   | 1  | 4 | 0.25 | 25.00 | 1    | 0.11 | 0.90 | 1.92 | 2.44 | 5.26  |
| 20    | Lanea coromandelica  | Indian Ash Tree, Moya, Wodier | 9   | 1  | 4 | 2.25 | 25.00 | 9    | 0.28 | 8.11 | 1.92 | 6.07 | 16.10 |
| 21    | Samanea saman        | Thoongumoonjj maram           | 3   | 3  | 4 | 0.75 | 75.00 | 1    | 0.22 | 2.70 | 5.77 | 4.74 | 13.21 |
| 22    | Prosopis juliflora   | Algaroba, Mesquite            | 5   | 3  | 4 | 1.25 | 75.00 | 1.67 | 0.10 | 4.50 | 5.77 | 2.19 | 12.46 |
| 23    | Eucalyptus globulus  | Blue gum                      | 3   | 3  | 4 | 0.75 | 75.00 | 1    | 0.10 | 2.70 | 5.77 | 2.19 | 10.66 |
| Total |                      |                               | 111 | 52 |   |      |       |      | 4.65 |      |      |      |       |

**Table 3.19 Assessment of Shrubs**

| 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   | 28                   | 17                              | 24                     | 1.17    | 0.71          | 1.65      | 14.43            | 17.17              | Not Assessed             |
| 2      | Lantana trifolia    | Shrub verbana | 10                   | 3                               | 24                     | 0.42    | 0.13          | 3.33      | 5.15             | 3.03               | Not Assessed             |
| 3      | Robiniapseudoacacia | Black locust  | 17                   | 5                               | 24                     | 0.71    | 0.21          | 3.4       | 8.76             | 5.05               | Least Concern            |
| 4      | Lantana camara      | Unnichi       | 9                    | 6                               | 24                     | 0.38    | 0.25          | 1.5       | 4.64             | 6.06               | Not Assessed             |
| 5      | Calotropis gigantea | Erukam        | 14                   | 12                              | 24                     | 0.58    | 0.50          | 1.17      | 7.22             | 12.12              | Not Assessed             |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |                           |                 |    |    |    |      |      |      |       |       |               |
|----|---------------------------|-----------------|----|----|----|------|------|------|-------|-------|---------------|
| 6  | Stachytarphaeurticifolia  | Rat tail        | 15 | 9  | 24 | 0.63 | 0.38 | 1.67 | 7.73  | 9.09  | Not Assessed  |
| 7  | Datura metal              | Ummattangani    | 5  | 4  | 24 | 0.21 | 0.17 | 1.25 | 2.58  | 4.04  | Not Assessed  |
| 8  | Hibiscus rosa sinensis    | Sembaruthi      | 3  | 2  | 24 | 0.13 | 0.08 | 1.5  | 1.55  | 2.02  | Not Assessed  |
| 9  | Tabernaemontanadivaricata | Crepe Jasmine   | 3  | 3  | 24 | 0.13 | 0.13 | 1    | 1.55  | 3.03  | Not Assessed  |
| 10 | Chloromolaena odorata     | Venapacha       | 9  | 6  | 24 | 0.38 | 0.25 | 1.5  | 4.64  | 6.06  | Least Concern |
| 11 | Euphorbia geniculata      | Amman Pacharisi | 3  | 3  | 24 | 0.13 | 0.13 | 1    | 1.55  | 3.03  | Not Assessed  |
| 12 | Catharanthus roseus       | Nithyakalyani   | 3  | 3  | 24 | 0.13 | 0.13 | 1    | 1.55  | 3.03  | Not Assessed  |
| 13 | Woodfordiafruticosa       | Velakkai        | 3  | 3  | 24 | 0.13 | 0.13 | 1    | 1.55  | 3.03  | Least Concern |
| 14 | Morindapubescens          | Mannanunai      | 2  | 2  | 24 | 0.08 | 0.08 | 1    | 1.03  | 2.02  | Not Assessed  |
| 15 | Acalypha indica           | Kuppaimeni      | 20 | 8  | 24 | 0.83 | 0.33 | 2.5  | 10.31 | 8.08  | Not Assessed  |
| 16 | Parthenium hysterophorous | Vishapoond      | 50 | 13 | 24 | 2.08 | 0.54 | 3.85 | 25.77 | 13.13 | Not Assessed  |

**Table 3.20 Assessment of herbs and grasses**

| 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      | Plumbago zeylanica  | Chittiramoolam         | 3                    | 3                               | 30                     | 0.10    | 0.10          | 1         | 1.19             | 3.23               | Not assessed             |
| 2      | Mimosa pudica       | Thottacherungi         | 6                    | 5                               | 30                     | 0.20    | 0.17          | 1.2       | 2.38             | 5.38               | Least concern            |
| 3      | Sida acuta          | Malaidangi             | 10                   | 3                               | 30                     | 0.33    | 0.10          | 3.33      | 3.97             | 3.23               | Not assessed             |
| 4      | Scrophularia nodosa | Sarakkothini           | 15                   | 7                               | 30                     | 0.50    | 0.23          | 2.14      | 5.95             | 7.53               | Not assessed             |
| 5      | Helicteresisora     | Valampuri              | 2                    | 2                               | 30                     | 0.07    | 0.07          | 1         | 0.79             | 2.15               | Not assessed             |
| 6      | Cynodondactylon     | Arugu                  | 12                   | 6                               | 30                     | 0.40    | 0.20          | 2         | 4.76             | 6.45               | Not assessed             |
| 7      | Sporobolus fertilis | Giant Parramatta Grass | 9                    | 4                               | 30                     | 0.30    | 0.13          | 2.25      | 3.57             | 4.30               | Not assessed             |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |                      |                  |    |    |    |      |      |       |       |       |               |
|----|----------------------|------------------|----|----|----|------|------|-------|-------|-------|---------------|
| 8  | Viburnum dentatum    | Viburnum         | 5  | 5  | 30 | 0.17 | 0.17 | 1     | 1.98  | 5.38  | Least concern |
| 9  | Heraculem spondylium | Hog Weed         | 20 | 10 | 30 | 0.67 | 0.33 | 2     | 7.94  | 10.75 | Not assessed  |
| 10 | Laportea canadensis  | Peruganchori     | 30 | 20 | 30 | 1.00 | 0.67 | 1.5   | 11.90 | 21.51 | Not assessed  |
| 11 | Euphorbia hirta      | Amman Pacharisi  | 5  | 4  | 30 | 0.17 | 0.13 | 1.25  | 1.98  | 4.30  | Not assessed  |
| 12 | Tridax procumbens    | Vettukaayathalai | 5  | 4  | 30 | 0.17 | 0.13 | 1.25  | 1.98  | 4.30  |               |
| 13 | Tephrosia purpurea   | Kavali           | 20 | 4  | 30 | 0.67 | 0.13 | 5     | 7.94  | 4.30  |               |
| 14 | Sida cordifolia      | Maanikham        | 45 | 4  | 30 | 1.50 | 0.13 | 11.25 | 17.86 | 4.30  |               |
| 15 | Tridax procumbens    | Cuminipachai     | 15 | 4  | 30 | 0.50 | 0.13 | 3.75  | 5.95  | 4.30  |               |
| 16 | Ruellia strepens     | Grandinayagam    | 25 | 4  | 30 | 0.83 | 0.13 | 6.25  | 9.92  | 4.30  |               |
| 17 | Senna occidentalis   | Nattamsakarai    | 25 | 4  | 30 | 0.83 | 0.13 | 6.25  | 9.92  | 4.30  |               |

**Table 3.21 Evenness and species Richness by Margalef**

| Details | H    | Hmax | Evenness | Species Richness (Margalef) |
|---------|------|------|----------|-----------------------------|
| Trees   | 3.21 | 3.52 | 0.9      | 7                           |
| Shrubs  | 2.36 | 2.77 | 0.85     | 2.84                        |
| Herbs   | 2.56 | 2.83 | 0.9      | 2.89                        |

From the above, it can be interpreted that tree community has higher diversity. While the shrub community shows less diversity. It is also observed that most of the quadrates have controlled generation of plant species with older strands. Higher tree 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 as a whole. Species richness is high for tree community when compared with herbs and shrubs.

### 3.7.7.4 LIST OF FAUNA

The list of fauna within the study area is given in Table No – 3.18.

**Table 3.22 List of Fauna**

| S.No            | Common name           | Scientific name            | Family            | IUCN / WPA schedule |
|-----------------|-----------------------|----------------------------|-------------------|---------------------|
| <b>MAMMALS</b>  |                       |                            |                   |                     |
| 1               | Indian Palm squirrel  | Funambulus palmarum        | Squirrel          | IV                  |
| 2               | Hare                  | Lepus nigricollis          | Leporids          | IV                  |
| 3               | House rat             | Rattus rattus              | Murids            | IV                  |
| 4               | Mannuli paambu        | Eryx johani                | Boidae            | -                   |
| 5               | Indian Grey Mongoose  | Herpestes edwardsii        | Mongoose          | IV                  |
| 6               | Field mouse           | Rattus norvegicus          | Murids            | IV                  |
| 7               | Rusty spotted Cat     | Felis rubiginosa           | Felidae           | IV                  |
| <b>REPTILES</b> |                       |                            |                   |                     |
| 1               | Common Garden lizard  | Calotes versicolor         | Agamid lizards    | IV                  |
| 2               | Rough tailed Sand boa | Gongylophis conicus        | Boidae            | IV                  |
| 3               | Indian Cobra          | Naja naja                  | elapid snakes     | II                  |
| 4               | Indian mud turtle     | Lissemys punctate          | Softshell turtles | IV                  |
| 5               | Common Green Snake    | Passerita mycterizaris     | Colubrid Snakes   | IV                  |
| 6               | Common rat snake      | Ptyas mucosus              | Colubrid Snakes   | II                  |
| <b>BIRDS</b>    |                       |                            |                   |                     |
| 1               | Grey Partridge        | Francolinus pondicerianus  | Phasianidae       | IV                  |
| 2               | Indian Ring Dove      | Streptopelia decaocto      | Pigeons and doves | IV                  |
| 3               | Red collared dove     | Streptopelia tranquebarica | Pigeons and doves | IV                  |
| 4               | Astur badius          | Shikra                     | Accipitridae      | IV                  |
| 5               | Black Drongo          | Dicrurus macrocerus        | Drongos           | IV                  |
| 6               | House Sparrow         | Passer domesticus          | Sparrow           | IV                  |
| 7               | Weaver bird           | Ploceus Philippines        | Ploceidae         | IV                  |
| 8               | Rose Ringed Parakeet  | Psittacula krameria        | Parrots           | IV                  |
| 9               | Little egret          | Egretta garzetta           | Heron             | IV                  |

|             |                  |                         |                   |    |
|-------------|------------------|-------------------------|-------------------|----|
| 10          | Redvented BulBul | Pycnonotus cafer        | Bulbul            | IV |
| <b>FISH</b> |                  |                         |                   |    |
| 1           | Common carp      | Cyprinus earpio         | Minnows and Carps | IV |
| 2           | Tilapia          | Oreochromis mossambicus | Cichlid           | IV |
| 3           | Carplet          | Amblypharyngodon Sp     | Cyprinidae        | IV |
| 4           | Trout            | Chela sp                | -                 | IV |
| 5           | Punctatus        | Ophiocephalus           | Snakehead         | IV |

The core zone of the area is Government Land, no forest land is involved in the project area. The proposed quarry area is covered by thorny bushes. There is no Wild Life Sanctuary or National Park within the study area of 10km. There is no schedule I species of animals observed within study area as per Wildlife Protection Act 1972 as well as no species is in vulnerable, endangered or threatened category as per IUCN. There is no endangered red list species found in the study area. Hence this small mining operation over short period of time will not have any significant impact on the surrounding flora and fauna.

### **3.7.8 TOPOGRAPHY**

The area applied for quarry lease is exhibits hilly terrain covered by covered by Topsoil formation. The massive Charnockite formation is noticed below 1m (Avg) Topsoil and sloping towards southwest side of the area, the altitude of the area is above 150m (maximum) from MSL. No major river is found nearby the lease applied area. Water table is found at a depth of 67m in summer and 64m in rainy seasons. Temperature of the area is reported to be 18°C to a maximum of 42°C during summer. Rainfall of this area is about 800mm to 900 mm during the both NE & SW monsoons.

### **3.7.9 DRAINAGE PATTERN OF THE AREA**

Nanthai River is located at a distance of 4.29km, S. Two Tank are located within 1km radius i.e., 600m and 800m. The area is studded with few tanks that serve as the source of drinking water and also their surplus feeds adjoining tanks. The drainage map of the study area is given in Figure 3.18.

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

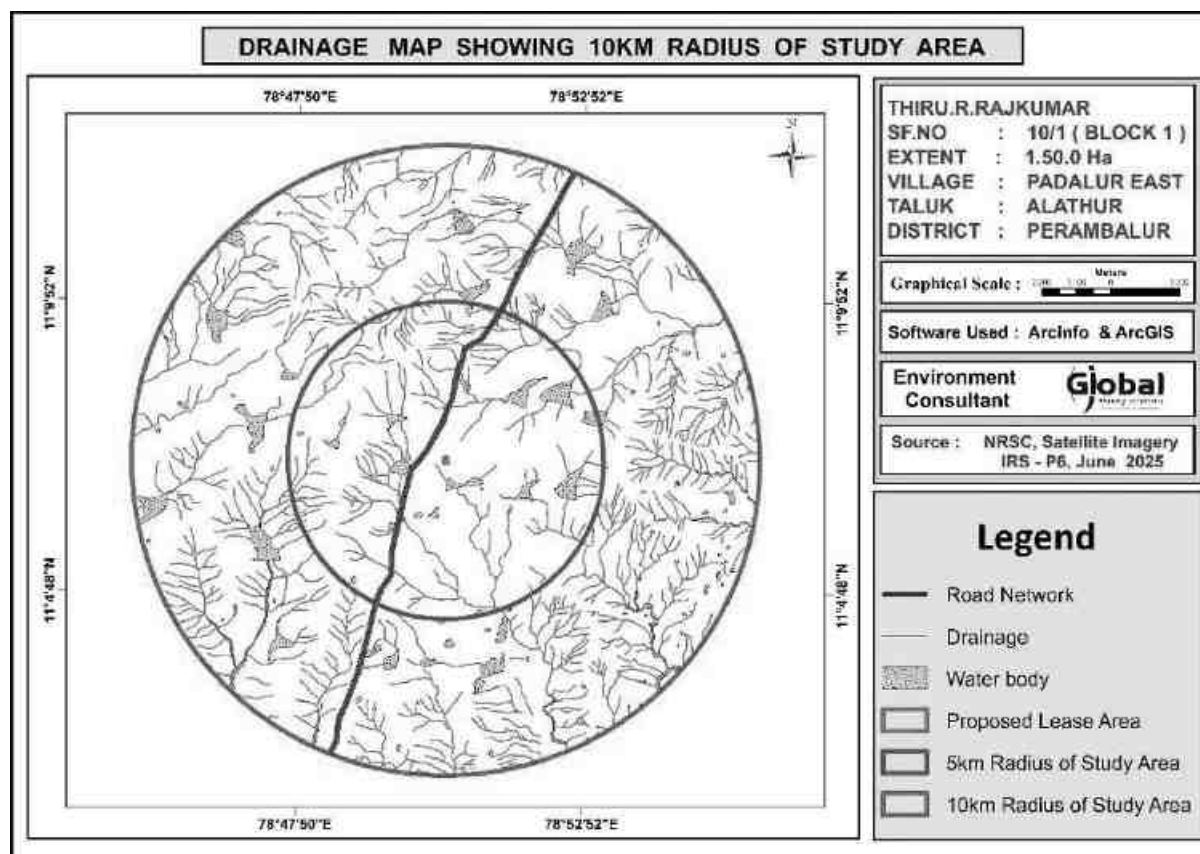


**Figure 3.17 Drainage map of the study area**

### 3.7.10 GEOMORPHOLOGY

Predominantly the buffer zone is dominated by Shallow Buried Pediplain and eroded pediplain. The project area is predominantly covered with Pediment. Geomorphology of the study area is detailed below. The geomorphology of the study area is given in Figure 3.20.

| S. No. | GEOMORPHOLOGY                         | Area in Sq.Km | Area in Percentage |
|--------|---------------------------------------|---------------|--------------------|
| 1      | Moderately weathered buried pediplain | 33.59         | 10.54              |
| 2      | Pediment – Inselberg Complex          | 21.86         | 6.86               |
| 3      | Pediplain                             | 59.36         | 18.63              |
| 4      | Residual Hill                         | 2.12          | 0.67               |
| 5      | Shallow weathered buried Pediplain    | 180.05        | 56.52              |
| 6      | Structural Hills                      | 21.57         | 6.77               |
|        | <b>Total Area</b>                     | <b>318.55</b> | <b>100.00</b>      |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

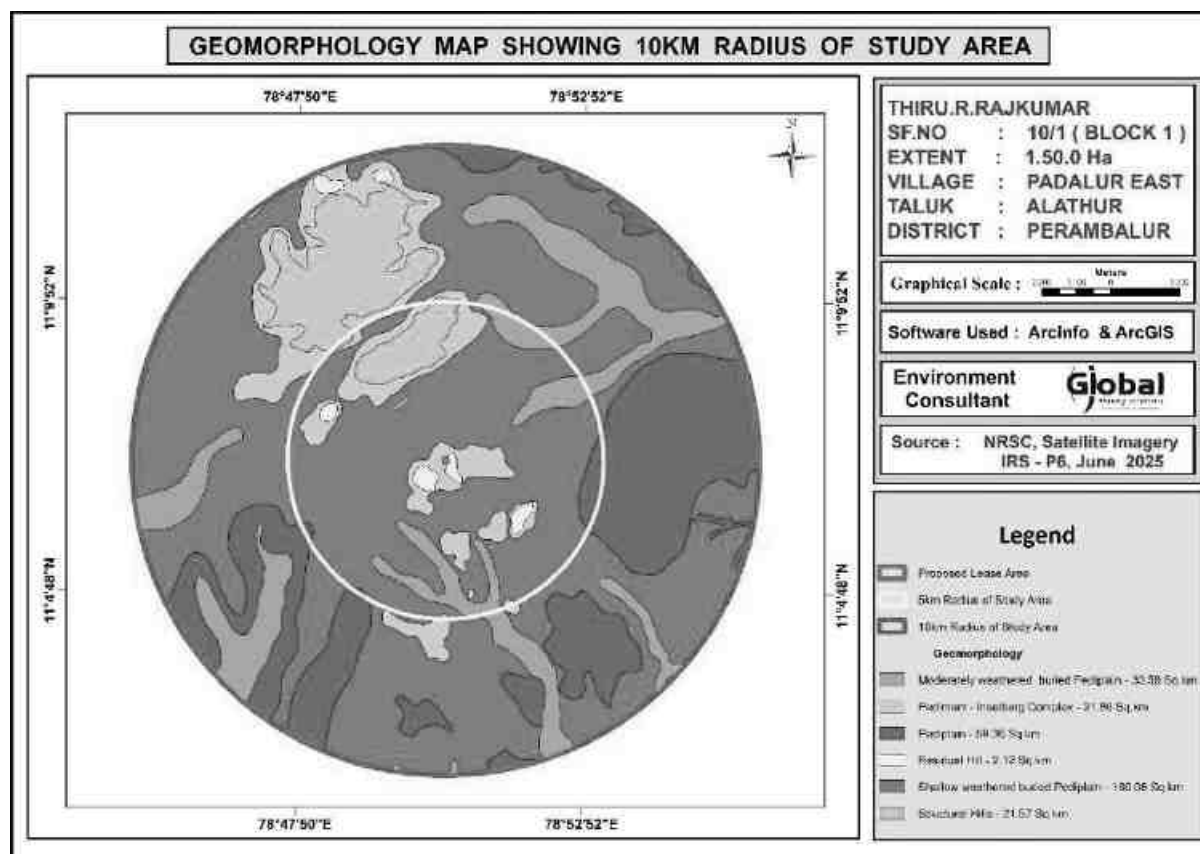


**Figure 3.18 Geomorphology map of the study area**

### 3.7.11 GEOLOGY

The regional geology of the study area is shown below in Figure 3.19. The geology map reveals that the area is predominantly covered with Fissile Hornblende Gnesis and the remaining area is covered with Charconite, Clays, gypseous clay, Limestone with Marl, Sandstone, Shales with Limestone and Shell Limestone. Both Primary data (Local Geology) and Secondary Data (regional Geology) reveals that the area is covered with Hornblende Gnesis and in this way, secondary data is validated with the Primary Data.

| Sl.No | GEOLOGY                     | Area in Sq. Km | Area in Percentage |
|-------|-----------------------------|----------------|--------------------|
| 1     | Charnockite                 | 35.03          | 10.98              |
| 2     | Clays                       | 4.76           | 1.49               |
| 3     | Fissile hornblende gnesis   | 209.42         | 65.66              |
| 4     | Gypseous clays, Limestone   | 56.5           | 17.71              |
| 5     | Sandstone & Shale           | 9.33           | 2.93               |
| 6     | Sandstone, Pebbly Sandstone | 3.15           | 0.99               |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|   |                                        |               |               |
|---|----------------------------------------|---------------|---------------|
| 7 | Shell Limestone & Calcareous Sandstone | 0.77          | 0.24          |
|   | <b>Total Area</b>                      | <b>318.96</b> | <b>100.00</b> |

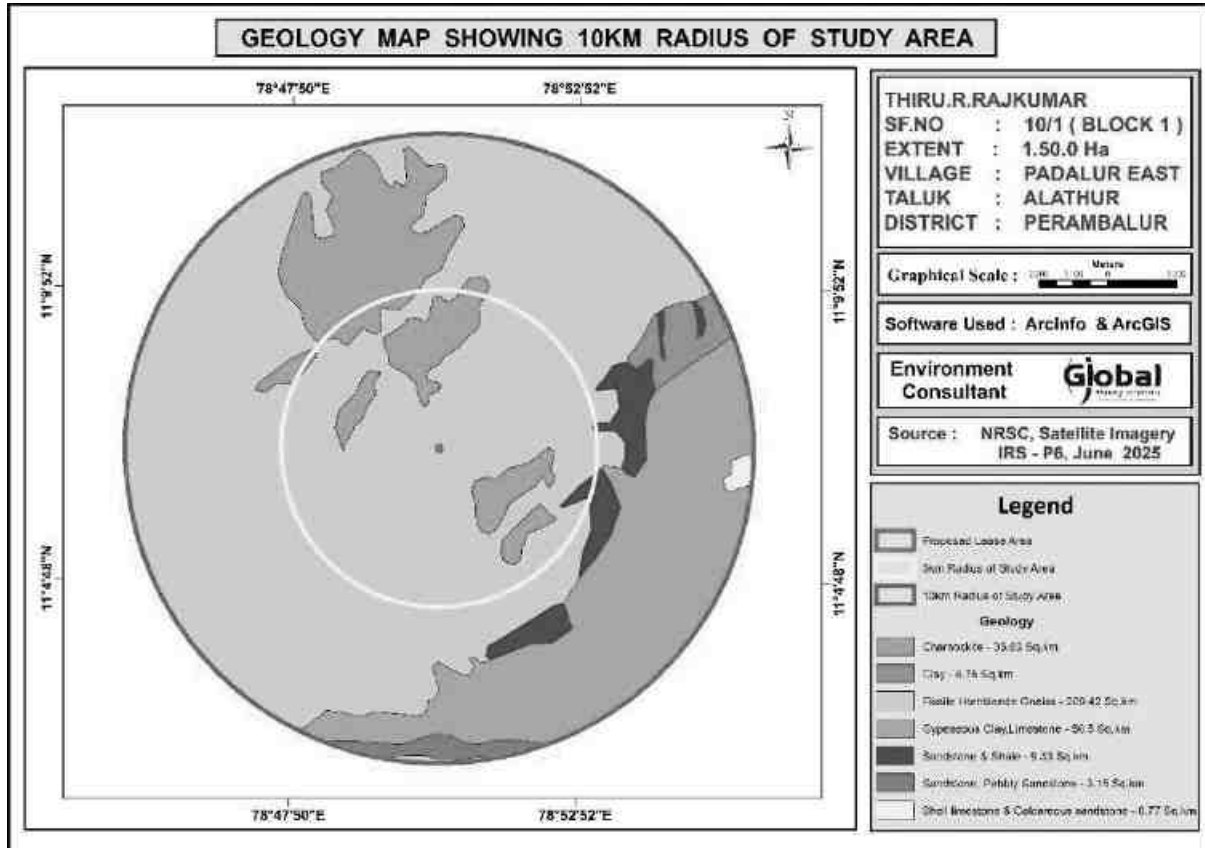


**Figure 3.19 Geology map of the study area**

### 3.7.12 LITHOLOGY

The study area is mainly dominated by intrusive rocks (182.63 Sq.m), followed by banded limestone and clay (66.39 Sq.m). The project site falls partially under Granite and partially under intrusive rocks category.

| Sl.No. | Lithology                             | Area in Sq.km |
|--------|---------------------------------------|---------------|
| 1      | Argillaceous and calcareous sandstone | 9.26          |
| 2      | Banded limestone and clay             | 66.39         |
| 3      | Conglomerate, limestone and clay      | 5.60          |
| 4      | Granite                               | 24.25         |
| 5      | Intrusive rocks                       | 182.63        |
| 6      | Sandstone and clays                   | 29.35         |
| 7      | Shales with limestone                 | 1.29          |

|   |                 |      |
|---|-----------------|------|
| 8 | Shell limestone | 2.59 |
|---|-----------------|------|

### **3.7.13 SOCIO-ECONOMIC ENVIRONMENT**

Socio-economic study is an essential part of environmental study. It includes demographic structure of the area, provision of basic amenities viz., housing, education, health and medical services, occupation, water supply, sanitation, communication, transportation, prevailing diseases pattern as well as feature like temples, historical monuments etc., at the baseline level. This will help in visualizing and predicting the possible impact depending upon the nature and magnitude of the project.

It is expected that the Socio-Economic Status of the area will substantially improve because of this proposed project. As the proposed project will provide direct and indirect employment and improve the infrastructural facilities in that area and, thus, improve their standard of living.

#### **3.7.13.1 OBJECTIVES OF THE STUDY**

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

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

#### **3.7.13.2 SCOPE OF WORK**

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

## SUMMARY OF VILLAGES IN BUFFER ZONE

The buffer zone of the project falls under two districts: Perambalur and Trichy

| S.NO  | Block / Taluk | No. of Urban Areas | No. of Villages | District   |
|-------|---------------|--------------------|-----------------|------------|
| 1     | Perambalur    | 1                  | 3               | Perambalur |
| 2     | Alathur       | 1                  | 15              | Perambalur |
| 3     | Manachanallur | 0                  | 6               | Trichy     |
| 4     | Lalgudi       | 0                  | 16              | Trichy     |
| Total |               |                    | 40              |            |

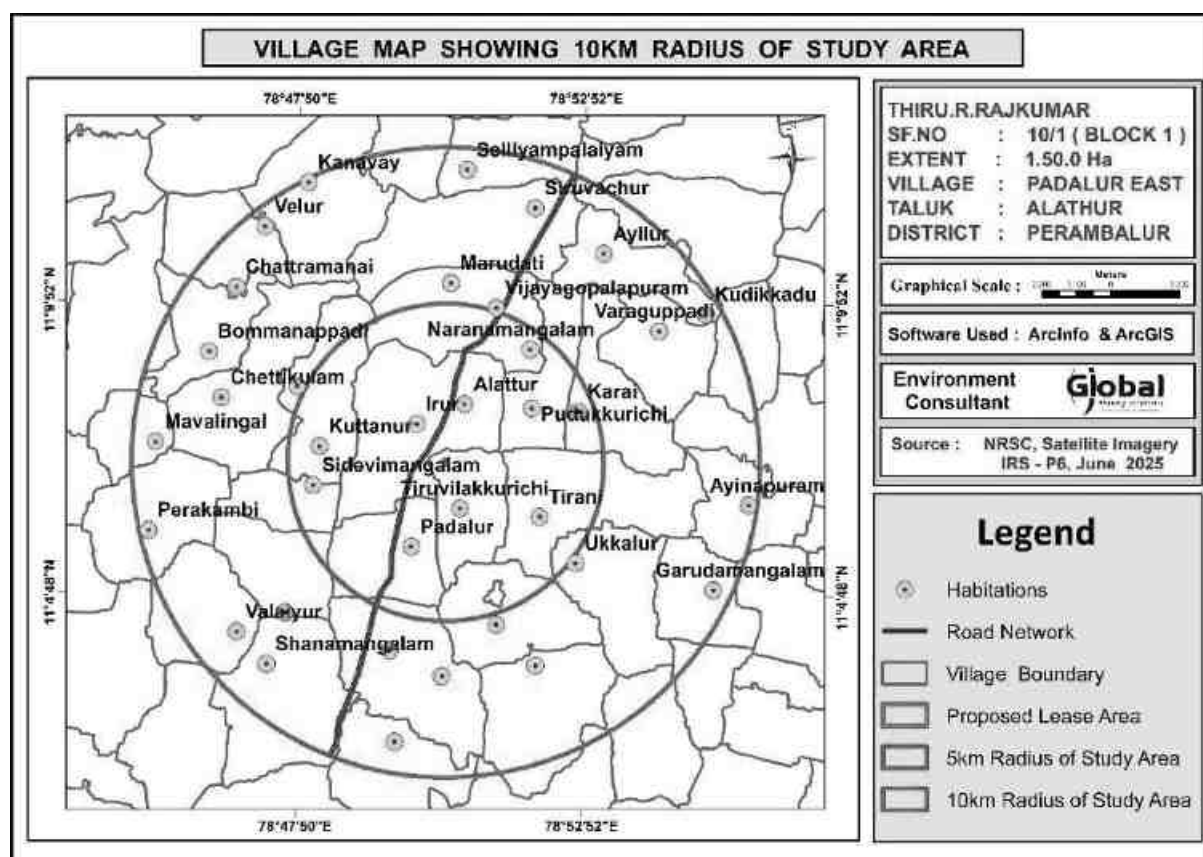


**Figure 3.20 Village Map of the Study Area**

**Table 3.23 - Population profile of the study area**

| Population profile of the study area    |                  |                |
|-----------------------------------------|------------------|----------------|
| Particulars                             | No of Population | Percentage (%) |
| <b>A. Population break-up by Gender</b> |                  |                |
| Male Population                         | 17729            | 49.90          |
| Female Population                       | 17793            | 50.09          |
| Total                                   | 35522            | 100            |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

| <b>B. Population break-up by Caste</b> |               |              |
|----------------------------------------|---------------|--------------|
| Scheduled Caste                        | <b>6113</b>   | 17.21        |
| Scheduled Tribes                       | <b>888</b>    | 2.5          |
| Others                                 | 28521         | 80.29        |
| <b>Total</b>                           | <b>35522</b>  | <b>100</b>   |
| <b>C. Literacy Level</b>               |               |              |
| Total Literate Population              | 23284         | 65.55        |
| Others                                 | 12238         | 34.45        |
| <b>Total</b>                           | <b>35522</b>  | <b>100</b>   |
| <b>D. Occupational structure</b>       |               |              |
| Main workers                           | 18078         | 87.19        |
| Marginal workers                       | 2656          | 12.81        |
| <b>Total Workers</b>                   | <b>20734</b>  | <b>58.37</b> |
| <b>Total Non-workers</b>               | <b>14788</b>  | <b>41.63</b> |
| <b>Total</b>                           | <b>295280</b> | <b>100</b>   |

| <b>Table 3.24 Population profile – Padalur East Village</b> |                         |                       |
|-------------------------------------------------------------|-------------------------|-----------------------|
| <b>Particulars</b>                                          | <b>No of Population</b> | <b>Percentage (%)</b> |
| <b>A. Population break-up by Gender</b>                     |                         |                       |
| Male Population                                             | 871                     | 52.28                 |
| Female Population                                           | 795                     | 47.72                 |
| <b>Total</b>                                                | <b>1666</b>             | <b>100</b>            |
| <b>B. Population break-up by Caste</b>                      |                         |                       |
| Scheduled Caste                                             | <b>193</b>              | 11.58                 |
| Scheduled Tribes                                            | <b>0</b>                | 0                     |
| Others                                                      | 1473                    | 88.42                 |
| <b>Total</b>                                                | <b>1666</b>             | <b>100</b>            |
| <b>C. Literacy Level</b>                                    |                         |                       |
| Total Literate Population                                   | 1210                    | 72.65                 |
| Others                                                      | 456                     | 27.35                 |
| <b>Total</b>                                                | <b>1666</b>             | <b>100</b>            |
| <b>D. Occupational structure</b>                            |                         |                       |
| Main workers                                                | 953                     | 91.8                  |
| Marginal workers                                            | 84                      | 8.2                   |
| <b>Total Workers</b>                                        | <b>1037</b>             | <b>62.25</b>          |
| <b>Total Non-workers</b>                                    | <b>629</b>              | <b>37.75</b>          |
| <b>Total</b>                                                | <b>1666</b>             | <b>100</b>            |

### **Key socio-economic indicator**

The consolidated report of the primary study revealing the exact scenario prevailing in the area based on the survey conducted in the 20 houses each in 5 villages (Total of 100 Houses) is listed below:

**Table 3.25 Key Socio-Economic Indicator**

| <b>S. No.</b> | <b>Indicator</b>                                | <b>Percentage</b> |
|---------------|-------------------------------------------------|-------------------|
| 1.            | People below age 18                             | 164               |
| 2.            | People above age 18                             | 268               |
| 3.            | Literates                                       | 354               |
| 4.            | illiterates                                     | 78                |
| 5.            | % of people employed in company                 | 16                |
| 6.            | % of people self-employed                       | 48                |
| 7.            | % of people seasonally employed                 | 24                |
| 8.            | % of people unemployed                          | 12                |
| 9.            | % of houses covered with LPG Cooking gas        | 100               |
| 10.           | % of houses covered with toilet facility        | 100               |
| 11.           | % of houses covered with piped water connection | 100               |

### **Basic Amenities**

A better network of physical infrastructure facilities (well-built roads, rail links, irrigation, power and telecommunication, information technology, market-network and social infrastructure support, viz. health and education, water and sanitation, veterinary services and co-operative) is essential for development of the rural economy. All basic amenities Education (higher education, colleges, universities, Medical college, Transport facilities, Railway station, Bus station are available.

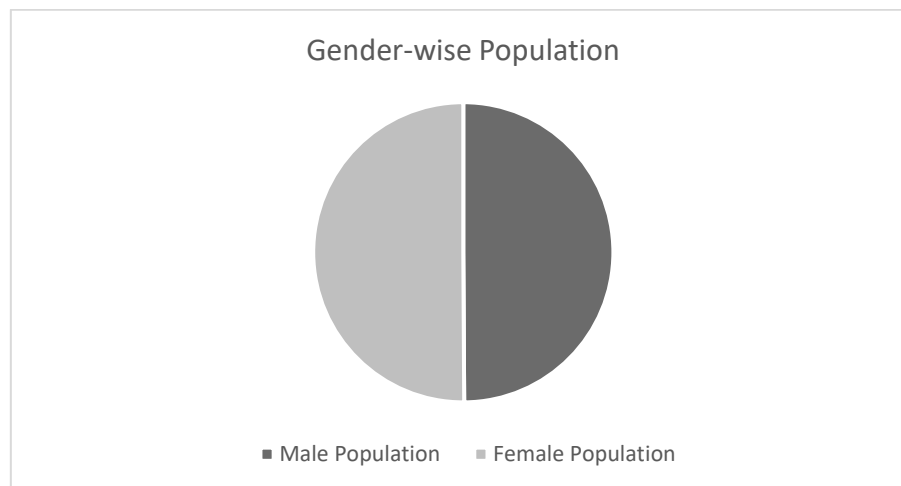


**Figure 3.21 Gender-Wise Population Distribution**

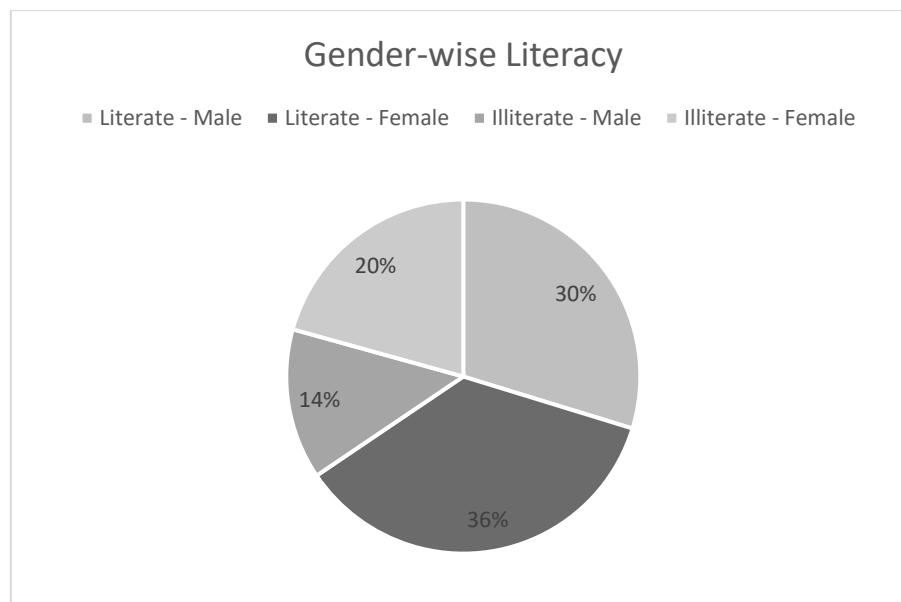


**Figure 3.22 Gender Wise Literacy Distribution**

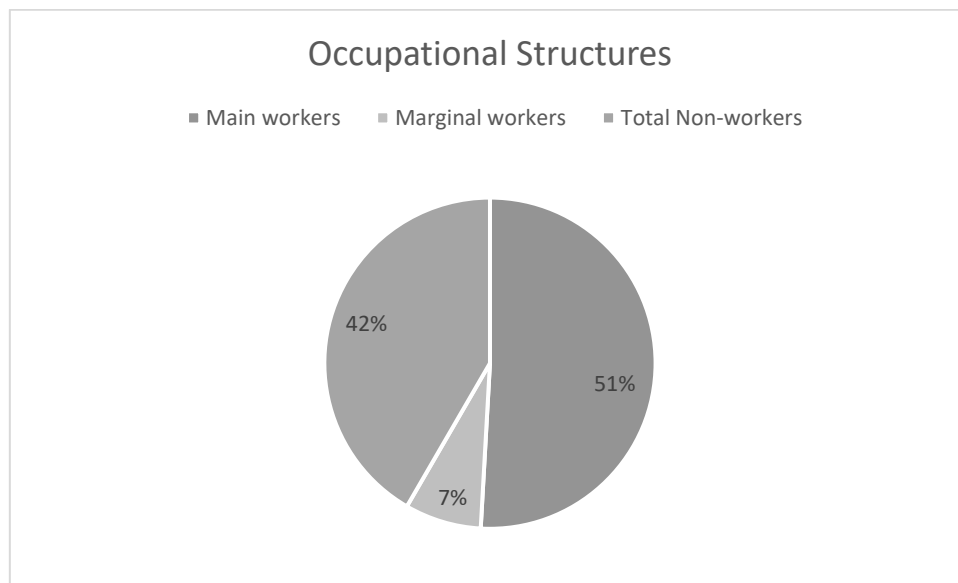


**Figure 3.23 Occupational Structure Within Buffer Zone**

\*\*\*

## **4.0 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

### **4.1 GENERAL**

Environmental impacts both direct and indirect on various environmental attributes due to cluster quarries will be created in the surrounding environment, during the operational and post-operational phases. The occurrence of mineral deposits, being site specific, their exploitation, often, does not allow for any choice except adoption of eco-friendly operation. The methods are required to be selected in such a manner, so as to maintain environmental equilibrium ensuring sustainable development.

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 sustainable resource extraction.

### **4.2 PROJECT SPECIFIC IMPACTS AND MITIGATION MEASURES**

This is a proposed project and Mechanized Open Cast mining will be carried out to quarry out Rough Stone. The identified impacts during mining and associated activities have been studied in relation to various environmental components like Air, water, noise, vibration, land, transport etc., and the details of the same are elaborated in this chapter. The impact assessment is done for the peak production of the mine lease period and the entire area of quarry operation and can be construed as applicable for the entire lease period. Based on the baseline environmental status at the project site, the environmental factors that are likely to be affected (Impacts) are identified, quantified and assessed.

The following parameters are of significance in the Environmental Impact Assessment and are being discussed in detail in this chapter.

- Land environment
- Soil environment

- Water Environment
- Air Environment
- Noise Environment
- Socio economic environment
- Biological Environment

The proposed mining activity is small and not likely to have any serious impacts on the existing environment of the area. However, the potential impacts of the proposed mining and related activities on various environmental parameters are discussed.

#### **4.2.1 LAND ENVIRONMENT**

##### **4.2.1.1 ANTICIPATED IMPACT**

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

The entire mine lease area of 1.50.0 Ha. is Government Land. The project area of 1.50.0 Ha is proposed to be altered by effective quarrying operation such as excavation (1.25.0 Ha), Infrastructure (0.01 Ha), Road (0.01 Ha) and greenbelt (0.23.0 Ha). The ultimate depth of quarrying is proposed by formation of 1 pit with maximum depth of 56m (26m above ground level and 30m below ground level) and will not intersect the ground water table. The present land use pattern and the post mining land use pattern is shown below.

**Table 4.1 Land use pattern of the project site**

| <b>Description</b> | <b>Present Area<br/>in Ha.</b> | <b>Area at the end of life<br/>of Quarry in Ha.</b> |
|--------------------|--------------------------------|-----------------------------------------------------|
| Quarrying pit      | 0.52.0                         | 1.25.0                                              |
| Infrastructure     | Nil                            | 0.01.0                                              |
| Roads              | 0.01.0                         | 0.01.0                                              |
| Greenbelt          | Nil                            | 0.23.0                                              |
| Unutilized         | 0.97.0                         | Nil                                                 |
| <b>Total</b>       | <b>1.50.0</b>                  | <b>1.50.0</b>                                       |

- Change in topography of the mine lease area will change at the end of the life of the mine.
- At the end of life of mine, the excavated mine pit / void of 1.25.0 Ha. will act as artificial reservoir for collecting rain water and helps to meet out the demand or crises during drought season.
- After mine closure the greenbelt (0.23.0 Ha.) will be developed along the safety barrier and top benches and 0.02 ha are approach road and Infrastructure.
- Problems to agricultural land and human habitations due to dust, and noise caused by movement of heavy vehicles.
- Degradation of the aesthetic environment of the core zone due to quarrying.
- Soil erosion and sediment deposition in the nearby water bodies due to earthworks during the rainy season.
- Siltation of water course due to wash off from the exposed working area.
- 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

#### **4.2.1.2 MITIGATION MEASURES**

- In the rough stone quarrying operation, land degradation is minimal. After completion of the quarrying operation, the land will be allowed to collect rainwater, this rough stone does not produce any toxic effluents in the form of solids, liquids, or gases.
- It is a simple quarrying operation where 100% of stones will be removed systematically, according to the approved Mining Plan.
- The periphery of the mining lease area will be converted to a greenbelt to prevent Noise and sound propagation to the nearby lands.
- Entire mined out area will be properly fenced to prevent inadvertent entry of human and animals.
- Since the entire material from the quarry face will be directly dispatched to the consumers, there will not be any stockpiles. There are no waste dumps in this quarry. As such there will not be any wash out due to stock pile or

waste dumps. To manage surface runoff, garland drain will be constructed around the quarry and connected to a settling pond with silt traps.

- In terms of aesthetics, natural vegetation surrounding the quarry will be retained (such as in a buffer area i.e., 7.5 m safety barrier & 10 m provided to the adjoining patta and poramboke lands) so as to help minimize dust emissions.

#### **4.2.2 SOIL ENVIRONMENT**

##### **4.2.2.1 ANTICIPATED IMPACT**

Mining activities often disrupt the existing environment as they involve disturbing the untouched earth materials. The overburden in the form of top soil generated will be utilized for afforestation purpose, the surface consists of top soil formation followed by rough stone which is proposed to excavate completely during the quarrying operation. Erosion of top layer (top soil), extracted fine material can result in substantial sediment loading to surface waters and drainage ways. During rainy season surface run off may cause sedimentation in low lying areas.

##### **4.2.2.2 MITIGATION MEASURES FOR SOIL EROSION AND SOIL CONSERVATION**

- Runoff water will be collected in bottom of the quarry and used for plantation and dust suppression during dry season. no run off water will be discharged beyond lease area.
- Wet drilling and haul road water sprinkling will be carried out to minimise air born dust at source level, which may cause soil pollution due to sedimentation.
- Garland drains will be constructed around the project area with silt traps to control the soil erosion during rainy seasons.
- Greenbelt development (0.23.0 Ha.) all along the periphery of the project area (i.e., 7.5 m safety barrier) will ensure binding strength and minimizes soil erosion.
- Soil sampling will be carried out in the core zone for every season to ensure the soil quality is not affected due to the quarrying activities.



- Monitoring and maintenance – Weekly monitoring and daily maintenance of erosion control systems so that they perform as specified specially during rainy season.

### **4.2.3 WATER ENVIRONMENT**

#### **4.2.3.1 ANTICIPATED IMPACT ON SURFACE AND GROUND WATER**

The impact due to quarrying on the water quality is expected to be insignificant because of no use of chemicals or hazardous substances during quarrying process. The quarrying activity will not intersect ground water table as quarrying is proposed up to a depth of 56m (26m above ground level and 30m below ground level) and water table is found at a depth of 64 to 67m BGL. For the management of surface run-off, rain water harvesting plan will be proposed along with garland drainage along the periphery of the project site.

Nanthai River is situated at a distance of 4.26 km in South direction and two tanks passing at 600m (S) and 800m in SE direction. No other water bodies close to the project site; there is no proposal for discharging of wastewater outside the project area. There is no proposal for a rough stone processing or workshop within the project area, so no effluent is anticipated in the mine.

During rainy season rain water will be collected in the quarry pit and later used for greenbelt development and for the water sprinkling in the haul roads.

#### **4.2.3.2 ANTICIPATED IMPACT DUE TO WATER USE IN MINE'S**

The total water requirement for the project will be 5.0 KLD comprising Drinking 1.5 KLD, Dust suppression 1.5 KLD and Greenbelt 2.0 KLD. The water will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose. Improper management of domestic wastewater in ML area may cause unhygienic conditions in the site thereby causing health impacts to the labours. The water balance diagram for the same is shown in Figure No 4.1.

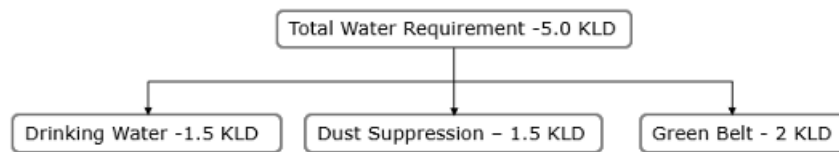


**Figure 4.1 Water Balance Diagram**

#### **4.2.3.3 MITIGATION MEASURES**

The following mitigation measures are suggested for water management

- Rainwater will be collected in lower part of the quarry pit by construction of garland drains to divert surface run-off and will be connected to settling tank of 6 m (l) x 6m (w) x 3m (d) to allow suspended solids to settle down if any. This collected water will act as a rain water harvesting system and will be used for dust suppression and greenbelt development.
- Regular water quality will be carried in nearby villages to ensure the water quality is not affected due to the quarrying activities.
- Domestic sewage from site office & urinals/latrines provided in project area will be discharged through septic tank followed by soak pit system.
- Only clear and settled water free from silt content will be used for dust suppression and greenbelt development.
- De-silting will be carried out before and immediately after the monsoon season and the settling tank and drains will be cleaned weekly, especially during monsoons.

#### **4.2.3.4 RAINWATER HARVESTING PLAN**

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

- Development of garland drain around the quarry connected to settling tank.
- Cleaning of drain periodically to prevent siltation
- The supernatant clear water from the settling pond will drain into the nearby channel on the eastern side of the lease.

- Utilizing the rainwater harvested in the mine pit to meet the water requirement of the project.

The average annual rainfall of the area is 816 mm. Taking into consideration of 0.35 as runoff co-efficient for mining area, the total quantity of rain water can be harvested per annum from the area has been tabulated as below.

**Table 4.2 – Rainwater Harvesting Plan**

| S.NO                            | Rainwater Harvesting Area | Area in Sq.m | Average annual rainfall | Volume of harvestable quantity (Cum) of rain water per annum |
|---------------------------------|---------------------------|--------------|-------------------------|--------------------------------------------------------------|
| 1                               | Quarry Area               | 15000        | 0.82                    | 12,300                                                       |
| <b>Total Harvested Rainfall</b> |                           |              |                         | <b>12,300</b>                                                |

Total surface water runoff is 12,300 Cum per Annum. 10% of this amount will be evaporated and rest 11,070 m<sup>3</sup> will be recharged in the rain water harvesting pit.

The dimension of the rain water harvesting pond will be 12,000 Cu. m. The rain water stored in the pond will be utilized for plantation, dust suppression activities. The capacity of Rain water harvesting post will be sufficient to arrest the surface runoff from the lease area considering the highest amount of rain fall.

#### **4.2.4 AIR ENVIRONMENT**

The existing ambient air quality in the area has been described in Chapter-3. Opencast mechanized mining, using jackhammer drilling, blasting, and excavation through an excavator, as well as mineral transport through tippers, will be carried out for the excavation of rough stone.

##### **4.2.4.1 ANTICIPATED IMPACT**

The proposed mining and allied operations may cause deterioration of air quality due to pollution arising from the project operation if prompt care is not taken. The principal sources of air pollution in general due to mining and allied activities will be:

The air-borne particulate matter generated by quarrying operations and transportation is mainly PM<sub>10</sub> and PM<sub>2.5</sub>, and emissions of sulfur dioxide (SO<sub>2</sub>) and oxides of nitrogen (NO<sub>2</sub>) due to excavation/loading equipment and vehicles plying on haul roads are the cause of air pollution in the project area.

Furthermore, the loading, unloading, and transportation of rough stone, as well as wind erosion of the exposed area and movement of light vehicles, will cause pollution within a 500-meter radius of the project area due to quarrying activities. This has a cumulative impact on the ambient air environment around the project area.

#### **4.2.4.2 MITIGATION MEASURES**

The following measures will be adopted to control impact on the air quality due to mining operations in the lease area due to adoption of which, no major impact on air quality is envisaged due to this proposed opencast mining operation.

**Table 4.3 Mitigative Measures for Air Environment**

| S.NO | Activity               | Consequence                     | Mitigative Measures                                                                                                                                                  |
|------|------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Drilling               | Dust Emission                   | Usage of wet drilling                                                                                                                                                |
|      |                        |                                 | Covering of drill holes with wet cloth                                                                                                                               |
|      |                        |                                 | Usage of sharp drill bits for drilling of holes.                                                                                                                     |
|      |                        |                                 | Provision of dust mask to workers working at highly dust prone and affected areas.                                                                                   |
| 2    | Blasting               | Prompt dust emission            | Well-designed blasting parameter, effective stemming to achieve optimum breakage occurs without generating fines.                                                    |
|      |                        |                                 | Use of appropriate explosives for blasting and avoiding overcharging of blast holes.                                                                                 |
|      |                        |                                 | Avoiding blasting during high wind periods where the fine dust is carried out away easily affecting the ambient air quality.                                         |
|      |                        |                                 | Use of controlled blasting techniques with milli second delay detonators to keep the dust generation, noise as well as vibration level within the prescribed limits. |
| 3    | Excavation and Loading | Dust emission, Gaseous Emission | Proper maintenance of HEMM will be carried out to minimize dust and gaseous emission at the source level.                                                            |
|      |                        |                                 | Water sprinkling will be carried out at excavation and loading area.                                                                                                 |
|      |                        |                                 | Imparting sufficient training to operators on safety and environmental parameters.                                                                                   |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|   |                   |                                  |                                                                                                                                                                      |
|---|-------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                   |                                  | Avoiding overloading of dumpers.                                                                                                                                     |
| 4 | Transportation    | Dust emission, Gaseous Emission  | Regular wetting of transport road using mobile water tanker.                                                                                                         |
|   |                   |                                  | Proper maintenance of haul road and other roads                                                                                                                      |
|   |                   |                                  | Avoiding overloading of tippers                                                                                                                                      |
|   |                   |                                  | Covering of loaded tippers with tarpaulins during transportation                                                                                                     |
|   |                   |                                  | Vehicular emissions will be controlled through regular and proper preventive maintenance only PUC valid vehicles will be used for transportation.                    |
| 5 | Greenbelt         | Dust emission, Gaseous Emission  | Development of greenbelt / barriers around mine in the safety zone and carrying out plantation within the lease area.                                                |
| 6 | Occupation Health | Dust emanation, Gaseous Emission | Dust mask will be provided to the workers and their use will be strictly monitored                                                                                   |
|   |                   |                                  | Annual medical checkups, trainings and campaigns will be arranged to ensure awareness about importance of wearing dust masks among all mine workers & tipper drivers |
|   |                   |                                  | Ambient Air Quality Monitoring will be conducted six months once to assess effectiveness of mitigation measures proposed.                                            |

#### **4.2.4.3 AIR QUALITY IMPACT PREDICTION**

The AERMOD atmospheric dispersion modeling (AERMOD Cloud remote version) is used for assessment of incremental Ground level concentration (GLC) for the proposed production. Area source model taken into consideration taking into consideration of wet drilling and loading. Further line source model was taken into consideration for transportation through haul road. Baseline meteorological studies were conducted for the period of **March 2025 to May 2025**. The following sources are considered.

| <b>TABLE 4.4 Types of Sources for Air Pollution in Mining</b> |                                 |                       |
|---------------------------------------------------------------|---------------------------------|-----------------------|
| <b>S. No.</b>                                                 | <b>Type of mining operation</b> | <b>Type of Source</b> |
| 1                                                             | Wet drilling                    | Point                 |
| 2                                                             | Loading                         | Point                 |
| 3                                                             | Transportation                  | Line                  |

#### **ARRIVING EMISSION FACTOR**

Emission factor for PM<sub>10</sub> for different activities are given below.

| <b>TABLE 4.5 Emission Factors for Mining Activities</b> |                 |                        |             |
|---------------------------------------------------------|-----------------|------------------------|-------------|
| <b>S. No.</b>                                           | <b>Activity</b> | <b>Emission factor</b> | <b>Unit</b> |
| 1                                                       | Wet drilling    | 0.00008                | lb/s        |
| 2                                                       | Ore loading     | 0.0014                 | Kg/t/s      |
| 3                                                       | Transportation  | 0.26                   | Kg/VKT      |

#### **Source**

1. Jose I. Huertas & Dumar A, Camacho & Maria E. Huertas, Standardized emissions inventory methodology for openpit mining areas, Environmental Science Pollution Research, 2012.
2. AP-42. U.S Environmental Protection Agency, Office of Air Quality Planning and Standards

### 4.3 EMISSIONS FROM THE PROPOSED PROJECT

The emissions from each activity after the application of control and mitigation measures like water sprinkling, proper maintenance of transport vehicles, etc., are given below.

| <b>TABLE 4.6 PM 10 and PM 2.5 Emission from Mining Activities</b> |                 |             |              |
|-------------------------------------------------------------------|-----------------|-------------|--------------|
| <b>S. No.</b>                                                     | <b>Activity</b> | <b>PM10</b> | <b>PM2.5</b> |
| 1                                                                 | Wet drilling    | 0.22        | 0.04         |
| 2                                                                 | Ore loading     | 0.87        | 0.16         |
| 3                                                                 | Transportation  | 0.23        | 0.05         |

#### MODEL INPUT DATA:

The air pollution modeling carried out represents the normal operating scenarios. As the project is a mining project the major source of pollution is particulate matter. The SO<sub>x</sub> and NO<sub>x</sub> emission will be very less only due to vehicular emission. So the pollutant taken for prediction of incremental concentration is particulate matter (PM<sub>10</sub> & PM<sub>2.5</sub>). The predicted incremental Ground Level Concentrations (GLCs) for particulate matter is likely to be contributed by the proposed project. The average predicted 24 hr average concentration has been tabulated as below.

#### EMISSION ESTIMATION

The emission estimations for the activities are detailed below.

**Table 4.7 - Area Emissions – Total Material handling**

|                                                    |                                                       |
|----------------------------------------------------|-------------------------------------------------------|
| Quantity, TPA                                      | Rough Stone: 24,34,296.65 m <sup>3</sup> (Five Years) |
| Operational Hours Per Year                         | 2400                                                  |
| Activity Rate, t/hr.                               | 400.9654                                              |
| Emission of dust, g/t.                             | 0.18                                                  |
| Emission of dust, g /hr.                           | 53.4565                                               |
| Area of influence, m <sup>2</sup>                  | 627                                                   |
| Uncontrolled emission rate g/s/m <sup>2</sup>      | 0.00003546                                            |
| Controlled emission rate, PM10 g/s/m <sup>2</sup>  | 0.000035462                                           |
| Controlled emission rate, PM2.5 g/s/m <sup>2</sup> | 0.00002364                                            |





**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

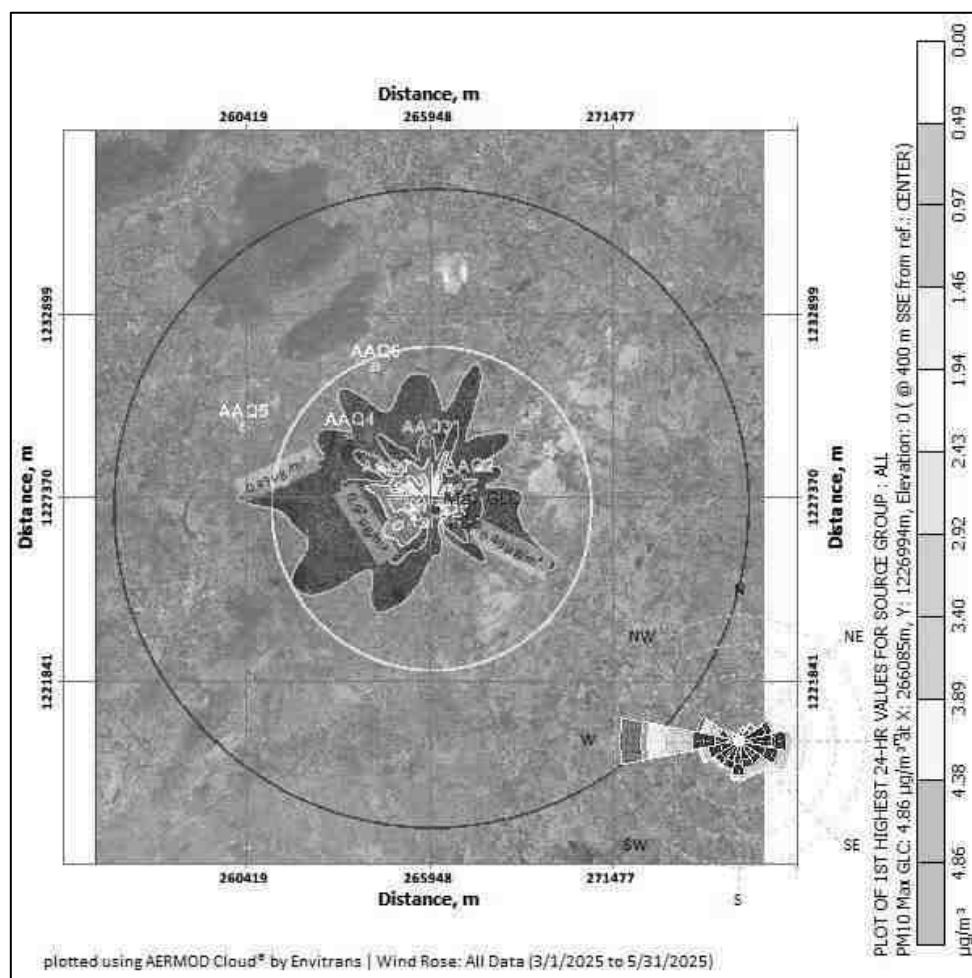


**Figure 4.3 - Isoleth of GLC Prediction for PM10**

**PREDICTED AMBIENT AIR QUALITY:**

The post project Concentrations of PM10, PM2.5, (GLC) (base line + incremental) after adopting necessary control measures is given in Table No - 4.9 to 4.10.

| <b>Table4.9: Concentrations of PM 2.5 after Project Implementation</b> |                 |                               |                                            |                                   |                                             |
|------------------------------------------------------------------------|-----------------|-------------------------------|--------------------------------------------|-----------------------------------|---------------------------------------------|
| <b>S. No.</b>                                                          | <b>Location</b> | <b>Baseline Concentration</b> | <b>Predicted incremental Concentration</b> | <b>Post Project Concentration</b> | <b>Statutory Limits in µg/m<sup>3</sup></b> |
| 1                                                                      | Within ML area  | 36.5                          | 3.38                                       | 39.9                              | <b>60</b>                                   |
| 2                                                                      | Therani         | 28.6                          | 3.05                                       | 31.7                              |                                             |
| 3                                                                      | Padalur East    | 26.7                          | 2.71                                       | 29.4                              |                                             |
| 4                                                                      | Perumalpalayam  | 29.4                          | 1.02                                       | 30.4                              |                                             |
| 5                                                                      | Koothanur       | 24.7                          | 0.68                                       | 25.4                              |                                             |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|   |                  |      |      |      |  |
|---|------------------|------|------|------|--|
| 6 | Irur             | 27.1 | 0.34 | 27.4 |  |
| 7 | Tiruvalankurichi | 25.4 | 3.30 | 28.7 |  |

**Table4.10: Concentrations of PM 10 after Project Implementation**

| S. No. | Location         | Background Concentration | Predicted incremental Concentration | Post Project Concentration | Statutory Limits in $\mu\text{g}/\text{m}^3$ |
|--------|------------------|--------------------------|-------------------------------------|----------------------------|----------------------------------------------|
| 1      | Within ML area   | 76.1                     | 4.86                                | 81.0                       | <b>100</b>                                   |
| 2      | Therani          | 59.5                     | 4.38                                | 63.9                       |                                              |
| 2      | Padalur East     | 56.5                     | 3.89                                | 60.4                       |                                              |
| 3      | Perumalpalayam   | 59.1                     | 1.94                                | 61.0                       |                                              |
| 4      | Koothanur        | 51.3                     | 1.46                                | 52.8                       |                                              |
| 5      | Irur             | 57.2                     | 0.97                                | 58.2                       |                                              |
| 6      | Tiruvalankurichi | 53.3                     | 4.55                                | 57.9                       |                                              |

The above report seems that, even in the worst-case scenario, the resultant added concentrations with baseline figures show that the values of ambient air quality for  $\text{PM}_{10}$  are in the range of  $52.8 \mu\text{g}/\text{m}^3$  to  $81.0 \mu\text{g}/\text{m}^3$  and for  $\text{PM}_{2.5}$  are in the range of  $25.4 \mu\text{g}/\text{m}^3$  to  $39.9 \mu\text{g}/\text{m}^3$  which are within the statutory limits in each case. The mitigation measures undertaken in the mine for control of air pollution are given below.

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

### **CUMULATIVE IMPACT STUDY**

There is one existing quarry and this proposed quarry is located within a radius of 500 m from the proposed project area. The existing and proposed quarries situated within 500 m radius are presented in below and the letter received from

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

Dept. of Geology and Mining, Perambalur stating the quarries detail within 500m radius is enclosed in Annexure – 4.

| S. No               | Name of the Quarry Owner   | S.F. Nos & Village                     | Lease Period             | Area      |
|---------------------|----------------------------|----------------------------------------|--------------------------|-----------|
| a. Abandoned Quarry |                            |                                        |                          |           |
| 1.                  | M. Basakaran               | 4(1)(P), 4(2)(P), 7(3)(P), Padalur (E) | 24.01.2018 to 23.01.2023 | 2.00 Ha   |
| 2.                  | K. Mathiyalagan            | 10/1 (Block 18), Padalur (E)           | 23.05.2007 to 22.05.2017 | 1.00 Ha   |
| 3.                  | Thiru. B. Senthilkumar     | 10/1 (part), Padalur (E)               | 12.04.2006 to 11.04.2016 | 1.00 Ha   |
| 4                   | Thiru. M. Ravi             | 10/1 (Block 20), Padalur (E)           | 11.05.2007 to 10.05.2017 | 1.00 Ha   |
| 5                   | V. Panneerselvam           | 10/1 (Block 22), Padalur (E)           | 31.05.2011 to 30.05.2021 | 1.00 Ha   |
| 6                   | Thiru. R. Suresh Babu      | 10/1 (Block 17), Padalur (E)           | 23.05.2007 to 22.05.2017 | 1.00 Ha   |
| b. Existing Quarry  |                            |                                        |                          |           |
| 1.                  | M. Baskaran                | 1/7F(P), 1/7G(P), 1/3(P)               | 23.08.2024 to 22.08.2034 | 1.33 Ha   |
| c. Expired Quarries |                            |                                        |                          |           |
| 1.                  | Nil                        |                                        |                          |           |
| d. Proposed Quarry  |                            |                                        |                          |           |
| 1.                  | Thiru. R. Rajkumar         | 10/1 (Block-1), Padalur (East)         | Presently Proposed       | 2.10.0Ha  |
| 2.                  | Thiru. M. Thangaraj        | 10/1 (Block-5), Padalur (East)         |                          | 1.50 Ha   |
| 3                   | Thiru. Hariharan. L        | 10/1 (Block-2), Padalur (East)         |                          | 1.40.6 Ha |
| 4                   | Thiru. P. Velmurugan       | 10/1 (Block-3), Padalur (East)         |                          | 1.40.0 Ha |
| 5                   | M/s. Rajamalai Metals      | 10/1 (Block-4, Padalur (East)          |                          | 1.40.0 Ha |
| 6                   | M/s. SR Mines and Minerals | 10/1 (Block-6), Padalur (East)         |                          | 2.20.0 Ha |
| 7                   | M/s. Mars Mines            | 10/1 (Block-7), Padalur (East)         |                          | 1.30.0 Ha |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                          |                        |                                   |  |              |
|--------------------------|------------------------|-----------------------------------|--|--------------|
| 8                        | Thiru. Vinoth R        | 10/1 (Block-8),<br>Padalur (East) |  | 1.20.0<br>Ha |
| 9                        | M/s. Anjaneya Minerals | 10/1 (Block-9), Padalur (East)    |  | 1.20.0<br>Ha |
| 10                       | Thiru. P. Velmurugan   | 10/1 (Block-13), Padalur (East)   |  | 1.00.0<br>Ha |
| Total Area Under Cluster |                        | 16.03.6                           |  |              |

The total lease within the 500m radius works out to 16.03.6 Ha including this lease area. A map showing the existing and proposed quarry located within 500m radius is given in Figure 1.1.

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

| Description                                   |                    | P1               | P2             | P3               | P4                 | P5                         | P6              | P7              | P8                    | P9                                                      | P10                                          |
|-----------------------------------------------|--------------------|------------------|----------------|------------------|--------------------|----------------------------|-----------------|-----------------|-----------------------|---------------------------------------------------------|----------------------------------------------|
| Name of the Quarry                            | Name of the Quarry | Thiru.R.Rajkumar | M/s.Mara Mines | Thiru.Harinaran. | Thiru.Sivathirugan | M/s.VR Mines and Materials | Thiru.M.Thangam | Thiru.R.Srinath | Anjaneya Minerals     | P. Velmurugan                                           | H. Badaran                                   |
| Geological Reserves in Ts                     | Roughstone         | 17,24,815.75Ts   | 15,35,372.50Ts | 25,81,523Ts      | 4,76,195Ts         | 22,30,116.25Ts             | 18,45,722.5Ts   | 12,04,752.50Ts  | 8,55,175              | 24,37,758                                               | Rough Stone - 8,56,312.5 + Gravel - 36,252.5 |
| Minable Reserves in Ts                        | Roughstone         | 8,59,683.75Ts    | 5,68,150Ts     | 9,70,115.50Ts    | 3,11,245Ts         | 16,30,681.25Ts             | 3,48,576.25Ts   | 2,66,300Ts      | 4,21,225              | 9,27,125                                                | Rough Stone - 2,30,882.5 + Gravel - 23,137.5 |
| Production quantity for the period of 5 years | Roughstone         | 8,59,683.75Ts    | 5,68,150Ts     | 4,90,798Ts       | 3,11,245Ts         | 16,30,681.25Ts             | 3,48,576.25Ts   | 3,66,300Ts      | 4,21,225              | 9,27,125                                                | Rough Stone - 2,30,882.5 + Gravel - 23,137.5 |
| Production per day in Ts                      | Peak Production    | 173648.75        | 115172.5       | 98560            | 66082.50           | 198762.5                   | 70001.25        | 74250           | 515.875               | 627.08                                                  | Rough Stone - 97.58 + Gravel - 23            |
| Lorry Loads per day in nos                    | -                  | 18               | 18             | 17               | 11                 | 18                         | 13              | 12              | 50                    | 63                                                      | 32                                           |
| Employment in nos                             |                    | 30               | 29             | 33               | 23                 | 28                         | 25              | 25              | 31                    | 32                                                      | 15                                           |
| Proposed Depth in meters                      |                    | 56               | 31             | 56               | 41                 | 56                         | 81              | 56              | 5mm (31m AGL=23m BGL) | 81m (51m ABOVE GROUND LEVEL AND 20m BELOW GROUND LEVEL) | 20m BGL                                      |
| Status of the quarry                          |                    | Proposed         | Proposed       | Proposed         | Proposed           | Proposed                   | Proposed        | Proposed        | Proposed              | Proposed                                                | Existing                                     |

Based on the above production quantities the emissions due to various activities in all the 11 mines (1 Existing + 10 Proposed) includes various activities like ground preparation, excavation, handling and transport.

The cumulative study shows that the overall production of rough stone and gravel from the 11 quarries is 233 m<sup>3</sup> per day with a capacity of 23 trips per day.

As P10 project is an existing quarry, they are part of the current traffic. The proposed project will bring 30 trips per day. The existing road can absorb this additional traffic due to this project. Various measures like proper maintenance of road, covering of the loaded truck with tarpaulin, water sprinkling will be carried out to ensure no adverse impact on the logistical front.

#### **Area Emissions – Total Material handling – Cluster**

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quantity, m3                           | <b>Proposed Quarries:</b> Rough stone & Gravel <ul style="list-style-type: none"> <li>• R.Rajkumar: 24,34,296.65 m3 of</li> <li>• M/s.Mars Mines: 1608821.64 m3, Thiru.Hariharan.L: 1389785.17 m3, Thiru.P.Velmurugan: 8,81,347.69 m3,</li> <li>• M/s.SR Mines and Minerals: 46,17,575.08, Thiru.M.Thangaraj: 9,87,058.02 m3, Thiru.R.Vinoth: 10,37,246.09 m3,</li> <li>• Anjaneya Minerals: 11,92,776.37 m3,</li> <li>• P. Velmurugan: 26,25,325.64 m3, M. Baskaran Rough Stone: 6,53,234.25482 m3 &amp; Gravel 65,518.10 m3)</li> </ul> |
| Operational Hours Per Year             | 2400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Activity Rate, t/hr.                   | 369.45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Emission of dust, g/t.                 | 0.29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Emission of dust, g /hr.               | 75.4525                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Area of influence, m2                  | 625                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Uncontrolled emission rate g/s/m2      | 0.0007724                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Controlled emission rate, PM10 g/s/m2  | 0.00077241                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Controlled emission rate, PM2.5 g/s/m2 | 0.0005149                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

#### **Line Source – Transport of Rough Stone & Gravel (Cluster)**

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quantity, m <sup>3</sup> | <b>Proposed Quarries:</b> Rough stone & Gravel <ul style="list-style-type: none"> <li>• R.Rajkumar: 24,34,296.65 m3 of</li> <li>• M/s.Mars Mines: 1608821.64 m3, Thiru.Hariharan.L: 1389785.17 m3, Thiru.P.Velmurugan: 8,81,347.69 m3,</li> <li>• M/s.SR Mines and Minerals: 46,17,575.08, Thiru.M.Thangaraj: 9,87,058.02 m3, Thiru.R.Vinoth: 10,37,246.09 m3,</li> <li>• Anjaneya Minerals: 11,92,776.37 m3,</li> <li>• P. Velmurugan: 26,25,325.64 m3, M. Baskaran Rough Stone: 6,53,234.25482 m3</li> </ul> |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                       |                                     |
|---------------------------------------|-------------------------------------|
|                                       | & Gravel 65,518.10 m <sup>3</sup> ) |
| Operational Hours Per Year            | 2400                                |
| Capacity of each Dumper (T)           | 10                                  |
| Total No. of Tippers/ year            | 29052                               |
| Lead length/trip, Km                  | 0.18                                |
| Total VKT/Year                        | 754123                              |
| Emission Kg/VKT                       | 0.25                                |
| Total emission Kg/Year                | 19427.3                             |
| Uncontrolled emission rate g/s/m      | 6.3446                              |
| Controlled emission rate, PM10 g/s/m  | 0.634464                            |
| Controlled emission rate, PM2.5 g/s/m | 0.44891                             |

**EMISSION ESTIMATION FROM CLUSTER**

**Incremental & Resultant GLC within cluster for PM2.5**

| S. No. | Location         | Baseline Concentration | Predicted incremental Concentration | Post Project Concentration | Statutory Limits in µg/m <sup>3</sup> |
|--------|------------------|------------------------|-------------------------------------|----------------------------|---------------------------------------|
| 1      | Within ML area   | 36.5                   | 4.21                                | 40.71                      | <b>60</b>                             |
| 2      | Therani          | 28.6                   | 3.79                                | 32.39                      |                                       |
| 3      | Padalur East     | 26.7                   | 3.37                                | 30.07                      |                                       |
| 4      | Perumalpalayam   | 29.4                   | 1.26                                | 30.66                      |                                       |
| 5      | Koothanur        | 24.7                   | 0.84                                | 25.54                      |                                       |
| 6      | Irur             | 27.1                   | 0.42                                | 27.52                      |                                       |
| 7      | Tiruvalankurichi | 25.4                   | 4.20                                | 29.60                      |                                       |

**Incremental & Resultant GLC within cluster for PM10**

| S. No. | Location       | Background Concentration | Predicted incremental Concentration | Post Project Concentration | Statutory Limits in µg/m <sup>3</sup> |
|--------|----------------|--------------------------|-------------------------------------|----------------------------|---------------------------------------|
| 1      | Within ML area | 76.1                     | 5.51                                | 81.61                      | <b>100</b>                            |
| 2      | Therani        | 59.5                     | 4.96                                | 64.46                      |                                       |
| 2      | Padalur East   | 56.5                     | 4.41                                | 60.91                      |                                       |
| 3      | Perumalpalayam | 59.1                     | 2.20                                | 61.3                       |                                       |

|   |                  |      |      |       |  |
|---|------------------|------|------|-------|--|
| 4 | Koothanur        | 51.3 | 1.65 | 52.95 |  |
| 5 | Irur             | 57.2 | 1.10 | 58.3  |  |
| 6 | Tiruvalankurichi | 53.3 | 5.40 | 58.7  |  |

PLOT OF 1ST HIGHEST 24-HR VALUES FOR SOURCE GROUP : ALL  
PM25 Max GLC: 4.21 µg/m³ @ X: 266085m, Y: 1226994m, Elevation: 0 ( @ 400 m SSE from ref.: CENTER)

Distance, m

Distance, m

AAC6

AAC1

AAC0

NW

NE

SE

S

SW

W

µg/m³

plotted using AERMOT Cloud® by Envitrans | Wind Rose: All Data (3/1/2025 to 5/31/2025)





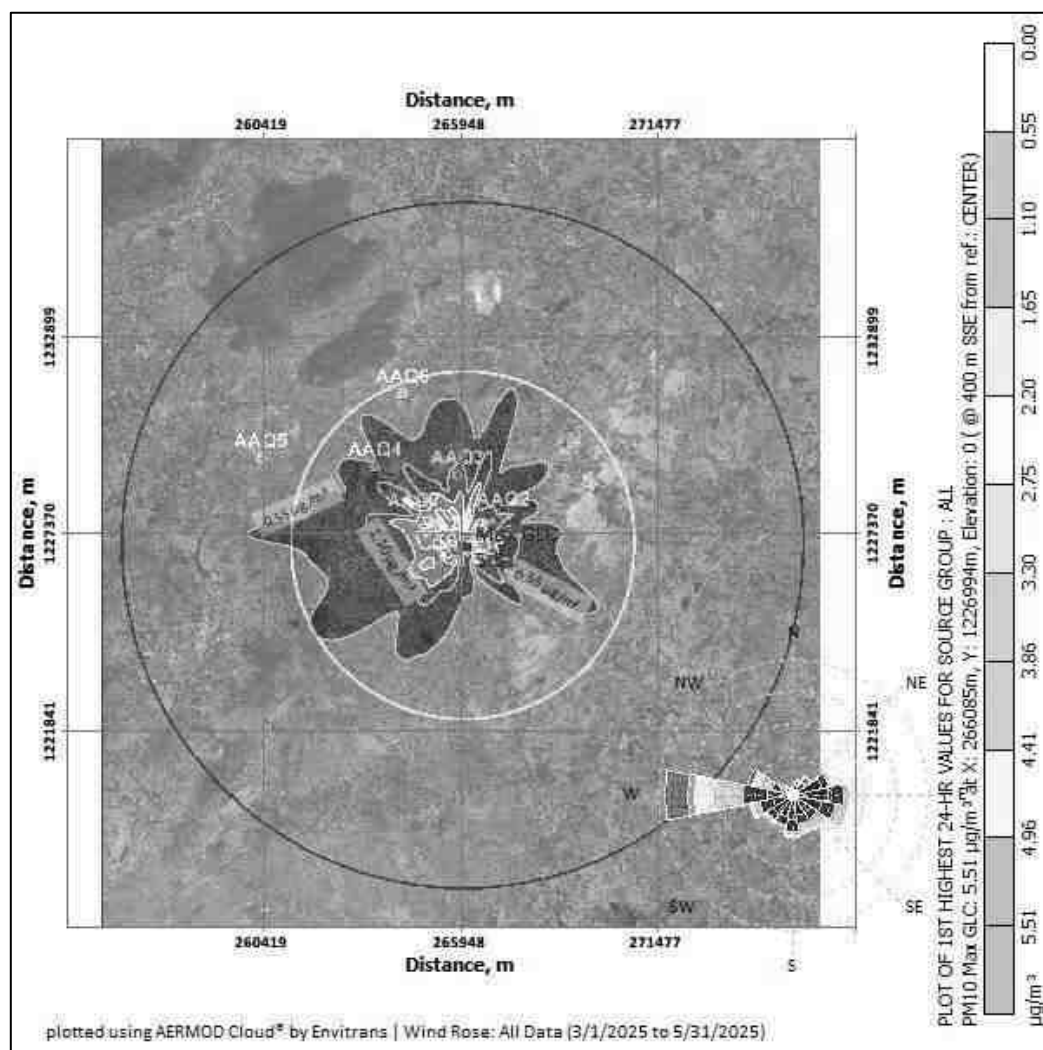


**Figure 4.5 -Cluster Isopleth of GLC Prediction for PM<sub>10</sub>**

## **NOISE ENVIRONMENT**

The ambient noise levels in the study area have been discussed in Chapter - 3. The data shows that the existing noise levels are within statutory limits. The impact prediction and control measure for noise environment due to mining and allied activities is described below:

### **4.4 IMPACT DUE TO NOISE AND VIBRATION**

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

**Table 4.11 - The likely noise level in the lease area**

| <b>S. No.</b> | <b>Source Name</b>  | <b>Noise Level in dB (A)</b> |
|---------------|---------------------|------------------------------|
| 1             | Diesel generator    | 102                          |
| 2             | Excavator Operation | 95                           |
| 3             | Trucks movement     | 95                           |
| 4             | Drilling            | 105                          |
| 5             | Blasting            | 120                          |

#### **4.4.1 MITIGATION MEASURES FOR NOISE CONTROL**

The following noise mitigation measures are proposed for control of Noise

- Usage of sharp drill bits while drilling which will help in reducing noise;
- Secondary blasting will be totally avoided and hydraulic rock breaker are utilized for breaking boulders;
- Controlled blasting with proper spacing, burden, stemming and optimum charge/delay will reduce noise;
- The blasting will be carried out during favourable atmospheric condition and less human activity timings by using nonelectrical initiation system;
- Proper maintenance, oiling and greasing of machines will be done every week to reduce generation of noise;
- Provision of sound insulated chambers for the workers working on machines (HEMM) producing higher levels of noise;
- Green Belt will be developed around the project areas and along the haul roads. The plantation minimizes propagation of noise;
- Personal Protective Equipment (PPE) like ear muffs/ear plugs will be provided to the operators of HEMM and persons working near HEMM and their use will be ensured through training and awareness.
- Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects

#### **4.4.2 GROUND VIBRATION**

The vibration due to blasting can cause damage to the nearby structures if appropriate technology and control measures are not adopted in the blasting operation. Fly rock is another possible damage causing outcome of blasting. There are many factors which influence fly rock during blasting. Most important of these factors are long explosive column with little stemming column, improper burden, loose material or pebbles near the holes and long water column in the hole.

##### **Mitigative Measures**

- Proper quantity of explosive, suitable stemming materials and appropriate delay system should be adopted to avoid overcharging and for safe blasting;
- Adequate safe distance from blasting should be maintained as per DGMS guidelines;
- Blasting shelter should be provided as per DGMS guidelines;
- Blasting operations shall be carried out only during day time;
- The charge per delay shall be minimized and preferably a greater number of delays will be used per blasts;
- During blasting, other activities in the immediate vicinity shall be temporarily stopped;
- Drilling parameters like depth, diameter and spacing will be properly designed to give proper blast;
- Blasting will be carried out under the supervision of statutory persons as approved by DGMS.
- A well-defined SOP will be framed under the leadership of top management and the same will be followed for each blasting.
- Regular PPV monitoring will be carried out to ensure PPV limits i.e., 0.5 mm/s.

#### **4.4.3 BIOLOGICAL ENVIRONMENT**

The details and list of flora, fauna, reserved forest and cropping pattern within the 10km radius of study area is given in chapter 3. The impact on ecology and biodiversity due to the proposed mining activity has to be studied in detail to

prepare the management plan to safeguard the flora, fauna, forest products and aquatic living organism etc.

A detailed anticipated impact of Ecology and Biodiversity due to mining activity is described in below Table.

**Table 4. 12 Ecological Impact Assessments and Its Mitigations -Part 1**

| <b>S. No</b> | <b>Issues</b>                                                                                       | <b>Assessment</b>                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Mitigations</b>                                                                                                                                                                                       |
|--------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1            | Proximity to national park/ wildlife sanctuary / reserve forest / mangroves / coastline/estuary/sea | Naranamangalam R.F.- 2.93km (NW), Nedungur R.F.- 4.18km (SW), Velur R.F.- 5.27km (NW), Maniyankurichi R.F.- 5.96km (SW), Maramareddipalayam R.F.- 8.26km (SW).<br><br>No forests are situated within 1.0 km radius. The proposed project does not attract Forest Conservation Act, 1980. There is no wild life sanctuaries found around 10km radius and the area does not attract Wildlife Protection Act, 1972 and C.R.Z. Notification, 1991. | The fugitive dust generated by the mining activity will be suppressed by frequent sprinkling of water based on evaporation rate in the site specific.                                                    |
| 2            | Activities of the project affects the breeding/nesting sites of birds and animals                   | No breeding and nesting site was identified in mining lease site. The fauna sighted mostly migrated from buffer area. The fauna in the buffer zone may be affected by noise generated due to mining activity.                                                                                                                                                                                                                                  | The noise due to the mining activity will be controlled by developing green belt all along the lease boundary, regular maintenance of tippers, excavators, transporting the tippers within speed limits. |
| 3            | Located near an area populated by rare or endangered species                                        | No endangered, critically endangered, vulnerable species sighted in core mining                                                                                                                                                                                                                                                                                                                                                                | NIL                                                                                                                                                                                                      |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |                                                                                                                   |                                                                                                                                                                                                                                                          |     |
|----|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
|    |                                                                                                                   | lease area and also in buffer zone.                                                                                                                                                                                                                      |     |
| 4  | Proposed project restricts access to waterholes for wildlife                                                      | No waterholes are in core zone. No Wild life sanctuary within 10km radius.                                                                                                                                                                               | NIL |
| 5  | Proposed mining project impact surface water quality that also provide water to wildlife                          | „NO“ scheduled or threatened wildlife animal sighted regularly in core area. There is no proposal for discharge of wastewater to nearby water bodies.                                                                                                    | NIL |
| 6  | Proposed mining project increase siltation that would affect nearby Biodiversity area.                            | Surface runoff management structures like garland drain, settling pond etc. as explained above will be constructed and as such there will not be any appreciable impact on surface water quality which in turn can affect the bio diversity of the area. |     |
| 7  | Risk of fall/slip or cause death to wild animals due to project activities                                        | In the post mining stage, wire fencing is proposed all around the mined-out void to prevent falling of animals in the mine pits.                                                                                                                         |     |
| 8  | The project release effluents into a water body that also supplies water to a wildlife                            | As the proposed project is mining activity there will be no possibilities of release of effluents. Also, no Wild life sanctuary within 10km radius.                                                                                                      | NIL |
| 9  | Mining project effect the forest-based livelihood/ any specific forest production which local livelihood depended | Five reserved forest located beyond 1 km radius. So, the proposed mining activity does not affect forest and forest products.                                                                                                                            | NIL |
| 10 | Project likely to affect migration routes                                                                         | No migration route observed during monitoring period.                                                                                                                                                                                                    | NIL |
| 11 | Project likely to affect flora of an area,                                                                        | No such significantly important medicinal value species within                                                                                                                                                                                           | NIL |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |                                                                              |                                                                                      |     |
|----|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----|
|    | which have medicinal value                                                   | the ML area and its nearby region.                                                   |     |
| 12 | Forestland is to be diverted, has carbon high sequestration                  | „NO“. There is no forest land within the lease area.                                 | NIL |
| 13 | The project likely to affect wetlands, fish breeding grounds, marine ecology | ‘NO“. No wetland, fish breeding grounds, marine ecology present in core mining area. | NIL |

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

**Table 4.13 Ecological Impact Assessments and Its Mitigations -Part 2**

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

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                            |                                                                                                                                                                                                                                                                                                                         |                  |                                                                               |    |                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| generated from the project activity.                                                                       |                                                                                                                                                                                                                                                                                                                         |                  |                                                                               |    |                                                                                                                                                                                                                                                                                             |
| Ecological Impact on Surrounding / Eco sensitive habitat due to Noise generated from the project activity. | During drilling or blasting, transportation of rough stone, noise will be generated and it may slightly affect the movement of fauna around the lease area.                                                                                                                                                             | Temporary impact | Only during drilling, blasting operation and transportation period. (5 years) | NO | Avenue trees will be planted along the lease area to minimize the noise level. Milli second detonators shall be used preferably 25–50ms per delay to control vibrations. Regular maintenance of vehicles and driving the tipper within specified limits also control the noise generations. |
| Ecological Impact on Surrounding/ Eco sensitive habitat due to Transportation                              | There is no eco sensitive habitat found around the lease area. The fugitive emission from drilling, blasting, vehicle movement will form layer in leaves thus reducing the gaseous exchange process. This ultimately affects the growth of plants. The animals like dog, cattle may get accident due to truck movement. | Temporary impact | During Operation Phase                                                        | NO | The truck driver will be advised to drive the vehicle within 20km/hr inside the lease area and 40km/hr outside the lease area. The sprinkling of water over the haul road will be done. Then completely wet drilling will be take place.                                                    |



#### **4.4.3.1 MITIGATION MEASURES**

- Necessary mitigative measures like dust suppression, proper maintenance of equipment's, roads will be carried out to prevent dust generation.
- There is no proposal to discharge any effluent into nearby water bodies.
- Surface runoff management structures like garland drain, settling pond, protective bund etc. as explained above will be constructed and as such there will not be any appreciable impact on surface water quality which in turn can affect the bio diversity of the area.
- Construction of barbed wire fencing all around the boundary to prevent falling of animals in the mine pits.

#### ***Carbon Emission:***

Carbon released from quarrying machineries and tippers during quarrying would be 340 kg per day, 1,24,100 kg per year and 12,41,000 kg over ten years, as provided in below Table.

| <b>Description</b>               | <b>Per Day</b> | <b>Per year</b> | <b>For Five Years</b> |
|----------------------------------|----------------|-----------------|-----------------------|
| Total fuel consumption in liters | 67             | 50,017          | 2,50,084              |
| Co2 emission in kg               | 174            | 52,200          | 2,61,000              |

#### **Carbon Sequestration:**

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

#### **4.4.3.2 GREENBELT DEVELOPMENT PLAN**

In order to compensate the loss of vegetation cover, it is suggested to carry out afforestation program mainly in proposed mine lease area earmarked for

plantation program as per Approved Mining Plan in different phases. This habitat improvement program would ensure the faunal species to re-colonize and improve the abundance status in the core zone. Greenbelt / Plantation will be carried out to enhance the vegetative growth and aesthetic in the safety zone area.

**Table – 4.14 GREENBELT DEVELOPMENT PLAN**

| Year | No. of trees proposed to be planted | Survival % | Name of the Species                                  | No. of trees expected to be grown |
|------|-------------------------------------|------------|------------------------------------------------------|-----------------------------------|
| I    | 230                                 | 80%        | Neem,<br>Casuarina,<br>Pongamia<br>pinnata,<br>etc., | 464                               |
| II   |                                     | 80%        |                                                      |                                   |
| III  |                                     | 80%        |                                                      |                                   |
| IV   |                                     | 80%        |                                                      |                                   |
| V    |                                     | 80%        |                                                      |                                   |

Nearly 0.23.0 Ha. of area is proposed for Greenbelt development by planting 230 Nos of trees and expected growth is around 184 Nos @ survival rate of 80%.

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

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

#### **4.4.3.3 SOCIO – ECONOMIC**

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

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

- Project related logistical operations for transport of Rough Stone, etc,
- Various trading services for consumer goods, spare parts, sundry items, etc.
- Contractual services connected with the project.
- Green belt and horticultural works in the project.
- Casual labor needs for various activities.

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

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

From above details, it is clear that the project operations will have highly beneficial positive impact in the area. However, towards the socio-economic development of the surrounding area, the proponent has earmarked an amount of Rs.5.0 Lakhs under Corporate Environmental Responsibility.

#### **4.4.4 OCCUPATIONAL HEALTH AND SAFETY**

Primary data collection through field survey conducted in the study area reveals that there is no reported incident of any occupational diseases in the area. Hazardous jobs like blasting, loading, etc. are planned to be executed safely and with all precautionary measures as prescribed in Metalliferous Mines Regulations of 1961, so as to minimize hazards and incidences of health problems.

Occupational health and safety hazards occur during the operational phase of mining and primarily include the following:

- Respiratory hazards
- Noise

- Explosive storage and handling

### **Respiratory Hazards**

Long-term exposure to silica dust may cause silicosis the following measures are proposed:

- Cabins of excavators and tippers will be enclosed with AC and sound proof
- Use of personal dust masks will be made compulsory

### **Noise**

Workers are likely to get exposed to excessive noise levels during mining activities.

The following measures are proposed for implementation

- No employee will be exposed to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day without hearing protection
- The use of hearing protection will be enforced actively when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110 dB(A)
- Ear muffs provided will be capable of reducing sound levels at the ear to at least 85 dB(A)
- Periodic medical hearing checks will be performed on workers exposed to high noise levels

### **Occupational Health Survey**

All the persons will undergo pre-employment and periodic medical examination as per DGMS and 12<sup>th</sup> National Mines Safety Council recommendation.

The PP will maintain occupational health history card for their Employees.

The PP will establish first aid station within project site.

Good Drinking Water specialty will be provided at the site level.

## **4.4.5 WASTE MANAGEMENT**

### **4.4.5.1 SOLID WASTE**

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

#### **4.4.5.2 LIQUID WASTE**

There is no process effluent generation from this mine. Hence no liquid waste is generated. Domestic wastewater i.e 1.5 KLD will be discharged in soak pit via septic tank.

#### **4.4.5.3 HAZARDOUS WASTE MANAGEMENT**

In this project the following management practices will be followed:

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

#### **4.4.5.4 PLASTIC WASTE**

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

\*\*\*\*\*

## **5. ANALYSIS OF ALTERNATIVES (TECHNOLOGY AND SITE)**

### **5.1 ALTERNATE TECHNOLOGY**

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

### **5.2 ALTERNATE SITE**

The project is a mining project and will be operated within the lease grant area. So, no alternate sites have been assessed. Since the resource (Rough stone) is site-specific, the chosen location is the only site to carry out Rough Stone quarry.

\*\*\*\*\*

## **6 ENVIRONMENTAL MONITORING PROGRAMME**

### **6.1 GENERAL**

The monitoring and evaluation of environmental parameters indicates potential changes occurring in the environment, which paves way for implementation of rectifying measures wherever required to maintain the status of the natural environment. Evaluation is also a very effective tool to judge the effectiveness or deficiency of the measures adopted and provides insight for future corrections.

The main objective of environmental monitoring is to ensure that the obtained results in respect of environmental attributes and prevailing conditions during operation stage are in conformity with the prediction during the planning stage. In case of substantial deviation from the earlier prediction of results, this forms as base data to identify the cause and suggest remedial measures. Environmental monitoring is mandatory to meet compliance of statutory provisions under the Environment (Protection) Act, 1986, relevant conditions regarding monitoring covered under EC orders issued by the SEIAA as well as the conditions set forth under the order issued by Tamil Nadu Pollution Control Board while granting CTE/CTO.

### **6.2 MONITORING MECHANISM**

The PP will undertake effective monitoring and implementation of various environmental control measures promptly and effectively and to oversee various environmental management schemes for air quality control, water quality status, noise level control, plantation programme, social development schemes, etc in the mine.

### **6.3 ENVIRONMENTAL MONITORING SCHEDULE AND FREQUENCY**

The monitoring schedules are planned for systematic study of various pollution levels with respect to air and water qualities, noise levels, etc. to ensure that they conform to the standards laid down by Environmental Protection Act and various statutory Limits. However, based on the need and priority it may be suitably modified / improved in consultation with local authorities. Monitoring may include

socio-economic interaction, through local liaison activities or even assessment of complaints. The monitoring schedules to be adopted in this quarry are given below.

**Table 6.1 Environmental Monitoring Schedule**

| <b>S.NO</b> | <b>Environmental Attribute</b> | <b>Parameters to be monitored</b>                                                                                           | <b>Monitoring Locations</b>                                               | <b>Frequency</b>                           |
|-------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------|
| 1           | Air Quality                    | Particulate Matter (PM2.5 and PM10), Sulphur dioxide (SO <sub>2</sub> ), Oxides of Nitrogen (NO <sub>2</sub> ), Respirable. | 4 locations in the buffer zone and 2 work zone locations.                 | Once in season                             |
| 2           | Water Quality                  | General, Physical, and chemical parameters                                                                                  | Ground Water samples (around the project area) and Mine Pit water samples | Once in season                             |
| 3           | Hydrogeology                   | Water Levels                                                                                                                | Nearby wells and Borewells                                                | On yearly basis pre and post monsoon level |
| 4           | Noise                          | Leq. Lmax Lmin, Leq Day & Leq Night dB(A)                                                                                   | Work zone locations and buffer zone villages                              | Once in Season                             |
| 5           | Vibration                      | Peak Particle Velocity                                                                                                      | Mine periphery                                                            | Regular Interval                           |
| 6           | Soil                           | Physical and Chemical Characteristics                                                                                       | 2 Locations (1 Core & 1 Buffer)                                           | Once in Season.                            |
| 7           | Greenbelt                      | Maintenance                                                                                                                 | Within the lease area                                                     | Regular interval                           |

#### **6.4 BUDGET FOR IMPLEMENTAION**

The cost in respect of monitoring of environmental attributes, parameter to be monitored, sampling/monitoring locations with frequency and Monitoring work will be outsourced to external laboratory approved by NABL / MoEF. The capital and recurring cost required for the project are detailed in below table.

Total EMP Cost for 5 years is 19.97 lakhs i.e., Rs.9.14 Lakhs of Capital + Recurring cost Rs. 10.83 lakhs for Five years. The breakup of EMP cost is elaborated in Table 10.2 of Chapter 10.



## **6.5 SUBMISSION OF PERIODICAL REPORTS**

The monitored data on air quality, water quality, noise levels and other environmental attributes will be periodically examined by the Mine Management Coordinator and Respective Head of Organization for taking necessary corrective measures.

The monitoring data will be submitted to Tamil Nadu State Pollution Control Board in the Compliance to CTO Conditions & environmental audit statements every year to MoEF & CC and Half-Yearly Compliance Monitoring Reports to MoEF & CC Regional Office and SEIAA.

### **Periodical reports to be submitted to: -**

- MoEF & CC – Six month EC compliance report
- TNPCB - Half yearly CTO Compliance report
- MOEF & CC & TNPCB – annual Environmental Statement Report. (Form – V)
- Annual Hazardous Waste Return(Form – IV)
- Department of Geology and Mining: quarterly, half yearly annual reports.

\*\*\*\*\*

## **7 ADDITIONAL STUDIES**

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

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

### **7.1 PUBLIC CONSULTATION**

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

### **7.2 RISK ASSESSMENT**

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

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

**Table 7.1 Risk Assessment and Control Measures**

| <b>S.NO</b> | <b>Risk Factor</b>                                       | <b>Causes of risk</b>                         | <b>Control Measures</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|----------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | Accidents due to explosives and heavy mining machineries | Improper handling and unsafe working practice | <p>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.</p> <p>Entry of unauthorized persons will be prohibited.</p> <p>Fire-fighting and first-aid provisions in the mine office complex and mining area.</p> <p>Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the employees and regular check for their use.</p> <p>Quarry operation will be done as per approved mining plan and other applicable statutory guidelines issued by DGMS, Dept. of Mining &amp; Geology-TamilNadu.</p> <p>Handling of explosives, charging and firing shall be carried out under competent statutory persons.</p> <p>A comprehensive standard operating procedure (SOP) will be prepared as per DGMS guidelines and the same will be circulated to all the employees and it will be strictly followed in the all face of mining operation.</p> |
| 2           | Drilling                                                 | Improper and unsafe practices. Due to high    | <p>Safe operating procedure established for drilling (SOP) will be strictly followed.</p> <p>Only trained operators will be deployed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|   |          |                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |          | <p>pressure of compressed air, hoses may burst.</p> <p>Drill Rod may break.</p>                                                                              | <p>No drilling shall be commenced in an area where shots have been fired until the blaster/blasting foreman has made a thorough Examination of all places.</p> <p>Drilling shall not be carried on simultaneously on the benches at places directly one above the other.</p> <p>Periodical preventive maintenance and replacement of worn-out accessories in the compressor and drill equipment as per operator manual.</p> <p>Drills unit shall be provided with wet drilling to ensure efficient working.</p>                                                                                            |
| 3 | Blasting | <p>Fly rock, ground vibration, Noise and dust. Improper charging, stemming &amp; Blasting/ fining of blast holes. Vibration due to movement of vehicles.</p> | <p>Restrict maximum charge per delay as per approved mining plan.</p> <p>Proper blasting design with optimum spacing &amp; burden, Charge per delay and stemming.</p> <p>SOP for Charging, Stemming &amp; Blasting/Firing of Blast Holes will be followed by blasting crew during initial stage of operation.</p> <p>Shots are fired during day time only.</p> <p>Charging and firing shall be carried out in the same day.</p> <p>Siren will be done for each blasting. Blasting evacuation plan prepared and executed.</p> <p>The danger zone will be distinctly demarcated (by means of red flags).</p> |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|   |                                       |                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | Transportation                        | Potential hazards and unsafe workings contributing to accident and injuries. Overloading of material. While reversal & overtaking of vehicle. Operator of truck leaving his cabin when it is loaded. | Before commencing work, drivers personally check the dumper/truck/tipper for oil(s), fuel and water levels, tyre inflation, general cleanliness and inspect the brakes, steering system, warning devices including automatically operated audio-visual reversing alarm, rear view mirrors, side indicator lights etc., are in good condition. Unauthorized person will not be allowed to operate or ride on the vehicle.<br>Loading according to the vehicle capacity.<br>Periodical maintenance of vehicles as per operator manual. |
| 6 | Natural calamities                    | Unexpected happenings                                                                                                                                                                                | An emergency management plan will be prepared considering all possible natural calamity and the same will be executed if any such situation occurs.<br>Escape Routes will be provided to prevent inundation of storm water.<br>Fire Extinguishers & Sand Buckets in the designated areas.                                                                                                                                                                                                                                            |
| 7 | Failure of Mine Benches and Pit Slope | Slope geometry, Geological structure                                                                                                                                                                 | Ultimate or over all pit slope shall be below 60° and each bench height shall be 5m height.                                                                                                                                                                                                                                                                                                                                                                                                                                          |

### **7.3 DISASTER MANAGEMENT PLAN**

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

#### **7.3.1 MODEL DISASTER MANAGEMENT PLAN**

The lessee has formulated the disaster Management plan keeping all eventualities in mind.

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

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

- All safety precautions and provisions of Metalliferous Mines Regulations (MMR), 1961 is strictly followed during all mining operations.
- Observance of all safety precautions for blasting and storage of explosives as per MMR 1961.
- Entry of unauthorized persons into mine & allied areas is completely prohibited.
- Fire-fighting and first-aid provisions in the mines office complex and mining area are provided.
- Provisions of all the safety appliances such as safety boot, helmets, goggles, dust masks, ear plugs and ear muffs etc. are made available to the employees and the use of same is strictly adhered to through regular monitoring.
- Training and refresher courses for all the employees working in hazardous

premises. Working of mine, as per approved plans and regularly updating the mine plans.

- Handling of explosives, charging and blasting are carried out only by qualified persons following SOP.
- Checking and regular maintenance of garland drains and earthen bunds to avoid any inflow of surface water in the mine pit.
- Provision of high-capacity standby pumps with generator sets with enough quantity of diesel for emergency pumping especially during monsoon.
- A blasting SIREN is used at the time of blasting for audio signal.
- Before blasting and after blasting, red and green flags are displayed as visual signals. Warning notice boards indicating the time of blasting and NOT TO TRESPASS are displayed at prominent places.
- Regular maintenance and testing of all mining equipment were carried out as per manufacturer's guidelines.

### **7.3.2 OBJECTIVE OF DISASTER MANAGEMENT PLAN**

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

#### **Communication System**

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

#### **Facilities**

The office shed will have provision of first aid centre to provide first aid in the event of an emergency. The office shed will also function as emergency control room. It will

be provided with telephone and mobile phones, and a vehicle for emergency transport.

### **Personnel**

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

### **Operating Procedures**

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

## **7.4 CLUSTER MINE CLOSURE PLAN**

In the mine closure stage all necessary measures will be taken as per Act & Rules, there is no proposal for back filling, reclamation and rehabilitation in any of the proposals. The quarried pits after the end of life of mine will be properly fenced all around to prevent inherent entry of public and cattle and all the statutory requirements will be fulfilled. As already explained, in the post mining stage the rainwater harvested in the mined- out void shall be utilized for irrigation and domestic needs locally. The mine closure plan is provided in Figure 2.11.

## **7.5 SLOPE STABILITY PLAN**

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

- Geological structure comprising dip, intervening shear zone formation, clay intrusion, joints / discontinuities, faults etc.,
- Lithology of formation
- slope geometry



- Ground water availability which may cause increased thrust on the faces

### **Site Specific Analysis**

- The quarry lease area is plain terrain which is covered by topsoiled rock formation. The rock type noticed in the lease area is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian.
- Since the formation is of homogeneous rock type probability of slope failure is low and can be avoided if proper measures are adopted.
- There will be a 7.5m safety zone which will form a ridge which can also take care of the top section and as such no risk is envisaged on this front.

### **Mitigation Measures**

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

\*\*\*\*

## **8 PROJECT BENEFITS**

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

The mining activity at proposed Rough Stone Quarry of Thiru. R. Rajkumar will create direct employment opportunity for 30 local people.

Based on the request letter received from Panchayat Union Middle School, Thiruvallankurichi, Padalur (E) Village, the PP has proposed CER amount of Rs. 5.0 Lakhs for various activities. The copy of the letter is enclosed below.

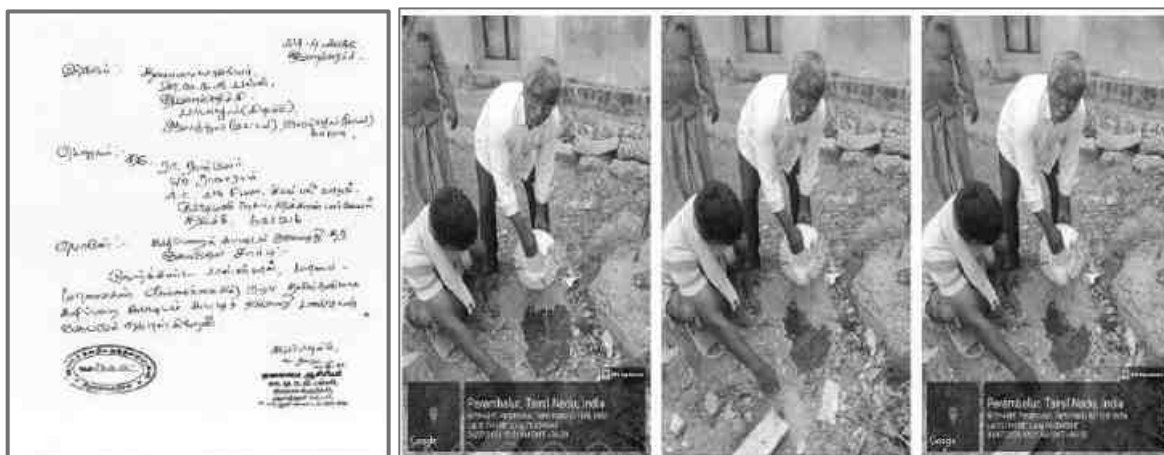


**Figure 8.1 – CER Letter & School Plantation Photos**

The list of activities proposed for CER is mentioned below

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

**Table 8.1 CER Activities**

| <b>S. No.</b>                                                                                                                    | <b>PROPOSED CER ACTIVITIES</b>                        | <b>COST IN LAKHS.</b> |
|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------|
| 1                                                                                                                                | Plantations inside and outside the premises           | 5.0                   |
| 2                                                                                                                                | Provision of Toilets to the Schools                   |                       |
| 3                                                                                                                                | Maintenance of the toilet for the entire lease period |                       |
| <b>Total</b>                                                                                                                     |                                                       | <b>5.0</b>            |
| The above mentioned CER activities will be spent for the Panchayat Union Middle School, Thiruvallankurichi, Padalur (E) Village. |                                                       |                       |

\*\*\*\*

## **9 ENVIRONMENTAL COST BENEFIT ANALYSIS**

Environmental Cost Benefit Analysis is recommended during the scoping stage, if needed. In the TOR granted by SEIAA, Tamil Nadu, it is not recommended. Hence not applicable.

## **10 ENVIRONMENTAL MANAGEMENT PLAN**

The Environmental Management plan is a site-specific plan. It is developed to ensure that the project is implemented in an environmentally sustainable manner, where all contractors and subcontractors, including consultants if any, understand the potential environmental risks arising from the project and take appropriate actions to minimize those risks. EMP also ensures that the project implementation is carried out in accordance with the planned design and by taking appropriate mitigation measures to reduce adverse environmental impacts during project's life cycle.

### **10.1 ENVIRONMENTAL POLICY**

The Project Proponent – Thiru. R. Rajkumar shall carry out all the quarrying operations and activities in an environmentally responsible manner and to continually improve environmental performance.

The Proponent will:

- Abide by all laws, ordinances, rules, and regulations that are pertinent to its operations and activities.
- Allocate the resources required to guarantee that the environmental policy is carried out.
- Implement a programme to educate employees about environmental issues in general and their personal environmental responsibilities at work.
- Set up monitoring systems to alert as soon as there is a problem or a performance that is unexpected in relation to environmental protections.

### **10.2 ENVIRONMENTAL MANAGEMENT PLAN**

The impacts due to this mining project are detailed in chapter 4. Mitigation measures at the source level and an overall Management Plan at the site level are elaborated

in this chapter. Details of EMP measures for implementation in the mine are given in the Table 10.1.

**Table 10.1 - ENVIRONMENTAL MANAGEMENT PLAN**

| <b>Environmental Parameter</b> | <b>Mitigation Measures</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Air                            | Wet drilling to suppress the dust emission from drill machine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                | Regular water sprinkling on haulage road through fixed water sprinkler.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                | 2.0 m <sup>3</sup> /day of water will be used for dust suppression.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                | Avoiding blasting during high wind period, night times and temperature inversion periods.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                | Regular grading of haul road to clear accumulation of loose material.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                | It will be ensured that vehicles are properly maintained to comply with exhaust emission requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                | Maintenance as per operator manual of the equipment and machinery in the mines to minimizing air pollution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                | Ambient Air Quality Monitoring carried out in the project area and in surrounding villages to access the impact due to the mining activities and the efficacy of the adopted air pollution control measures.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                | Afforestation for control of dust.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Water                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Surface water                  | <p>Nanthai River is situated at a distance of 4.6 km in South direction and two Tank passing at 600m (S) and 800m in SW direction. No other water bodies close to the project site; there is no effluent discharge from this proposed Quarry. So, no impact is anticipated.</p> <p>Surface runoff management structures like garland drain of required length which is connected to a settling pond will be constructed around the quarry to collect the rain water.</p> <p>Monthly or after rainfall, inspection for performance of water management structures and systems.</p> <p>There is no discharge of any effluent into nearby water bodies.</p> |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                             |                                                                                                                                                                                                                                                   |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ground Water                                | The quarrying operation is proposed upto a depth of 56m (26m AGL and 30m BGL) maximum below ground level, the water table in the area is 64m to 67m BGL, hence the project will not intersect the Ground water table during entire quarry period. |
| Water Consumption and Wastewater generation | The required water of 5.0 KLD will be procured from outside agencies initially and later rainwater harvested in the mine pit shall be used other than drinking purpose.                                                                           |
|                                             | Domestic wastewater generation of 1.5 KLD will be discharged in soak pit via septic tank.                                                                                                                                                         |
|                                             | Conduct ground water and surface water monitoring for parameters specified by CPCB                                                                                                                                                                |
| Noise                                       | The workers employed are provided with personal protective equipment (PPE) as such, earmuffs and ear- plugs for the protection from high noise level generated at the mine site wherever required.                                                |
|                                             | Noise levels are controlled by using optimum explosive charge, proper delay detonators and proper stemming to prevent blow out of holes.                                                                                                          |
|                                             | Development of thick greenbelt all along the Buffer Zone (7.5 Meters) of the project area to attenuate the noise and the same will be maintained.                                                                                                 |
|                                             | Preventive maintenance of mining machinery and replacement of worn-out accessories to control noise generation.                                                                                                                                   |
|                                             | Regular ambient noise level monitoring will be carried out in the project area and in surrounding villages to assess the impact due to the mining activities and the efficacy of the adopted noise control measures.                              |
| Ground Vibration and Fly Rock Control       | Controlled blasting using delay detonators will be carried out to maintain the PPV value well within the prescribed standards of DGMS.                                                                                                            |
|                                             | Drilling and blasting will be carried under the supervision of qualified persons.                                                                                                                                                                 |
|                                             | ensure blast holes are adequately stemmed for the depth of the hole and stemmed with suitable angular material.                                                                                                                                   |
|                                             | Undertake noise or vibration monitoring.                                                                                                                                                                                                          |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                        |                                                                                                                                                                                                                                                                         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land Environment       | There is no change will be in the land use pattern as mentioned in the approved mining plan a such mine pit, safety zone etc., At conceptual stage, the mining pits will be converted into Rain Water Harvesting. Remaining area will be converted into greenbelt area. |
|                        | Garland drains with catch pits / settlement traps to be provided all around the project area to prevent run off affecting the surrounding lands.                                                                                                                        |
|                        | The periphery of Project area will be planted with thick plantation to arrest the fugitive dust, which will also act as acoustic barrier.                                                                                                                               |
|                        | Frequent Soil and ground water testing as per Environmental Monitoring Plan.                                                                                                                                                                                            |
| Top Soil / Overburden  | There is no waste anticipated in this rough stone Quarry. The entire quarried minerals will be utilized.                                                                                                                                                                |
| Biological Environment | During mining, three-layer thick plantation will be carried out around the project periphery, on safety barrier zone, on top benches of quarried out area etc.,                                                                                                         |
|                        | The main attributes that retard the survival of sapling is fugitive dust; this fugitive dust can be controlled by water sprinkling on the haul roads and installing a sprinkler unit near the newly planted area.                                                       |
|                        | Regular review on Greenbelt development programme.                                                                                                                                                                                                                      |
|                        | Year wise greenbelt development plan mentioned in Chapter IV                                                                                                                                                                                                            |

### 10.3 ADMINISTRATION AND TECHNICAL SETUP

The Environment Monitoring Cell discussed under Chapter 6 will ensure effective implementation of environment management plan and to ensure compliance of environmental statutory guidelines through Mine Management Level. The organizational chart for the same has been given below.



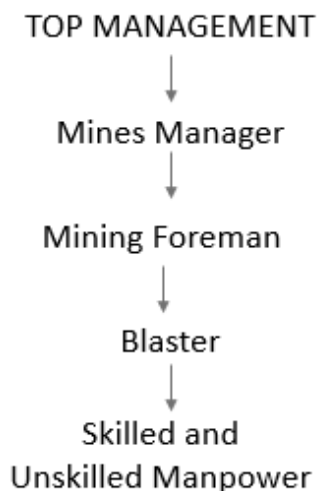


**Figure 10.1 Organization Chart**

The action plan for monitoring consists of monitoring of following environmental components.

- Monitoring of the water/ waste water quality, air quality and solid waste generated
- Analysis of the water and air samples collected through external laboratory
- Implementation and monitoring of the pollution control and protective measures/ devices which shall include financial estimation, ordering, installation of air pollution control equipment, waste water treatment plant, etc.
- Co-ordination of the environment related activities within the project as well as with outside agencies
- Green belt development
- Monitoring the progress of implementation of the environmental monitoring program
- Compliance to statutory provisions, norms of State Pollution Control Board, Ministry of Environment and Forests and the conditions of the environmental clearance as well as the consents to establish and consents to operate.

## **10.4 OCCUPATIONAL SAFETY & HEALTH MANAGEMENT**

Occupational safety and health are very closely related to productivity and good employer-employee relationship. The main factors of occupational health impact in quarries are fugitive dust and noise. Safety of employees during quarrying operation and maintenance of mining equipment will be taken care as per Mines Act 1952 and Rule 29 of Mines Rules 1955. To avoid any adverse effect on the health of workers due to dust, noise and vibration sufficient measures have been provided. The health status of workers in the mine shall be regularly monitored under an occupational surveillance program. Under this program, all the employees are subjected to a detail medical examination at the time of employment.

## **10.5 BUDGETARY PROVISION FOR ENVIRONMENTAL MANAGEMENT**

Adequate budgetary provision has been made by the Company for execution of Environmental Management Plan. The below Table gives overall investment on the environmental safeguards and recurring expenditure for successful monitoring and implementation of control measures.

**Table 10.2 Environmental Management Plan Budget**

| <b>Activities</b> | <b>Mitigation Measure</b>                                                                    | <b>Capital cost</b> | <b>Recurring Cost per Annum</b> |
|-------------------|----------------------------------------------------------------------------------------------|---------------------|---------------------------------|
| Air Environment   | Compaction, gradation and drainage on both sides for Haulage Road                            | 0.08                | 0.08                            |
|                   | Fixed Water Sprinkling Arrangements + Water sprinkling by own water tankers                  | 5.00                | 0.25                            |
|                   | Muffle blasting – To control fly rocks during blasting                                       | 0.00                | 0.05                            |
|                   | Wet drilling procedure / latest eco-friendly drill machine with separate dust extractor unit | 0.50                | 0.10                            |
|                   | No overloading of trucks/tippers/tractors                                                    | 0.00                | 0.05                            |
|                   | Stone carrying trucks will be covered by tarpaulin                                           | 0.00                | 0.10                            |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                    |                                                                                                                                                                                           |             |             |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
|                                                    | Enforcing speed limits of 20 km/hr within ML area                                                                                                                                         | 0.08        | 0.01        |
|                                                    | Regular monitoring of exhaust fumes as per RTO norms                                                                                                                                      | 0.00        | 0.05        |
|                                                    | Regular sweeping and maintenance of approach roads for at least about 200 m from ML Area                                                                                                  | 0.00        | 0.30        |
|                                                    | Installing wheel wash system near gate of Rough stone Quarry                                                                                                                              | 2.00        | 0.05        |
| <b>Sub-Total (A)</b>                               |                                                                                                                                                                                           | <b>7.66</b> | <b>1.03</b> |
| Noise Environment                                  | Provision for Portable blaster shed                                                                                                                                                       | 0.30        | 0.02        |
| <b>Sub-Total (B)</b>                               |                                                                                                                                                                                           | <b>0.30</b> | <b>0.02</b> |
| Waste Management                                   | Provision for domestic waste collection and disposal through authorized agency                                                                                                            | 0.20        | 0.10        |
|                                                    | Installation of dust bins                                                                                                                                                                 | 0.05        | 0.02        |
| <b>Sub-Total (C)</b>                               |                                                                                                                                                                                           | <b>0.25</b> | <b>0.12</b> |
| Mine Closure                                       | Plantation inside ML area (230 Nos.)                                                                                                                                                      | 0.23        | 0.05        |
| <b>Sub-Total (D)</b>                               |                                                                                                                                                                                           | <b>0.23</b> | <b>0.05</b> |
| Implementation of EC, Mining Plan & DGMS Condition | Size 6' X 5' with blue background and white letters as mentioned in MoM Appendix II by the SEAC TN                                                                                        | 0.05        | 0.01        |
|                                                    | Air, Water, Noise and Soil Quality Sampling every 6 Months for Compliance Report of EC Conditions                                                                                         | 0.00        | 0.50        |
|                                                    | Workers will be provided with Personal Protective Equipment's                                                                                                                             | 0.30        | 0.03        |
|                                                    | Health checkup for workers will be provisioned                                                                                                                                            | 0.00        | 0.15        |
|                                                    | First Aid facility Provision                                                                                                                                                              | 0.00        | 0.02        |
|                                                    | Signage & boards for safety precautions                                                                                                                                                   | 0.05        | 0.01        |
|                                                    | No parking will be provided on the transport routes. Separate provision on the south side of the hill will be made for vehicles / HEMMs. Flaggers will be deployed for traffic management | 0.15        | 0.01        |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                      |                                                             |             |             |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-------------|-------------|
|                                                                                                                                      | Installation of CCTV cameras in the mines and mine entrance | 0.15        | 0.02        |
| <b>Sub-Total (E)</b>                                                                                                                 |                                                             | <b>0.70</b> | <b>0.75</b> |
| <b>Grant Total (A+B+C+D+E)</b>                                                                                                       |                                                             | <b>9.14</b> | <b>1.96</b> |
| Total EMP Cost for 5 years is 19.97 lakhs<br>i.e., Rs.9.14 Lakhs of Capital Cost + Rs.10.83 Lakhs of Recurring Cost<br>(For 5 years) |                                                             |             |             |

## **10.6 CONCLUSION**

Various aspects of mining activities were considered and related impacts were evaluated. Considering all the possible ways to mitigate the environmental concerns, Environmental Management Plan was prepared and fund has been allocated for the same. The EMP is dynamic, flexible and subjected to periodic review. For project where the major environmental impacts are associated, EMP will be under regular review. Senior Management responsible for the project will conduct a review of EMP and its implementation to ensure that the EMP remains effective and appropriate. Thus, the proper steps will be taken to accomplish all the goals mentioned in the EMP and the project will bring the positive impact in the study area.

\*\*\*\*\*

## **11 SUMMARY AND CONCLUSION**

### **11.1 INTRODUCTION**

This EIA Report is prepared for Thiru. R. Rajkumar Rough Stone Quarry over an extent of 1.50.0 Ha. Government land in S. No. 10/1 (Block 1), Padalur (E) Village, Alathur Taluk, Perambalur District, Tamil Nadu in compliance with ToR obtained vide ToR Identification No. TO25B0108TN5921018N dated 30.07.2025.

Although the individual lease area of this project is less than 5 hectares, one existing quarry and the ten proposed Quarries within a 500-meter radius, along with this project, add up to more than 5 hectares i.e. 16.03.6 Ha. A map showing the existing and proposed quarry located within 500m radius is given in Figure 1.1.

This cluster includes one existing quarry – Thiru. M. Baskaran (2.00 Ha) and 10 other proposed quarries.

This project proposed to produce 3,12,605 m<sup>3</sup> of Rough Stone for the period of 5 years with ultimate depth up to 56m (26m AGL and 30m BGL).

### **11.2 PROJECT DESCRIPTION**

**Table 11.1 Salient Features of the Project**

| <b>S. No.</b> | <b>Particulars</b>               | <b>Details</b>                                                                                      |
|---------------|----------------------------------|-----------------------------------------------------------------------------------------------------|
| 1.            | Proponent Name                   | Thiru. R. Rajkumar                                                                                  |
| 2.            | Proposed project                 | Rough Stone Quarry of Thiru. R. Rajkumar                                                            |
| 3.            | Extent                           | 1.50.0 Ha and the cluster area within 500 m radius including the proposed mine is 16.03.6 Ha > 5 Ha |
| 4.            | Location                         | S. No. 10/1 (Block 1), Padalur (E) Village, Alathur Taluk, Perambalur District                      |
| 5.            | Co-ordinates of the project site | Latitude: 11°07'03.37"N TO 11°07'08.76"N<br>Longitude: 78°50'24.25"E TO 78°50'28.37"E               |
| 6.            | Topography                       | Plain Terrain                                                                                       |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|     |                            |                                                                                                                                         |
|-----|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 7.  | Site Elevation above MSL   | ≈ 150 m from above MSL. Initial RL before commencement of Mining – 150m BGL and Final RL after completion of Mining Operation – 94m BGL |
| 8.  | Topo Sheet No.             | 58 I /16                                                                                                                                |
| 9.  | Minerals of Mine           | Rough Stone                                                                                                                             |
| 10. | Proposed production in m3  | 3,12,605 m3 of Rough Stone up to the depth of 56m (26m AGL and 30m BGL) for the period of 5 years                                       |
| 11. | Ultimate Depth of mining   | 56m (26m AGL and 30m BGL)                                                                                                               |
| 12. | Method of Mining           | Opencast Mining with a bench height of 5m and bench width of 5m is proposed                                                             |
| 13. | Drilling/Blasting          | Drilling and controlled Blasting is proposed                                                                                            |
| 14. | No. of Working days        | 300 Days                                                                                                                                |
| 15. | Water requirement & Source | 5.0 kLD and will be sourced from local vendors                                                                                          |
| 16. | Manpower                   | 30 Nos.                                                                                                                                 |
| 17. | Project Cost               | Rs. 538.47 lakhs                                                                                                                        |
| 18. | Mining Plan Approval       | Assistant Director, Department of Geology and Mining, Perambalur vide Rc.No. 123/G&M/2025, dated 23.04.2025                             |
| 19. | Safety Zone                | 0.23.0 Ha will be maintained as safety zone and tree saplings will be planted in this area                                              |
| 20. | Ground water level         | 67m BGL                                                                                                                                 |
| 21. | Distance of Stone Crusher  | 180m, SW                                                                                                                                |
| 22. | Previous History & CCR     | The applied area was previously operated by some other before 2015. Hence CCR is not applicable.                                        |

**Table 11.2 Environmental Settings of the project site**

| <b>S. No.</b> | <b>Particulars</b>                                   | <b>Details</b>                                                                                                                                                                                                                                                |
|---------------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.            | Nearest Highway                                      | National Highway (NH-38) Viluppuram – Trichy - 0.6km - W<br>The State Highway (SH-142) Perambalur – Thuraiyur - 11.8Km -NW.                                                                                                                                   |
| 2.            | Interstate Boundary                                  | Not Applicable                                                                                                                                                                                                                                                |
| 3.            | Nearest Railway Station                              | Kallakkudi Palanganatham Railway Station – 20.01 km – SE                                                                                                                                                                                                      |
| 4.            | Nearest Airport                                      | Trichy International Airport – 41.31 km - S                                                                                                                                                                                                                   |
| 5.            | Nearest Village                                      | Irur – 735 m (NW)                                                                                                                                                                                                                                             |
| 6.            | Water bodies                                         | Tank 0.52 km, S, Kuttai 275m (N), Tank 0.8 km, SE, Pudukurichi Eri – 2.9km, NE, Karai Big – 4.07km, NE, Therani Tank – 2.79km, SE, Thiruvalakuruchi Eri – 1.74 km, SE, Maruthadi Eri – 1.46km, SW, Perumalpalayam eri – 1.61km, SW, Nanthai River (4.3km, SE) |
| 7.            | Reserved Forest                                      | Naranamangalam R.F.- 2.93km (NW), Nedungur R.F.- 4 (SW), Velur R.F.- 5.27km (NW), Maniyankurichi R.F.- 5. (SW), Maramareddipalayam R.F.- 8.26km (SW)                                                                                                          |
| 8.            | Eco Sensitive Zone and Wildlife Sanctuary (Notified) | Nil within 10km Radius<br>Karaivetti Birds Sanctuary – 26.76km km (SE)                                                                                                                                                                                        |
| 9.            | Archaeological important places                      | Nil within 10 km radius                                                                                                                                                                                                                                       |
| 10.           | Defense Installations                                | Nil within 10 km radius                                                                                                                                                                                                                                       |
| 11.           | Nearest Port                                         | Nil within 10 km radius                                                                                                                                                                                                                                       |
| 12.           | Seismic Zone                                         | Nil within 10 km radius                                                                                                                                                                                                                                       |

### **11.3 DESCRIPTION OF THE ENVIRONMENT**

The baseline monitoring study was carried out during **March 2025 – May 2025** to assess the existing environmental scenario in the area. For the purpose of EIA studies, project area was considered as the core zone and area outside the project area up to 10km radius from the periphery of the project site was considered as buffer zone. Baseline Environmental data has been collected for: -

- a) Land
- b) Water
- c) Air
- d) Noise
- e) Biological
- f) Socio-economic status

#### **11.3.1 LAND ENVIRONMENT**

The existing land use pattern of the study area is tabulated below in table 11.2.

**Table - 11.3 Land use Pattern of the study area**

| <b>Sl.No.</b> | <b>LAND USE / LAND COVER</b> | <b>Area in Sq.Km</b> | <b>Area in Percentage</b> |
|---------------|------------------------------|----------------------|---------------------------|
| 1             | Built-up land                | 6.47                 | 2.03                      |
| 2             | Crop land                    | 207.65               | 65.3                      |
| 3             | Existing quarries            | 3.7                  | 1.16                      |
| 4             | Fallow land                  | 14.78                | 4.65                      |
| 5             | Hill and forest              | 31                   | 9.75                      |
| 6             | Land with scrub              | 16.67                | 5.24                      |
| 7             | Land without scrub           | 23.39                | 7.36                      |
| 8             | Plantations                  | 2.83                 | 0.89                      |
| 9             | Water bodies                 | 11.48                | 3.61                      |
|               | <b>Total Area</b>            | <b>291.37</b>        | <b>100.00</b>             |

Source: Survey of India Toposheet and Landsat Satellite Imagery



### **11.3.2 SOIL CHARACTERISTICS**

Results of the soil samples show that the pH values were found to be 7.45 to 8.12 and Electrical Conductivity values were ranging between 190.2 – 295.6  $\mu\text{mhos/cm}$ . Soils are generally Silty Clay. Organic matter values were ranging between 0.77 – 1.32 %. Total Nitrogen values were ranging between 136 – 390 mg/kg. Phosphorus values were ranging between 1.21 – 1.69  $\mu\text{g/g}$ . Potassium values were ranging between 605 - 1030 mg/kg. Sodium values were ranging between 315 - 535 mg/kg. Total Sulphur values were observed to be BDL. The soil quality data for the 7 samples collected and analyzed are provided in Table no – 3.14.

### **11.3.3 AMBIENT AIR QUALITY**

The results of ambient air quality monitoring for the period **(March 2025 to May 2025)** are presented in Chapter 3. The ambient air quality data for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub>, CO studied at 5 locations as per prescribed guidelines/ methods. As per the monitoring data, the PM<sub>10</sub> values were in the range of 41 – 76.1  $\mu\text{g/m}^3$ . PM<sub>2.5</sub> values were in the range of 19.3 – 36.5  $\mu\text{g/m}^3$ . SO<sub>2</sub> levels were ranging from 4.2 – 8.2  $\mu\text{g/m}^3$ . NO<sub>2</sub> levels were ranging from 6.2 – 13.2  $\mu\text{g/m}^3$ . While comparing with the NAAQ Norms laid by MoEF, all monitored values of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub> & CO were found to be well within the prescribed standards. The CO values in the all locations found to be below detectable limit.

### **11.3.4 WATER ENVIRONMENT**

#### **Ground Water**

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

As Per the data it has been observed that the pH value varies from 7.36 to 7.94, Chlorides Ranges From 75.5 - 510 mg/l, Sulphates value found to be between 56.9 - 355 mg/l, Fluoride Ranges low in lease area i.e. 0.23 – 0.63, Hardness varies from 180 - 454 mg/l, and Total dissolved solid 318 – 1282 mg/l. The ground water has been analyzed as per IS10500: 2012 and found to be suitable for drinking purpose. So, the results of chemical and bacteriological analysis of water samples are classified under good class for drinking purpose with respect to total dissolved solids. Total hardness of the samples ranged from soft to moderately hard waters and can be fairly used for drinking. Regular ground water monitoring is suggested as the quality of ground water may fluctuate with groundwater consumption and seasonal variations.

#### **Surface Water**

The surface water analysis of Nattarmangalam eri, Nanthai River (U/s and D/s) reveals both the water fits Class B as per Best Designated Use of water classification of CPCB.

#### **11.3.5 NOISE ENVIRONMENT**

From the table 3.12, it is observed that the day Equivalent Noise (Leq-d) level were ranging from 45.1 to 50.8 dB(A) and Night Equivalent Noise (Leq-n) level were ranging from 37.5 to 43.3 (A). While comparing with the MoEF Norm of 55 dB(A) for day time and 45 dB(A) for night time in Residential areas, the monitored ambient noise levels are within the limit values.

#### **11.3.6 BIOLOGICAL ENVIRONMENT**

There is no schedule I species of animals observed within study area as per Wildlife Protection Act 1972 as well as no species is in vulnerable, endangered or threatened category as per IUCN. There is no endangered red list species found in the study area. Hence this small operation over short period of time will not have any significant impact on the surrounding flora and fauna.

### **11.3.7 SOCIO-ECONOMIC ENVIRONMENT**

An attempt has been made to assess the impact of the proposed mining project at Padalur (East) Village on Socioeconomic aspect of the study area. The various attributes that have been taken into account are population composition, employment generation, occupational shift, household income and consumption pattern. Implementation of the Proposed Mine Project will generate both direct and indirect employment. Besides, Mining operation will be legally valid and it will bring income to the state exchequer.

### **11.4 ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

The main scope of the EIA study is to quantify the cumulative impact in the study area due to cluster quarries and formulate the effective mitigation measures for each individual leases. A detailed account of the emission sources, emissions control equipment, background Air quality levels, Meteorological measurements, Dispersion model and all other aspects of pollution like effluent discharge, Dust generation etc., have been discussed in Chapter 4 of this report.

The project proponent will adopt all the necessary mitigation measures and management plan mentioned in this report and also comply the conditions stipulated in Environmental clearance and CTO of this project.

#### **Anticipated Impacts & Mitigation Measures**

| <b>Impact</b>                                                                                                                                                                                                                                             | <b>Mitigation Measures</b>                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Land Environment</b>                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"><li>❖ Destruction of natural landscapes</li><li>❖ Changes in soil characteristics</li><li>❖ Soil erosion and slope instability</li><li>❖ Problems to agricultural land and human habitations due to dust, and</li></ul> | <ul style="list-style-type: none"><li>❖ Rough stone does not produce any toxic effluents in the form of solids, liquids, or gases.</li><li>❖ At the end of life of mine, the excavated mine pit / void of 1.25.0 Ha. will act as artificial reservoir for collecting rain water</li></ul> |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>noise caused by movement of heavy vehicles.</p>                                                                                                                                                                                                                                                                                                          | <p>and helps to meet out the demand or crises during drought season.</p> <ul style="list-style-type: none"> <li>❖ After mine closure the greenbelt (0.23.0 Ha.) will be developed along the safety barrier and top benches and 0.02 ha are approach road and Infrastructure.</li> <li>❖ The periphery of the mining lease area will be converted to a greenbelt to prevent Noise and sound propagation to the nearby lands.</li> <li>❖ Entire mined out area will be properly fenced to prevent inadvertent entry of human and animals.</li> <li>❖ Construction of garland drains all around the quarry pit and construction of settling traps at strategic location in lower elevations to prevent soil erosion due to surface runoff during rainfall and also to collect the storm water for various uses within the proposed area.</li> </ul> |
| <p style="text-align: center;">Water Environment</p>                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>❖ Impact due to Usage of Water in mines</li> <li>❖ Generation of waste water from vehicle washing</li> <li>❖ Domestic sewage</li> <li>❖ Washouts from surface exposure or working areas</li> <li>❖ Impact on Surface Water Resources</li> <li>❖ Impact on Ground water</li> <li>❖ Impact on Water Quality</li> </ul> | <ul style="list-style-type: none"> <li>❖ Nanthai River is situated at a distance of 4.26 km in south direction and two tank passing at 600m (S) and 800m in SE direction. No other water bodies close to the project site; there is no proposal for discharging of wastewater outside the project area.</li> <li>❖ There is no proposal for a rough stone processing or workshop within the project area, so no effluent is anticipated in the mine.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>❖ The required water (5.0 KLD) will be sourced initially from outside agencies. Later the rainwater collected in the mine pit sump will be used for this purpose.</li> <li>❖ Regular water quality will be carried in nearby villages to ensure the water quality is not affected due to the quarrying activities.</li> <li>❖ Domestic sewage from site office &amp; urinals/latrines provided in project area will be discharged through septic tank followed by soak pit system.</li> <li>❖ Only clear and settled water free from silt content will be used for dust suppression and greenbelt development.</li> <li>❖ De-silting will be carried out before and immediately after the monsoon season and the settling tank and drains will be cleaned weekly, especially during monsoons.</li> <li>❖ The dimension of the rain water harvesting pond will be 12,000 cu.m. The rain water stored in the pond will be utilized for plantation, dust suppression activities.</li> </ul> |
| <b>Air Environment</b>                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>❖ Generation of Fugitive Dust</li> <li>❖ Dust will be generated mainly during excavation, loading &amp; unloading activities.</li> <li>❖ Reduction in visibility due to dust plumes.</li> <li>❖ Coating of vegetation leading to reduced photosynthesis.</li> </ul> | <ul style="list-style-type: none"> <li>❖ Using Wet drilling methods, allowing drilling only with PPE, carrying out blasting only during specified times, avoiding blasting during unfavorable weather conditions, using explosives of good quality, using mist sprayers Regular wetting of transport, Covering the</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>❖ Inhibited growth, destroying of foliage, degradation of crops;</li> <li>❖ Increase in health hazards due to inhalation of dust.</li> </ul>                  | <p>materials carried in tippers with tarpaulin, Proper maintenance of vehicles used for transportation, conducting regular emission tests for vehicles used for transport.</p> <ul style="list-style-type: none"> <li>❖ Speed restrictions will be imposed to avoid spillage of loaded materials upon the road and to reduce wear and tear of the road.</li> <li>❖ Weekly inspections of the condition of the access road by competent person employed, and immediate action will be taken to address any potholes or damage to the road surface.</li> <li>❖ Development of greenbelt is proposed in the safety zone of 10m and 7.5m barriers in the lease area.</li> <li>❖ Personal Protective Equipment's will be provided to all workers</li> </ul> |
| Noise & Vibration                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>❖ The main noise generating source during mining operation and related activities are drilling, excavation, loading, unloading and transportation.</li> </ul> | <ul style="list-style-type: none"> <li>❖ Usage of sharp drill bits while drilling which will help in reducing noise;</li> <li>❖ Secondary blasting will be totally avoided and hydraulic rock breaker are utilized for breaking boulders;</li> <li>❖ Controlled blasting with proper spacing, burden, stemming and optimum charge/delay will reduce noise;</li> <li>❖ The blasting will be carried out during favorable atmospheric condition and less human activity timings by using nonelectrical initiation system;</li> </ul>                                                                                                                                                                                                                     |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>❖ Proper maintenance, oiling and greasing of machines will be done every week to reduce generation of noise;</li> <li>❖ Provision of sound insulated chambers for the workers working on machines (HEMM) producing higher levels of noise;</li> <li>❖ Green Belt will be developed around the project areas and along the haul roads. The plantation minimizes propagation of noise;</li> <li>❖ Personal Protective Equipment (PPE) like ear muffs/ear plugs will be provided to the operators of HEMM and persons working near HEMM and their use will be ensured through training and awareness.</li> <li>❖ Regular medical check-up and proper training to personnel to create awareness about adverse noise level effects.</li> </ul> |
| <b>Ground Vibration</b>                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>❖ The vibration due to blasting can cause damage to the nearby structures if appropriate technology and control measures are not adopted in the blasting operation.</li> <li>❖ Fly rock is another possible damage causing outcome of blasting.</li> </ul> | <ul style="list-style-type: none"> <li>❖ Proper quantity of explosive, suitable stemming materials and appropriate delay system should be adopted to avoid overcharging and for safe blasting;</li> <li>❖ Adequate safe distance from blasting should be maintained as per DGMS guidelines;</li> <li>❖ Blasting shelter should be provided as per DGMS guidelines;</li> <li>❖ Blasting operations shall be carried out only during day time;</li> </ul>                                                                                                                                                                                                                                                                                                                          |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>❖ The charge per delay shall be minimized and preferably more number of delays will be used per blasts;</li> <li>❖ During blasting, other activities in the immediate vicinity shall be temporarily stopped;</li> <li>❖ Drilling parameters like depth, diameter and spacing will be properly designed to give proper blast;</li> <li>❖ Blasting will be carried out under the supervision of statutory persons as approved by DGMS.</li> <li>❖ A well-defined SOP will be framed under the leadership of top management and the same will be followed for each blasting.</li> <li>❖ Regular PPV monitoring will be carried out to ensure PPV limits i.e., 0.5 mm/s.</li> </ul> |
| <b>Biological Environment</b>                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>❖ Direct impacts include land clearance and excavation causing destruction of flora and fauna and loss of habitats.</li> <li>❖ Indirect impacts include habitat degradation due to noise, dust, and human activity.</li> </ul> | <ul style="list-style-type: none"> <li>❖ Only some common herbs, shrubs and grass will be cleared. So, there will be no impact on the biodiversity.</li> <li>❖ Green belt development with suitable species will enhance the biodiversity of the project area.</li> <li>❖ The core zone or buffer zone does not encompass any threatened flora or fauna species.</li> </ul>                                                                                                                                                                                                                                                                                                                                            |
| <b>Socio-Economic Environment</b>                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>❖ Health and safety of workers and the general public.</li> <li>❖ Increase in traffic volumes and sizes of road vehicles.</li> <li>❖ Economic issues, including the increase in employment opportunities.</li> </ul> | <ul style="list-style-type: none"> <li>❖ Around 30 local workers will get employment opportunities along with periodical training to generate local skills.</li> <li>❖ Mine management will contribute for the upliftment of these villages by conducting regular medical camps, assistance in developing necessary infrastructure facilities like maintenance of schools, village roads, drinking water supply, etc.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Occupational Health &amp; Safety</b>                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>❖ Exposure to Dust</li> <li>❖ Noise and Vibration Exposure</li> <li>❖ Physical Hazards</li> <li>❖ Respiratory hazards due to Dust exposure</li> </ul>                                                                | <ul style="list-style-type: none"> <li>❖ Provision of rest shelters for mine workers with amenities like drinking water etc.</li> <li>❖ All safety measures like use of safety appliances, such as dust masks, helmets, shoes, safety awareness programs, awards, posters, slogans related to safety etc.</li> <li>❖ Training of employees for use of safety appliances and first aid in vocational training center.</li> <li>❖ Weekly maintenance and testing of all equipment as per manufacturers' guidelines.</li> <li>❖ Pre placement and Yearly Medical Examination of all workers by a medical Officer.</li> <li>❖ First Aid facility will be provided at the mine site.</li> <li>❖ Close surveillance of the factors in working environment and work practices which may affect environment and</li> </ul> |

|  |                                                                                                                                      |
|--|--------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>worker's health by the mine's manager employed.</p> <p>❖ Working of mine as per approved mining plan and environmental plans.</p> |
|--|--------------------------------------------------------------------------------------------------------------------------------------|

## **11.5 ANALYSIS OF ALTERNATIVES**

There are no alternatives suggested as the proposed mining area has the following advantages:

- ❖ The mineral deposit occurs in a non-forest area.
- ❖ There is no habitation within the applied lease area; hence, no R & R issues exist.
- ❖ There is no river, stream, nallas and water bodies in the or passing through the applied mine lease areas.
- ❖ Mine connectivity through road and rail is good.
- ❖ The proposed mining operations do not intersect the ground water level. Hence, no impact on ground water environment.

## **11.6 ENVIRONMENTAL MONITORING PROGRAM**

Environmental Monitoring program will be conducted for various environmental components as per conditions stipulated in Environmental Clearance Letter issued by SEIAA & Consent to Operate issued by TNPCB. Post project monitoring program is detailed in Chapter 6.

PP will supervise the overall environmental management plan of the project during operation. The capital cost of Rs. 9.14 Lakhs and the recurring cost of Rs. 10.83 Lakhs have been allocated under the EMP budget which includes Environmental Monitoring Cost.

## **11.7 ADDITIONAL STUDIES**

### ***Risk Analysis & Disaster Management Plan***

The methodology for the risk assessment has been based on the specific risk assessment guidance issued by the Directorate General of Mine Safety (DGMS). The DGMS risk assessment process is intended to identify existing and probable hazards in the work environment and all operations and assess the risk levels of those hazards in order to prioritize those that need immediate attention.

Further, mechanisms responsible for these hazards are identified and their control measures set to time table are recorded along with pinpointed responsibilities. In the unlikely event that a consequence has occurred, disaster management kicks in. This includes instituting procedures pertaining to a number of issues such as communication, rescue, and rehabilitation. These are addressed in the disaster management plan. Both, the RA and DMP, are living documents and need to be updated whenever there are changes in operations, equipment, or procedures. Assessment is all about preventing accidents and taking necessary steps to prevent it from happening.

The Disaster Management Plan (DMP) is a guide, giving general considerations, directions, and procedures for handling emergencies likely to arise from planned operations. The DMP has been prepared on the basis of the Risk Assessment and related findings covered in the report.

Terms of Reference with Public Hearing (ToR) for the project was issued vide ToR Identification No. TO25B0108TN5921018N dated 30.07.2025. Now, this Draft EIA / EMP Report is prepared for conducting Public Hearing as the projects falls under B1 Category.

Although the individual lease area of this project is less than 5 Ha, the three existing quarries and this proposed quarries within the 500m radius works out to >5 Ha. A Cumulative impact study is conducted to determine the impact of the existing and proposed quarries located within 500m radius on the environment and are detailed in Section 7.4.

## **Cumulative Impact Study**

The baseline monitoring conducted for this project reflects the cumulative impact of the existing quarry and impact of this proposed project on air environment do not exceed the permissible limits set by CPCB for air pollution.

The existing project (Thiru. M. Baskaran) provided employment opportunities for 15 people and this proposed will provide direct employment opportunities for 30 people.

This proposed project has allocated Rs. 5.0 Lakhs as the CER budget.

## **11.8 PROJECT BENEFITS**

### **Financial benefits**

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

### **Social benefits**

- This project provides employment to 30 people directly. Local people will be hired for unskilled labour.
- Through CSR, nearby schools, hospitals will be benefitted.

## **11.9 CONCLUSION**

EIA study was performed as per the approved ToR. Various environmental attributes were studied relating with aspects of mining activities. The related impacts were identified and evaluated. Considering all the possible ways to mitigate the environmental concerns, Environmental Management Plan was prepared and accordingly fund was allocated. The EMP has been dynamic, flexible and subject to periodic review.

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

---

The project will increase the revenue of the State Govt. as well as it will help in the social upliftment of the local community. The green belt development programme will help in increasing the green cover in the area. Thus, the proposed project is not likely to affect the environment or adjacent ecosystem adversely.

The Mine Management will be responsible for the project review of EMP and its implementation to ensure that the EMP remains effective and appropriate. Thus, the proper steps will be taken to accomplish all the goals mentioned in the EMP and the project will bring the positive impact in the study area.

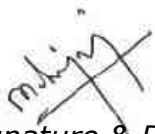
## **12 DISCLOSURE OF CONSULTANTS**

*Global Mining Solutions is a NABET Accredited EIA consultant as per NABET certificate NABET/EIA/2326/IA 0110. The registered office of Global Mining Solutions is at Plot No.6, S.F.No.13/2 A2, VS City, RC Chettypatty, Kottamettupatty, Omalur, Salem, Tamilnadu-636455.*

*Declaration by Experts contributing to the proposed Rough Stone Quarry over an extent of 1.50.0 Ha, while total cluster area of 16.03.6 Ha at Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu.*

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

*EIA Coordinator Name: Manikandan Manickam*

  
*Signature & Date*

*Period of involvement: March 2025 – May 2025*

### **Contact information:**

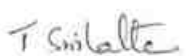
**M/s Global Mining Solutions**

**Plot No.6, SF No. 13/2, A2, VS City, RC Chettypatty,  
Kottamettupatty, Omalur,  
Salem, Tamil Nadu – 636 455.**

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

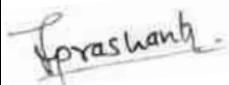
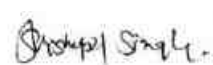
| <b>S. No.</b> | <b>Functional areas</b> | <b>Name of the expert/s</b> | <b>Involvement (period and task**)</b>                                                                                                                                                                | <b>Signature and Date</b> |
|---------------|-------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 1             | AP                      | Dhanalakshmi Ramanathan     | Assessment of existing air quality, Impact of the project on ambient air and suggested mitigation measures for air pollution.<br><br><u>Period: March 2025 – May 2025</u>                             | R. Dhanal                 |
| 2             | WP                      | Abirami Kaliaperumal        | Assessment of existing water quality, impact of the project on surface and ground water quality, suggested mitigation measures for minimizing the impact.<br><br><u>Period: March 2025 – May 2025</u> | K. Abirami                |
| 3             | SHW                     | Ramadoss N                  | Assessment of waste generated from the project, suggested waste management practices.<br><br><u>Period: March 2025 – May 2025</u>                                                                     | CP Ramadoss               |
| 4             | SE                      | Sarasvathy K                | Baseline SE study. Data compilation and assessment. Impact of the project on SE status of the area. Formulation of CER plan.<br><br><u>Period: March 2025 – May 2025</u>                              | K. Sarasvathy             |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|   |    |                         |                                                                                                                                                                                                                 |                                                                                       |
|---|----|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 5 | EB | Saravanan S             | Baseline data collection of related to ecology of the area.<br><br><u>Period: March 2025 – May 2025</u>                                                                                                         |    |
| 6 | HG | Ravinthiran N           | Hydrogeological feature of the area. Ground water depth and impact of project on ground water of the area.<br><br><u>Period: March 2025 – May 2025</u>                                                          |    |
| 7 | AQ | Srilatha Thiruveedhula  | Air quality modeling utilizing the area source model. Predication of the ground level concentration of the dust. Suggesting suitable mitigation measures.<br><br><u>Period: March 2025 – May 2025</u>           |    |
| 8 | NV | Dhanalakshmi Ramanathan | Ambient noise study of the area. Incremental noise generation due to quarry operation and impact of the noise due to the project.<br><br><u>Period: March 2025 – May 2025</u>                                   |  |
| 9 | LU | Srilatha Thiruveedhula  | Preparation of land use map based on satellite imagery. Land use classification and analysis. Impact prediction of the project on the surrounding land environment.<br><br><u>Period: Mar 2024 to May 2024.</u> |  |



**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |     |                      |                                                                                                                                                                                                             |                                                                                      |
|----|-----|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 10 | RH  | S.V. Prashant        | Identification of the Risk related to the mining activities. Preparation of emergency disaster management plan. Plan for supply of safety equipment for the worker.<br><u>Period: March 2025 - May 2025</u> |   |
| 11 | SC  | Shisupal Sing        | Soil monitoring, secondary data collection on soil type, soil management practices, utilization of topsoil.<br><u>Period: March 2025 - May 2025</u>                                                         |   |
| 12 | GEO | Valliappan Meyyappan | Geological map, stability of quarry and dump, management plan for mine stability, after use of mining quarry and geological feature of the area.<br><u>Period: March 2025 - May 2025</u>                    |  |

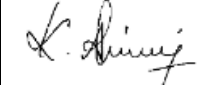
**TM-EC:**

| S.No | Name of TM (EC) | Sector(s) proposed | Name of EC with whom to be attached | Period of involvement          | Type of work                                                                    | Signature                                                                             |
|------|-----------------|--------------------|-------------------------------------|--------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1    | R. Dhanalakshmi | 1(a)               | Manikandan Manickam                 | <u>March 2025 to May 2025.</u> | Associated with EIA Coordinator in overall preparation of Draft EIA/EMP report. |  |

**TM- FAE:**

| S. No | Name of TM (FAE) | Functional Area | Approved FAE (to work under) | Period of involvement          | Type of work                                                                                         | Signature                                                                             |
|-------|------------------|-----------------|------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1     | Kamaraj S        | HG              | Ashok Kumar Rajagopal        | <u>March 2025 to May 2025.</u> | Associated with Experts in studying hydrogeological pattern of study area, Studying ground water and |  |

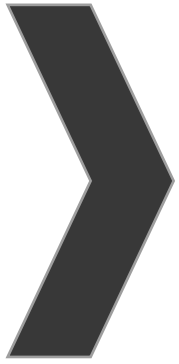
**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|   |                       |     |                         |                               |                                                                                                                                                                                                                                                                             |                                                                                       |
|---|-----------------------|-----|-------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|   |                       |     |                         |                               | the impact of the project on ground water                                                                                                                                                                                                                                   |                                                                                       |
| 2 | B.J.Sampatkkumar      | SE  | Saraswathy K            | <u>March 2025 to May 2025</u> | Assisted by the Expert in preparation of socio-economic report.                                                                                                                                                                                                             |    |
|   |                       | SC  | Shishupal Singh         | <u>March 2025 to May 2025</u> | Assisted by the Expert in interpretation of soil sampling and their quality involved in the project.                                                                                                                                                                        |                                                                                       |
| 3 | Mownica Balaji        | AP  | Dhanalakshmi Ramanathan |                               | Associated with expert team in assessing existing air quality, impact of the project on ambient air and suggesting mitigation measures for air pollution                                                                                                                    | Mownica B                                                                             |
| 4 | Balasubramani G       | GEO | Valliappan Meyyappan    | <u>March 2025 to May 2025</u> | Overall site investigation and Mining Plan preparation. Associated with the expert in preparing Geological map.                                                                                                                                                             |    |
| 5 | Suresh Mani           | LU  | Srilatha Thiruveedhula  | <u>March 2025 to May 2025</u> | Associated with Experts in preparing Land use map based on satellite imagery, Land use classification and analysis, Impact prediction on surrounding land environment.                                                                                                      |   |
| 6 | Asan Ali S            | NV  | Srilatha Thiruveedhula  | <u>March 2025 to May 2025</u> | Associated with the expert in monitoring and analysis of blast induced ground vibration in order to develop the site-specific equation for its prediction, monitoring of fly rocks & air blast (noise), preparation of SOP's for the safety blasting practice in the mines. | S. Asan ali                                                                           |
| 7 | Prabu M               | GEO | Valliappan Meyyappan    | <u>March 2025 to May 2025</u> | Associated with Experts and involved in Field Investigations, Mapping /Geo-referencing                                                                                                                                                                                      |  |
| 8 | Abirami Kaliyaperumal | RH  | S V Prashant            | <u>March 2025 to May 2025</u> | Involved with Expert team and involved in identification of Risk / Hazards and Safety Measures for various activity                                                                                                                                                         |  |

**PROPOSED ROUGH STONE QUARRY OF THIRU. R. RAJKUMAR AT S.F.NO. 10/1 (BLOCK-1) OVER AN EXTENT OF 1.50.0 HECTARES AT PADALUR (EAST) VILLAGE, ALATHUR TALUK, PERAMBALUR DISTRICT, TAMIL NADU STATE**

|    |                         |    |                        |                               |                                                                                                                                                                 |          |
|----|-------------------------|----|------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 9  | Dhanalakshmi Ramanathan | AQ | Srilatha Thiruveedhula | <u>March 2025 to May 2025</u> | Involved with Expert team and involved in calculating air emission values using Meteorological data and Providing inputs for running modelling (ISCT3, AERMOD). | R. Dhanu |
| 10 | Manikandan Manickam     | WP | Abirami Kaliyaperumal  | <u>March 2025 to May 2025</u> | Associated with Identification of the source of water, impact and suggesting suitable mitigation measures for water pollution                                   |          |

\*\*\*\*\*



# ANNEXURE-1



**File No: 12354**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(Issued by the State Environment Impact Assessment Authority(SEIAA),**  
**TAMIL NADU)**

\*\*\*



Dated 30/07/2025



To,

THIRU.R. RAJKUMAR  
S/o. Rajaram, No.4C, 4th Floor, Sivam Sri Madhv, Kuttimani Nagar, Pichandar Kovil, Trichy-621 216.  
rajkumar6660@gmail.com

**Subject:** Grant of **Terms of Reference along with Public Hearing** under the provision of the EIA Notification 2006 as amended-regarding.

**Sir/Madam,**

**Sub:** SEIAA-TN Proposed Rough stone Quarry Over an extent of 1.50.00 Ha at S.F. No: 10/1 (Block-1) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu by THIRU.R. RAJKUMAR - under project category – “B1” and Schedule S.No.1(a) “Mining of Minerals Projects” of EIA Notification, 2006, as amended – **ToR issued along with Public Hearing** - preparation of EIA report – Regarding.

**Ref:**

1. Online proposal No. SIA/TN/MIN/542082/2025, Dated: 24/06/2025.
2. Your application submitted for Terms of Reference dated: 24.06.2025.
3. Minutes of the 587th SEAC meeting held on 07.07.2025.
4. Minutes of the 859th SEIAA meeting held on 24.07.2025.

2. The particulars of the proposal are as below :

|                                            |                                        |
|--------------------------------------------|----------------------------------------|
| (i) TOR Identification No.                 | TO25B0108TN5921018N                    |
| (ii) File No.                              | 12354                                  |
| (iii) Clearance Type                       | TOR                                    |
| (iv) Category                              | B1                                     |
| (v) Project/Activity Included Schedule No. | 1(a) Mining of minerals                |
| (vi) Name of Project                       | Rough Stone Quarry of Thiru.R.Rajkumar |
| (vii) Name of Company/Organization         | R RAJKUMAR                             |
| (ix) Location of Project (District, State) | PERAMBALUR, TAMIL NADU                 |
| (x) Issuing Authority                      | SEIAA                                  |
| (xi) Applicability of General Conditions   | no                                     |
| (xii) Applicability of Specific Conditions | no                                     |

1. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1 (Part A and B) were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.
2. The above-mentioned proposal has been considered by SEIAA in the meeting held on 24.07.2025. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B,)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
3. The State Expert Appraisal Committee (SEAC), based on the information & clarifications provided by the project proponent and after detailed deliberations on all technical aspects recommended the proposal for grant of Terms of Reference with public hearing under the provision of EIA Notification, 2006 and as amended thereof subject to the stipulation of specific and general conditions as detailed in Annexure (2).
4. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the SEAC hereby decided to issue the following Terms of Reference with public hearing for instant proposal of THIRU.R. RAJKUMAR under the provisions of EIA Notification, 2006 and as amended thereof.
5. The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.
6. The Terms of Reference with public hearing to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
7. This issues with the approval of the Competent Authority.
8. The TORs with public hearing prescribed shall be valid for a period of three years from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

#### **Copy To**

1. The Additional Chief Secretary to Government, Environment, Climate Change and Forests Department, Secretariat, Chennai, Tamil Nadu 600 009.
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. Monitoring Cell, IA Division, Ministry of Environment, Forests & CC, Paryavaran Bhavan, CGO Complex, New Delhi 110003
5. The District Collector, Perambalur District.
6. Stock File.

**Annexure 1**

#### **Specific Terms of Reference for (Mining Of Minerals)**

##### **1. Seiaa Specific Conditions:**

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | After detailed discussions, <b>the Authority accepts the recommendation of SEAC-I and decided to grant Terms of Reference (ToR) along with Public Hearing for the quantity of 312605 m<sup>3</sup> of Rough Stone up to the depth of 56m (26m AGL + 30m BGL) as per the approved mining plan,</b> under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC-I & normal conditions & the conditions mentioned below. |

##### **2. Seac Conditions - Site Specific**

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1   | <p>1. A Cluster Management Committee (CMC) shall be constituted including all the mines in the cluster as Committee Members for the effective management of the mining operation in the cluster through systematic &amp; scientific approach with appointment of statutory personnel, appropriate environmental monitoring, good maintenance of haul roads and village/panchayat roads, authorized blasting operation etc. The PP shall submit the following details in the form of an Affidavit during the EIA appraisal:</p> <p>(i) Copy of the agreement forming CMC.</p> <p>(ii) The Organisation chart of the Committee with defining the role of the members</p> <p>(iii) The 'Standard Operating Procedures' (SoP) executing the planned activities.</p> <p>2. The PP should submit an affidavit to follow the scientific formation of benches for 5m *5m properly during mining as per the approved mining plan.</p> <p>3. The PP shall obtain Modified Mining plan for the proposed changes (restricting the mining depth upto 50 Metres) during the EIA appraisal.</p> <p>4. The PP shall install the CCTV camera for the continuous surveillance of mining activity &amp; furnish the photographic/videographic evidence along with the EIA report.</p> |

### 3. Seac Standard Conditions

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1   | <p>1. In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following:</p> <p>(i) Original pit dimension</p> <p>(ii) Quantity achieved Vs EC Approved Quantity</p> <p>(iii) Balance Quantity as per Mineable Reserve calculated.</p> <p>(iv) Mined out Depth as on date Vs EC Permitted depth</p> <p>(v) Details of illegal/illicit mining</p> <p>(vi) Violation in the quarry during the past working.</p> <p>(vii) Quantity of material mined out outside the mine lease area</p> <p>(viii) Condition of Safety zone/benches</p> <p>(ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.</p> <p>2. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.</p> <p>3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.</p> <p>4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry.</p> <p>5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.</p> <p>6. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.</p> <p>7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining &amp; Fuel Research / Dhanbad, NIRM/Bangalore, Division of</p> |

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | <p>Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.</p> <p>8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.</p> <p>9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.</p> <p>10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.</p> <p>11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.</p> <p>12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,</p> <p>13. 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>14. Quantity of minerals mined out.</p> <ul style="list-style-type: none"> <li>· Highest production achieved in any one year</li> <li>· Detail of approved depth of mining.</li> <li>· Actual depth of the mining achieved earlier.</li> <li>· Name of the person already mined in that leases area.</li> <li>· If EC and CTO already obtained, the copy of the same shall be submitted.</li> <li>· Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.</li> </ul> <p>15. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).</p> <p>16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,</p> <p>17. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees &amp; safety distance between the adjacent quarries &amp; water bodies nearby provided as per the approved mining plan.</p> <p>18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same.</p> <p>19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of the Mines Act'1952 and the MMR, 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.</p> <p>20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping &amp; 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.</p> <p>21. The proponent shall furnish the baseline data for the environmental and ecological parameters</p> |



| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | <p>with regard to surface water/ground water quality, air quality, soil quality &amp; flora/fauna including traffic/vehicular movement study.</p> <p>22. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control &amp; health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.</p> <p>23. Rain water harvesting management with recharging details along with water balance (both monsoon &amp; non-monsoon) be submitted.</p> <p>24. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.</p> <p>25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&amp;R issues, if any, should be provided.</p> <p>26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.</p> <p>27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.</p> <p>28. Impact on local transport infrastructure due to the Project should be indicated.</p> <p>29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area &amp; 300m buffer zone and its management during mining activity.</p> <p>30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.</p> <p>31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.</p> <p>32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.</p> <p>33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner</p> <p>34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.</p> <p>35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.</p> <p>36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.</p> |

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | <p>37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.</p> <p>38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.</p> <p>39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.</p> <p>40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.</p> <p>41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&amp;CC, Regional Office, Chennai (or) the concerned DEE/TNPCCB.</p> <p>42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.</p> <p>43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.</p> |

#### 4. Seiaa Standard Conditions:

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1   | <p><b><u>Cluster Management Committee</u></b></p> <p>1. Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry.</p> <p>2. The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc.,</p> <p>3. The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.</p> <p>4. Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network.</p> <p>5. The committee shall deliberate on risk &amp; emergency management plan, fire safety &amp; evacuation plan and sustainable development goals pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.</p> <p>6. The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the Environmental policy devised shall be given in detail in the EIA Report.</p> <p>7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.</p> <p>8. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public in the vicinity.</p> <p><b><u>Agriculture &amp; Agro-Biodiversity</u></b></p> <p>9. Impact on surrounding agricultural fields around the proposed mining Area.</p> <p>10. Impact on soil flora &amp; vegetation around the project site.</p> <p>11. Details of type of vegetation including no. of trees &amp; shrubs within the proposed mining area</p> |

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | <p>and. If so, transplantation of such vegetation all along the boundary of the proposed mining area shall committed mentioned in EMP.</p> <p>12. The Environmental Impact Assessment should study the agro-biodiversity, agro- forestry, horti-cultural plantations, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.</p> <p>13. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.</p> <p>14. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.</p> <p><b><u>Forests</u></b></p> <p>15. The project proponent shall detailed study on impact of mining on Reserve forests and free ranging wildlife.</p> <p>16. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.</p> <p>17. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.</p> <p>18. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.</p> <p><b><u>Water Environment</u></b></p> <p>19. Hydro-geological study considering the contour map of the water table detailing the number of ground water pumping &amp; 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.</p> <p>20. Erosion Control measures.</p> <p>21. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, &amp; any ecological fragile areas.</p> <p>22. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.</p> <p>23. The project proponent shall study and furnish the details on potential fragmentation impact on natural Environment, by the activities.</p> <p>24. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.</p> <p>25. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.</p> <p>26. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.</p> <p>27. The EIA shall include the impact of mining activity on the following:</p> <ol style="list-style-type: none"> <li>Hydrothermal/Geothermal effect due to destruction in the Environment.</li> <li>Bio-geochemical processes and its foot prints including Environmental stress.</li> <li>Sediment geochemistry in the surface streams.</li> </ol> <p><b><u>Energy</u></b></p> <p>28. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.</p> <p><b><u>Climate Change</u></b></p> <p>29. The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities.</p> <p>30. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil &amp; below soil carbon stock, soil health and physical, chemical &amp;</p> |

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | <p>biological soil features.</p> <p>31. Impact of mining on pollution leading to GHGs emissions and the impact of the same on the local livelihood.</p> <p><b><u>Mine Closure Plan</u></b></p> <p>32. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.</p> <p><b><u>EMP</u></b></p> <p>33. Detailed Environment Management Plan along with adaptation, mitigation &amp; remedial strategies covering the entire mine lease period as per precise area communication order issued and the scope for achieving SDGs.</p> <p>34. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.</p> <p><b><u>Risk Assessment</u></b></p> <p>35. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.</p> <p><b><u>Disaster Management Plan</u></b></p> <p>36. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards &amp; to cope with disaster/unfavorable accidents in &amp; around the proposed mine lease area due to the proposed method of mining activity &amp; its related activities covering the entire mine lease period as per precise area communication order issued.</p> <p><b><u>Others</u></b></p> <p>37. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.</p> <p>38. As per the MoEF&amp; 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.</p> <p>39. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the Environment. The ecological risks and impacts of plastic &amp; microplastics on aquatic Environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.</p> |

**Standard Terms of Reference for (Mining of minerals)**

1.

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                    |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1   | Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994 |
| 1.2   | A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given                                                                                                                                                                                                                   |
| 1.3   | All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee                                                                      |

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.4   | All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone)                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1.5   | Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.6   | Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1.7   | It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report |
| 1.8   | Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1.9   | The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1.10  | Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given                                                                                                                                                                                                                                                                                                                |
| 1.11  | Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1.12  | A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the State Expert Appraisal Committees                                                                                                                 |
| 1.13  | Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.14  | Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1.15  | The vegetation in the RF / PF areas in the study area, with necessary details, should be given                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1.16  | A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1.17  | Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished                                                                                                                                                                                                                                               |
| 1.18  | A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost                                                   |
| 1.19  | Proximity to Areas declared as Critically Polluted or the Project areas likely to come under the Aravali Range, (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered                                                                                                                                                                                                                                                                                                                                                        |
| 1.20  | Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority)                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.21  | R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report |
| 1.22  | One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-                                                                                                                                                                                                                                                                                                                                                                                             |

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given                                                                                                                                                                                                                                                                                 |
| 1.23  | Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map                                                                                                                                                                                     |
| 1.24  | The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.25  | Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1.26  | Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.27  | Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1.28  | Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from State Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished                                                                                                                                                         |
| 1.29  | Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1.30  | Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 1.31  | A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution |
| 1.32  | Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| S. No | Terms of Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines                                                                                                                                                                                                                                                                                                                                            |
| 1.33  | Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1.34  | Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1.35  | Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed                                                                                                                                                                                                                                                                                                                          |
| 1.36  | Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1.37  | Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.38  | Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.39  | Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1.40  | Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.41  | The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1.42  | A Disaster management Plan shall be prepared and included in the EIA/EMP Report                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.43  | Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.44  | Besides the above, the below mentioned general points are also to be followed:- a) All documents to be properly referenced with index and continuous page numbering. b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated. c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project. d) Where the documents provided are in a language other than English, an English translation should be provided. e) The Questionnaire for |



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



### **STANDARD TERMS OF REFERENCE**

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

proposed safeguard measures in each case should also be provided.

- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from

the Standing Committee of National Board of Wildlife and copy furnished.

- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. *The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.*
- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The

location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.

- 23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.

- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the

proposed Project.

- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed: -
  - a) Executive Summary of the EIA/EMP Report
  - b) All documents to be properly referenced with index and continuous page numbering.
  - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
  - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
  - e) Where the documents provided are in a language other than English, an English translation should be provided.
  - f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
  - g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
  - h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the ToR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.



- i) As per the circular no. J-11011/618/2010-IA. II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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

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

1. Project name and location (Village, District, State, Industrial Estate (if applicable).
2. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
3. Measures for mitigating the impact on the environment and mode of discharge or disposal.
4. Capital cost of the project, estimated time of completion.
5. The proponent shall furnish the contour map of the water table detailing the number of wells located around the site and impacts on the wells due to mining activity.
6. A detailed study of the lithology of the mining lease area shall be furnished.
7. Details of village map, "A" register and FMB sketch shall be furnished.
8. Detailed mining closure plan for the proposed project approved by the Geology of Mining department shall be submitted along with EIA report.
9. Obtain a letter /certificate from the Assistant Director of Geology and Mining standing that there is no other Minerals/resources like sand in the quarrying area within the approved depth of mining and below depth of mining and the same shall be furnished in the EIA report.
10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual for Mining of Minerals published February 2010.
11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
12. The EIA study report shall include the surrounding mining activity, if any.
13. Modeling study for Air, Water and noise shall be carried out in this field and incremental



- increase in the above study shall be substantiated with mitigation measures.
14. A study on the geological resources available shall be carried out and reported.
  15. A specific study on agriculture & livelihood shall be carried out and reported.
  16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
  17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 10km other industries, forest, eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
  18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
  19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
  20. Likely impact of the project on air, water, land, flora-fauna and nearby population
  21. Emergency preparedness plan in case of natural or in plant emergencies
  22. Issues raised during public hearing (if applicable) and response given
  23. CER plan with proposed expenditure.
  24. Occupational Health Measures
  25. Post project monitoring plan
  26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
  27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
  28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
  29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.
  30. Reserve funds should be earmarked for proper closure plan.
  31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

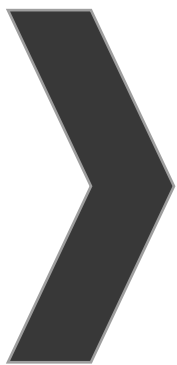
**Besides the above, the below mentioned general points should also be followed:-**

- a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
- b. All documents may be properly referenced with index, page numbers and continuous page numbering.
- c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF& CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
- e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -11013/77/2004-IA-II(I) dated 2<sup>nd</sup> December, 2009, 18<sup>th</sup> March 2010, 28<sup>th</sup> May 2010, 28<sup>th</sup> June 2010, 31<sup>st</sup> December 2010 & 30<sup>th</sup> September 2011 posted on the Ministry's website <http://www.moef.nic.in/> may be referred.
  - After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned points, the proponent will take further necessary action for obtaining environmental clearance in accordance with the procedure prescribed under the EIA Notification, 2006.
  - The final EIA report shall be submitted to the SEIAA, Tamil Nadu for obtaining Environmental Clearance.
  - The TORs with public hearing prescribed shall be **valid for a period of three years** from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29<sup>th</sup> August, 2017.

Validity unknownSignature valid

Digitally Signed by : A. S. Rahul Nadh IAS  
Member Secretary, SEIAA

Date: 30/07/2025



# **ANNEXURE-2**

**PRECISE AREA COMMUNICATION LETTER**

Sub : Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted on 27.03.2025 under Tender ID: 2025\_CGAM\_525779\_1 - Thiru.R.Rajkumar (BID ID:1270716) quoted highest Bid amount (H1) For the quarry listed in Serial Number 23 - Declared as H1 bidder - H1 Bid Amount remitted - Solvency Certificate submitted - Precise Area Communicated - Reg.

Ref: 1. G.O.(Ms).No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024  
2. Perambalur District Gazette(Extraordinary) Notification No.1, dated:18.02.2025.  
3. E-Tender published under Tender ID:2025\_CGAM\_525779\_1 in Tamil Nadu Governmente-tender portal.  
4. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.123/G&M/2025, dated:28.03.2025 (to remit 10% of highest bid amount)  
5. Remittance challan No. 20250329003777 dated:01.04.2025 submitted by Thiru. R.Rajkumar (BID ID:1270716).  
6. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.123/G&M/2025, dated 01.04.2025 (to remit remaining 90% of the bid amount)  
7. Remittance challans dated. 03.04.2025 submitted by Thiru. R.Rajkumar(BID ID:1270716).  
8. Solvency Certificate No.TN-1720250403108, dated 05.04.2025 submitted by Thiru. R.Rajkumar(BID ID:1270716).

\*\*\*\*\*

I invite your attention to the references cited above

Notice Inviting Tender (NIT) was published vide Perambalur District Gazette Extraordinary Notification No.1, dated.18.02.2025, inviting applications for grant of rough stone quarry leases in Government poramboke lands in Perambalur District through e-Tender cum Auction. Online tender was published in Tamil Nadu Government e-tender portal (<https://tntenders.gov.in/>) under Tender ID:2025\_CGAM\_525779\_1 and e-Auction was conducted 27.03.2025 for bidders whos' bids were qualified technically and financially.

After Financial Evaluation, Thiru. R.Rajkumar(BID ID:1270716) was declared as H1 bidder for the quarry listed in Serial Number 23 of the Gazette as he quoted highest bid amount of Rs.4,29,00,000/- for the said quarry. The H1 bidder was directed to remit 10% of the Highest bid amount vide notice in the reference 4<sup>th</sup> cited and accordingly, the H1 bidder has remitted 10% of the bid amount to a sum of Rs.

42,90,000/- and submitted remittance challan No. 20250329003777 dated: 01.04.2025 to this office.

Subsequently, Thiru.R.Rajkumar(BID ID:1270716) was directed to remit the remaining 90% of Highest bid amount after adjusting the Bid Security already paid by him within one month to Government head of account and to submit original remittance challan to this office. The H1 bidder was also directed to submit a solvency certificate of immovable properties for a value not less than 20% of the bid amount within one month as required under sub- rule (16)(B)(ii)(I) of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959.

Accordingly, Thiru. R.Rajkumar(BID ID:1270716) has remitted Rs.3,23,67,263/- after deducting Rs. 62,42,737/-(the Bid Security amount already paid by the bidder) in Government account within one month and submitted remittance challans to this office. The H1 bidder has also submitted a solvency certificate to value of Rs. 1,00,00,000/- within one month.

The details of H1 Bidder for the quarry listed in Serial No.23 of the District Gazette, H1 Bid Amount offered and remittance of Bid amount by bidder are as follows.

|           |                                                                  |                                                                                                                                                                                                                    |
|-----------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1.</b> | <b>Quarry Detail</b>                                             |                                                                                                                                                                                                                    |
|           | Serial No. in District Gazette No.01, dated 18.02.2025.          | 23                                                                                                                                                                                                                 |
|           | Taluk                                                            | Alathur                                                                                                                                                                                                            |
|           | Village                                                          | Padalur (East)                                                                                                                                                                                                     |
|           | S.F.No.                                                          | 10/1 (Block 1)                                                                                                                                                                                                     |
|           | Extent                                                           | 1.50.0 Hectares                                                                                                                                                                                                    |
|           | Lease Period                                                     | 5 Years                                                                                                                                                                                                            |
| <b>2.</b> | <b>H1 Bidder, Bid Amount Remittance</b>                          |                                                                                                                                                                                                                    |
|           | H1 Bidder                                                        | Thiru. R.Rajkumar (BID ID:1270716)<br>S/o. Rajaram,<br>No. 4C, 4 <sup>th</sup> floor, Sivam Sri Madhav,<br>Kuttamani Nagar, Pichandar kovil,<br>Trichy-621 216.                                                    |
|           | H1 Bid Amount                                                    | Rs.4,29,00,000/-                                                                                                                                                                                                   |
|           | 10% of H1 bid amount remitted                                    | 42,90,000/-<br>(Challan No. 20250329003777 dated: 01.04.2025)                                                                                                                                                      |
|           | Bid Security (EMD) already remitted                              | Rs.62,42,737/-                                                                                                                                                                                                     |
|           | 90% of bid amount paid after adjusting Bid Security already paid | Rs.3,23,67,263/-<br>(Challan No. 20250403012000, dated 03.04.2025<br>Challan No. 20250403011855, dated 03.04.2025<br>Challan No. 20250403011576, dated 03.04.2025<br>Challan No. 20250403011697, dated 03.04.2025) |
| <b>3.</b> | <b>Solvency Certificate Details</b>                              |                                                                                                                                                                                                                    |
|           | Certificate No.                                                  | TN-1720250403108                                                                                                                                                                                                   |
|           | Date                                                             | 05.04.2025                                                                                                                                                                                                         |
|           | Value                                                            | Rs. 1,00,00,000/-                                                                                                                                                                                                  |
|           | Issued by                                                        | Tahsildar, Mannachanallur Taluk, Tiruchirappalli District.                                                                                                                                                         |

The H1 Bidder, Thiru. R.Rajkumar(BID ID:1270716) has remitted entire H1 Bid Amount of Rs.4,29,00,000/- in Government account and also submitted a solvency certificate to value of Rs.1,00,00,000/- which is more than the 20% of bid amount, within one month as per sub- rule 16 of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959

Therefore, in exercise of the powers conferred under sub rule 17(a) of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959, an extent of 1.50.0 hectares of Government land in S.F.No.10/1 (Block 1) of Padalur (East) Village, Alathur Taluk, Perambalur District as notified in Serial Number.23 of the Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025 is hereby fixed as Precise Area for grant of permission to quarry Roughstone for a period of 5 years to Thiru.R.Rajkumar (BID ID:1270716), subject to the following conditions

1. 10 meters safety distance should be left out for the adjacent Government lands.
2. The applicant shall not make any hindrance to the adjacent lands and public.
3. The applicant should submit approved Mining Plan, Environment Clearance and Consent to Establish (CTE) & Consent to Operate (CTO) issued by competent authorities for grant of quarrying lease in the subject area.

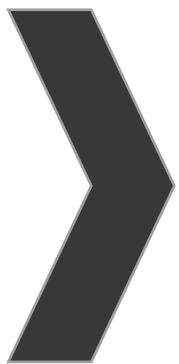
The applicant Thiru.R.Rajkumar(BID ID:1270716) is directed to submit draft Mining Plan for the above area within 90 days for the approval of the Assistant Director, Geology and Mining, Perambalur and to submit Environment Clearance obtained from SEIAA, Tamil Nadu and CTE & CTO issued by the Tamil Nadu Pollution Control Board subsequently for further action.

**Encl:** Map showing the proposal lease area.

*[Signature]*  
Assistant Director,  
Geology and Mining,  
Perambalur.

To  
Thiru. R.Rajkumar (BID ID:1270716)  
S/o. Rajaram,  
No.4C, 4<sup>th</sup> floor,  
Sivam Sri Madhav,  
Kuttimani Nagar,  
Pichandar kovil,  
Trichy-621 216.  
Copy to:

1. The Chairman,  
SEIAA Level Environment Impact Assessment Authority,  
Panagal Maligai, Saidapet,  
Chennai.
2. The Commissioner of Geology and Mining, Chennai-32.



# **ANNEXURE-3**

From

Thiru D.Bernard, M.Sc.,  
Assistant Director,  
Geology and Mining,  
Perambalur.

To

Thiru.R.Rajkumar,  
S/o. Rajaram,  
No.4C/, 4<sup>th</sup> floor, Sivam Sri Madhav,  
Kuttimani Nagar,  
Pchindar Kovil,  
Trichy - 621 216.

Rc.No.123/G&M/2025.

Dated: 23.04.2025

Sir,

Sub: Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands - Thiru.R.Rajkumar quoted highest Bid amount (H1) For the quarry in S.F.No. 10/1 (Block 1), OAE of 1.50.0 hectares in Padalur (East) Village, Alathur Taluk - Declared as H1 bidder - H1 Bid Amount remitted - Precise Area Communicated - Draft Mining Plan submitted for approval - Approved - Reg.

- Ref:
1. G.O.(Ms). No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024
  2. Perambalur District Gazette(Extraordinary) Notification No.1, dated:18.02.2025.
  3. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.123/G&M/2025, dated:28.03.2025
  4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No.123/G&M/2025, dated 09.04.2025.
  5. Thiru.R.Rajkumar, S/o. Rajaram letter dated 15.04.2025.

\*\*\*\*\*

Tender cum Auction for grant of Roughstone quarries in Government lands notified in Perambalur District Gazette Extraordinary Notification No.1, dated.18.02.2025 was conducted through online as per Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959.

Thiru.R.Rajkumar, S/o. Rajaram was declared as Highest Bidder for the quarry in S.F.No. 10/1 (Block 1), to an extent of 1.50.0 hectares in Padalur (East) Village, Alathur Taluk, Perambalur District and the lease period proposed for the subject quarry is 5 years. The Highest Bidder, Thiru.R.Rajkumar remitted entire highest bid amount and other statutory documents in time in accordance with rules and in the reference, 4<sup>th</sup> cited, precise area was communicated to him with a request to submit Mining Plan for the approval of the Assistant Director, Geology and Mining, Perambalur District and Environmental Clearance obtained from SEIAA for further process.



Accordingly, in the reference 5<sup>th</sup> cited, the successful bidder has submitted 3 copies of Draft Mining Plan prepared by Qualified Person for the above area. The draft Mining Plan submitted by Thiru.R.Rajkumar, has been scrutinized as per extant rules and guide lines / instructions issued by the Commissioner of Geology and Mining, Chennai in the letter Rc.No.3868/LC/2012 dated.19.11.2012. The following observations were made in scrutiny.

- a. 10-meter safety distance is earmarked for the adjoining Government lands.
- b. The Geological reserve of Roughstone in the subject area has been assessed as 17,24,813 metric tonnes.
- c. The mineable reserve has been computed as 8,59,664 metric tonnes of Roughstone up to a depth of 56m (26m AGL + 30m BGL).
- d. The lease period of the subject Roughstone quarry is 5 years and it has been proposed for the production of 8,59,664 metric tonnes of Roughstone up to a depth of 56m (26m AGL + 30m BGL) in the mining plan in five years.
- e. The depth of water table in the subject area is reported as 67m BGL and workable depth has been proposed to 30m BGL in the mining plan. Hence, the quarrying operation will not affect the water table in the area.
- f. Drilling and blasting using jack hammers and shot hole blasting are proposed. Small dia, 25mm slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Roughstone. No deep hole drilling or primary blasting is proposed.
- g. It has been proposed to adopt controlled blasting measures for minimizing ground vibration and fly rocks.
- h. Machineries like Tractor mounted compressor attached with Jack hammers, excavators with rock breaker attachment are proposed for quarrying operation. Tippers of 5/10 Tons capacity are proposed for transportation.

4) 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 communication letter have been incorporated in the Mining Plan. Therefore, the draft mining plan is hereby approved subject to the following conditions.

- i. That the Mining Plan is approved without prejudice to any other laws applicable to the quarry area from time to time whether made by the Central Government, State Government or any other authority.
- ii. That the approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Regulations and Development) Amendment Act 2015 or Mineral (other than

Atomic and Hydrocarbon Energy Minerals) concession Rules 2016, or Tamil Nadu Minor Mineral Concession Rules, 1959 or any other laws including Forest (Conservation) Act 1980, Forest Conservation Rule, 1981, Environment Protection Act, 1980 and the rules made there under.

- iii. That the Mining plan is approved without prejudice to any other order or directions from any court of competent jurisdiction.
- iv. That the approval of Mining Plan does not confer any rights for the renewal of quarry lease.
- v. The approval is valid up to the subsistence of the lease period only.

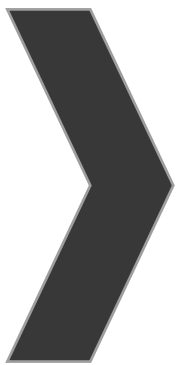
**Encl:** 2copies of approved Mining Plan.

*Ad. Dir.*  
22/04/25  
Assistant Director,  
Geology and Mining,  
Perambalur.

Copy to:

1. The Chairman,  
SEIAA Level Environment Impact Assessment Authority,  
PanagalMaligai, Saidapet,  
Chennai.
2. The Commissioner of Geology and Mining, Chennai-32.

*Jos*  
23/4/24



# **APPROVAL MINING PLAN**

# MINING PLAN FOR PADALUR (EAST) ROUGH STONE QUARRY

(Prepared Under Rule 8, 41 & 42 of Tamil Nadu Minor Mineral Concession  
Rules, 1959)

## LOCATION OF THE QUARRY LEASE APPLIED AREA

STATE : TAMIL NADU  
DISTRICT : PERAMBALUR  
TALUK : ALATHUR  
VILLAGE : PADALUR (EAST)  
S.F.NO : 10/1(BLOCK-1)  
EXTENT : 1.50.0Ha

## FOR APPLICANT

Thiru. R.Rajkumar,  
S/o.Rajaram,  
No.4C, 4<sup>th</sup> Floor, Sivam Sri Madhav,  
Kuttimani Nagar, Pichandar Kovil,  
Trichy-621 216.

## ECO-FRIENDLY



## SUSTAINABILITY



## SAFETY



## PREPARED BY

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

M/s. GLOBAL MINING SOLUTIONS

(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)

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

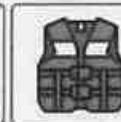
KOTTAMETTUPATTY,

OMALUR, SALEM, TAMIL NADU – 636 455

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

CONTACT: 97502 23535, 94446 54520

Email: [infoglobalmining@gmail.com](mailto:infoglobalmining@gmail.com), [globalminingsolutionssalem@gmail.com](mailto:globalminingsolutionssalem@gmail.com)



(PPE)



R.Rajkumar,  
S/o.Rajaram,  
No.4C, 4<sup>th</sup> Floor, Sivam Sri Madhav, Kuttimani Nagar,  
Pichandar Kovil, Trichy-621 216.

**CONSENT LETTER FROM THE APPLICANT**

The Mining Plan in respect of **Rough Stone** quarry over an extent of 1.50.0Hectares of Government land in S.F.No.10/1(Block-1) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State has been prepared by

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

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

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

**M/s. GLOBAL MINING SOLUTIONS**

(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)

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

Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455

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

CONTACT: 97502 23535, 94446 54520

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

Signature of the Applicant

x   
R.Rajkumar

Place: Perambalur

Date: 10.04.2025



R.Rajkumar,  
S/o.Rajaram,  
No.4C, 4<sup>th</sup> Floor, Sivam Sri Madhav, Kuttimani Nagar,  
Pichandar Kovil, Trichy-621 216.

**DECLARATION**

The Mining Plan in respect of **Rough Stone** quarry over an extent of 1.50.0Hectares of Government land in S.F.No.10/1(Block-1) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State has been prepared with my consultation and I have understood the contents and agree to implement the same in accordance with the Mining Laws.

Signature of the Applicant

x   
R.Rajkumar

Place: Perambalur  
Date: 10.04.2025



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

**Qualified Person**

**M/s. GLOBAL MINING SOLUTIONS**

(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)

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

Kottamettupatty, Omalur, Salem, Tamil Nadu - 636 455

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

CONTACT: 97502 23535, 94446 54520

### CERTIFICATE

This is to certify that, the provisions of Minor Minerals Conservation and Development Rules, 2010 (MMCDR) have been observed in the Mining Plan for the grant of **Rough Stone** quarry lease over an extent of 1.50.0 Hectares of Government land in S.F.No.10/1(Block-1) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State applied by Thiru.R.Rajkumar, for fresh quarry lease.

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

Certified

Signature of Qualified Person.

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

**Qualified Person**

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

**Qualified Person**

Place: Salem

Date: 11.04.2025



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

**Qualified Person**

**M/s. GLOBAL MINING SOLUTIONS**

(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)

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

Kottamettupatty, Omalur, Salem, Tamil Nadu – 636 455

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

CONTACT: 97502 23535, 94446 54520

### CERTIFICATE

Certified that, in preparation of Mining Plan for **Rough Stone** quarry over an extent of 1.50.0 Hectares of Government land in S.F.No.10/1(Block-1) of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State for Thiru.R.Rajkumar, covers all the provisions of Mines Act, Rules and Regulations etc. made there under and whenever specific permission are required, the applicant will approach the Director General of Mines Safety, Chennai. The standards prescribed by DGMS in respect of Mines Health will be strictly implemented.

Certified

Signature of Qualified Person.

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

**Qualified Person**

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

**Qualified Person**

Place: Salem

Date: 11.04.2025





## **CERTIFICATE**

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

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

Accordingly I prepared this Mining Plan in respect of Rough Stone quarry lease applied for an extent of 1.50.0Ha of (Government land) in S.F.No.10/1(Block-1) of Padalur (East) Village, Alathur Taluk, Perambalur District, by Thiru.R.Rajkumar, for a period of Five years. Since the Mining Plan is prepared as per the provisions contained in Rule 15(1) (a) and (b) of Minerals (Other than Atomic, Hydro Carbons Energy Minerals) concession Rules 2016, the same may be approved by the Competent Authority.

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

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

Place: Salem

Date: 11.04.2025



## **CONTENTS**

| S. No. | Description                                          | Page No. |
|--------|------------------------------------------------------|----------|
| 1.0    | Introduction                                         | 1        |
| 2.0    | General Information                                  | 4        |
| 3.0    | Location                                             | 5        |
| 4.0    | Geology and Mineral Reserves                         | 7        |
| 5.0    | Mining                                               | 16       |
| 6.0    | Blasting                                             | 21       |
| 7.0    | Mine Drainage                                        | 22       |
| 8.0    | Other Permanent Structures                           | 23       |
| 9.0    | Employment Potentials & Welfare Measures             | 24       |
| 10.0   | Environment Management Plan                          | 26       |
| 11.0   | Mine Closure Plan                                    | 29       |
| 12.0   | Any Other Details Intend to furnish by the Applicant | 30       |



**Annexure**

| S. No. | Description                                                                                           | Annexure No. |
|--------|-------------------------------------------------------------------------------------------------------|--------------|
| 1.0    | Precise Area Communication letter issued by the Assistant Director, Department of Geology and Mining, | I            |
| 2.0    | Copy of Tender Document                                                                               | IA           |
| 3.0    | Copy of FMB                                                                                           | II           |
| 4.0    | Copy of Village map                                                                                   | III          |
| 5.0    | Copy of Adangal                                                                                       | IV           |
| 6.0    | Copy of A Register                                                                                    | V            |
| 7.0    | Copy of Identity Proof                                                                                | VI           |
| 8.0    | Copy of QP Certificate                                                                                | VII          |

**LIST OF PLATES**

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



## MINING PLAN FOR MINOR MINERALS

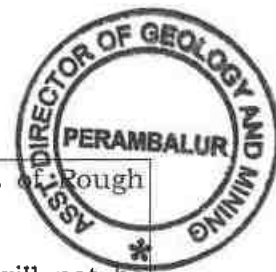
### ROUGH STONE

Over an extent of 1.50.0hectares of Government land in  
S.F.No. 10/1 (Block-1) of Padalur (East) Village, Alathur Taluk,  
Perambalur District, Tamil Nadu State.

(PREPARED UNDER RULE 8, 41 and 42 OF TNMMCR 1959)

#### **1.0 Introduction and Executive Summary;**

1. The present Mining Plan is prepared for Thiru.R.Rajkumar, S/o. Rajaram, residing at No.4C, 4<sup>th</sup> Floor, Sivam Sri Madhv, Kuttimani Nagar, Pichandar Kovil, Trichy-621 216.
2. The application was processed by the Assistant Director, Department of Geology and Mining, Perambalur, and passed an order vide Rc.No.123/G&M/2025, dated 09.04.2025 directing the applicant to produce approved Mining Plan under Rule 41(5) of the Tamil Nadu Minor Mineral Concession Rules, 1959 and Environmental Clearance Certificate under Rule 42 from the State Level Environmental Impact Assessment Authority (SEIAA) for the grant of quarry lease to quarry Rough Stone over an extent of 1.50.0hectares of Government lands in S.F.No. 10/1 (Block-1) of Padalur (East) Village, Alathur Taluk, Perambalur District of Tamil Nadu State for a period of five years.
3. Accordingly, Mining Plan is prepared under the provisions of rule 8, 41 and 42 as per the amendments under Tamil Nadu Minor Mineral Concession Rules, 1959 by incorporating following the conditions imposed in the precise area communication letter.
  - a) 10 meter safety distance should be left out for the adjacent government lands.
  - b) The applicant shall not make any hindrance to the adjacent lands and public.
  - c) The applicant should submit approved mining plan, environment clearance and consent to establish (CTE) & consent to operate (CTO) issued by competent authorities for grant of quarrying lease in the subject area.
4. Geological Resources is estimated at 17,24,813.75Ts of Rough stone and 21,516Ts of Topsoil and Mineable Reserves is estimated at 8,59,663.75Ts of Rough Stone and 14,874Ts of Topsoil and after leaving necessary safety distance from the lease boundary as indicated in the precise area letter and relevant mining laws in force.



5. The production Schedule is proposed production of 8,59,663.75Ts of Stone and 14,874Ts of Topsoil for the period of five years.
6. The applicant ensured that, child labours under 18 years of age will not be engaged for quarrying operation.
7. The applicant ensure that will engage should have valid certified persons (Mines Manager, Foreman, Mate) during quarrying operation.
8. Environmental parameters,
  - i) The area does not attract the Forest Conservation Act, 1980 as there is no forest around 2.7Km radius.
  - ii) There is no interstate boundary around 10kms radius.
  - iii) There is no wild life animal sanctuary within 10Kms radius from the project site area under the Wildlife (Protection) Act, 1972.Therefore the project seeks clearance only from State Level Environmental Impact Assessment Authority (SEIAA).
9. Environmental measures to be adopted shall be,
  - i) Dust Control at source while drilling and blasting,
  - ii) Dust suppression at loading point and transport haul roads,
  - iii) Noise Control in blasting, control of fly rock missiles and vibration by doing peak particle velocity with in standard as prescribed by the DGMS and MOEF.
  - iv) Unnecessary land degradation should be avoided or damaged land should be reclaimed or rehabilitated.
  - v) Avoid uneven rat hole mining and follow scientific and systematic mining by safe bench system of open cast mining.
  - vi) Mining near major fracture zones if any should be avoided to control ground water fluctuation in the adjacent agricultural lands.
  - vii) Emission test of vehicles should be in tack to maintain minimum emission level of flue gases.
  - viii) Noise level should not exceed 80db and the vehicles should use only permitted Air Horn while on road near residential areas.
  - ix) Safety zones as prescribed by the Department of Geology and Mining from adjacent infrastructures should be strictly adhere to.
  - x) And any other conditions as stipulated by the concerned authorities should be followed to protect the environment.



**EXECUTIVE SUMMARY:**

|    |                                                                                                              |                 |                                                                                                                                    |
|----|--------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------|
| a. | Name of the Village Panchayat                                                                                | :               | Padalur (East)                                                                                                                     |
| b. | Name of the Panchayat Union                                                                                  | :               | Alathur                                                                                                                            |
| c. | The proposed total Movable Reserves                                                                          | :               | 8,59,663.75Ts of Rough Stone<br>14,874Ts of Topsoil                                                                                |
| d. | The proposed quantity of reserves (level of production) for Five years to be mined is (Recoverable reserves) | :               | 8,59,663.75Ts of Rough Stone<br>14,874Ts of Topsoil                                                                                |
| e. | Total extent of the area                                                                                     | :               | 1.50.0Ha                                                                                                                           |
| f. | Proposed Period of mining                                                                                    | :               | Five Years                                                                                                                         |
| g. | Existing depth                                                                                               | :               | 39m (31m above ground level and 8m below ground level)                                                                             |
| h. | Proposed Depth of mining                                                                                     | :               | 56m (26m above ground level and 30m below ground level) for the proposed mining plan.                                              |
| i. | Method of mining/level of mechanization                                                                      | :               | Opencast, Semi-mechanized Mining with a bench height of 5m and bench width of 5m proposed.                                         |
| j. | Types of Machineries used in the quarry                                                                      | :               | Machineries like Tractor mounted compressor attached with Jack hammers, Excavators are proposed to deploy for quarrying operation. |
| k. | Cost of the Project<br>A. Fixed Assets Cost<br>B. Operational Cost<br>C. EMP Cost                            |                 | Rs.4,32,00,000/-<br>Rs. 81,50,000/-<br>Rs. 6,20,000/-<br>Total Project cost(A+B+C)= <b>Rs. 5,19,70,000/-</b>                       |
| l. | The area applied for lease is bounded by four corners and the coordinates are clearly marked in plate no II. |                 |                                                                                                                                    |
|    | Corners                                                                                                      | Co- ordinates   | Distance between the corners                                                                                                       |
|    |                                                                                                              | Latitude        | Longitude                                                                                                                          |
|    | 1                                                                                                            | 11° 07' 03.37"N | 78° 50' 25.13"E                                                                                                                    |
|    | 2                                                                                                            | 11° 07' 08.18"N | 78° 50' 24.25"E                                                                                                                    |
|    | 3                                                                                                            | 11° 07' 08.76"N | 78° 50' 27.49"E                                                                                                                    |
|    | 4                                                                                                            | 11° 07' 03.96"N | 78° 50' 28.37"E                                                                                                                    |
|    |                                                                                                              |                 | 1-2 = 150.0m<br>2-3 = 100.0m<br>3-4 = 150.0m<br>4-1 = 100.0m                                                                       |

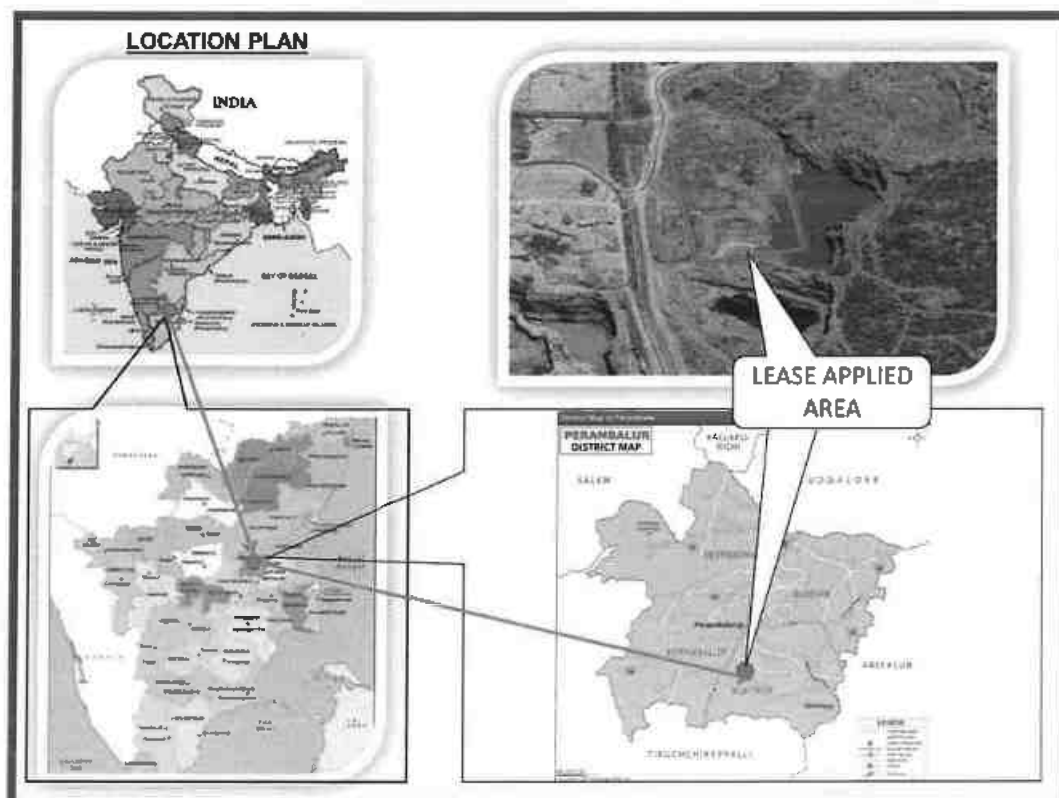


## 2.0 General Information:

|     |    |                                                             |   |                                                                                                                                                                                                                                                                                                                                                                            |
|-----|----|-------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | a. | Name of the Applicant                                       | : | Thiru.R.Rajkumar.                                                                                                                                                                                                                                                                                                                                                          |
|     | b. | Address of the Applicant with phone No and e-mail id if any | : | S/o. Rajaram,<br>No.4C, 4 <sup>th</sup> Floor, Sivam Sri Madhv,<br>Kuttimani Nagar, Pichandar Kovil,<br>Trichy.<br>Pincode-621 216.<br>Cell No.: 8754007369                                                                                                                                                                                                                |
|     | c. | Status of the Applicant                                     | : | Individual                                                                                                                                                                                                                                                                                                                                                                 |
| 2.2 | a. | Mineral Which the applicant intends to mine                 | : | Rough Stone.                                                                                                                                                                                                                                                                                                                                                               |
|     | b. | Precise area communication letter No.                       | : | Precise area communication letter received from the Assistant Director, department of Geology and Mining, Perambalur vide Rc.No.123/G&M/2025, dated 09.04.2025.                                                                                                                                                                                                            |
|     | c. | Period of permission / lease granted                        | : | The Assistant Director, Department of Geology and Mining, Perambalur, has grant of lease Period for <b>five years</b> .                                                                                                                                                                                                                                                    |
|     | d. | Name and Address of the QP preparing Mining Plan            | : | <b>C.Natarajan, M.Sc.,M.Phil.,</b><br><b>Qualified Person</b><br><b>M/s. GLOBAL MINING SOLUTIONS</b><br>(NABET ACCREDITED & ISO 9001 CERTIFIED CONSULTANT)<br>PLOT No. 6, SF No. 13/2, A2, Vs City, RC Chettyyatty,<br>Kottamettupatty, Omalur, Salem,<br>Tamil Nadu – 636 455<br>NABET ACCREDITATION NO –<br>NABET/EIA/2326/IA 0110<br>Contact: 97502 23535, 94446 54520. |

### 3.0 Location:

| S.No | Details of the Area:     |                                                                                         |
|------|--------------------------|-----------------------------------------------------------------------------------------|
| 1    | Corner Coordinates       | Latitude : 11°07'03.37"N to 11°07'08.76"N<br>Longitude : 78°50'24.25"E to 78°50'28.37"E |
| 2    | Toposheet Number         | 58 I/16                                                                                 |
| 3    | The altitude of the area | 150m (MSL)                                                                              |
| 4    | Extent                   | 1.50.0Ha                                                                                |
| 5    | Survey No                | 10/1 (Block-1)                                                                          |
| 6    | Village                  | Padalur (East)                                                                          |
| 7    | Taluk                    | Alathur                                                                                 |
| 8    | District                 | Perambalur                                                                              |
| 9    | State                    | Tamil Nadu                                                                              |





|    |                                                                                         |   |                                                                                                                                                                                                                     |
|----|-----------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a. | Classification of the Area (Ryotwari / poramboke / others)                              | : | Government poramboke land                                                                                                                                                                                           |
| b. | Ownership / Occupancy of the Applied area (Surface rights)                              | : | It is Government land the applicant has obtained tender from the Government Please refer annexure no -I and IA.                                                                                                     |
| c. | Toposheet No. with Latitude and Longitude                                               | : | Topo Sheet No: 58 I/16<br>Latitude : 11°07'03.37"N to 11°07'08.76"N<br>Longitude: 78°50'24.25"E to 78°50'28.37"E                                                                                                    |
| d. | Existence of Public Road / Railway line if any nearby the area and approximate distance | : | There is an existing road from the area leads to Alathur – Padalur road on west side of the area.<br><br>The Nearest Railway line is Trichy – Ariyalur line which is about 19.8Km on southeastern side of the area. |



**SATELLITE IMAGERY OF THE LEASE APPLIED AREA**



**TOPOGRAPHICAL VIEW OF THE LEASE APPLIED AREA**



### **PART - A**

#### **4.0 Geology and Mineral Reserves:**

|     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1 | a. Topography                  | <p>➤ The area applied for quarry lease exhibits hilly terrain covered by covered by Topsoil formation. The massive Charnockite formation is noticed below 1m (Avg) Topsoil and sloping towards southwest side of the area, the altitude of the area is above 150m (maximum) from MSL.</p> <p>➤ No major river is found nearby the lease applied area.</p> <p>➤ Water table is found at a depth of 67m in summer and 64m in rainy seasons.</p> <p>➤ Temperature of the area is reported to be 18°C to a maximum of 42°C during summer.</p> <p>➤ Rainfall of this area is about 800mm to 900 mm during the both NE &amp; SW monsoons.</p>     |
|     | b. General Geology of the Area | <p>The area is underlain by the wide range of metamorphic rocks of peninsular gneissic complex. These rocks are extensively weathered and overlain by the recent valley fills and alluvium at places. The geological formations found in the district are Archaean rocks like Gneisses, Granites, Charnockites basic granulites and calc-gneisses. The younger formations are Quartz veins and pegmatite.</p> <p>The rock type noticed in the area for lease is Charnockite which contains mostly Quartz and Feldspar with some ferromagnesian minerals. The Charnockite is part of peninsular Gneisses, a high grade metamorphic rock.</p> |



|            |              |                                                   | <p>The strike of the Charnockite formation is N30°W-S30°E with vertical dipping.</p> <p>The general geological succession of the area is given as under.</p> <table><thead><tr><th><u>AGE</u></th><th></th><th><u>ROCK TYPE</u></th></tr></thead><tbody><tr><td>Recent</td><td>-</td><td>Topsoil</td></tr><tr><td></td><td>Unconformity</td><td></td></tr><tr><td>Archaean</td><td>-</td><td>Dolerite dyke</td></tr><tr><td></td><td></td><td>Charnockite.</td></tr><tr><td></td><td></td><td>Peninsular</td></tr><tr><td></td><td></td><td>Gneissic complex</td></tr><tr><td></td><td></td><td>and Calc Gneiss</td></tr></tbody></table> | <u>AGE</u> |  | <u>ROCK TYPE</u> | Recent | - | Topsoil |  | Unconformity |  | Archaean | - | Dolerite dyke |  |  | Charnockite. |  |  | Peninsular |  |  | Gneissic complex |  |  | and Calc Gneiss |
|------------|--------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--|------------------|--------|---|---------|--|--------------|--|----------|---|---------------|--|--|--------------|--|--|------------|--|--|------------------|--|--|-----------------|
| <u>AGE</u> |              | <u>ROCK TYPE</u>                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
| Recent     | -            | Topsoil                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
|            | Unconformity |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
| Archaean   | -            | Dolerite dyke                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
|            |              | Charnockite.                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
|            |              | Peninsular                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
|            |              | Gneissic complex                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
|            |              | and Calc Gneiss                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
| 4.2        |              | Details of Exploration already carried out if any | : No exploration was carried out, as the Rough stone formations are clearly visible from existing quarry pit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
| 4.3        | a.           | Estimation of Reserves                            | : The Geological and Recoverable reserves are estimated by cross sectional method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
|            |              |                                                   | Totally six sections have been drawn, three sections drawn length wise as (X-Y), (X1-Y1), (X2-Y2) and another three sections drawn width wise as (A-B), (C-D), (E-F) to cover maximum area considered for lease.                                                                                                                                                                                                                                                                                                                                                                                                                          |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
|            |              |                                                   | The Plans and Sections have been drawn with a scale of 1:1000 and 1:500 respectively.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |
|            |              |                                                   | Please refer plate No.III.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |  |                  |        |   |         |  |              |  |          |   |               |  |  |              |  |  |            |  |  |                  |  |  |                 |

**a. Geological Resources**

The quarrying is restricted up to a depth of 56m (26m above ground level and 30m below ground level) only. Availability of resources is given below.

Table No-1

| Section | Topography               | Bench        | Length<br>in (m) | Width<br>in (m) | Depth<br>in (m) | Top<br>soil m <sup>3</sup> | Geological<br>Resources of<br>Rough stone<br>in m <sup>3</sup> | Bulk<br>Density | Top soil<br>in Ts | Geological<br>Resources of<br>Rough stone<br>in Ts |
|---------|--------------------------|--------------|------------------|-----------------|-----------------|----------------------------|----------------------------------------------------------------|-----------------|-------------------|----------------------------------------------------|
| XY-AB   | Above<br>Ground<br>Level | I            | 68               | 36              | 1               | 2448                       | -                                                              | 2               | 4896.00           | -                                                  |
|         |                          | II           | 57               | 34              | 5               | -                          | 9690                                                           | 2.75            | -                 | 26647.50                                           |
|         |                          | III          | 68               | 34              | 5               | -                          | 11560                                                          | 2.75            | -                 | 31790.00                                           |
|         |                          | IV           | 68               | 34              | 5               | -                          | 11560                                                          | 2.75            | -                 | 31790.00                                           |
|         | Below<br>Ground<br>Level | V            | 68               | 34              | 5               | -                          | 11560                                                          | 2.75            | -                 | 31790.00                                           |
|         |                          | VI           | 68               | 34              | 5               | -                          | 11560                                                          | 2.75            | -                 | 31790.00                                           |
|         |                          | VII          | 68               | 34              | 5               | -                          | 11560                                                          | 2.75            | -                 | 31790.00                                           |
|         |                          | VIII         | 68               | 34              | 5               | -                          | 11560                                                          | 2.75            | -                 | 31790.00                                           |
|         |                          | IX           | 68               | 34              | 5               | -                          | 11560                                                          | 2.75            | -                 | 31790.00                                           |
|         |                          | X            | 68               | 34              | 5               | -                          | 11560                                                          | 2.75            | -                 | 31790.00                                           |
|         |                          | <b>Total</b> |                  |                 |                 | <b>2448</b>                | <b>102170</b>                                                  | <b>-</b>        | <b>4896.00</b>    | <b>280967.50</b>                                   |
| XY-CD   | Above<br>Ground<br>Level | I            | 31               | 35              | 1               | 1085                       | -                                                              | 2               | 2170.00           | -                                                  |
|         |                          | II           | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         |                          | III          | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         |                          | IV           | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         | Below<br>Ground<br>Level | V            | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         |                          | VI           | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         |                          | VII          | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         |                          | VIII         | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         |                          | IX           | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         |                          | X            | 31               | 34              | 5               | -                          | 5270                                                           | 2.75            | -                 | 14492.50                                           |
|         |                          | <b>Total</b> |                  |                 |                 | <b>1085</b>                | <b>47430</b>                                                   | <b>-</b>        | <b>2170.00</b>    | <b>130432.50</b>                                   |



|         |                    |      |    |    |   |             |              |          |                |                  |
|---------|--------------------|------|----|----|---|-------------|--------------|----------|----------------|------------------|
| XY-EF   | Above Ground Level | I    | 34 | 20 | 1 | 680         | -            | 2        | 1360.00        | -                |
|         |                    | II   | 34 | 8  | 5 | -           | 1360         | 2.75     | -              | 3740.00          |
|         |                    | III  | 34 | 18 | 5 | -           | 3060         | 2.75     | -              | 8415.00          |
|         |                    | IV   | 51 | 34 | 5 | -           | 8670         | 2.75     | -              | 23842.50         |
|         |                    | V    | 51 | 34 | 5 | -           | 8670         | 2.75     | -              | 23842.50         |
|         |                    | VI   | 51 | 34 | 5 | -           | 8670         | 2.75     | -              | 23842.50         |
|         |                    | VII  | 51 | 34 | 5 | -           | 8670         | 2.75     | -              | 23842.50         |
|         |                    | VIII | 51 | 34 | 5 | -           | 8670         | 2.75     | -              | 23842.50         |
|         |                    | IX   | 51 | 34 | 5 | -           | 8670         | 2.75     | -              | 23842.50         |
|         |                    | X    | 51 | 34 | 5 | -           | 8670         | 2.75     | -              | 23842.50         |
|         | <b>Total</b>       |      |    |    |   | <b>680</b>  | <b>65110</b> | <b>-</b> | <b>1360.00</b> | <b>179052.50</b> |
| X1Y1-AB | Above Ground Level | I    | 70 | 29 | 1 | 2030        | -            | 2        | 4060.00        | -                |
|         |                    | II   | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | III  | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | VI   | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | V    | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | VI   | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | VII  | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | VIII | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | IX   | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | X    | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         |                    | XI   | 70 | 27 | 5 | -           | 9450         | 2.75     | -              | 25987.50         |
|         | <b>Total</b>       |      |    |    |   | <b>2030</b> | <b>94500</b> | <b>-</b> | <b>4060.00</b> | <b>259875.00</b> |
| X1Y1-CD | Above Ground Level | I    | 29 | 45 | 1 | 1305        | -            | 2        | 2610.00        | -                |
|         |                    | II   | 29 | 29 | 5 | -           | 4205         | 2.75     | -              | 11563.75         |
|         |                    | III  | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | IV   | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | V    | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | VI   | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | VII  | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |

| Level       | VIII         | 29 | 44 | 5 | -           | 6380          | 2.75     | -              | 17545.00         |
|-------------|--------------|----|----|---|-------------|---------------|----------|----------------|------------------|
|             | IX           | 29 | 44 | 5 | -           | 6380          | 2.75     | -              | 17545.00         |
|             | X            | 29 | 44 | 5 | -           | 6380          | 2.75     | -              | 17545.00         |
|             | XI           | 29 | 44 | 5 | -           | 6380          | 2.75     | -              | 17545.00         |
|             | <b>Total</b> |    |    |   | <b>1305</b> | <b>61625</b>  | <b>-</b> | <b>2610.00</b> | <b>169468.75</b> |
| X1Y1-<br>EF | I            | 10 | 27 | 1 | 270         | -             | 2        | 540.00         | -                |
|             | II           | 10 | 27 | 5 | -           | 1350          | 2.75     | -              | 3712.50          |
|             | III          | 10 | 27 | 5 | -           | 1350          | 2.75     | -              | 3712.50          |
|             | IV           | 10 | 27 | 5 | -           | 1350          | 2.75     | -              | 3712.50          |
|             | V            | 10 | 27 | 5 | -           | 1350          | 2.75     | -              | 3712.50          |
|             | VI           | 51 | 27 | 5 | -           | 6885          | 2.75     | -              | 18933.75         |
|             | VII          | 51 | 27 | 5 | -           | 6885          | 2.75     | -              | 18933.75         |
|             | VIII         | 51 | 27 | 5 | -           | 6885          | 2.75     | -              | 18933.75         |
|             | IX           | 51 | 27 | 5 | -           | 6885          | 2.75     | -              | 18933.75         |
|             | X            | 51 | 27 | 5 | -           | 6885          | 2.75     | -              | 18933.75         |
|             | XI           | 51 | 27 | 5 | -           | 6885          | 2.75     | -              | 18933.75         |
|             | XII          | 51 | 27 | 5 | -           | 6885          | 2.75     | -              | 18933.75         |
|             | <b>Total</b> |    |    |   | <b>270</b>  | <b>53595</b>  | <b>-</b> | <b>540.00</b>  | <b>147386.25</b> |
| X2Y2-<br>AB | I            | 71 | 40 | 1 | 2840        | -             | 2        | 5680.00        | -                |
|             | II           | 33 | 39 | 5 | -           | 6435          | 2.75     | -              | 17696.25         |
|             | III          | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | IV           | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | V            | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | VI           | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | VII          | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | VIII         | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | IX           | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | X            | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | XI           | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | XII          | 70 | 39 | 5 | -           | 13650         | 2.75     | -              | 37537.50         |
|             | <b>Total</b> |    |    |   | <b>2840</b> | <b>142935</b> | <b>-</b> | <b>5680.00</b> | <b>393071.25</b> |



| X2Y2-CD | Below Ground Level | IX   | 30 | 22 | 2 | -            | 1320          | 2.75 | -               | 3630.00           |
|---------|--------------------|------|----|----|---|--------------|---------------|------|-----------------|-------------------|
|         |                    | X    | 30 | 22 | 5 | -            | 3300          | 2.75 | -               | 9075.00           |
|         |                    | XI   | 30 | 22 | 5 | -            | 3300          | 2.75 | -               | 9075.00           |
|         |                    | XII  | 30 | 22 | 5 | -            | 3300          | 2.75 | -               | 9075.00           |
|         |                    | XIII | 30 | 22 | 5 | -            | 3300          | 2.75 | -               | 9075.00           |
|         | <b>Total</b>       |      |    |    |   | -            | <b>14520</b>  | -    | -               | <b>39930.00</b>   |
| X2Y2-EF | Above Ground Level | I    | 10 | 10 | 1 | 100          | -             | 2    | 200.00          | -                 |
|         |                    | II   | 10 | 10 | 5 | -            | 500           | 2.75 | -               | 1375.00           |
|         |                    | III  | 10 | 10 | 5 | -            | 500           | 2.75 | -               | 1375.00           |
|         |                    | IV   | 10 | 10 | 5 | -            | 500           | 2.75 | -               | 1375.00           |
|         |                    | V    | 10 | 10 | 5 | -            | 500           | 2.75 | -               | 1375.00           |
|         | Below Ground Level | VI   | 10 | 10 | 5 | -            | 500           | 2.75 | -               | 1375.00           |
|         |                    | VII  | 10 | 10 | 5 | -            | 500           | 2.75 | -               | 1375.00           |
|         |                    | VIII | 10 | 10 | 5 | -            | 500           | 2.75 | -               | 1375.00           |
|         |                    | IX   | 10 | 10 | 5 | -            | 500           | 2.75 | -               | 1375.00           |
|         |                    | X    | 40 | 29 | 2 | -            | 2320          | 2.75 | -               | 6380.00           |
|         |                    | XI   | 50 | 39 | 5 | -            | 9750          | 2.75 | -               | 26812.50          |
|         |                    | XII  | 50 | 39 | 5 | -            | 9750          | 2.75 | -               | 26812.50          |
|         |                    | XIII | 50 | 39 | 5 | -            | 9750          | 2.75 | -               | 26812.50          |
|         | <b>Total</b>       |      |    |    |   | <b>100</b>   | <b>45320</b>  | -    | <b>200.00</b>   | <b>124630.00</b>  |
|         | <b>Grand Total</b> |      |    |    |   | <b>10758</b> | <b>627205</b> | -    | <b>21516.00</b> | <b>1724813.75</b> |

Topsoil Formation

: 21,516Ts

The Geological Resources of Rough stone

: 17,24,813.75 Ts

**b. Already excavated**

The area has been quarried in earlier operation the existing pit dimension are given below

Table No-2

| Pit No | length (Max) in(m) | Width (Avg) in (m) | Depth (Max) in (m)                                     |
|--------|--------------------|--------------------|--------------------------------------------------------|
| I      | 55                 | 48                 | 21m above ground level                                 |
| II     | 100                | 25                 | 39m (31m above ground level and 8m below ground level) |



**c. Available Mineable Reserve**

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

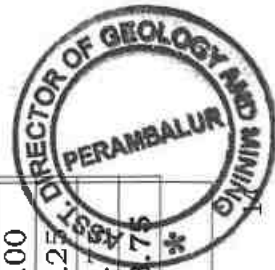
Table No-3

| Section      | Topography               | Eench | Length<br>in (m) | Width<br>in (m) | Depth<br>in (m) | Top<br>soil in<br>m <sup>3</sup> | Mineable<br>Reserves of<br>Rough stone<br>in m <sup>3</sup> | Bulk<br>Density | Top soil<br>in Ts | Mineable<br>Reserves of<br>Rough stone<br>in Ts |
|--------------|--------------------------|-------|------------------|-----------------|-----------------|----------------------------------|-------------------------------------------------------------|-----------------|-------------------|-------------------------------------------------|
| XY-AB        | Above<br>Ground<br>Level | I     | 58               | 26              | 1               | 1508                             | -                                                           | 2               | 3016.00           | -                                               |
|              |                          | II    | 57               | 24              | 5               | -                                | 6840                                                        | 2.75            | -                 | 18810.00                                        |
|              |                          | III   | 58               | 24              | 5               | -                                | 6960                                                        | 2.75            | -                 | 19140.00                                        |
|              |                          | IV    | 58               | 24              | 5               | -                                | 6960                                                        | 2.75            | -                 | 19140.00                                        |
|              | Below<br>Ground<br>Level | V     | 58               | 24              | 5               | -                                | 6960                                                        | 2.75            | -                 | 19140.00                                        |
|              |                          | VI    | 53               | 19              | 5               | -                                | 5035                                                        | 2.75            | -                 | 13846.25                                        |
|              |                          | VII   | 48               | 14              | 5               | -                                | 3360                                                        | 2.75            | -                 | 9240.00                                         |
|              |                          | VIII  | 43               | 9               | 5               | -                                | 1935                                                        | 2.75            | -                 | 5321.25                                         |
| <b>Total</b> |                          |       |                  |                 |                 | <b>1508</b>                      | <b>38050</b>                                                | <b>-</b>        | <b>3016.00</b>    | <b>104637.50</b>                                |
| XY-CD        | Above<br>Ground<br>Level | I     | 31               | 25              | 1               | 775                              | -                                                           | 2               | 1550.00           | -                                               |
|              |                          | II    | 31               | 24              | 5               | -                                | 3720                                                        | 2.75            | -                 | 10230.00                                        |
|              |                          | III   | 31               | 24              | 5               | -                                | 3720                                                        | 2.75            | -                 | 10230.00                                        |
|              |                          | IV    | 31               | 24              | 5               | -                                | 3720                                                        | 2.75            | -                 | 10230.00                                        |
|              | Below<br>Ground<br>Level | V     | 31               | 24              | 5               | -                                | 3720                                                        | 2.75            | -                 | 10230.00                                        |
|              |                          | VI    | 31               | 19              | 5               | -                                | 2945                                                        | 2.75            | -                 | 8098.75                                         |
|              |                          | VII   | 31               | 14              | 5               | -                                | 2170                                                        | 2.75            | -                 | 5967.50                                         |
|              |                          | VIII  | 31               | 9               | 5               | -                                | 1395                                                        | 2.75            | -                 | 3836.25                                         |
| <b>Total</b> |                          |       |                  |                 |                 | <b>775</b>                       | <b>21390</b>                                                | <b>-</b>        | <b>1550.00</b>    | <b>58822.50</b>                                 |
| XY-EF        | Above<br>Ground<br>Level | I     | 34               | 10              | 1               | 340                              | -                                                           | 2               | 680.00            | -                                               |
|              |                          | II    | 34               | 8               | 5               | -                                | 1360                                                        | 2.75            | -                 | 3740.00                                         |
|              |                          | III   | 34               | 8               | 5               | -                                | 1360                                                        | 2.75            | -                 | 3740.00                                         |
|              |                          | IV    | 41               | 24              | 5               | -                                | 4920                                                        | 2.75            | -                 | 13530.00                                        |





|         |                    |      |    |    |   |             |              |          |                |                  |
|---------|--------------------|------|----|----|---|-------------|--------------|----------|----------------|------------------|
|         | Below Ground Level | V    | 41 | 24 | 5 | -           | 4920         | 2.75     | -              | 13530.00         |
|         |                    | VI   | 36 | 19 | 5 | -           | 3420         | 2.75     | -              | 9405.00          |
|         |                    | VII  | 31 | 14 | 5 | -           | 2170         | 2.75     | -              | 5967.50          |
|         |                    | VIII | 26 | 9  | 5 | -           | 1170         | 2.75     | -              | 3217.50          |
|         | <b>Total</b>       |      |    |    |   | <b>340</b>  | <b>19320</b> | <b>-</b> | <b>680.00</b>  | <b>53130.00</b>  |
| X1Y1-AB | Above Ground Level | I    | 60 | 29 | 1 | 1740        | -            | 2        | 3480.00        | -                |
|         |                    | II   | 60 | 27 | 5 | -           | 8100         | 2.75     | -              | 22275.00         |
|         |                    | III  | 60 | 27 | 5 | -           | 8100         | 2.75     | -              | 22275.00         |
|         |                    | IV   | 60 | 27 | 5 | -           | 8100         | 2.75     | -              | 22275.00         |
|         |                    | V    | 60 | 27 | 5 | -           | 8100         | 2.75     | -              | 22275.00         |
|         | Below Ground Level | VI   | 60 | 27 | 5 | -           | 8100         | 2.75     | -              | 22275.00         |
|         |                    | VII  | 55 | 27 | 5 | -           | 7425         | 2.75     | -              | 20418.75         |
|         |                    | VIII | 50 | 27 | 5 | -           | 6750         | 2.75     | -              | 18562.50         |
|         |                    | IX   | 45 | 27 | 5 | -           | 6075         | 2.75     | -              | 16706.25         |
|         |                    | X    | 40 | 27 | 5 | -           | 5400         | 2.75     | -              | 14850.00         |
|         |                    | XI   | 35 | 22 | 5 | -           | 3850         | 2.75     | -              | 10587.50         |
|         | <b>Total</b>       |      |    |    |   | <b>1740</b> | <b>70000</b> | <b>-</b> | <b>3480.00</b> | <b>192500.00</b> |
| X1Y1-CD | Above Ground Level | I    | 29 | 45 | 1 | 1305        | -            | 2        | 2610.00        | -                |
|         |                    | II   | 29 | 29 | 5 | -           | 4205         | 2.75     | -              | 11563.75         |
|         |                    | III  | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | IV   | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | V    | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         | Below Ground Level | VI   | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | VII  | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | VIII | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | IX   | 29 | 44 | 5 | -           | 6380         | 2.75     | -              | 17545.00         |
|         |                    | X    | 29 | 39 | 5 | -           | 5655         | 2.75     | -              | 15551.25         |
|         |                    | XI   | 29 | 29 | 5 | -           | 4205         | 2.75     | -              | 11563.75         |
|         | <b>Total</b>       |      |    |    |   | <b>1305</b> | <b>58725</b> | <b>-</b> | <b>2610.00</b> | <b>161493.75</b> |



| X1Y1-EF            | Above Ground Level | VI          | 41                 | 27 | 5  | -  | 5535 | 2.75   | -    | 15221.25 |           |
|--------------------|--------------------|-------------|--------------------|----|----|----|------|--------|------|----------|-----------|
|                    | Below Ground Level | VII         | 41                 | 27 | 5  | -  | 5535 | 2.75   | -    | 15221.25 |           |
|                    |                    | VIII        | 36                 | 27 | 5  | -  | 4860 | 2.75   | -    | 13365.00 |           |
|                    |                    | IX          | 31                 | 27 | 5  | -  | 4185 | 2.75   | -    | 11508.75 |           |
|                    |                    | X           | 26                 | 27 | 5  | -  | 3510 | 2.75   | -    | 9652.50  |           |
|                    |                    | XI          | 21                 | 27 | 5  | -  | 2835 | 2.75   | -    | 7796.25  |           |
|                    |                    | XII         | 16                 | 22 | 5  | -  | 1760 | 2.75   | -    | 4840.00  |           |
|                    |                    | Total       |                    |    |    |    | -    | 28220  | -    | -        | 77605.00  |
|                    |                    | X2Y2-AB     | Above Ground Level | I  | 61 | 29 | 1    | 1769   | -    | 2        | 3538.00   |
|                    | II                 |             |                    | 33 | 29 | 5  | -    | 4785   | 2.75 | -        | 13158.75  |
| III                | 60                 |             |                    | 29 | 5  | -  | 8700 | 2.75   | -    | 23925.00 |           |
| IV                 | 60                 |             |                    | 29 | 5  | -  | 8700 | 2.75   | -    | 23925.00 |           |
| V                  | 60                 |             |                    | 29 | 5  | -  | 8700 | 2.75   | -    | 23925.00 |           |
| Below Ground Level | VI                 |             | 60                 | 29 | 5  | -  | 8700 | 2.75   | -    | 23925.00 |           |
|                    | VII                |             | 60                 | 29 | 5  | -  | 8700 | 2.75   | -    | 23925.00 |           |
|                    | VIII               |             | 55                 | 24 | 5  | -  | 6600 | 2.75   | -    | 18150.00 |           |
|                    | IX                 |             | 50                 | 19 | 5  | -  | 4750 | 2.75   | -    | 13062.50 |           |
|                    | X                  |             | 45                 | 14 | 5  | -  | 3150 | 2.75   | -    | 8662.50  |           |
|                    |                    | XI          | 35                 | 9  | 5  | -  | 1575 | 2.75   | -    | 4331.25  |           |
|                    |                    | Total       |                    |    |    |    | 1769 | 64360  | -    | 3538.00  | 176990.00 |
|                    |                    | X2Y2-CD     | Below Ground Level | IX | 30 | 12 | 2    | -      | 720  | 2.75     | -         |
| X                  | 30                 |             |                    | 7  | 5  | -  | 1050 | 2.75   | -    | 2887.50  |           |
| X2Y2-EF            | Below Ground Level | Total       |                    |    |    |    | -    | 1770   | -    | -        | 4867.50   |
|                    |                    | IX          | 40                 | 29 | 2  | -  | 2320 | 2.75   | -    | 6380.00  |           |
|                    |                    | X           | 35                 | 24 | 5  | -  | 4200 | 2.75   | -    | 11550.00 |           |
|                    |                    | XI          | 30                 | 19 | 5  | -  | 2850 | 2.75   | -    | 7837.50  |           |
|                    |                    | XII         | 20                 | 14 | 5  | -  | 1400 | 2.75   | -    | 3850.00  |           |
|                    |                    | Total       |                    |    |    |    | -    | 10770  | -    | -        | 29617.50  |
|                    |                    | Grand Total |                    |    |    |    | 7437 | 312605 | -    | 14874.00 | 859663.75 |

The available mineable reserve is computed as 8,59,663.75Ts of Rough stone and 14,874Ts of Topsoil upto a depth of 56m (26m above ground level and 30m below ground level) only.





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

**The Yearwise Production and Development Table**

Table No -4

| Year  | Section            | Topography         | Bench | Length in (m) | Width in (m) | Depth in (m) | Top soil m <sup>3</sup> | Mineable Reserves of Rough stone in m <sup>3</sup> | Bulk Density | Top soil in Ts | Mineable Reserves of Rough stone in Ts |
|-------|--------------------|--------------------|-------|---------------|--------------|--------------|-------------------------|----------------------------------------------------|--------------|----------------|----------------------------------------|
| I     | X2Y2-AB            | Above Ground Level | I     | 61            | 29           | 1            | 1769                    | -                                                  | 2            | 3538.00        | -                                      |
|       |                    |                    | II    | 33            | 29           | 5            | -                       | 4785                                               | 2.75         | -              | 13158.75                               |
|       |                    |                    | III   | 60            | 29           | 5            | -                       | 8700                                               | 2.75         | -              | 23925.00                               |
|       |                    |                    | IV    | 60            | 29           | 5            | -                       | 8700                                               | 2.75         | -              | 23925.00                               |
|       | X1Y1-AB            | Above Ground Level | I     | 60            | 29           | 1            | 1740                    | -                                                  | 2            | 3480.00        | -                                      |
|       |                    |                    | II    | 60            | 27           | 5            | -                       | 8100                                               | 2.75         | -              | 22275.00                               |
|       |                    |                    | III   | 60            | 27           | 5            | -                       | 8100                                               | 2.75         | -              | 22275.00                               |
|       | X1Y1-CD            | Above Ground Level | I     | 29            | 45           | 1            | 1305                    | -                                                  | 2            | 2610.00        | -                                      |
|       |                    |                    | II    | 29            | 29           | 5            | -                       | 4205                                               | 2.75         | -              | 11563.75                               |
|       |                    |                    | III   | 29            | 44           | 5            | -                       | 6380                                               | 2.75         | -              | 17545.00                               |
|       | XY-EF              | Above Ground Level | I     | 34            | 10           | 1            | 340                     | -                                                  | 2            | 680.00         | -                                      |
|       |                    |                    | II    | 34            | 8            | 5            | -                       | 1360                                               | 2.75         | -              | 3740.00                                |
| XY-CD | Above Ground Level | I                  | 31    | 25            | 1            | 775          | -                       | 2                                                  | 1550.00      | -              |                                        |
|       |                    | II                 | 31    | 24            | 5            | -            | 3720                    | 2.75                                               | -            | 10230.00       |                                        |
|       | XY-AB              | Above Ground Level | I     | 58            | 26           | 1            | 1508                    | -                                                  | 2            | 3016.00        | -                                      |
| II    |                    |                    | 57    | 24            | 5            | -            | 6840                    | 2.75                                               | -            | 18810.00       |                                        |
| III   |                    |                    | 15    | 24            | 5            | -            | 1800                    | 2.75                                               | -            | 4950.00        |                                        |
| Total |                    |                    |       |               |              |              |                         | 7437                                               | 62690        | 14874          | 172397.50                              |
| II    | XY-AB              | Above Ground Level | III   | 43            | 24           | 5            | -                       | 5160                                               | 2.75         | -              | 14190.00                               |
|       | XY-CD              | Above Ground Level | III   | 31            | 24           | 5            | -                       | 3720                                               | 2.75         | -              | 10230.00                               |
|       | XY-EF              | Above Ground Level | III   | 34            | 8            | 5            | -                       | 1360                                               | 2.75         | -              | 3740.00                                |
|       | X1Y1-CD            | Above Ground Level | IV    | 29            | 44           | 5            | -                       | 6380                                               | 2.75         | -              | 17545.00                               |
|       | X1Y1-AB            | Above Ground Level | V     | 29            | 44           | 5            | -                       | 6380                                               | 2.75         | -              | 17545.00                               |
|       | X1Y1-AB            | Above Ground Level | IV    | 60            | 27           | 5            | -                       | 8100                                               | 2.75         | -              | 22275.00                               |
|       | X1Y1-AB            | Above Ground Level | V     | 60            | 27           | 5            | -                       | 8100                                               | 2.75         | -              | 22275.00                               |
|       | X2Y2-AB            | Above Ground Level | V     | 60            | 29           | 5            | -                       | 8700                                               | 2.75         | -              | 23925.00                               |
|       |                    |                    |       |               |              |              |                         | -                                                  | 8700         | 2.75           | 23925.00                               |



|              | XY1-EF       | Above Ground Level | VI   | 41 | 27 | 5 | - | 5535         | 2.75 | - | 15221.25         |
|--------------|--------------|--------------------|------|----|----|---|---|--------------|------|---|------------------|
| <b>Total</b> |              |                    |      |    |    |   |   |              |      |   |                  |
| III          | XY-EF        | Above Ground Level | IV   | 41 | 24 | 5 | - | 4920         | 2.75 | - | 13530.00         |
|              |              | Below Ground Level | V    | 41 | 24 | 5 | - | 4920         | 2.75 | - | 13530.00         |
|              | XY-CD        | Above Ground Level | IV   | 31 | 24 | 5 | - | 3720         | 2.75 | - | 10230.00         |
|              |              | Below Ground Level | V    | 31 | 24 | 5 | - | 3720         | 2.75 | - | 10230.00         |
|              | XY-AB        | Above Ground Level | IV   | 58 | 24 | 5 | - | 6960         | 2.75 | - | 19140.00         |
|              |              | Below Ground Level | V    | 58 | 24 | 5 | - | 6960         | 2.75 | - | 19140.00         |
|              | X1Y1-EF      | Below Ground Level | VII  | 41 | 27 | 5 | - | 5535         | 2.75 | - | 15221.25         |
|              | X1Y1-CD      | Below Ground Level | VI   | 29 | 44 | 5 | - | 6380         | 2.75 | - | 17545.00         |
|              | X1Y1-AB      | Below Ground Level | VI   | 60 | 27 | 5 | - | 8100         | 2.75 | - | 22275.00         |
|              | X2Y2-AB      | Below Ground Level | VII  | 60 | 29 | 5 | - | 8700         | 2.75 | - | 23925.00         |
|              |              | Below Ground Level | VIII | 23 | 24 | 5 | - | 2760         | 2.75 | - | 7590.00          |
|              | <b>Total</b> |                    |      |    |    |   |   | <b>62675</b> | -    | - | <b>172356.25</b> |
| IV           | X2Y2-AB      | Below Ground Level | VIII | 32 | 24 | 5 | - | 3840         | 2.75 | - | 10560.00         |
|              | X2Y2-CD      | Below Ground Level | IX   | 30 | 12 | 2 | - | 720          | 2.75 | - | 1980.00          |
|              |              | Below Ground Level | IX   | 40 | 29 | 2 | - | 2320         | 2.75 | - | 6380.00          |
|              | X1Y1-EF      | Below Ground Level | VIII | 36 | 27 | 5 | - | 4860         | 2.75 | - | 13365.00         |
|              | X1Y1-CD      | Below Ground Level | IX   | 31 | 27 | 5 | - | 4185         | 2.75 | - | 11508.75         |
|              |              | Below Ground Level | VII  | 29 | 44 | 5 | - | 6380         | 2.75 | - | 17545.00         |
|              | X1Y1-AB      | Below Ground Level | VIII | 29 | 44 | 5 | - | 6380         | 2.75 | - | 17545.00         |
|              |              | Below Ground Level | VII  | 55 | 27 | 5 | - | 7425         | 2.75 | - | 20418.75         |
|              | <b>Total</b> |                    |      |    |    |   |   | <b>6750</b>  | 2.75 | - | <b>18562.50</b>  |



|   |                    |                    |      |    |    |   |             |               |      |              |                  |
|---|--------------------|--------------------|------|----|----|---|-------------|---------------|------|--------------|------------------|
|   | XY-AB              | Below Ground Level | VI   | 53 | 19 | 5 | -           | 5035          | 2.75 | -            | 13846.25         |
|   |                    |                    | VII  | 48 | 14 | 5 | -           | 3360          | 2.75 | -            | 9240.00          |
|   | XY-CD              | Below Ground Level | VI   | 31 | 19 | 5 | -           | 2945          | 2.75 | -            | 8098.75          |
|   |                    |                    | VII  | 31 | 14 | 5 | -           | 2170          | 2.75 | -            | 5967.50          |
|   | XY-EF              | Below Ground Level | VI   | 36 | 19 | 5 | -           | 3420          | 2.75 | -            | 9405.00          |
|   |                    |                    | VII  | 31 | 14 | 5 | -           | 2170          | 2.75 | -            | 5967.50          |
|   | <b>Total</b>       |                    |      |    |    |   | -           | <b>61960</b>  | -    | -            | <b>170390.00</b> |
| V | X2Y2-EF            | Below Ground Level | X    | 35 | 24 | 5 | -           | 4200          | 2.75 | -            | 11550.00         |
|   |                    |                    | XI   | 30 | 19 | 5 | -           | 2850          | 2.75 | -            | 7837.50          |
|   |                    |                    | XII  | 20 | 14 | 5 | -           | 1400          | 2.75 | -            | 3850.00          |
|   | X2Y2-CD            | Below Ground Level | X    | 30 | 7  | 5 | -           | 1050          | 2.75 | -            | 2887.50          |
|   | X2Y2-AB            | Below Ground Level | IX   | 50 | 19 | 5 | -           | 4750          | 2.75 | -            | 13062.50         |
|   |                    |                    | X    | 45 | 14 | 5 | -           | 3150          | 2.75 | -            | 8662.50          |
|   |                    |                    | XI   | 35 | 9  | 5 | -           | 1575          | 2.75 | -            | 4331.25          |
|   | X1Y1-AB            | Below Ground Level | IX   | 45 | 27 | 5 | -           | 6075          | 2.75 | -            | 16706.25         |
|   |                    |                    | X    | 40 | 27 | 5 | -           | 5400          | 2.75 | -            | 14850.00         |
|   |                    |                    | XI   | 35 | 22 | 5 | -           | 3850          | 2.75 | -            | 10587.50         |
|   | X1Y1-CD            | Below Ground Level | IX   | 29 | 44 | 5 | -           | 6380          | 2.75 | -            | 17545.00         |
|   |                    |                    | X    | 29 | 39 | 5 | -           | 5655          | 2.75 | -            | 15551.25         |
|   |                    |                    | XI   | 29 | 29 | 5 | -           | 4205          | 2.75 | -            | 11563.75         |
|   | X1Y1-EF            | Below Ground Level | X    | 26 | 27 | 5 | -           | 3510          | 2.75 | -            | 9652.50          |
|   |                    |                    | XI   | 21 | 27 | 5 | -           | 2835          | 2.75 | -            | 7796.25          |
|   |                    |                    | XII  | 16 | 22 | 5 | -           | 1760          | 2.75 | -            | 4840.00          |
|   | XY-EF              | Below Ground Level | VIII | 26 | 9  | 5 | -           | 1170          | 2.75 | -            | 3217.50          |
|   | XY-CD              | Below Ground Level | VIII | 31 | 9  | 5 | -           | 1395          | 2.75 | -            | 3836.25          |
|   | XY-AB              | Below Ground Level | VIII | 43 | 9  | 5 | -           | 1935          | 2.75 | -            | 5321.25          |
|   | <b>Total</b>       |                    |      |    |    |   | -           | <b>63145</b>  | -    | -            | <b>173648.75</b> |
|   | <b>Grand Total</b> |                    |      |    |    |   | <b>7437</b> | <b>312605</b> | -    | <b>14874</b> | <b>859663.75</b> |

The applicant has proposed to carry out 8,59,663.75Ts of Rough stone and 14,874 Ts of Topsoil formation upto a depth of 56m (26m above ground level and 30m below ground level) for the period of five years.

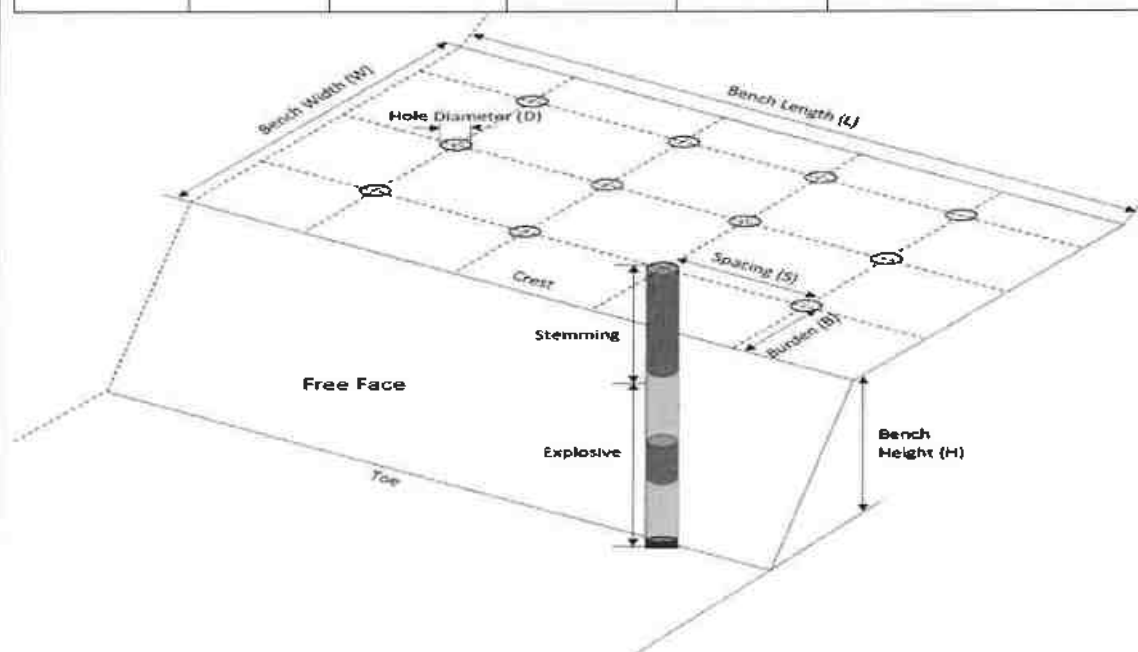


| 5.5                                                  | Machineries to be used                                           |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|------------------------------------------------------|------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--|--|--|--------|---------------------|--------------------|------------------|---|-----|----|---------------------------------------------------------|
| a.                                                   | Drilling                                                         | :                  | It is proposed to use following machineries for quarrying rough stone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|                                                      | S.No                                                             | Type               | Nos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|                                                      | 1                                                                | Jack hammer        | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|                                                      | 2                                                                | Compressor         | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|                                                      |                                                                  | Dia Hole mm        | Size Capacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|                                                      |                                                                  | 32                 | 1.2m to 6m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|                                                      |                                                                  | Make               | Motive power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|                                                      |                                                                  | Atlas Copco        | Compressed air                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
|                                                      |                                                                  | Atlas Copco        | Diesel Drive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
| b.                                                   | Loading                                                          | :                  | Excavator of 0.90m <sup>3</sup> bucket capacity (with Rock breaker attachment) (2No).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
| c.                                                   | Transportation                                                   | :                  | Tipper 4Nos (5/10Ts) capacity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
| 5.6                                                  | Disposal of Overburden                                           | :                  | The overburden in the form of topsoil, after excavation topsoil will be preserved along the boundary barrier utilized for afforestation purpose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
| 5.7                                                  | Brief Note on Conceptual Mining Plan for the entire lease period | :                  | <p>Conceptual Mining Plan is prepared with an object of five years of systematic development of bench lay outs, selection of ultimate pit limit, depth of quarrying, ultimate pit slope, selection of sites for construction of infrastructures etc.</p> <p>Ultimate pit size is designed based on certain practical factors such as the economical depth of mining, safety zones, permissible areas etc.</p> <p>Ultimate Pit dimension is given as under,</p> <table border="1"> <thead> <tr> <th colspan="4">Ultimate Pit dimension (M) end of Mining plan Period</th> </tr> <tr> <th>Pit No</th> <th>Length (max) in (m)</th> <th>Width (Avg) in (m)</th> <th>Depth(max) in(m)</th> </tr> </thead> <tbody> <tr> <td>I</td> <td>140</td> <td>89</td> <td>56m (26m above ground level and 30m below ground level)</td> </tr> </tbody> </table> <p>Afforestation has been proposed on all along the boundary barrier by planting trees.</p> <p>All the baseline information studies like Air Quality monitoring, Noise and Vibration monitoring, Water Analysis studies will be carried out every year as per the MOEF norms.</p> | Ultimate Pit dimension (M) end of Mining plan Period |  |  |  | Pit No | Length (max) in (m) | Width (Avg) in (m) | Depth(max) in(m) | I | 140 | 89 | 56m (26m above ground level and 30m below ground level) |
| Ultimate Pit dimension (M) end of Mining plan Period |                                                                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
| Pit No                                               | Length (max) in (m)                                              | Width (Avg) in (m) | Depth(max) in(m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |
| I                                                    | 140                                                              | 89                 | 56m (26m above ground level and 30m below ground level)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                      |  |  |  |        |                     |                    |                  |   |     |    |                                                         |

## 6.0 Blasting:

|     |                  |                                                                                                                                                                                                                                                                                                    |
|-----|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.1 | Blasting Pattern | : The massive formation shall be broken into pieces of portable size by drilling and blasting using jack hammers and shot hole blasting. Powder factor of explosives for breaking such hard rock shall be in the order of 6 to 7 Tonnes per K.g of explosives. Blasting parameters are as follows. |
|-----|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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



|     |                     |                                                                                                                                                                                             |
|-----|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.2 | Types of Explosives | : Small dia, 25mm slurry explosive are proposed to be used for shattering and heaving effect for removal and winning of Rough stone. No deep hole drilling or primary blasting is proposed. |
|-----|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|





|                           |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |       |               |                        |                          |                          |               |         |               |           |
|---------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------|---------------|------------------------|--------------------------|--------------------------|---------------|---------|---------------|-----------|
| 6.3                       | Measures proposed to minimize ground vibration due to blasting                   | <p>➤ Controlled blasting measures will be adopted for minimizing ground vibration and fly rock.</p> <p>➤ Shallow depths jackhammer drilling and blasting is proposed to be carried out with minimum use of explosive mainly to give shattering effect in rough stone for easy excavation and to control fly rock.</p> <table border="1"> <tr> <td>Number of holes</td> <td>: 192</td> </tr> <tr> <td>Powder factor</td> <td>: 6Ts/Kg of explosives</td> </tr> <tr> <td>Total explosive required</td> <td>: 96Kg slurry explosives</td> </tr> <tr> <td>Charge / hole</td> <td>: 0.5Kg</td> </tr> <tr> <td>Blasting time</td> <td>: 12-2 Pm</td> </tr> </table> | Number of holes | : 192 | Powder factor | : 6Ts/Kg of explosives | Total explosive required | : 96Kg slurry explosives | Charge / hole | : 0.5Kg | Blasting time | : 12-2 Pm |
| Number of holes           | : 192                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |       |               |                        |                          |                          |               |         |               |           |
| Powder factor             | : 6Ts/Kg of explosives                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |       |               |                        |                          |                          |               |         |               |           |
| Total explosive required  | : 96Kg slurry explosives                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |       |               |                        |                          |                          |               |         |               |           |
| Charge / hole             | : 0.5Kg                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |       |               |                        |                          |                          |               |         |               |           |
| Blasting time             | : 12-2 Pm                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |       |               |                        |                          |                          |               |         |               |           |
| 6.4                       | Storage of Explosives and safety measures to be taken while blasting.            | <p>➤ The applicant will engage an authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory foreman/ mines manager.</p> <p>➤ <b><i>The applicant ensure that will appoint the Mate (Should have Valid Blaster Certificate) during Blasting Operation.</i></b></p>                                                                                                                                                                                                                                                                                                                            |                 |       |               |                        |                          |                          |               |         |               |           |
| <b>7.0 Mine Drainage:</b> |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |       |               |                        |                          |                          |               |         |               |           |
| 7.1                       | Depth of Water table                                                             | <p>: The ground water table is reported as 67m below ground level. In the proposed mining plan only 56m (26m above ground level and 30m below ground level) for the proposed mining plan period depth has been envisaged as workable depth for safe &amp; economic quarrying for the entire lease period. Hence the quarrying operation may not affect the ground water.</p>                                                                                                                                                                                                                                                                                  |                 |       |               |                        |                          |                          |               |         |               |           |
| 7.2                       | Arrangement and Places where the mine water is finally proposed to be discharged | <p>: The ground water may not rise immediately in this type of mining. However, the rain water percolation and collection of water from the seepage shall be less than 300lpm and it shall be pumped about periodically by a stand by diesel powered Centrifugal pump motivated with 7.5H.P.Motor. The quality of water is potable and it is not contaminated with any hazardous things. Hence, water stored in the quarry pit will be pumped into the adjacent agricultural fields. Further the water stored in the old pit will also be used for plantation purposes</p>                                                                                    |                 |       |               |                        |                          |                          |               |         |               |           |



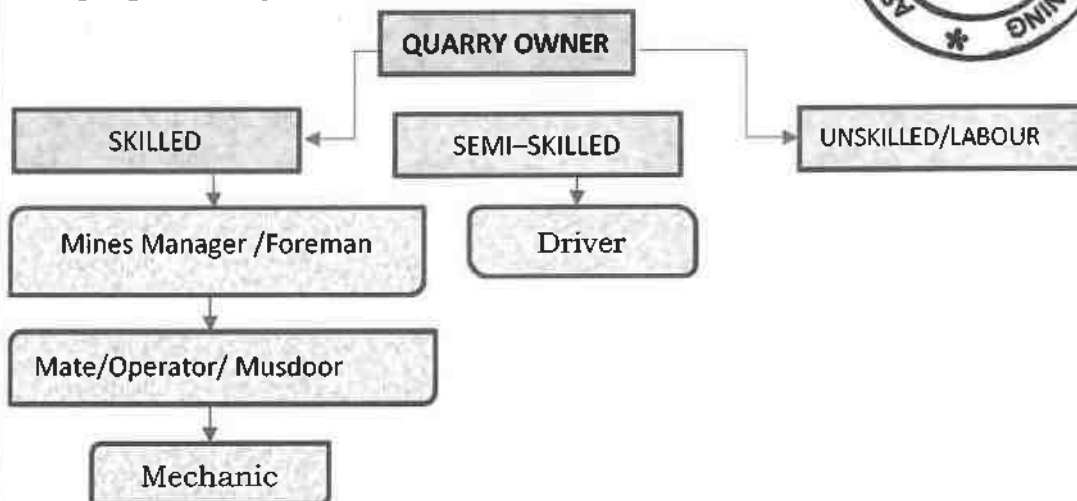
| <b>8.0 Other Permanent Structures:</b> |                                                                                                                                                                                                |                                                                                                                                                                                                     |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1                                    | Habitations / Village                                                                                                                                                                          | : There are no habitations within a radius of 300m.                                                                                                                                                 |
| 8.2                                    | Power lines (HT/LT)                                                                                                                                                                            | : There is no Power lines (HT/LT) within a radius of 50m.                                                                                                                                           |
| 8.3                                    | Water bodies (River, Pond, Lake, Odai, Channel etc)                                                                                                                                            | : There are no water bodies like rivers, odai, pond, etc., located within a radius of 500m.                                                                                                         |
| 8.4                                    | Archeological / Historical Monuments                                                                                                                                                           | : There are no Archeological / Historical Monuments within a radius of 300m.                                                                                                                        |
| 8.5                                    | Road (NH, SH, Village Road etc)                                                                                                                                                                | : The National Highway (NH-38) Viluppuram - Trichy is about 0.6km on west side of the area.<br><br>The State Highway (SH-142) Perambalur - Thuraiyur is about 11.8Km on northwest side of the area. |
| 8.6                                    | Places of Worship                                                                                                                                                                              | : There are no Places of Worship within a radius of 50m.                                                                                                                                            |
| 8.7                                    | Reserved Forest / Forest / Social Forest / Wild Life Sanctuary etc.,                                                                                                                           | : There are no Reserved forest / Wild Life Sanctuary within a radius of 1Km.                                                                                                                        |
| 8.8                                    | Any Interstate Border, Protected areas under the Wild Life (Protection) Act, 1972, Critically Polluted Areas as Identified by Central Pollution Control Board and Notified Eco sensitive areas | : There are No inter State border within a radius of 10kms.                                                                                                                                         |
| 8.9                                    | Any Other Structures                                                                                                                                                                           | : Nil                                                                                                                                                                                               |



## 9.0 Employment Potential & Welfare Measures:

9.1 Employment Potential (Management & Supervisory personnel)

### The proposed organization chart



|         |              |                |       |
|---------|--------------|----------------|-------|
| 1.      | Skilled      | Mines Manager  | 1 No. |
|         |              | Foreman / Mate | 2 No. |
|         |              | Operator       | 8 No. |
|         |              | Mechanic       | 1 No. |
| 2.      | Semi-skilled | Driver         | 4 No. |
| 3.      | Unskilled    | Labours        | 14Nos |
| Total = |              |                | 30Nos |

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

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

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

9.2 Welfare Measures

|    |                     |   |                                                                                                                                                                                                                                                                                  |
|----|---------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a. | Drinking Water      | : | Packaged drinking water is available from the nearby approved water vendors in Alathur Village which is about 1.2km on northwest side of the area.                                                                                                                               |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | : First aid kits are kept in Mines office room. in case of such eventualities the victim will be given first aid immediately at the site and injured person will be taken to the hospital. Hospital is available at distance of 13Km (North) in Perambalur the competent and Statutory foreman/ permit manager will be in charge of first aid. |
| d. | Labour Health                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | : As per Mines Rule, Periodic medical examination related to occupational health safety will be conducted to all the workers in applicant's own cost.                                                                                                                                                                                          |
| e. | <b>Precautionary safety measures to the Labourers:</b> <p>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.</p> <p>Necessary training will be conducted once in a year to all the employees with the help of qualified and experienced officers to train about the safe and systematic quarrying operation.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;">  </div> <div style="flex: 1;">  </div> </div> |                                                                                                                                                                                                                                                                                                                                                |



## PART - B

### 10.0 Environmental Management Plan:

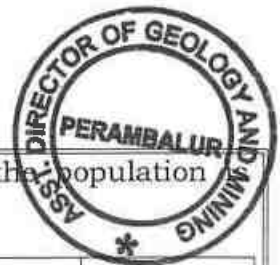
- |      |                           |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------|---------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1 | Existing Land Use Pattern | : | <ol style="list-style-type: none"> <li>1. The area exhibits hilly terrain covered by topsoil formation.</li> <li>2. Quarrying operation is proposed up to a depth of 56m (26m above ground level and 30m below ground level) for the proposed mining plan period.</li> <li>3. Fluctuation of Water table in this area is in between 67m and 64m during a year.</li> <li>4. This region receives the average annual rainfall of 800mm to 900mm. The surrounding area is practiced by the seasonal cultivation.</li> </ol> |
|------|---------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The existing land use pattern is given as under.

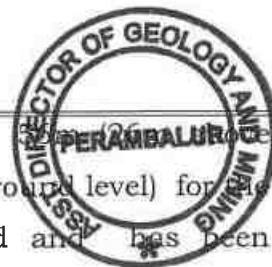
Table No-5

| Sl. No. | Land Use       | Present Area (Ha) | Area in use during the quarrying period (Ha) |
|---------|----------------|-------------------|----------------------------------------------|
| 1.      | Quarrying Pit  | 0.52.0            | 1.25.0                                       |
| 2.      | Infrastructure | Nil               | 0.01.0                                       |
| 3.      | Roads          | 0.01.0            | 0.01.0                                       |
| 4.      | Green Belt     | Nil               | 0.23.0                                       |
| 5.      | Unutilized     | 0.97.0            | Nil                                          |
|         | <b>Total =</b> | <b>1.50.0</b>     | <b>1.50.0</b>                                |

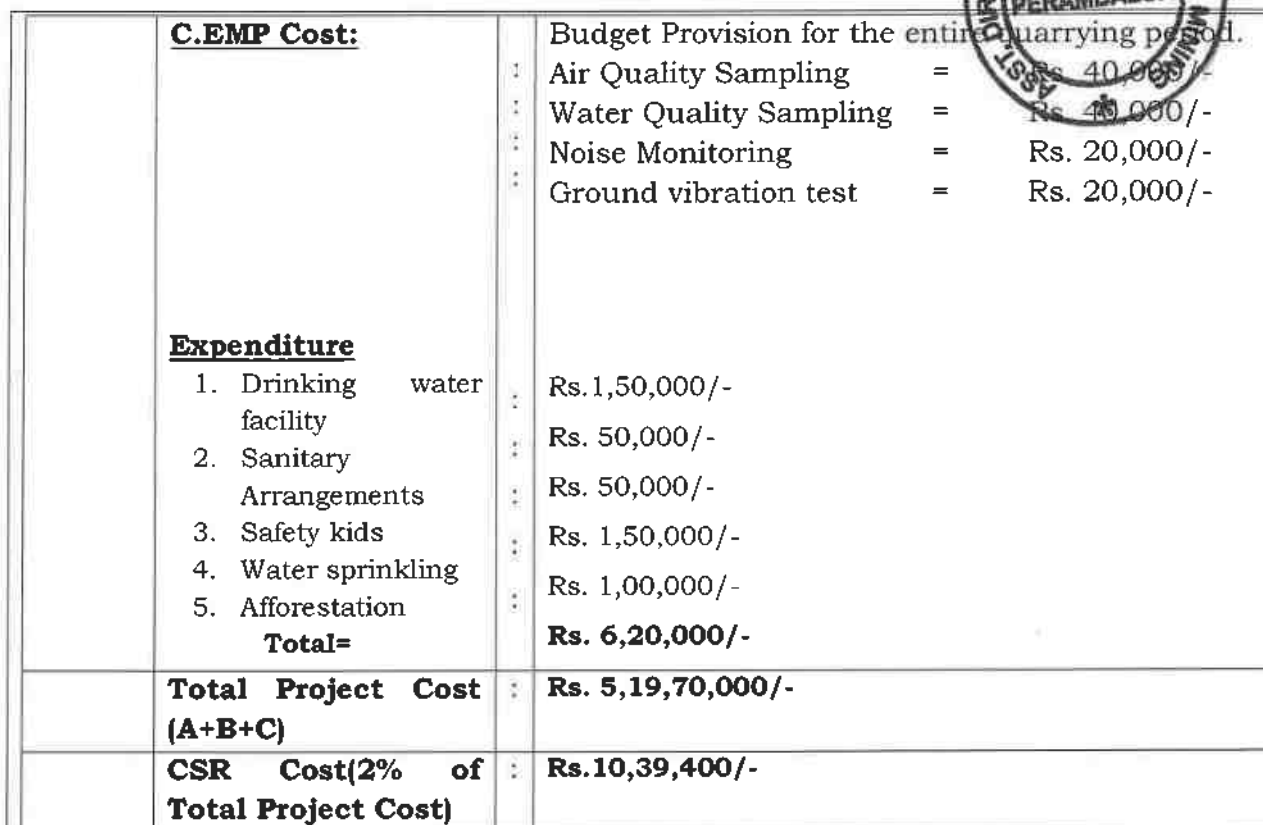
- |      |                     |   |                                                                                                                                                                                                                                                                                                                                                                                 |
|------|---------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.2 | Water Regime        | : | <p>Water table in this area is noticed at a depth of 67m and presently, in the proposed mining plan only 56m (26m above ground level and 30m below ground level) for the proposed mining plan period has been envisaged as workable depth for safe &amp; economic quarrying for the entire lease period. hence, it will not affect the ground water depletion of this area.</p> |
| 10.3 | Flora and Fauna     | : | <p>Except acacia bushes, no other valuable trees are noticed in the applied area. Further, neither flora of botanical interest nor fauna of zoological interest is noticed in this area.</p>                                                                                                                                                                                    |
| 10.4 | Climatic conditions | : | <p>Generally subtropical climatic condition prevails throughout the year and there is no sharp variation in climate.</p> <p>This District receives rain both in south west and north east monsoon.</p> <p>The average rainfall is about 800mm to 900mm and the temperature ranges from 18°C during winter and to a maximum of 42°C during the summer.</p>                       |



| 10.5  | Human Settlement                                                                             | :                                                        | <p>The nearest habitations with the population given as under.</p> <p style="text-align: center;">Table No-6</p> <table> <tr> <th>S. No</th><th>Name of the Village</th><th>Approximate distance &amp; Direction from lease applied area</th><th>Approximate population</th></tr> <tr> <td>1.</td><td>Pudhukurichi</td><td>2.8km - NE</td><td>500</td></tr> <tr> <td>2.</td><td>Alathur</td><td>1.2km - NW</td><td>1500</td></tr> <tr> <td>3.</td><td>Padalur</td><td>1.4Km-SE</td><td>400</td></tr> <tr> <td>4.</td><td>Padalur west</td><td>2.6km-SW</td><td>2000</td></tr> </table> | S. No | Name of the Village | Approximate distance & Direction from lease applied area | Approximate population | 1. | Pudhukurichi | 2.8km - NE | 500 | 2. | Alathur | 1.2km - NW | 1500 | 3. | Padalur | 1.4Km-SE | 400 | 4. | Padalur west | 2.6km-SW | 2000 |
|-------|----------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------|----------------------------------------------------------|------------------------|----|--------------|------------|-----|----|---------|------------|------|----|---------|----------|-----|----|--------------|----------|------|
| S. No | Name of the Village                                                                          | Approximate distance & Direction from lease applied area | Approximate population                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |
| 1.    | Pudhukurichi                                                                                 | 2.8km - NE                                               | 500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |
| 2.    | Alathur                                                                                      | 1.2km - NW                                               | 1500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |
| 3.    | Padalur                                                                                      | 1.4Km-SE                                                 | 400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |
| 4.    | Padalur west                                                                                 | 2.6km-SW                                                 | 2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |
| 10.6  | Plan for Air, Dust Suppression                                                               | :                                                        | <p>Air or dust expected to be generated from drilling process, hauling roads, places of excavation etc., will be suppressed by periodical wetting of land by water spraying. Wet drilling and dust extractor arrangements will be provided to drilling units so as to control raise of dust from the site of drilling. Operators, those exposed directly to such conditions will be provide such protective equipment like mask, ear plug, helmet, gloze etc., as per the Mines Act.</p>                                                                                               |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |
| 10.7  | 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 will be very minimum. However, periodical noise level monitoring will be carried out to check the noise level in and around the quarry site. Nowhere the noise level should exceed the permissible limit of 80db during the quarry working hours.</p>                                                                                                                                                                                                         |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |
| 10.8  | Environmental Impact Assessment Statement Describing Impact on mining on the next Five years | :                                                        | <p>The mining plan proposed is for a small production of Rough stone without involving deep hole drilling and heavy blasting. Such limited mining activity is not likely to cause any impact adversely on environment as far as pollution of air, water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF.</p>                                                                                                                                                                                                      |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |
| 10.9  | Proposal for Waste Management                                                                | :                                                        | <p>There is no waste anticipated in this rough stone quarry operation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |                     |                                                          |                        |    |              |            |     |    |         |            |      |    |         |          |     |    |              |          |      |



|       |                                                                                             |   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------|---------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10.10 | Proposal of Reclamation of Land affected during mining activities and at the end of mining. | : | In the proposed mining plan (26m below ground level and 30m below ground level) for the proposed mining plan period and has been envisaged as workable depth for safe & economic mining during the lease period. Hence, after quarry reaches ultimate pit limit (for this lease period) of 56m depth, fencing will be constructed around the quarried pits to prevent inherent entry of the public and cattle.                       |
| 10.11 | Program for Afforestation                                                                   | : | The 10m safety distance along the lease boundary has been identified to be utilized for afforestation. Appropriate native species of Neem/Pungan trees will be planted in the first year. Nearly 2300Sqm area is proposed to use under afforestation by planting 276nos of Neem/Pungan trees during first year with an anticipated survival rate of 80%. The Quarry landuse, layout and afforestation plan is shown in Plate No.III. |
| 10.12 | Proposed Financial Estimate / Budget for (EMP) Environment Management                       |   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | <b>A. Fixed Asset Cost:</b>                                                                 |   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 1. Land Cost (Tender amount)                                                                |   | Rs. 4,29,00,000                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 2. First aid room and accessories                                                           |   | Rs. 1,00,000                                                                                                                                                                                                                                                                                                                                                                                                                         |
|       | 3. Labour Shed                                                                              |   | Rs. 1,00,000                                                                                                                                                                                                                                                                                                                                                                                                                         |
|       | 4. Sanitary Facility                                                                        |   | Rs. 1,00,000                                                                                                                                                                                                                                                                                                                                                                                                                         |
|       | <b>Total=</b>                                                                               |   | <b>Rs. 4,32,00,000/-</b>                                                                                                                                                                                                                                                                                                                                                                                                             |
|       | <b>B. Operational Cost:</b>                                                                 |   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|       | 1. Machineries                                                                              | : | Rs.80,00,000-                                                                                                                                                                                                                                                                                                                                                                                                                        |
|       | 2. Fencing cost                                                                             | : | Rs. 1,50,000                                                                                                                                                                                                                                                                                                                                                                                                                         |
|       | <b>Total</b>                                                                                | : | <b>Rs.81,50,000/-</b>                                                                                                                                                                                                                                                                                                                                                                                                                |



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





**12.0 Any Other Details Intend to Furnish by the Applicant:**

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

Prepared by

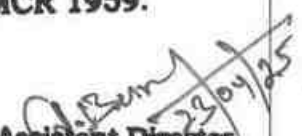
  
C.Natarajan, M.Sc., M.Phil.,  
Qualified Person  
C.NATARAJAN M.Sc., M.Phil.,  
Qualified Person

Place : Salem

Date : 11.04.2025

**This Mining Plan is Approved**  
**Subject to the Conditions Stipulation &**  
**Indicated to the Mining Plan Approval**  
**Letter No....123/Gem/25 dt 23-4-25**  
**Office of the A.D.Geology & Mining**  
**Perambalur**

The mining plan is approved without prejudice to any other legal stipulations and as per the G.O.(Ms) No.79, Industries (MMC1) Department Dt. 06.04.2015 and subject to further fulfilment of the condition laid down under TNMMCR 1959.

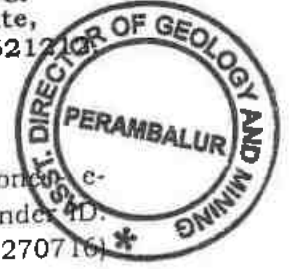
  
Assistant Director  
Dept. of Geology and Mining  
Perambalur District.

23/4/25  
23/04/25

Rc.No.123/G&M/2025, Dated:09.04.2025

Department of Geology & Mining,  
Collectorate,  
Perambalur - 621210

**PRECISE AREA COMMUNICATION LETTER**



Sub : Mines and Minerals - Perambalur District - Rough Stones e-Tender cum auction conducted on 27.03.2025 under Tender ID: 2025\_CGAM\_525779\_1 - Thiru.R.Rajkumar (BID ID:1270716) quoted highest Bid amount (H1) For the quarry listed in Serial Number 23 - Declared as H1 bidder - H1 Bid Amount remitted - Solvency Certificate submitted - Precise Area Communicated - Reg.

Ref: 1. G.O.(Ms).No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024  
2. Perambalur District Gazette(Extraordinary) Notification No.1, dated:18.02.2025.  
3. E-Tender published under Tender ID:2025\_CGAM\_525779\_1 in Tamil Nadu Governmente-tender portal.  
4. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.123/G&M/2025, dated:28.03.2025 (to remit 10% of highest bid amount)  
5. Remittance challan No. 20250329003777 dated:01.04.2025 submitted by Thiru. R.Rajkumar (BID ID:1270716).  
6. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.123/G&M/2025, dated 01.04.2025 (to remit remaining 90% of the bid amount)  
7. Remittance challans dated. 03.04.2025 submitted by Thiru. R.Rajkumar(BID ID:1270716).  
8. Solvency Certificate No.TN-1720250403108, dated 05.04.2025 submitted by Thiru. R.Rajkumar(BID ID:1270716).

\*\*\*\*\*

I invite your attention to the references cited above

Notice Inviting Tender (NIT) was published vide Perambalur District Gazette Extraordinary Notification No.1, dated.18.02.2025, inviting applications for grant of rough stone quarry leases in Government poramboke lands in Perambalur District through e-Tender cum Auction. Online tender was published in Tamil Nadu Government e-tender portal (<https://tntenders.gov.in/>) under Tender ID:2025\_CGAM\_525779\_1 and e-Auction was conducted 27.03.2025 for bidders whos' bids were qualified technically and financially.

After Financial Evaluation, Thiru. R.Rajkumar(BID ID:1270716) was declared as H1 bidder for the quarry listed in Serial Number 23 of the Gazette as he quoted highest bid amount of Rs.4,29,00,000/- for the said quarry. The H1 bidder was directed to remit 10% of the Highest bid amount vide notice in the reference 4<sup>th</sup> cited and accordingly, the H1 bidder has remitted 10% of the bid amount to a sum of Rs.



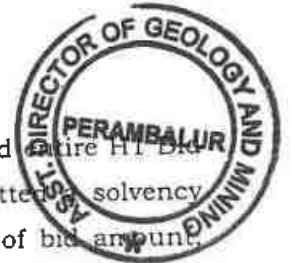
42,90,000/- and submitted remittance challan No. 20250329003777 dated: 01.04.2025 to this office.

Subsequently, Thiru.R.Rajkumar(BID ID:1270716) was directed to remit the remaining 90% of Highest bid amount after adjusting the Bid Security already paid by him within one month to Government head of account and to submit original remittance challan to this office. The H1 bidder was also directed to submit a solvency certificate of immovable properties for a value not less than 20% of the bid amount within one month as required under sub- rule (16)(B)(ii)(I) of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959.

Accordingly, Thiru. R.Rajkumar(BID ID:1270716) has remitted Rs.3,23,67,263/- after deducting Rs. 62,42,737/-(the Bid Security amount already paid by the bidder) in Government account within one month and submitted remittance challans to this office. The H1 bidder has also submitted a solvency certificate to value of Rs. 1,00,00,000/- within one month.

The details of H1 Bidder for the quarry listed in Serial No.23 of the District Gazette, H1 Bid Amount offered and remittance of Bid amount by bidder are as follows.

|           |                                                                  |                                                                                                                                                                                                                    |
|-----------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1.</b> | <b>Quarry Detail</b>                                             |                                                                                                                                                                                                                    |
|           | Serial No. in District Gazette No.01, dated 18.02.2025.          | 23                                                                                                                                                                                                                 |
|           | Taluk                                                            | Alathur                                                                                                                                                                                                            |
|           | Village                                                          | Padalur (East)                                                                                                                                                                                                     |
|           | S.F.No.                                                          | 10/1 (Block 1)                                                                                                                                                                                                     |
|           | Extent                                                           | 1.50.0 Hectares                                                                                                                                                                                                    |
|           | Lease Period                                                     | 5 Years                                                                                                                                                                                                            |
| <b>2.</b> | <b>H1 Bidder, Bid Amount Remittance</b>                          |                                                                                                                                                                                                                    |
|           | H1 Bidder                                                        | Thiru. R.Rajkumar (BID ID:1270716)<br>S/o. Rajaram,<br>No. 4C, 4 <sup>th</sup> floor, Sivam Sri Madhav,<br>Kuttimani Nagar, Pichandar kovil,<br>Trichy-621 216.                                                    |
|           | H1 Bid Amount                                                    | Rs.4,29,00,000/-                                                                                                                                                                                                   |
|           | 10% of H1 bid amount remitted                                    | 42,90,000/-<br>(Challan No. 20250329003777 dated: 01.04.2025)                                                                                                                                                      |
|           | Bid Security (EMD) already remitted                              | Rs.62,42,737/-                                                                                                                                                                                                     |
|           | 90% of bid amount paid after adjusting Bid Security already paid | Rs.3,23,67,263/-<br>(Challan No. 20250403012000, dated 03.04.2025<br>Challan No. 20250403011855, dated 03.04.2025<br>Challan No. 20250403011576, dated 03.04.2025<br>Challan No. 20250403011697, dated 03.04.2025) |
| <b>3.</b> | <b>Solvency Certificate Details</b>                              |                                                                                                                                                                                                                    |
|           | Certificate No.                                                  | TN-1720250403108                                                                                                                                                                                                   |
|           | Date                                                             | 05.04.2025                                                                                                                                                                                                         |
|           | Value                                                            | Rs. 1,00,00,000/-                                                                                                                                                                                                  |
|           | Issued by                                                        | Tahsildar, Mannachanallur Taluk, Tiruchirappalli District.                                                                                                                                                         |



The H1 Bidder, Thiru. R.Rajkumar(BID ID:1270716) has remitted entire H1 Bid Amount of Rs.4,29,00,000/- in Government account and also submitted solvency certificate to value of Rs.1,00,00,000/- which is more than the 20% of bid amount within one month as per sub- rule 16 of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959

Therefore, in exercise of the powers conferred under sub rule 17(a) of Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959, an extent of 1.50.0 hectares of Government land in S.F.No.10/1 (Block 1) of Padalur (East) Village, Alathur Taluk, Perambalur District as notified in Serial Number.23 of the Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025 is hereby fixed as Precise Area for grant of permission to quarry Roughstone for a period of 5 years to Thiru.R.Rajkumar (BID ID:1270716), subject to the following conditions

1. 10 meters safety distance should be left out for the adjacent Government lands.
2. The applicant shall not make any hindrance to the adjacent lands and public.
3. The applicant should submit approved Mining Plan, Environment Clearance and Consent to Establish (CTE) & Consent to Operate (CTO) issued by competent authorities for grant of quarrying lease in the subject area.

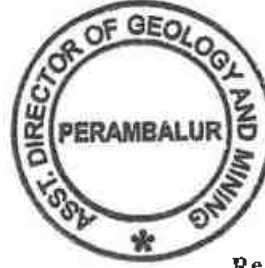
The applicant Thiru.R.Rajkumar(BID ID:1270716) is directed to submit draft Mining Plan for the above area within 90 days for the approval of the Assistant Director, Geology and Mining, Perambalur and to submit Environment Clearance obtained from SEIAA, Tamil Nadu and CTE & CTO issued by the Tamil Nadu Pollution Control Board subsequently for further action.

**Encl:** Map showing the proposal lease area.

*[Signature]*  
18/04/25  
Assistant Director,  
Geology and Mining,  
Perambalur.

To  
Thiru. R.Rajkumar (BID ID:1270716)  
S/o. Rajaram,  
No.4C, 4<sup>th</sup> floor,  
Sivam Sri Madhav,  
Kuttimani Nagar,  
Pichandar kovil,  
Trichy-621 216.  
Copy to:

1. The Chairman,  
SEIAA Level Environment Impact Assessment Authority,  
Panagal Maligai, Saidapet,  
Chennai.
2. The Commissioner of Geology and Mining, Chennai-32.



GOVERNMENT OF TAMIL NADU  
2025

Registered No.  
TN/SRGM-10



## PERAMBALUR DISTRICT GAZETTE

EXTRAORDINARY PUBLISHED BY AUTHORITY

PERAMBALUR, FEBRUARY 18, 2025

No. 1 ]

[ Maasi 06, Kurothi, Thiruvalluvar Aandu - 2056 ]

### NOTIFICATION BY THE COLLECTOR

(Rc. No.35 / G&M / 2022, Dated : 17-02-2025)

E-mail: (minespmb@gmail.com)

Notice Inviting Tender(NIT)

#### "Inviting Application for Grant of Roughstone Quarry Leases in Government Lands"

In exercise of the power conferred by Section 15 of Mines and Mineral (Development & Regulation) Act, 1957 and in accordance with the Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959 read with G.O. Ms. No.21, Natural Resources (MMC.1), 31st July 2024 as amended from time to time notified thereunder, the District Administration of Perambalur District, Tamil Nadu has identified 44 (Forty four) areas for Roughstone Quarries in Perambalur District as indicated in the Annexure-I.

The E-tender with forward bidding will be conducted through online electronic platform with url address <https://tntenders.gov.in> and hereby invites applications for the said purpose.

Aspiring applicants can register themselves as bidders using their Digital Signature certificate on the portal <https://tntenders.gov.in>. On Successful registration, bidders will obtain login ID and password necessary for submitting the application and for participation in the e-auction process. **Bidders Manual Kit** in the portal <https://tntenders.gov.in> provides with all requisite illustrations guiding through various stages of the e-auction process.

The terms and conditions of the e-auction process, details of application fee and bid security amount, detailed information regarding the notified areas, model affidavits to be uploaded in the technical bid are available in the detailed tender document, that can be downloaded free of cost in the portal <https://tntenders.gov.in>

Intending bidders are advised to visit the mentioned site regularly till closing date of E-auction for any corrigendum / addendum / amendment.

**Application Fee – Rs.5,000 (Non – Refundable) for each quarry**

Bid submission start date : 19-02-2025 from 10.00 hrs  
 Bid Submission end date : 22-03-2025 upto 16.00 hrs  
 Financial bid opening and live e-auction date : Will be intimated later on through Tamil Nadu e-Tender portal

**ANNEXURE – I****Tender File No.Rc.No.35/G&M/2022, Dated : 17-02-2025****List of Areas Identified in Government lands in Perambalur District of Tamil Nadu for Grant of Rough Stone Quarry Leases through e-Auction.**

| Sl. No. | Taluk      | Name of the Village | SF.No             | Extent in Ha | Land Classification                | Period of Lease |
|---------|------------|---------------------|-------------------|--------------|------------------------------------|-----------------|
| (1)     | (2)        | (3)                 | (4)               | (5)          | (6)                                | (7)             |
| 1       | Perambalur | Kalpadi(N)          | 328/2 Block 31    | 1.10.0       | Unassessed waste land - Malai      | 5               |
| 2       | Perambalur | Kalpadi(N)          | 328/2 Block 34    | 1.00.0       | Unassessed waste land - Malai      | 10              |
| 3       | Perambalur | Kalpadi(N)          | 328/2 Block 35    | 1.50.0       | Unassessed waste land - Malai      | 5               |
| 4       | Perambalur | Kalpadi(N)          | 328/2 Block 36    | 1.00.0       | Unassessed waste land - Malai      | 5               |
| 5       | Perambalur | Kalpadi(N)          | 328/2 Block 37    | 1.00.0       | Unassessed waste land - Malai      | 5               |
| 6       | Perambalur | Kalpadi(N)          | 328/2 Block 38    | 1.00.0       | Unassessed waste land - Malai      | 10              |
| 7       | Perambalur | Chalramanai         | 23 Part-1         | 1.10.0       | Unassessed waste land – Eli Kundru | 5               |
| 8       | Perambalur | Thurai mangalam     | 280/13A1 Block-8  | 1.00.0       | Unassessed waste land - Kundru     | 10              |
| 9       | Perambalur | Elambalur           | 27/1A (Block-1)   | 1.20.0       | Unassessed waste land - Malai      | 5               |
| 10      | Perambalur | Elambalur           | 27/1A, (Block-2)  | 1.80.0       | Unassessed waste land - Malai      | 10              |
| 11      | Perambalur | Elambalur           | 27/1A, (Block-3)  | 2.50.0       | Unassessed waste land - Malai      | 10              |
| 12      | Perambalur | Aranarai(N)         | 120/2A1A (Part-1) | 1.50.0       | Unassessed waste land - Kundru     | 10              |
| 13      | Perambalur | Aranarai(N)         | 120/2A1A (Part-2) | 1.50.0       | Unassessed waste land - Kundru     | 10              |
| 14      | Perambalur | Aranarai(N)         | 120/2A1A (Part-3) | 1.80.0       | Unassessed waste land - Kundru     | 5               |
| 15      | Perambalur | Sengunam            | 52/1(Part-1)      | 1.80.0       | Unassessed waste land - Malai      | 10              |
| 16      | Perambalur | Sengunam            | 52/1(Part-2)      | 1.40.0       | Unassessed waste land - Malai      | 10              |

PERAMBALUR DISTRICT GAZETTE EXTRAORDINARY



| Sl. No. | Taluk      | Name of the Village | SF.No          | Extent in Ha | Land Classification                 | Period of Lease |
|---------|------------|---------------------|----------------|--------------|-------------------------------------|-----------------|
| (1)     | (2)        | (3)                 | (4)            | (5)          | (6)                                 | (7)             |
| 17      | Perambalur | Sengunam            | 52/1(Part-3)   | 1.50.0       | Unassessed waste land - Malai       | 10              |
| 18      | Alathur    | Narana mangalam     | 300/1 Part     | 2.02.0       | Unassessed waste land - Malai       | 5               |
| 19      | Alathur    | Narana mangalam     | 324/1 Block-1  | 2.00.0       | Unassessed waste land - Kallankuthu | 5               |
| 20      | Alathur    | Nattar mangalam     | 195 Part       | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 21      | Alathur    | Nattar mangalam     | 258 Block-1    | 1.00.0       | Unassessed waste land - Malai       | 5               |
| 22      | Alathur    | Nattar mangalam     | 258 Block-2    | 2.00.0       | Unassessed waste land - Malai       | 5               |
| 23      | Alathur    | Padalur(E)          | 10/1 Block 1   | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 24      | Alathur    | Padalur(E)          | 10/1 Block 2   | 1.40.6       | Unassessed waste land - Kallankuthu | 10              |
| 25      | Alathur    | Padalur(E)          | 10/1 Block 3   | 1.40.0       | Unassessed waste land - Kallankuthu | 5               |
| 26      | Alathur    | Padalur(E)          | 10/1 Block 4   | 1.40.0       | Unassessed waste land - Kallankuthu | 5               |
| 27      | Alathur    | Padalur(E)          | 10/1 Block 5   | 2.10.0       | Unassessed waste land - Kallankuthu | 5               |
| 28      | Alathur    | Padalur(E)          | 10/1 Block 6   | 2.20.0       | Unassessed waste land - Kallankuthu | 10              |
| 29      | Alathur    | Padalur(E)          | 10/1 Block 7   | 1.30.0       | Unassessed waste land - Kallankuthu | 5               |
| 30      | Alathur    | Padalur(E)          | 10/1 Block 8   | 1.20.0       | Unassessed waste land - Kallankuthu | 5               |
| 31      | Alathur    | Padalur(E)          | 10/1 Block 9   | 1.20.0       | Unassessed waste land - Kallankuthu | 5               |
| 32      | Alathur    | Padalur(E)          | 10/1, Block-13 | 1.00.0       | Unassessed waste land - Kallankuthu | 5               |
| 33      | Alathur    | Padalur(E)          | 123 Block 1    | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 34      | Alathur    | Padalur(E)          | 123 Block 2    | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 35      | Alathur    | Padalur(E)          | 123 Block 3    | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 36      | Alathur    | Padalur(E)          | 123 Block 4    | 2.00.0       | Unassessed waste land - Kallankuthu | 5               |
| 37      | Alathur    | Padalur(E)          | 172 Block 1    | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |

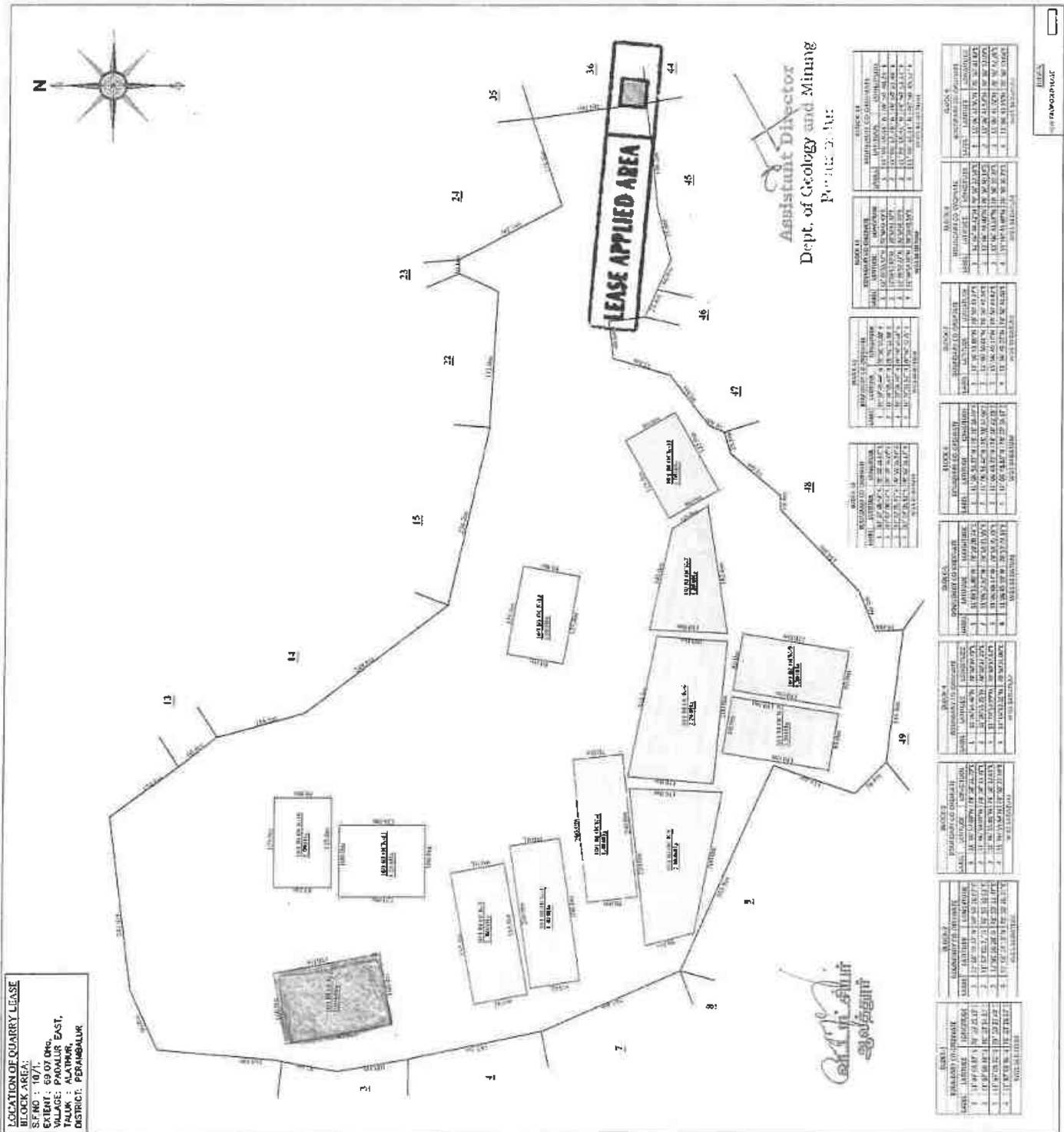


| Sl. No. | Taluk         | Name of the Village | SF.No                  | Extent in Ha | Land Classification                 | Period of Lease |
|---------|---------------|---------------------|------------------------|--------------|-------------------------------------|-----------------|
| (1)     | (2)           | (3)                 | (4)                    | (5)          | (6)                                 | (7)             |
| 38      | Alathur       | Padalur(E)          | 172 Block 2            | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 39      | Alathur       | Padalur(E)          | 172 Block 3            | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 40      | Veppanthattai | Vengalam(E)         | 200/1B Part, Block-13  | 1.50.0       | Unassessed waste land - Malai       | 10              |
| 41      | Veppanthattai | Vengalam(E)         | 200/1C, Part, Block-1  | 1.40.0       | Unassessed waste land - Malai       | 10              |
| 42      | Veppanthattai | Vengalam(E)         | 200/1C, Part, Block-14 | 1.40.0       | Unassessed waste land - Malai       | 10              |
| 43      | Veppanthattai | Vengalam(E)         | 200/1C Part, Block-15  | 1.50.0       | Unassessed waste land - Malai       | 10              |
| 44      | Veppanthattai | Vengalam(E)         | 200/1C Part, Block-16  | 1.50.0       | Unassessed waste land - Malai       | 10              |

Perambalur,  
17<sup>th</sup> February 2025.

GRACE PACHUAU,  
District Collector.

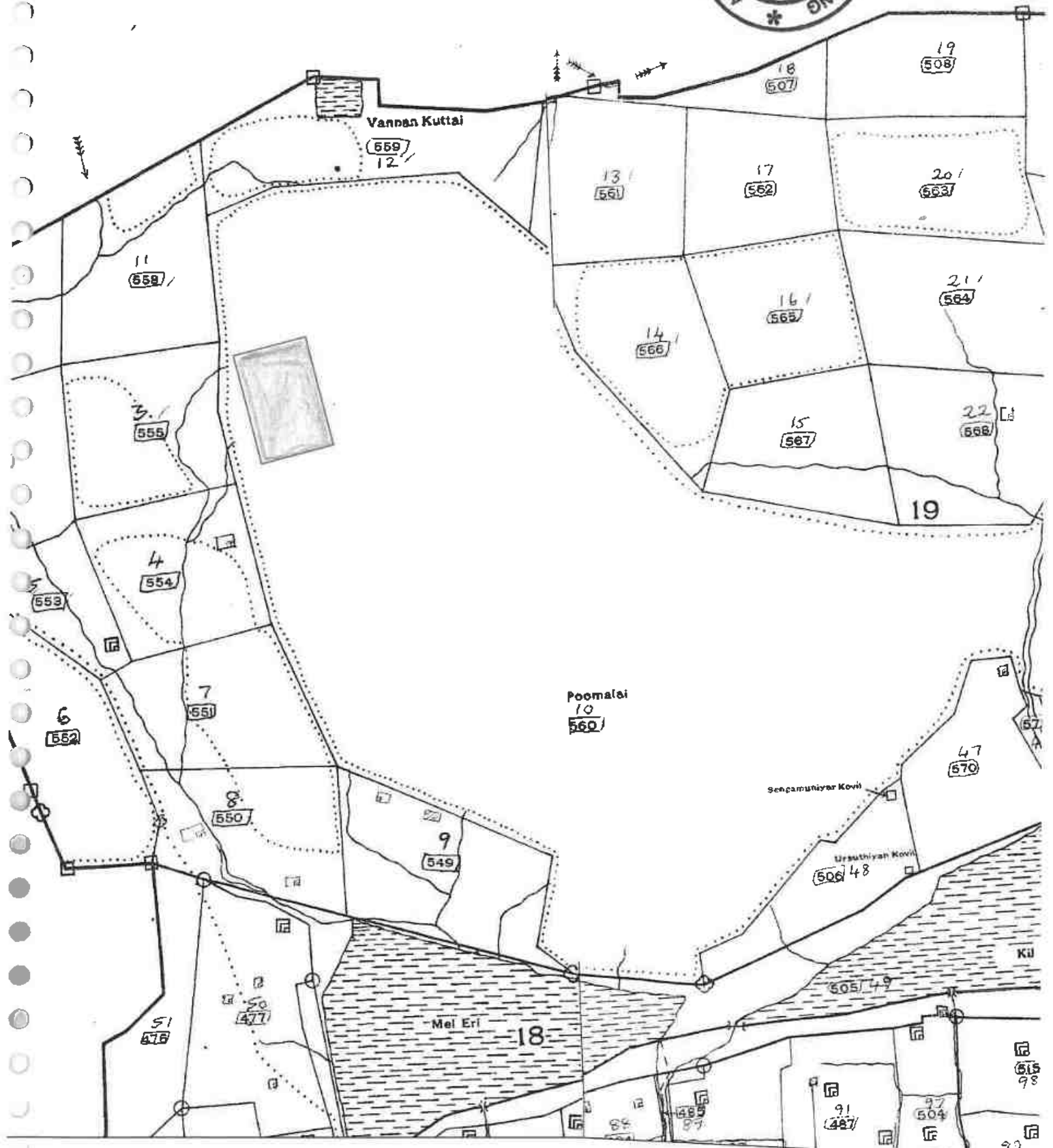






ADALUR EAST. BH NO. 1

V. No



LEASE APPLIED AREA



| 1  | 2   | 3      | 4 | 5      | 6   | 7   | 8   | 9             | 10                  | 11            |                                           |
|----|-----|--------|---|--------|-----|-----|-----|---------------|---------------------|---------------|-------------------------------------------|
| 8  | 3A  | 8-3A   | ர | பு     | ... | 8-4 | 16  | நு.பை<br>1 09 | ஹெ. ஏர்ஸ்<br>0 26.0 | நு.பை<br>0 28 | 653 ரெ.ராணி(1).<br>சு.முத்தி<br>சாமி(2).  |
|    | 3B  | -3B    | அ | பு     | ... | 8-4 | 10  | 1 09          | 1 26.5              | 1 37          | .....                                     |
|    | 4   | -4     | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 20.0              | 0 22          | 653 ரெ.ராணி(1),<br>சு.முத்தம்<br>மாள்(2). |
|    | 5   | -5     | ர | பு     | ... | 8-4 | 16  | 1 09          | 1 22.5              | 1 33          | 5 ரா.அமிர்தம்<br>மாள்.                    |
|    |     |        |   |        |     |     |     |               | 3 79.0              | 3 78          |                                           |
| 9  | 1A  | 9-1A   | அ | பு     | ... | 8-4 | 16  | 1 09          | 0 21.0              | 0 23          | ...                                       |
|    | 1B  | -1B    | ர | பு     | ... | 8-4 | 16  | 1 09          | 1 02.5              | 1 11          | 604 ஸீ.ரெங்கம்<br>மாள்.                   |
|    | 1C  | -1C    | ர | பு     | ... | 8-4 | 16  | 1 09          | 1 43.5              | 1 56          | 633 ரெ.வீரன்<br>செட்டி.                   |
|    | 2   | -2     | அ | புற    | ... | ... | ... | ...           | 1 73.0              | ...           | .....                                     |
|    |     |        |   |        |     |     |     |               | 4 40.0              | 2 90          |                                           |
| 10 | 1   | 10-1   | அ | தி.ஏ.த | ... | ... | ... | ...           | 66 61.5             | ...           | .....                                     |
|    | 2   | -2     | அ | பு     | ... | 8-4 | 16  | 1 09          | 2 08.5              | 2 98          | .....                                     |
|    |     |        |   |        |     |     |     |               | 68 70.0             | 2 98          |                                           |
| 11 | 1   | 11-1   | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 38.0              | 0 42          | 65 செ.ராமராஜ்.                            |
|    | 2   | -2     | அ | புற    | ... | ... | ... | ...           | 0 13.5              | ...           | .....                                     |
|    | 3A  | -3A    | அ | பு     | ... | 8-4 | 16  | 1 09          | 1 18.0              | 1 28          | .....                                     |
|    | 3B1 | -3B பா | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 06.0              | 0 07          | 128 வீ.காராளன்.                           |
|    | 3B2 | -3B பா | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 06.5              | 0 08          | 6 வீ.அண்ணாவி.                             |
|    | 3B3 | -3B பா | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 03.0              | 0 06          | 176 பொ.சாமிக்<br>கண்ணு.                   |
|    | 3B4 | -3B பா | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 03.0              | 0 06          | 307 பொ.தங்<br>கையா.                       |

தரிக்.

சதுரக்.  
கிணறு

சதுரக்.  
கிணறு.

தரிக்.

சதுரக்  
கிணறும்  
கூரைவிடும்.

நீர்ப்பிடிப்பு

கல்லாங்  
குத்து.

தரிக்.

வாரி.

தரிக்.

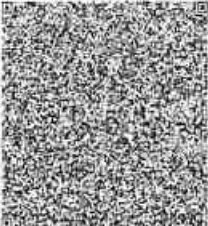
12.7.20

12525  
கிராம நிர்வாக அலுவலர்  
73 - பாடாலூர் (கிழக்கு).  
தலைவர் வட்டம்.





ANNEXURE

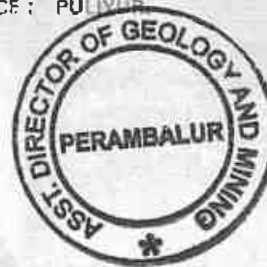
| Government of India                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unique Identification Authority of India                                                                      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--|
| <p>Aadhaar no. issued: 11/12/2015</p>  <p><b>ரஜ்குமார்</b><br/>R Rajkumar<br/>பிறந்த நாள்/DOB: 25/10/1992<br/>ஆண்/ MALE</p> <p><b>ஆதார்</b> என்பது அடையாளத்திற்கான வசதுரமாகும். குடியியலம், அவரது பிறந்த தேதிகளை உறுதிப்படுத்த உபயோகப்படுகிறது. இது உரிமையுடைய அல்லது பிழைப்பதற்கான சான்றிதழ் ஆகியவற்றை அடக்கவில்லை.<br/>Aadhaar is proof of identity, not of citizenship or date of birth. It should be used with verification (online authentication, or scanning of QR code / offline XML).</p> <p><b>9012 5596 3529</b></p> | <p><b>பிரகாரம்:</b><br/>ரஜ்குமார், 4C 4TH பிளாட் ஷிவம் பிளாட், குட்டிமணி நகர், பிச்சந்தர் கோவில், பிச்சாண்டர் தாலுகா, திருச்சிராப்பள்ளி, தமிழ்நாடு - 621216</p> <p><b>Address:</b><br/>C/O RAJARAM, 4C 4TH FLOOR SHIVAM SRI MADHAV, KUTTIMANI NAGAR, PICHANDAR KOIL., Pichandarkovil, PO: Pichandarkoil, DIST: Tiruchirappalli, Tamil Nadu - 621216</p>  |                                                                                                               |  |
| <p><b>எனது ஆதார், எனது அடையாளம்</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p><b>9012 5596 3529</b><br/>VID : 9196 2666 0224 2864</p> <p>1947   help@uidai.gov.in   www.uidai.gov.in</p> |  |

# CHETTINAD CEMENT CORPORATION

ANNEXURE

(Regd. Office: RANI SEETHAI HALL BUILDING IV & V FLOORS, 603, ANNA SALAI, MADRAS-600006.)

WORKS OFFICE: PULIYUR



TELE: 21144  
PHONE 22744 | KARUR  
21745  
GRAM "CEMENT" Puliur C.F.  
Telex: 0456-215.  
STD Code: 04324

All Correspondences to  
Kumararajah Muthiah Nagar,  
PULIYUR CEMENT FACTORY POST 63911.  
(Karur Taluk Trichy Dt.)

T.RAJU., B.E.,  
MINES MANAGER & DY. GENERAL MANAGER.

22<sup>nd</sup> September, 1987.

## CERTIFICATE.

This is to certify that Mr. C. Natarajan has been working as a Geologist from 14-12-1979 to till date. He has been incharge of supervision of day to day functions in respect of Exploration, Preparation of Geological Plans & Sections, Preparation of Mines Plans, and Quality control and other allied mining activities in the following Pits of our Seethainagar Limestone Mines in Anna District.

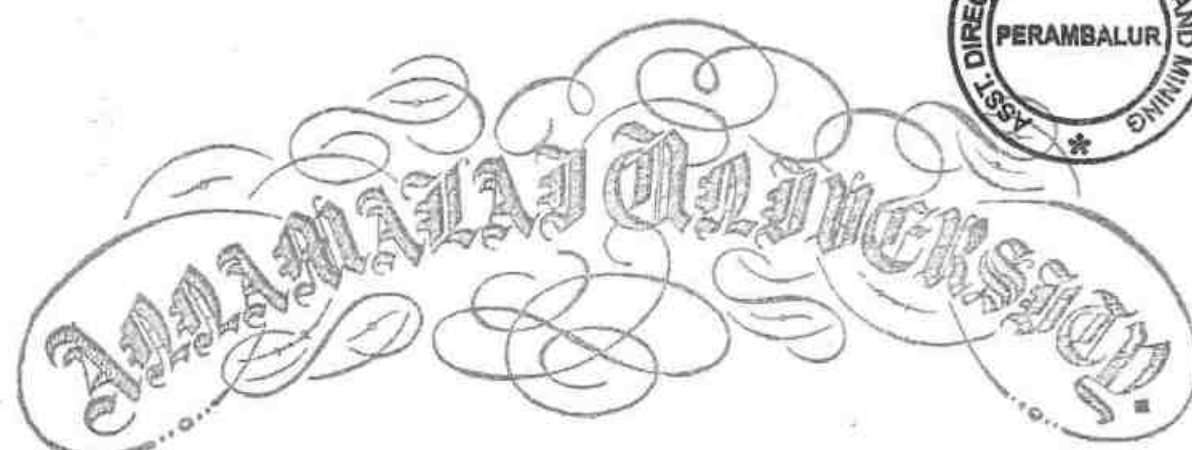
| <u>Name of the Pit.</u> | <u>Average Raising/day.</u> |
|-------------------------|-----------------------------|
| 1. Alambadi Pit.        | - 1,700 T.                  |
| 2. Mallapuram Pit.      | - 900 T.                    |
| 3. Karikkali Pit.       | - 150 T.                    |
|                         | -----                       |
| Total.                  | - 2,750 T.                  |
|                         | -----                       |

He has got nearly Eight years of total experience in our Mines in the above supervisory capacity.

for CHETTINAD CEMENT CORPORATION LTD.,

  
(T. RAJU).

Mines Manager & Dy. General Manager.



## Faculty of Science

The Senate of the Annamalai University hereby makes known that B. Natarajan has been admitted to the Degree of Master of Science (by Examination) in Geology, he having been certified by duly appointed Examiners at the examination held in April, 1976, to be qualified to receive the same and that he was placed in the First Class.

Given under the seal of the University.



11°07'08.76"N



78°50'28.37"E

11°07'03.37"N

**PLATE NO-I**

DATE OF SURVEY : 10.04.2025

**APPLICANT:**

THIRU R. RAJAKUMAR,  
S/o RAJARAM,  
NO.4C, 4<sup>th</sup> FLOOR,  
SIVAM SRI MADHAV,  
KUTTIMANI NAGAR,  
PICHANDAR KOVIL,  
TRICHY - 621 216

**QUARRY APPLIED LEASE AREA:**

S.F.NO : 10/1 (BLOCK-1),  
EXTENT : 1.50.0 Ha,  
VILLAGE : PADALUR (EAST),  
TALUK : ALATHUR,  
DISTRICT : PERAMBALUR.

**INDEX**

Q. L. APPLIED AREA : ●

TOPO SHEET NO : 58 I / 16

LATITUDE : 11°07'03.37"N to 11°07'08.76"N

LONGITUDE : 78°50'24.25"E to 78°50'28.37"E

**LOCATION PLAN**

NOT TO SCALE

**PREPARED BY :**



IS TO CERTIFY THAT THE INFORMATION  
THIS PLATE IS TRUE AND CORRECT TO  
THE BEST OF MY KNOWLEDGE BASED UPON  
THE SE MAP AUTHENTICATED BY STATE  
GOVERNMENT

*C. NATHARAJAN*  
C. NATHARAJAN, M.Sc., M.Phil.  
QUALIFIED PERSON



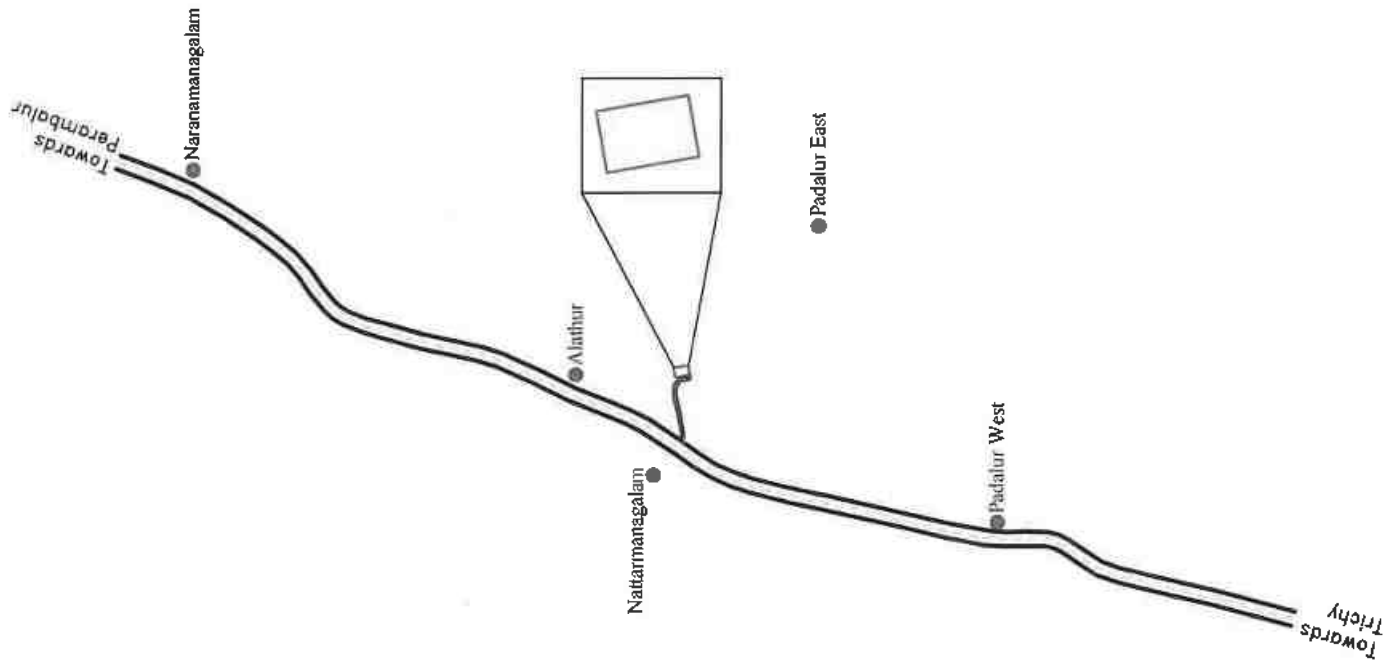


**PLATE NO-ID**  
**DATE OF SURVEY : 10.04.2025**

**APPLICANT:**  
THIRU.R.RAJKUMAR,  
S/o.RAJARAM,  
NO.4C, 4<sup>th</sup> FLOOR,  
SIVAM SRI MADHAV,  
KUTTIMANI NAGAR,  
PICHANDAR KOVIL,  
TRICHY - 621 216.

**QUARRY LEASE APPLIED AREA:**

S.F.NO : 10/1 (BLOCK-1),  
EXTENT : 1.50.0 Ha,  
VILLAGE : PADALUR (EAST),  
TALUK : ALATHUR,  
DISTRICT : PERAMBALUR.

**INDEX**

Q.L. APPLIED AREA

APPROACH ROAD

NATIONAL HIGHWAY

HABITATIONS

**KEY PLAN**

Not To Scale

**PREPARED BY:**

THIS IS TO CERTIFY THAT THE INFORMATION  
IN THIS PLATE IS TRUE AND CORRECT TO  
THE BEST OF MY KNOWLEDGE BASED UPON  
THE LEASE MAP AUTHENTICATED BY STATE  
GOVERNMENT

  
C. N. KARAJAN, M.Sc., M.Phil.,  
QUALIFIED PERSON

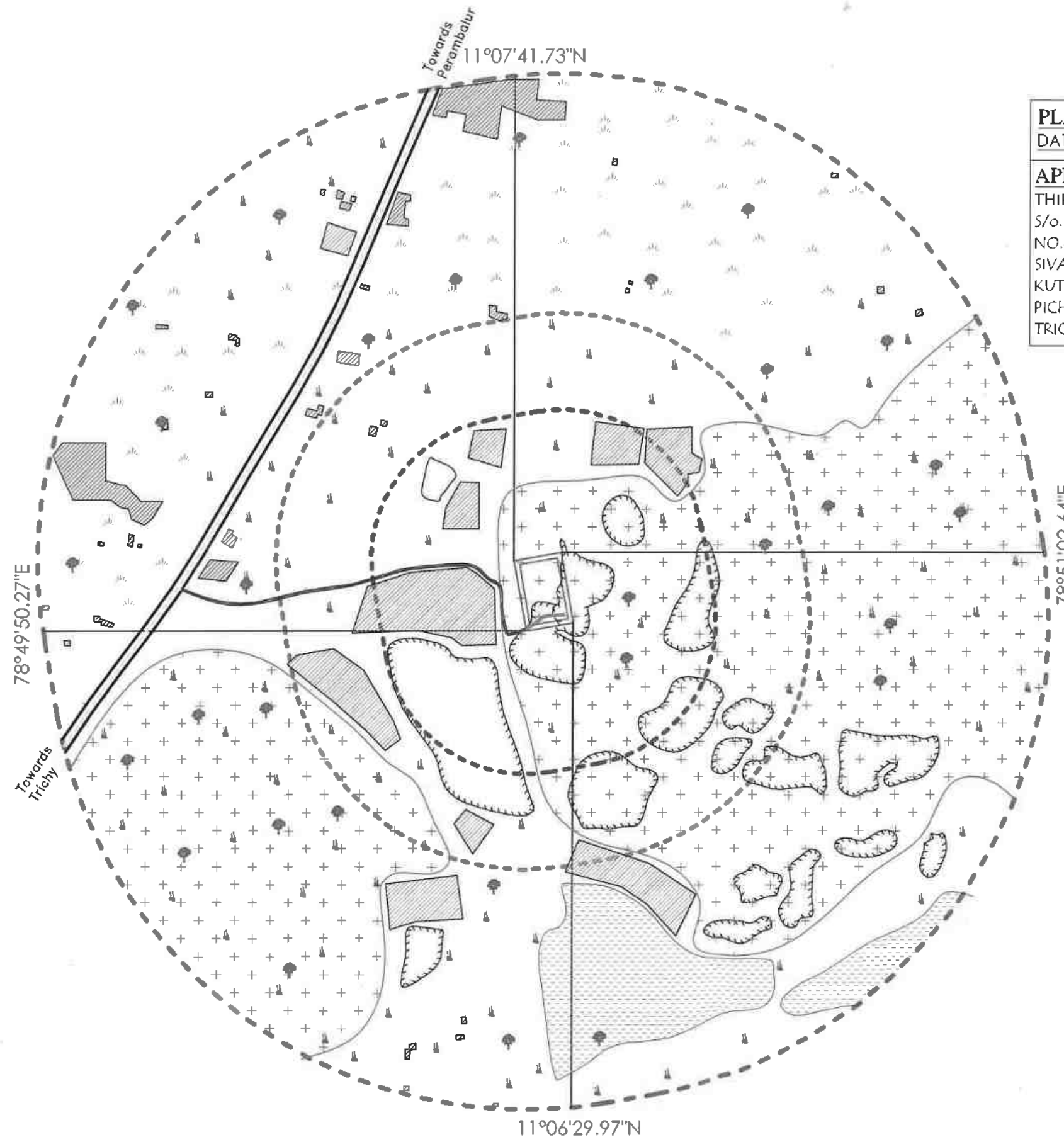


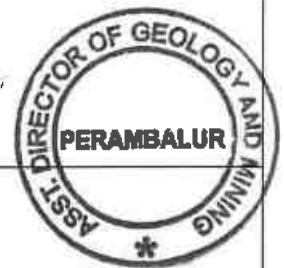
**PLATE NO-IA**  
DATE OF SURVEY : 10.04.2025

**APPLICANT:**  
THIRU.R.RAJKUMAR,  
S/o.RAJARAM,  
NO.4C, 4<sup>th</sup> FLOOR,  
SIVAM SRI MADHAV,  
KUTTIMANI NAGAR,  
PICHANDAR KOVIL,  
TRICHY - 621 216.



**QUARRY LEASE APPLIED AREA:**

S.F.NO : 10/1 (BLOCK-1),  
EXTENT : 1.50.0 Ha,  
VILLAGE : PADALUR (EAST),  
TALUK : ALATHUR,  
DISTRICT : PERAMBALUR.



**INDEX**

TOPO SHEET NO : 581 / 16

**LATITUDE** : 11°07'03.37"N to 11°07'08.76"N

**LONGITUDE** : 78°50'24.25"E to 78°50'28.37"E

Q.L.APPLIED AREA



10m SAFETY



300M RADIUS



500M RADIUS



1KM RADIUS



QUARRY ROAD



APPROACH ROAD



NATIONAL HIGHWAY



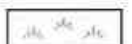
BARREN LAND



TREES



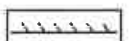
AGRICULTURAL LAND



HABITATIONS



QUARRY PIT



CRUSHER PLANT



FACTORY



TANK



**LAND USE PATTERN**

| DESCRIPTION       | AREA IN (%) |
|-------------------|-------------|
| ROAD              | 10          |
| TREES             | 05          |
| BARREN LAND       | 30          |
| AGRICULTURAL LAND | 10          |
| HABITATIONS       | 05          |
| WATER BODIES      | 10          |
| HILLOCK           | 30          |

**ENVIRONMENTAL PLAN**

SCALE 1:10,000

**PREPARED BY :**

THIS IS TO CERTIFY THAT THE INFORMATION  
IN THIS PLATE IS TRUE AND CORRECT TO  
THE BEST OF MY KNOWLEDGE BASED UPON  
THE LEASE MAP AUTHENTICATED BY STATE

GOVERNMENT

C. NATARAJAN, M.Sc., M.Phil.,  
QUALIFIED PERSON

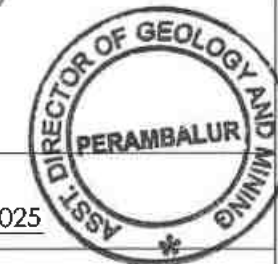


**PLATE NO-IB**

DATE OF SURVEY : 10.04.2025

**APPLICANT:**

THIRU.R.RAJKUMAR,  
S/o. RAJARAM,  
NO.4C, 4<sup>th</sup> FLOOR,  
SIVAM SRI MADHAV,  
KUTTIMANI NAGAR,  
PICHANDAR KOVIL,  
TRICHY - 621 216.

**QUARRY LEASE APPLIED AREA:**

S.F.NO : 10/1 (BLOCK-1),  
EXTENT : 1.50.0 Ha,  
VILLAGE : PADALUR (EAST),  
TALUK : ALATHUR,  
DISTRICT : PERAMBALUR.

**INDEX**

TOPO SHEET NO : 581 / 16

LATITUDE : 11°07'03.37"N to 11°07'08.76"N

LONGITUDE : 78°50'24.25"E to 78°50'28.37"E

Q.L.APPLIED AREA



10m SAFETY



300M RADIUS



500M RADIUS



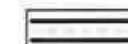
1KM RADIUS



APPROACH ROAD



NATIONAL HIGHWAY



**SATELLITE IMAGERY MAP**

SCALE 1:10,000

**PREPARED BY :**

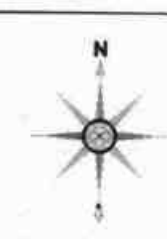
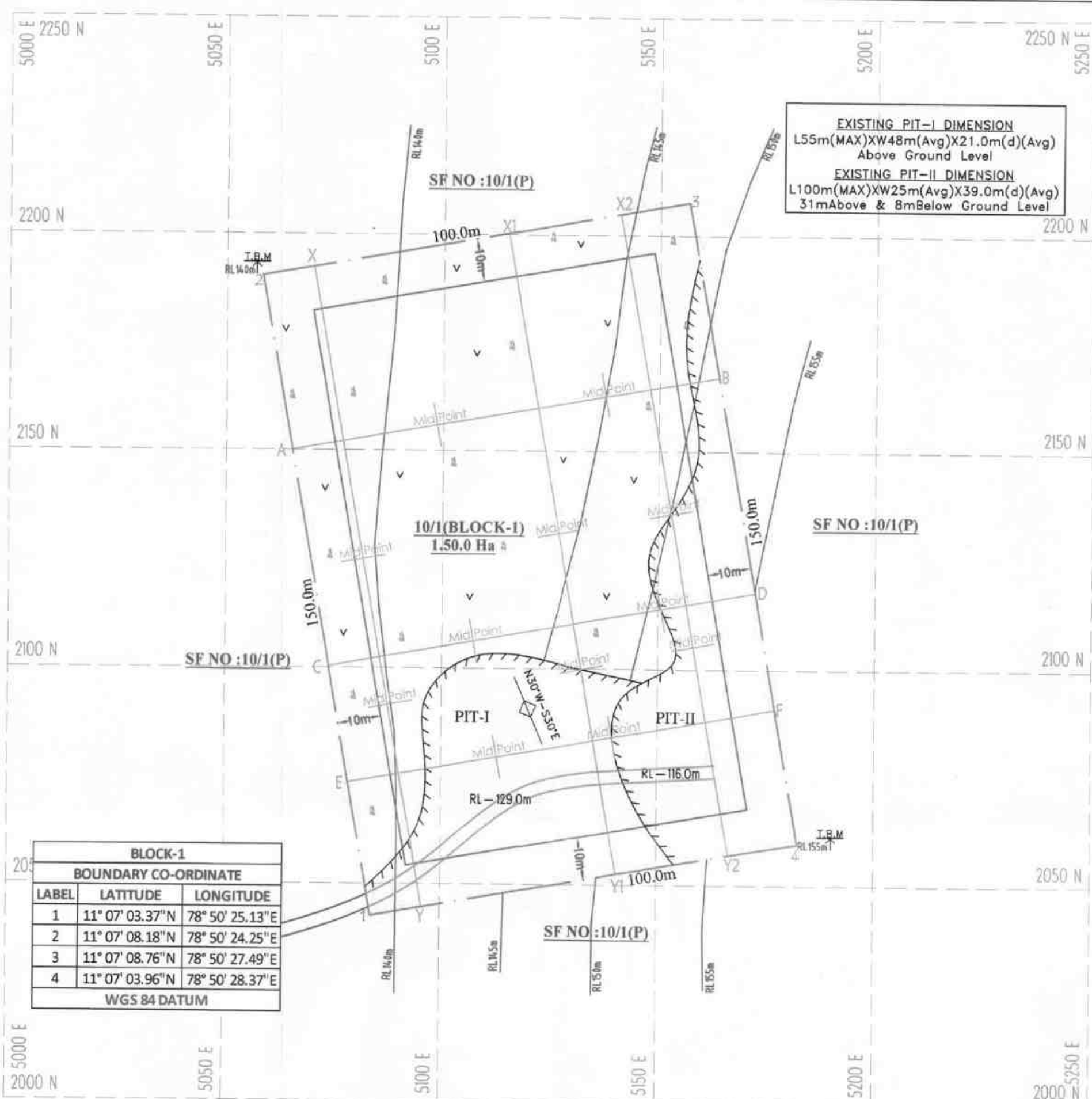
THIS IS TO CERTIFY THAT THE INFORMATION  
IN THIS PLATE IS TRUE AND CORRECT TO  
THE BEST OF MY KNOWLEDGE BASED UPON  
THE LEASE MAP AUTHENTICATED BY STATE

GOVERNMENT

*C. NATARAJAN*  
C.NATARAJAN, M.Sc., M.Phil.,  
QUALIFIED PERSON







| BLOCK-1              |                 |                 |
|----------------------|-----------------|-----------------|
| BOUNDARY CO-ORDINATE |                 |                 |
| LABEL                | LATITUDE        | LONGITUDE       |
| 1                    | 11° 07' 03.37"N | 78° 50' 25.13"E |
| 2                    | 11° 07' 08.18"N | 78° 50' 24.25"E |
| 3                    | 11° 07' 08.76"N | 78° 50' 27.49"E |
| 4                    | 11° 07' 03.96"N | 78° 50' 28.37"E |
| WGS 84 DATUM         |                 |                 |

AGL-Above Ground Level  
BGL - Below Ground Level

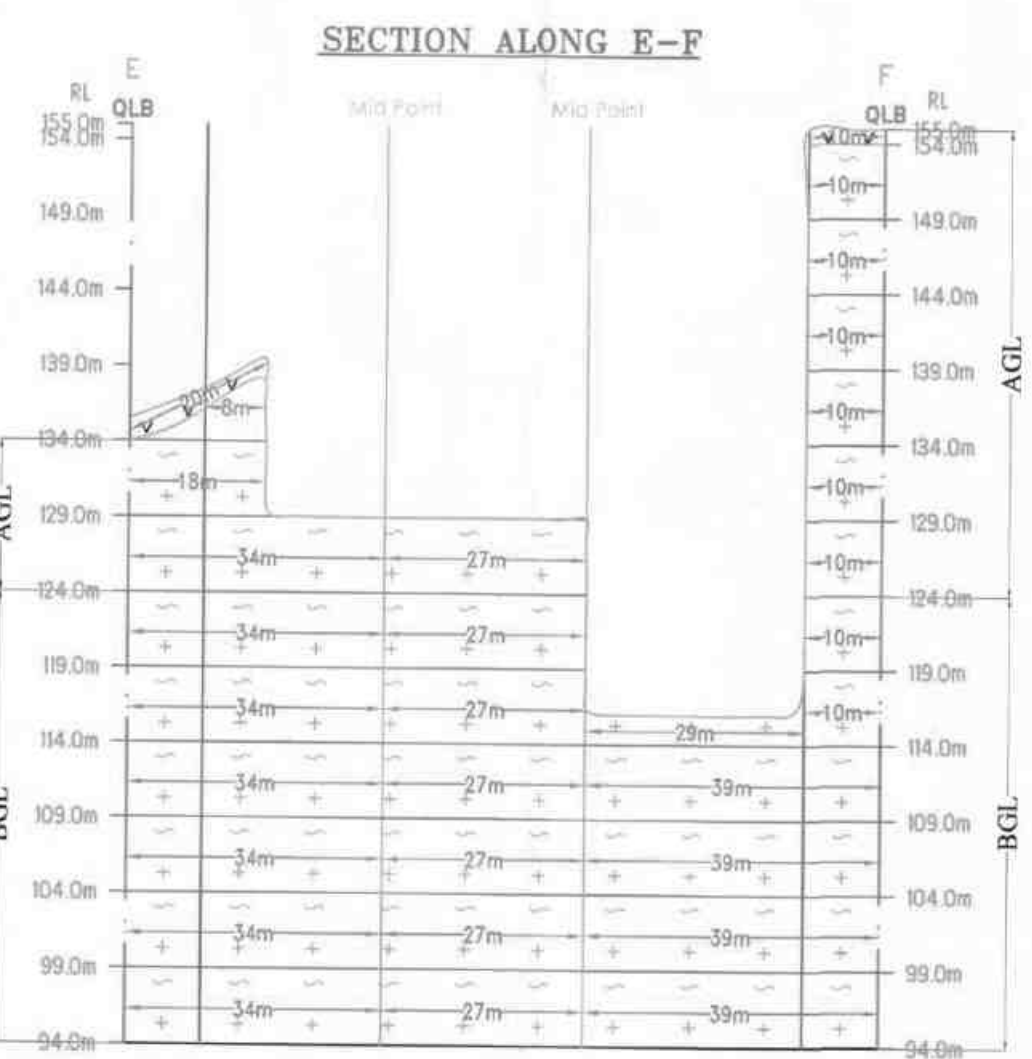
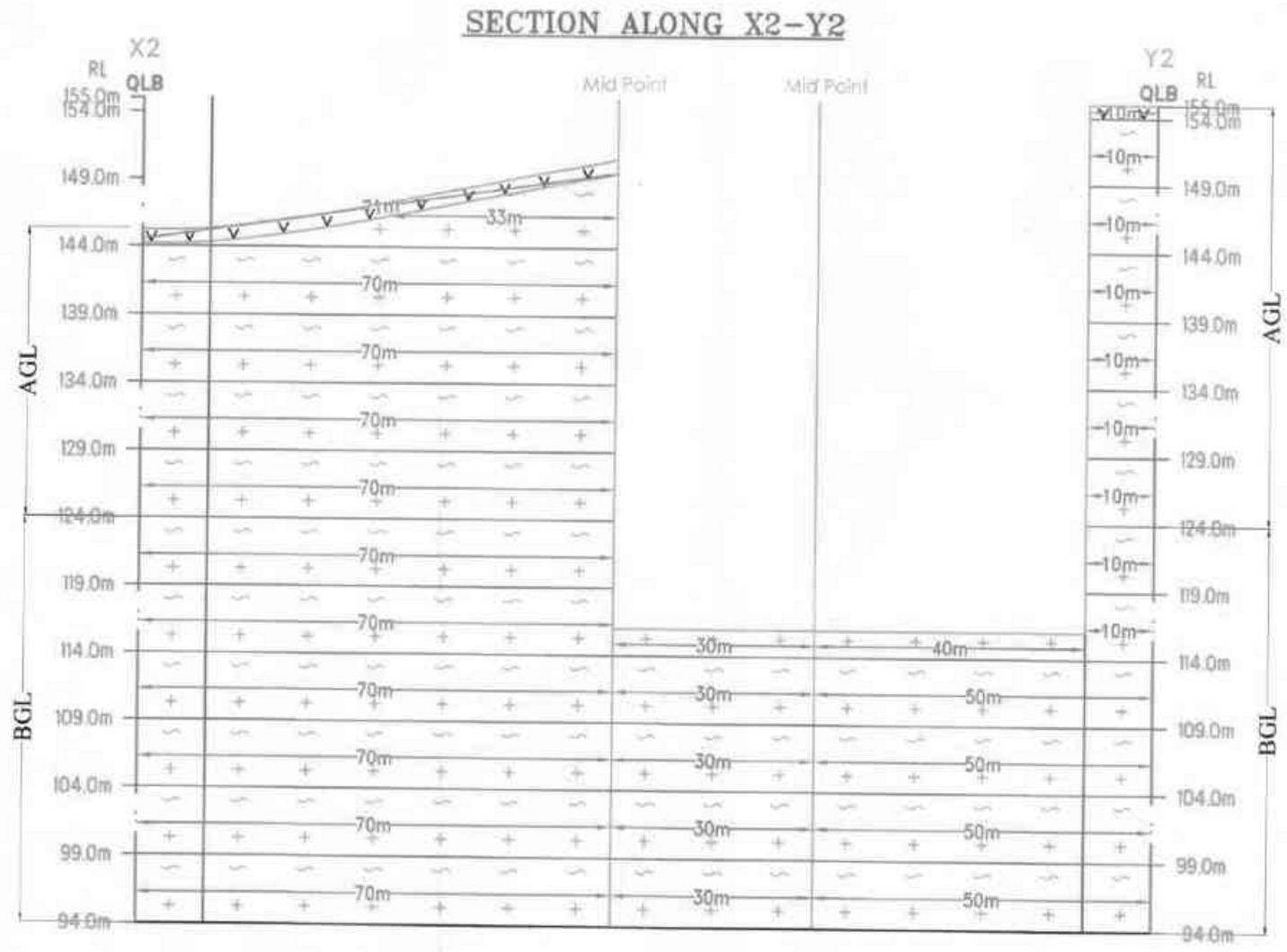
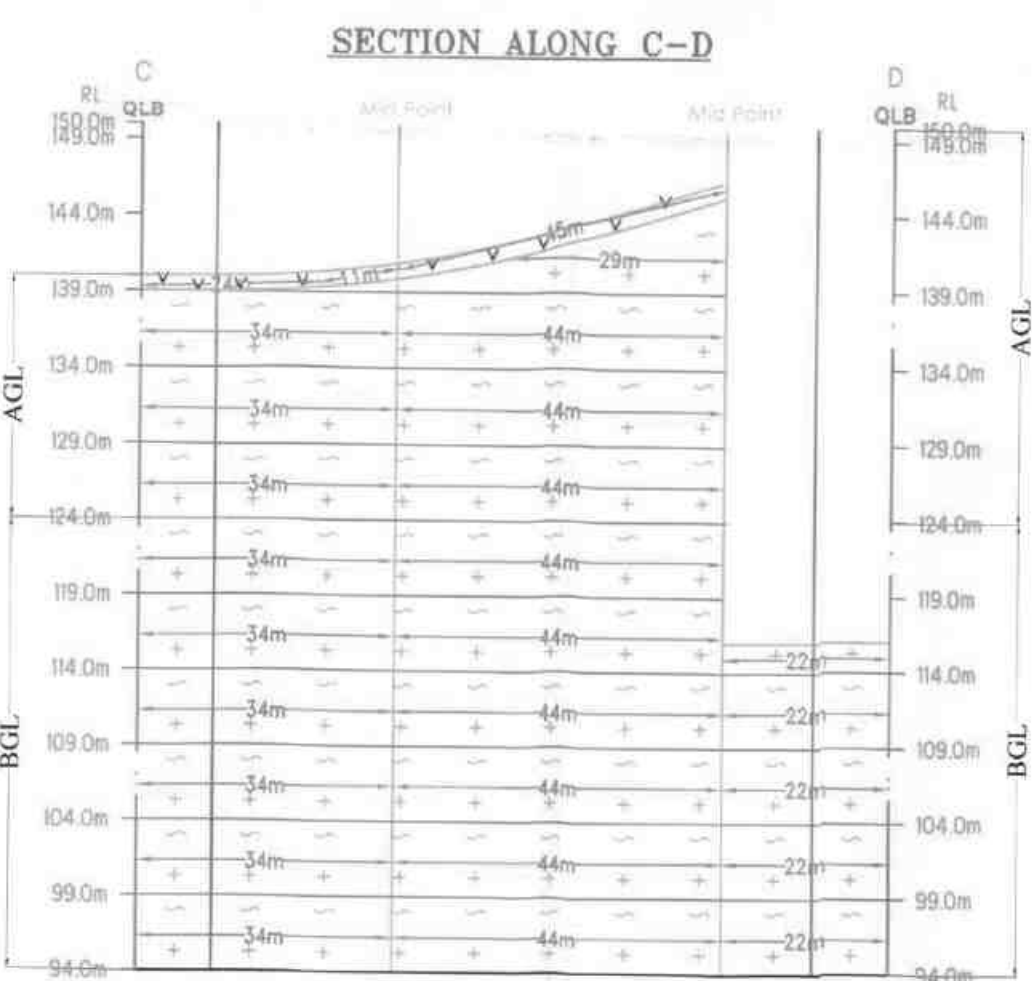
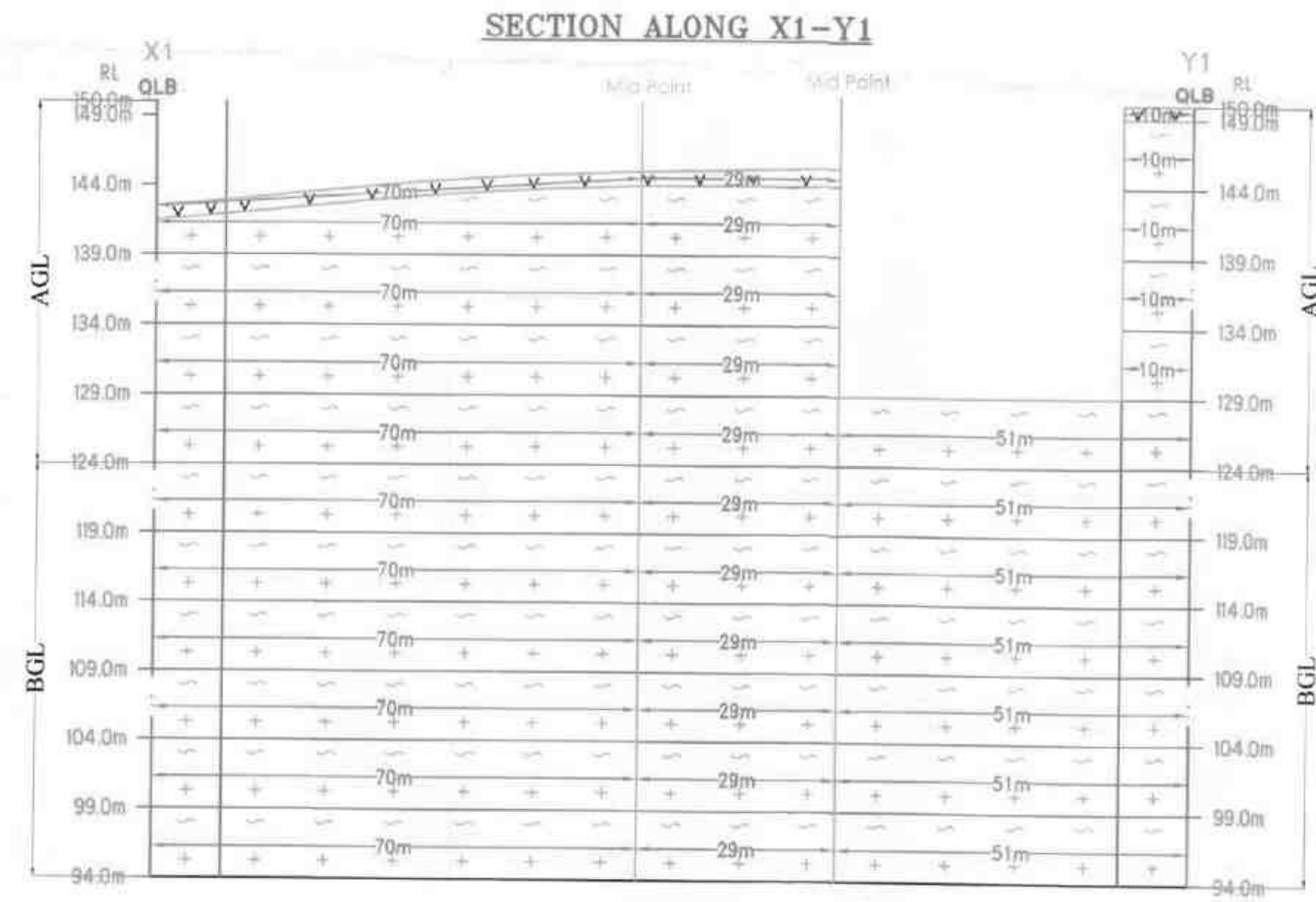
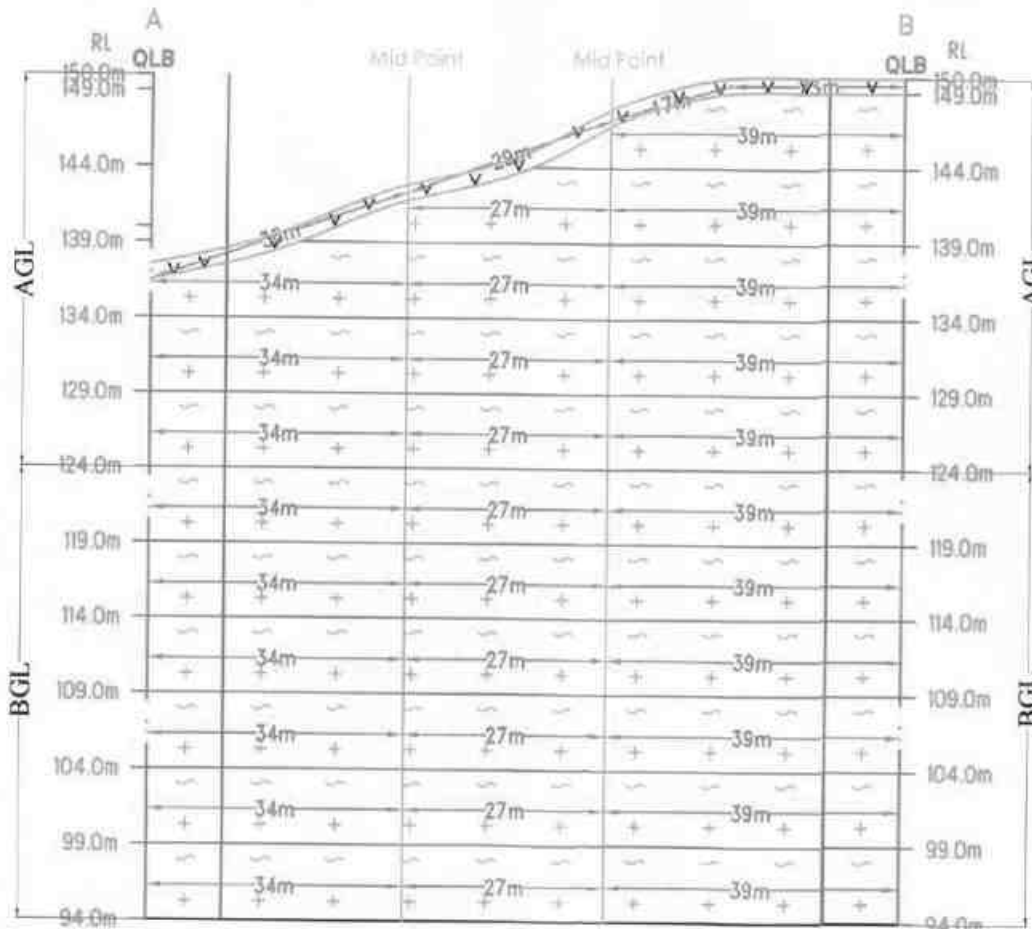
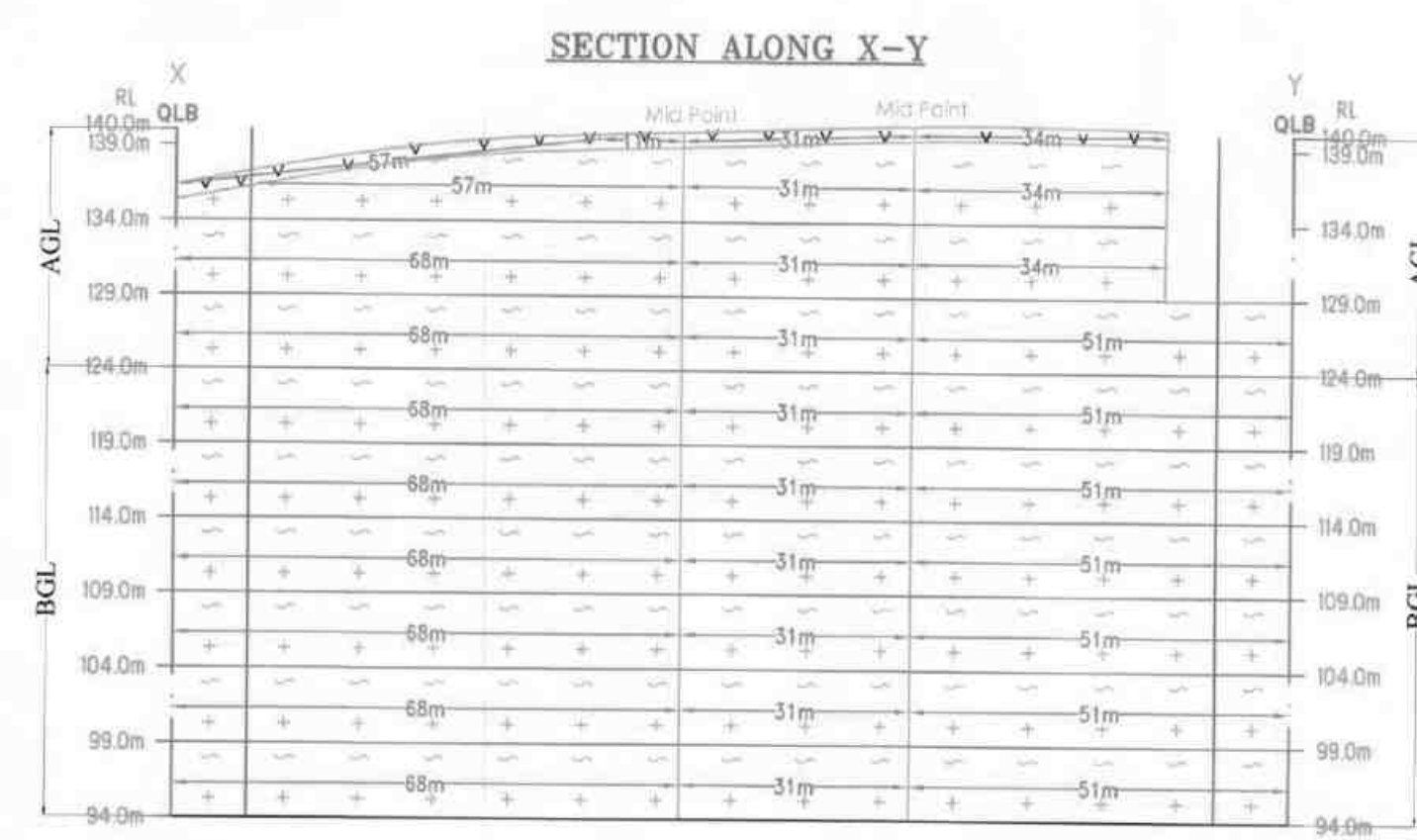


**PLATE NO-III**  
DATE OF SURVEY : 10.04.2025

**APPLICANT:**  
THIRU R. RAJKUMAR,  
S/o RAJARAM,  
NO.4C, 4<sup>th</sup> FLOOR,  
SIVAM SRI MADHAV,  
KUTTIMANI NAGAR,  
PICHANDAR KOVIL,  
TRICHY - 621 216.

**QUARRY APPLIED LEASE AREA:**  
S.F.NO : 10/1 (BLOCK-1),  
EXTENT : 1.50.0 Ha,  
VILLAGE : PADALUR (EAST),  
TALUK : ALATHUR,  
DISTRICT : PERAMBALUR.

**INDEX**

Q.L. APPLIED BOUNDARY

10m SAFETY DISTANCE

TEMPORARY BENCH MARK

QUARRY ROAD

APPROACH ROAD

CONTOUR

SCRUB

QUARRY PIT

TOP SOIL

ROUGH STONE

STRIKE & DIP

**TOPOGRAPHY & GEOLOGICAL  
PLAN & SECTIONS**  
SCALE 1:1000  
SECTIONS HOR 1:1000, VER 1:500

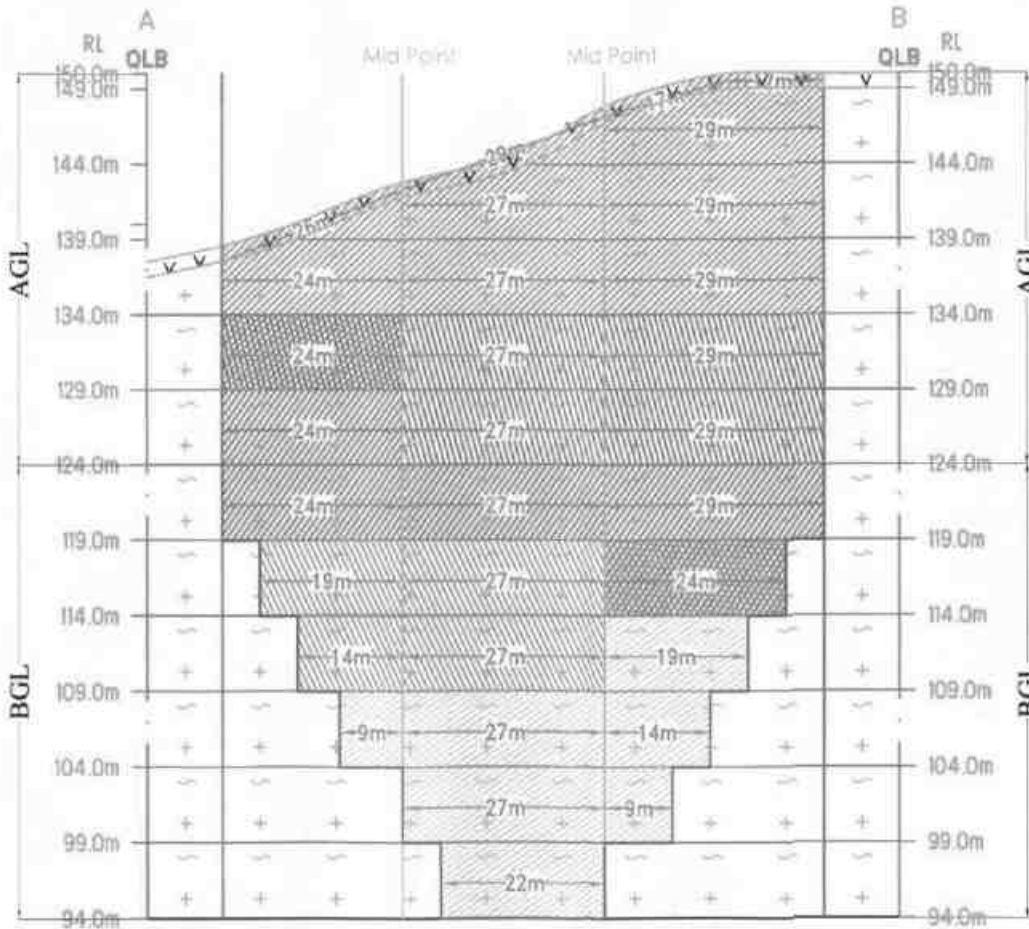
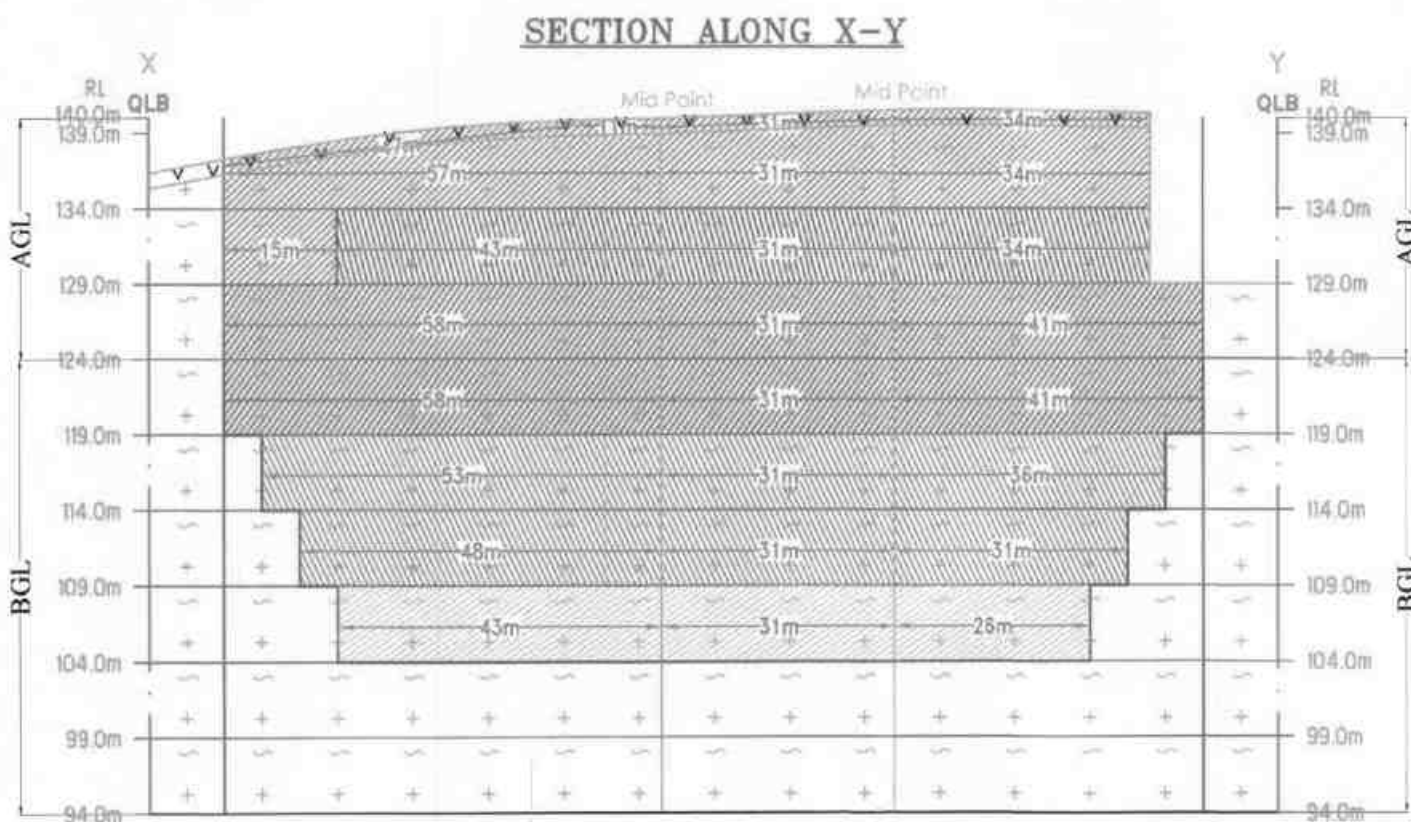
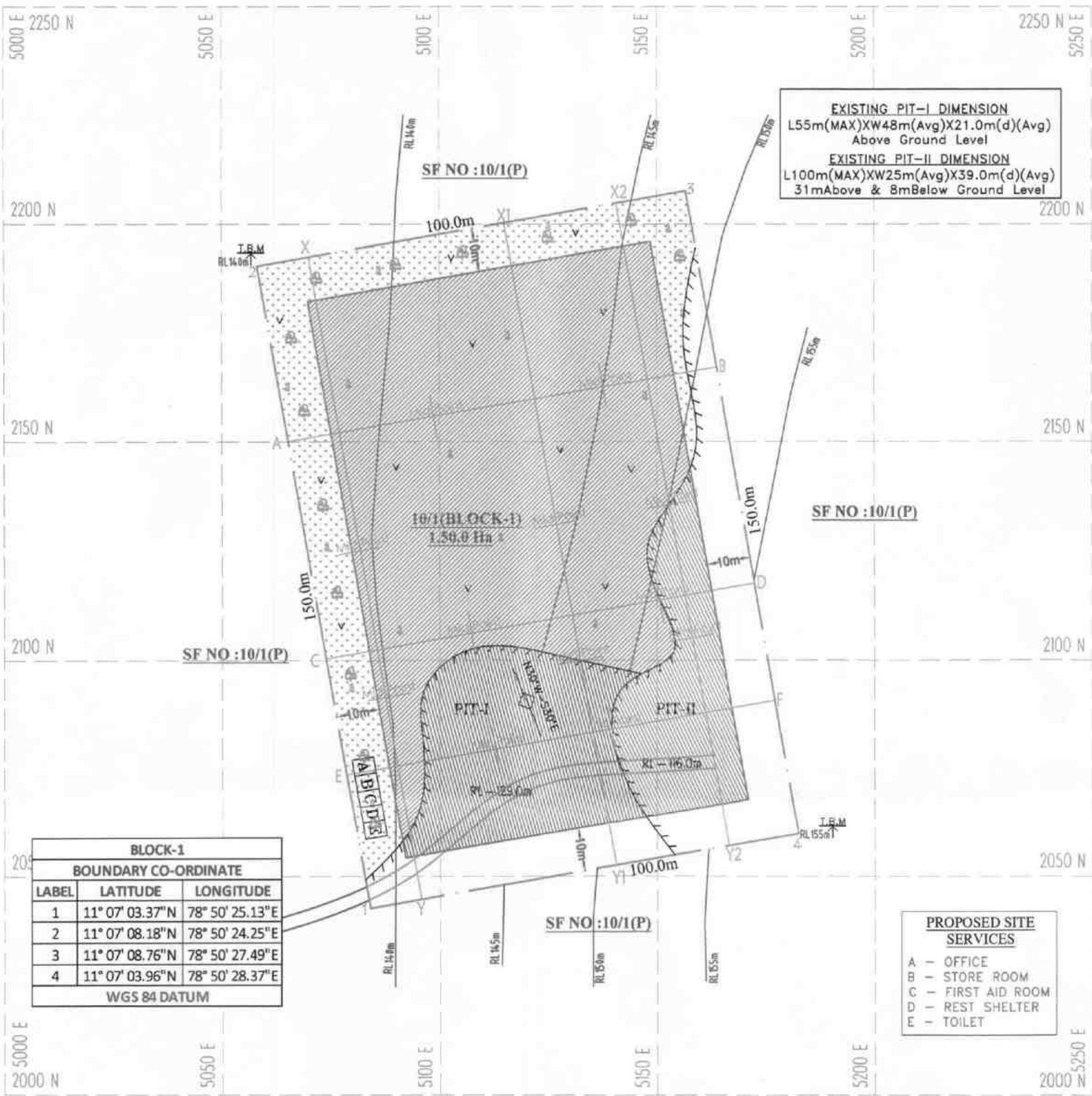
**PREPARED BY:**  
THIS IS TO CERTIFY THAT THE INFORMATION  
IN THIS PLATE IS TRUE AND CORRECT TO  
THE BEST OF MY KNOWLEDGE BASED UPON  
THE LEASE MAP AUTHENTICATED BY STATE  
GOVERNMENT

C.NATARAJAN,M.Sc.,M.Phil.,  
QUALIFIED PERSON









Proposed area to be Planted

- 1st yr Proposed area to be Quarried
- 2nd yr Proposed area to be Quarried
- 3rd yr Proposed area to be Quarried
- 4th yr Proposed area to be Quarried
- 5th yr Proposed area to be Quarried

**PRESENT & POST LAND USE PATTERN**

| DESCRIPTION          | PRESENT AREA (Ha) | AREA AT THE END OF THIS QUARRYING PERIOD (Ha) |
|----------------------|-------------------|-----------------------------------------------|
| AREA UNDER QUARRYING | 0.52.0            | 1.25.0                                        |
| INFRASTRUCTURE       | NII               | 0.01.0                                        |
| ROADS                | 0.01.0            | 0.01.0                                        |
| GREEN BELT           | NII               | 0.23.0                                        |
| UN-UTILIZED AREA     | 0.97.0            | NII                                           |
| GRAND TOTAL          | 1.50.0            | 1.50.0                                        |

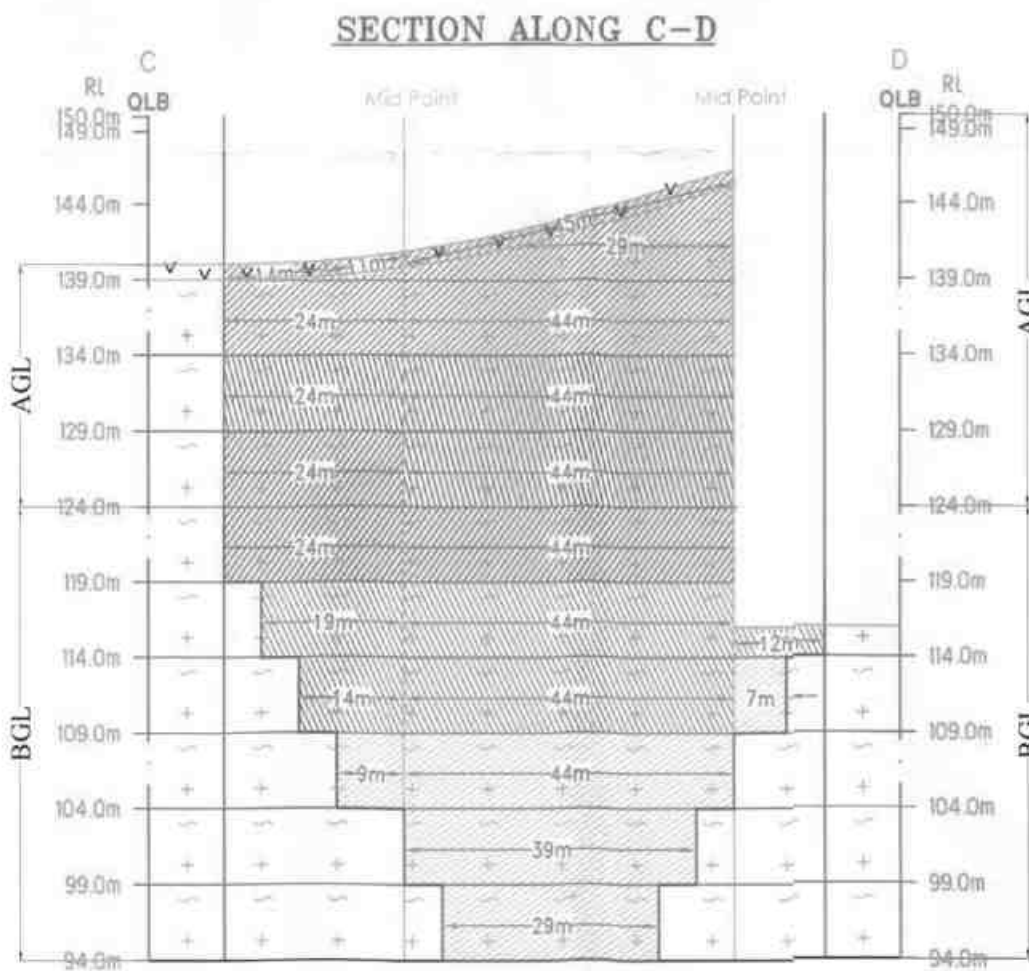
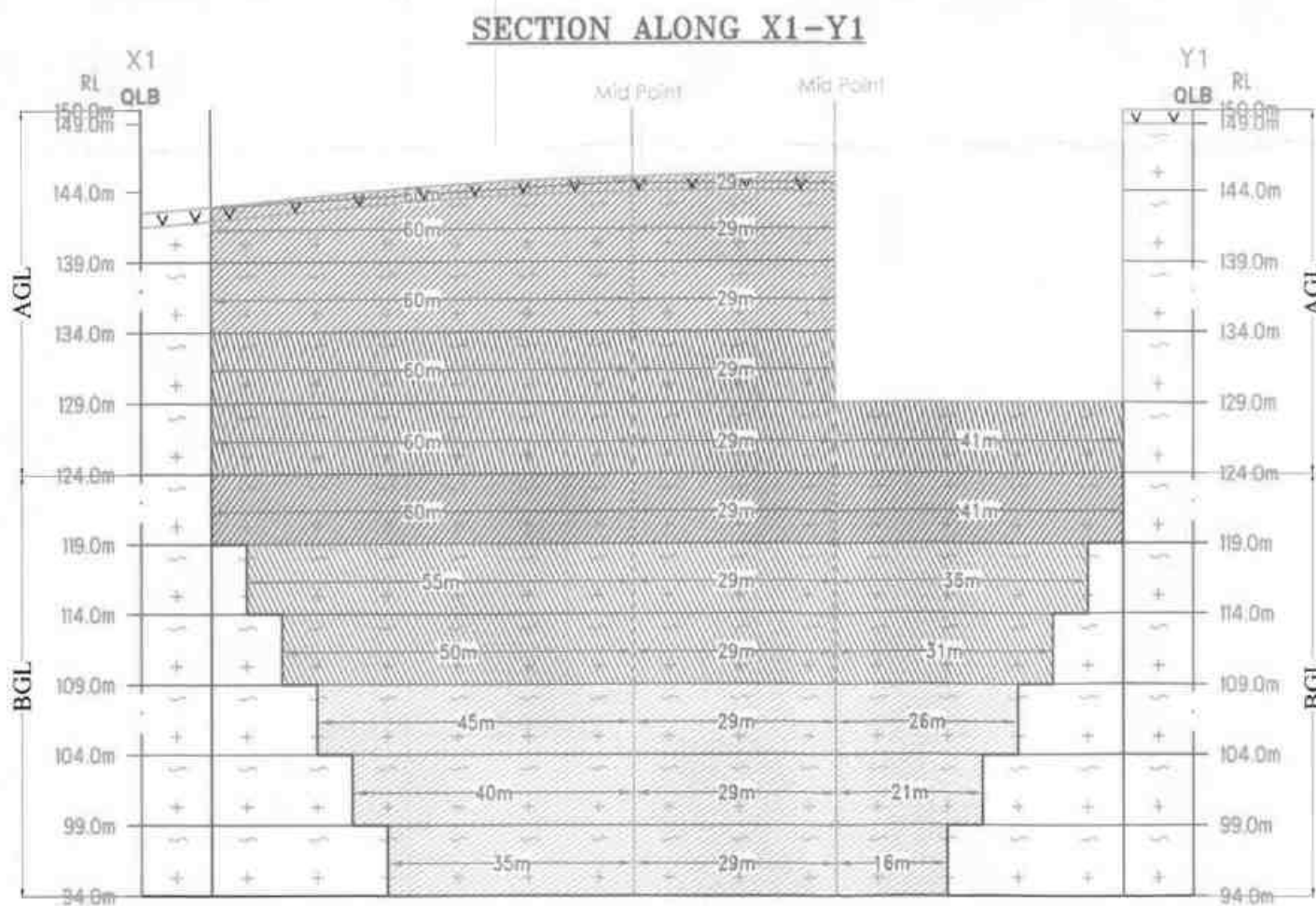


PLATE NO-V  
DATE OF SURVEY : 10.04.2025

**APPLICANT:**  
THIRU.R.RAJKUMAR,  
S/o.RAJARAM,  
NO 4C, 4<sup>th</sup> FLOOR,  
SIVAM SRI MADHAV,  
KUTTIMANI NAGAR,  
PICHANDAR KOVIL,  
TRICHY - 621 216.



**QUARRY APPLIED LEASE AREA:**  
S.F.NO : 10/1 (BLOCK-1),  
EXTENT : 1.50.0 Ha,  
VILLAGE : PADALUR (EAST),  
TALUK : ALATHUR,  
DISTRICT : PERAMBALUR.

**INDEX**

- Q.L. APPLIED BOUNDARY
- 10m SAFETY DISTANCE
- TEMPORARY BENCH MARK
- QUARRY ROAD
- APPROACH ROAD
- CONTOUR
- SCRUB
- QUARRY PIT
- TOP SOIL
- ROUGH STONE
- STRIKE & DIP

**YEARWISE DEVELOPMENT & PRODUCTION PLAN & SECTIONS**  
SCALE 1:1000  
SECTIONS HOR 1:1000, VER 1:500

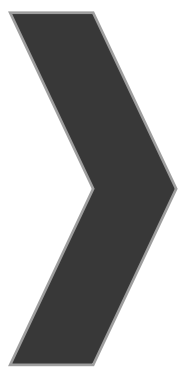
**PREPARED BY:**  
THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

C.NATARAJAN, M.Sc., Phil.,  
QUALIFIED PERSON









# ANNEXURE-4

From

Thiru D.Bernard, M.Sc.,  
Assistant Director,  
Dept of Geology and Mining,  
Perambalur.

To

Thiru.R.Rajkumar,  
S/o. Rajaram,  
No.4C/, 4<sup>th</sup> floor, Sivam Sri  
Madhav, Kuttimani Nagar,  
Pchindar Kovil,  
Trichy - 621 216.

**Rc.No.123/G&M/2025**

**Dated : 16.06.2025**

Sub: Mines and Minerals - Perambalur District - Rough Stone - e-Tender cum auction conducted for Roughstone quarries in Government lands - Thiru.R.Rajkumar S/o Rajaram quoted highest Bid amount (H1) For the quarry in S.F.No. 10/1 (Block 1), OAE of 1.50.0 hectares in Padalur (East) Village, Alathur Taluk -Declared as H1 bidder - H1 Bid Amount remitted - Precise Area Communicated - Draft Mining Plan submitted for approval - Details of quarries situated within 500 mts radial distance requested - furnished - Reg.

- Ref:
1. G.O.(Ms). No.21, Natural Resources (MMC.1) Department, Dated 31.07.2024
  2. Perambalur District Gazette (Extraordinary) Notification No.1, dated: 18.02.2025.
  3. Notice issued by the Assistant Director of Geology and Mining, Perambalur in Rc.No.123/G&M/2025, dated: 28.03.2025
  4. The Assistant Director, Geology and Mining, Perambalur Precise Area Communication letter Rc.No.123/G&M/2025, dated 09.04.2025.
  5. Thiru. R.Rajkumar S/o Rajaram letter dated 15.04.2025.

\*\*\*\*\*

The applicant Thiru.R.Rajkumar S/o Rajaram, Perambalur in the reference 5<sup>th</sup> cited has requested to provide the details of quarries situated within 500 mts radius distance from the proposed lease area referred in the subject.

Accordingly, the details of quarries (existing, proposed, expired, abandoned) situated within 500 mts radial distance from the subject area are furnished below,

**1) Existing quarries:**

| Sl. No | Name of the Owner                                                                                                         | Taluk / Village            | S.F.Nos.                              | Extent | GO. No                                                 | Lease Period                        | Remarks |
|--------|---------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------|--------|--------------------------------------------------------|-------------------------------------|---------|
| 1.     | M.Baskaran,<br>S/o.MuthuRediyar<br>Thiruvallakuruchi,<br>Padalur (East) Village,<br>AlathurTaluk,<br>Perambalur District. | Alathur,<br>Padalur<br>(E) | 1/7F(P),<br>1/7G(P)<br>,1/3(P)<br>etc | 1.33.0 | Rc.No.9<br>6/2021<br>/Mines<br>dated<br>23.05.2<br>024 | 23.08.202<br>4 to<br>22.08.203<br>4 | Working |

**2) Proposed quarries:**

| Sl. No | Name of the Owner                                                                                                                                   | Taluk / Village               | S.F.Nos.          | Extent | Lease Period | Remarks               |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------|--------|--------------|-----------------------|
| 1      | Thiru. R.Rajkumar<br>S/o. Rajaram,<br>No.4C, 4 <sup>th</sup> floor,<br>Sivam Sri Madhav,<br>Kuttimani Nagar,<br>Pichandar kovil,<br>Trichy-621 216. | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 1) | 1.50.0 | -            | Instant<br>Proposal   |
| 2      | Thiru.M.Thangaraj<br>S/o. Maran,<br>No.158/34A,<br>Abiramapuram west,<br>Collector Office Road,<br>Perambalur -621 212.                             | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 5) | 2.10.0 | -            | Presently<br>proposed |
| 3      | Thiru.Hariharan. L<br>No. 9, Dhanalakshmi<br>Street Postal Nagar,<br>Nemilicheri Chrompet,<br>Kancheepuram District<br>- 600 044.                   | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 2) | 1.40.6 | -            | Presently<br>proposed |
| 4      | Thiru.P.Velmurugan<br>No.1, Royal<br>mahalakshmi Nagar,<br>Virudhachalam,<br>Cuddalore -606 001.                                                    | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 3) | 1.40.0 | -            | Presently<br>proposed |
| 5      | M/s. Rajamalai Metals<br>No. 3/350 H, Jeya<br>Complex,<br>Main Road, Padalur,<br>Perambalur-621 109.                                                | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 4) | 1.40.0 | -            | Presently<br>proposed |
| 6      | M/s.SR Mines and<br>Minerals<br>Flat No.2/1, Room<br>No.4,Ramanujam<br>Building,V.N Nagar,<br>Karur Bibass Road,<br>Trichy-620002.                  | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 6) | 2.20.0 | -            | Presently<br>proposed |
| 7      | M/s.Mars Mines<br>No.24/7, Padalur East,<br>Alathur Taluk,<br>Perambalur -621 109.                                                                  | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 7) | 1.30.0 | -            | Presently<br>proposed |

|    |                                                                                                                             |                               |                    |        |   |                       |
|----|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------|--------|---|-----------------------|
| 8  | Thiru.Vinoth R<br>44/4 Subbramanyar<br>Kovil street,<br>Tittakudi, Cuddalore<br>District-606 106.                           | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 8)  | 1.20.0 | - | Presently<br>proposed |
| 9  | M/s.Anjanyaa<br>Minerals<br>No.3/379J, Ward -08,<br>Main Road, Irur,<br>Alathur Taluk,<br>Perambalur District -<br>621 109. | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 9)  | 1.20.0 | - | Presently<br>proposed |
| 10 | Thiru.P.Velmurugan<br>No.1, Royal<br>mahalakshmi Nagar,<br>Virudhachalam,<br>Cuddalore -606 001.                            | Alathur/<br>Padalur<br>(East) | 10/1<br>(Block 13) | 1.00.0 | - | Presently<br>proposed |

### 3) Expired quarries

| Sl. No | Name of the Owner | Taluk / Village | S.F.Nos. | Extent | Lease Period | Remarks |
|--------|-------------------|-----------------|----------|--------|--------------|---------|
| 1      | Nil               |                 |          |        |              |         |

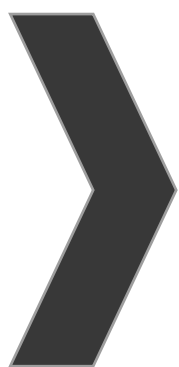
### 4) Abandoned quarries:

| Sl. No | Name of the Owner                                                                                                                           | Taluk /Village        | S.F.Nos.               | Extent | Lease period                   | Remarks                                                                            |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------|--------|--------------------------------|------------------------------------------------------------------------------------|
| 1      | M.Baskaran,<br>S/o.MuthuRediyar<br>Thiruvalakuruchi,<br>Padalur (East)<br>Village,<br>AlathurTaluk,<br>Perambalur District.                 | Padalur(E)<br>Alathur | 4(1)(P),4(2)(P)7(3)(P) | 2.00.0 | 24.01.2018<br>to<br>23.01.2023 | Further<br>grant of<br>quarry<br>lease is<br>not<br>feasible in<br>these<br>areas. |
| 2      | K.Mathiyalagan,<br>S/o.Kanagasabi,<br>State Bank Colony,<br>Kumbakonam.                                                                     | Padalur(E)<br>Alathur | 10/1<br>Block No.18    | 1.00.0 | 23.05.2007<br>to<br>22.05.2017 |                                                                                    |
| 3      | B.Senthilkumar,<br>S/o.P.Balagopal,<br>454,4 <sup>th</sup> Cross Road,<br>Shanmugam Nagar,<br>Uiyakondam,<br>Thirumalai,<br>Trichirappalli. | Padalur(E)<br>Alathur | 10/1<br>(Part)         | 1.00.0 | 12.04.2006<br>to<br>11.04.2016 |                                                                                    |
| 4      | M.Ravi,<br>S/o.Muthukrishnan,<br>No2/78,<br>Malaiyadiavaram,<br>Chettikulam Post,<br>Kunnam<br>TK,Perambalur<br>District.                   | Padalur(E)<br>Alathur | 10/1<br>Block No.20    | 1.00.0 | 11.05.2007<br>to<br>10.05.2017 |                                                                                    |
| 5      | V.Panneerselvam,<br>S/o.Veerasingam,<br>South Street,<br>Thennamanadu                                                                       | Padalur<br>Perambalur | 10/1 ,Block 22         | 1.00.0 | 31.05.2011<br>to<br>30.05.2021 |                                                                                    |

|   |                                                                                                              |                    |               |        |                          |  |
|---|--------------------------------------------------------------------------------------------------------------|--------------------|---------------|--------|--------------------------|--|
|   | Post, Orathanadu Taluk, Thanjavur District.                                                                  |                    |               |        |                          |  |
| 6 | R.Sureshbabu, S/o.V.Rajagopal, No.244, Philomina Nagar, 3 <sup>rd</sup> Street, Nanjikottai Road, Thanjavur. | Padalur(E) Alathur | 10/1 Block 17 | 1.00.0 | 23.05.2007 to 22.05.2017 |  |

*[Signature]*  
Assistant Director,  
Geology and Mining,  
Perambalur.

*[Signature]*  
16/06/25

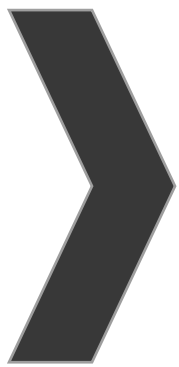


# ANNEXURE-5

Chrysomelini brachio, Jostis deis, 73-Untergrün  
Beisik Bomo afizati Hyslain Zegeri Jostis:

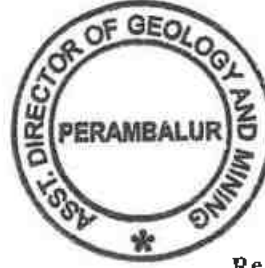
Beisik brachio, Chrysomelini deis,  
Up Jostis deis Chrysomelini Jostis deis  
Jostis deis Jostis deis, Jostis deis, Untergrün  
Bomo ya Jostis 10/1 Jostis 61.56.18 Chrysomelini  
Jostis - I Jostis 1.50.0 Chrysomelini Jostis  
Chrysomelini 2666 Chrysomelini. Chrysomelini ya Jostis 10/1  
Bomo Jostis - I 73 Chrysomelini 300 Chrysomelini  
Chrysomelini Chrysomelini, Chrysomelini, Chrysomelini,  
Chrysomelini, Chrysomelini Chrysomelini Chrysomelini  
Chrysomelini 50 Chrysomelini Chrysomelini, Chrysomelini  
Chrysomelini Chrysomelini Chrysomelini Chrysomelini  
Chrysomelini Chrysomelini.

17525  
73 - Untergrün (Chrysomelini)  
Chrysomelini Chrysomelini  
Chrysomelini Chrysomelini



# **ANNEXURE-6**





GOVERNMENT OF TAMIL NADU  
2025

Registered No.  
TN/SRGM-10



## PERAMBALUR DISTRICT GAZETTE

EXTRAORDINARY PUBLISHED BY AUTHORITY

PERAMBALUR, FEBRUARY 18, 2025

No. 1 ]

[ Maasi 06, Kurothi, Thiruvalluvar Aandu - 2056 ]

### NOTIFICATION BY THE COLLECTOR

(Rc. No.35 / G&M / 2022, Dated : 17-02-2025)

E-mail: (minespmb@gmail.com)

Notice Inviting Tender(NIT)

#### "Inviting Application for Grant of Roughstone Quarry Leases in Government Lands"

In exercise of the power conferred by Section 15 of Mines and Mineral (Development & Regulation) Act, 1957 and in accordance with the Rule 8 of the Tamil Nadu Minor Mineral Concession Rules, 1959 read with G.O. Ms. No.21, Natural Resources (MMC.1), 31st July 2024 as amended from time to time notified thereunder, the District Administration of Perambalur District, Tamil Nadu has identified 44 (Forty four) areas for Roughstone Quarries in Perambalur District as indicated in the Annexure-I.

The E-tender with forward bidding will be conducted through online electronic platform with url address <https://tntenders.gov.in> and hereby invites applications for the said purpose.

Aspiring applicants can register themselves as bidders using their Digital Signature certificate on the portal <https://tntenders.gov.in>. On Successful registration, bidders will obtain login ID and password necessary for submitting the application and for participation in the e-auction process. **Bidders Manual Kit** in the portal <https://tntenders.gov.in> provides with all requisite illustrations guiding through various stages of the e-auction process.

The terms and conditions of the e-auction process, details of application fee and bid security amount, detailed information regarding the notified areas, model affidavits to be uploaded in the technical bid are available in the detailed tender document, that can be downloaded free of cost in the portal <https://tntenders.gov.in>

Intending bidders are advised to visit the mentioned site regularly till closing date of E-auction for any corrigendum / addendum / amendment.

**Application Fee – Rs.5,000 (Non – Refundable) for each quarry**

Bid submission start date : 19-02-2025 from 10.00 hrs  
 Bid Submission end date : 22-03-2025 upto 16.00 hrs  
 Financial bid opening and live e-auction date : Will be intimated later on through Tamil Nadu e-Tender portal

**ANNEXURE – I****Tender File No.Rc.No.35/G&M/2022, Dated : 17-02-2025**

**List of Areas Identified in Government lands in Perambalur District of Tamil Nadu for Grant of Rough Stone Quarry Leases through e-Auction.**

| Sl. No. | Taluk      | Name of the Village | SF.No             | Extent in Ha | Land Classification                | Period of Lease |
|---------|------------|---------------------|-------------------|--------------|------------------------------------|-----------------|
| (1)     | (2)        | (3)                 | (4)               | (5)          | (6)                                | (7)             |
| 1       | Perambalur | Kalpadi(N)          | 328/2 Block 31    | 1.10.0       | Unassessed waste land - Malai      | 5               |
| 2       | Perambalur | Kalpadi(N)          | 328/2 Block 34    | 1.00.0       | Unassessed waste land - Malai      | 10              |
| 3       | Perambalur | Kalpadi(N)          | 328/2 Block 35    | 1.50.0       | Unassessed waste land - Malai      | 5               |
| 4       | Perambalur | Kalpadi(N)          | 328/2 Block 36    | 1.00.0       | Unassessed waste land - Malai      | 5               |
| 5       | Perambalur | Kalpadi(N)          | 328/2 Block 37    | 1.00.0       | Unassessed waste land - Malai      | 5               |
| 6       | Perambalur | Kalpadi(N)          | 328/2 Block 38    | 1.00.0       | Unassessed waste land - Malai      | 10              |
| 7       | Perambalur | Chalramanai         | 23 Part-1         | 1.10.0       | Unassessed waste land – Eli Kundru | 5               |
| 8       | Perambalur | Thurai mangalam     | 280/13A1 Block-8  | 1.00.0       | Unassessed waste land - Kundru     | 10              |
| 9       | Perambalur | Elambalur           | 27/1A (Block-1)   | 1.20.0       | Unassessed waste land - Malai      | 5               |
| 10      | Perambalur | Elambalur           | 27/1A, (Block-2)  | 1.80.0       | Unassessed waste land - Malai      | 10              |
| 11      | Perambalur | Elambalur           | 27/1A, (Block-3)  | 2.50.0       | Unassessed waste land - Malai      | 10              |
| 12      | Perambalur | Aranarai(N)         | 120/2A1A (Part-1) | 1.50.0       | Unassessed waste land - Kundru     | 10              |
| 13      | Perambalur | Aranarai(N)         | 120/2A1A (Part-2) | 1.50.0       | Unassessed waste land - Kundru     | 10              |
| 14      | Perambalur | Aranarai(N)         | 120/2A1A (Part-3) | 1.80.0       | Unassessed waste land - Kundru     | 5               |
| 15      | Perambalur | Sengunam            | 52/1(Part-1)      | 1.80.0       | Unassessed waste land - Malai      | 10              |
| 16      | Perambalur | Sengunam            | 52/1(Part-2)      | 1.40.0       | Unassessed waste land - Malai      | 10              |

PERAMBALUR DISTRICT GAZETTE EXTRAORDINARY



| Sl. No. | Taluk      | Name of the Village | SF.No          | Extent in Ha | Land Classification                 | Period of Lease |
|---------|------------|---------------------|----------------|--------------|-------------------------------------|-----------------|
| (1)     | (2)        | (3)                 | (4)            | (5)          | (6)                                 | (7)             |
| 17      | Perambalur | Sengunam            | 52/1(Part-3)   | 1.50.0       | Unassessed waste land - Malai       | 10              |
| 18      | Alathur    | Narana mangalam     | 300/1 Part     | 2.02.0       | Unassessed waste land - Malai       | 5               |
| 19      | Alathur    | Narana mangalam     | 324/1 Block-1  | 2.00.0       | Unassessed waste land - Kallankuthu | 5               |
| 20      | Alathur    | Nattar mangalam     | 195 Part       | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 21      | Alathur    | Nattar mangalam     | 258 Block-1    | 1.00.0       | Unassessed waste land - Malai       | 5               |
| 22      | Alathur    | Nattar mangalam     | 258 Block-2    | 2.00.0       | Unassessed waste land - Malai       | 5               |
| 23      | Alathur    | Padalur(E)          | 10/1 Block 1   | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 24      | Alathur    | Padalur(E)          | 10/1 Block 2   | 1.40.6       | Unassessed waste land - Kallankuthu | 10              |
| 25      | Alathur    | Padalur(E)          | 10/1 Block 3   | 1.40.0       | Unassessed waste land - Kallankuthu | 5               |
| 26      | Alathur    | Padalur(E)          | 10/1 Block 4   | 1.40.0       | Unassessed waste land - Kallankuthu | 5               |
| 27      | Alathur    | Padalur(E)          | 10/1 Block 5   | 2.10.0       | Unassessed waste land - Kallankuthu | 5               |
| 28      | Alathur    | Padalur(E)          | 10/1 Block 6   | 2.20.0       | Unassessed waste land - Kallankuthu | 10              |
| 29      | Alathur    | Padalur(E)          | 10/1 Block 7   | 1.30.0       | Unassessed waste land - Kallankuthu | 5               |
| 30      | Alathur    | Padalur(E)          | 10/1 Block 8   | 1.20.0       | Unassessed waste land - Kallankuthu | 5               |
| 31      | Alathur    | Padalur(E)          | 10/1 Block 9   | 1.20.0       | Unassessed waste land - Kallankuthu | 5               |
| 32      | Alathur    | Padalur(E)          | 10/1, Block-13 | 1.00.0       | Unassessed waste land - Kallankuthu | 5               |
| 33      | Alathur    | Padalur(E)          | 123 Block 1    | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 34      | Alathur    | Padalur(E)          | 123 Block 2    | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 35      | Alathur    | Padalur(E)          | 123 Block 3    | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 36      | Alathur    | Padalur(E)          | 123 Block 4    | 2.00.0       | Unassessed waste land - Kallankuthu | 5               |
| 37      | Alathur    | Padalur(E)          | 172 Block 1    | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |



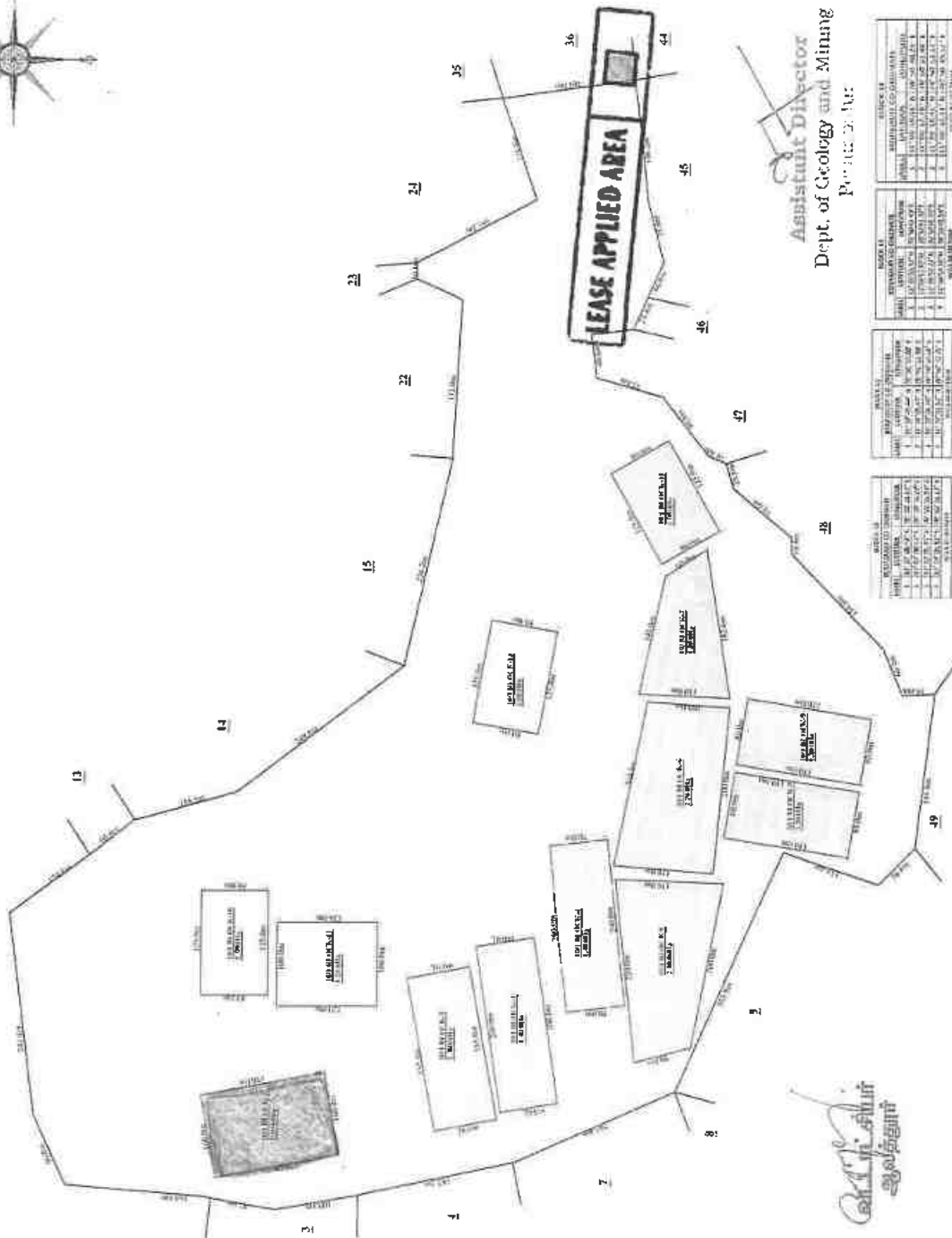
| Sl. No. | Taluk         | Name of the Village | SF.No                  | Extent in Ha | Land Classification                 | Period of Lease |
|---------|---------------|---------------------|------------------------|--------------|-------------------------------------|-----------------|
| (1)     | (2)           | (3)                 | (4)                    | (5)          | (6)                                 | (7)             |
| 38      | Alathur       | Padalur(E)          | 172 Block 2            | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 39      | Alathur       | Padalur(E)          | 172 Block 3            | 1.50.0       | Unassessed waste land - Kallankuthu | 5               |
| 40      | Veppanthattai | Vengalam(E)         | 200/1B Part, Block-13  | 1.50.0       | Unassessed waste land - Malai       | 10              |
| 41      | Veppanthattai | Vengalam(E)         | 200/1C, Part, Block-1  | 1.40.0       | Unassessed waste land - Malai       | 10              |
| 42      | Veppanthattai | Vengalam(E)         | 200/1C, Part, Block-14 | 1.40.0       | Unassessed waste land - Malai       | 10              |
| 43      | Veppanthattai | Vengalam(E)         | 200/1C Part, Block-15  | 1.50.0       | Unassessed waste land - Malai       | 10              |
| 44      | Veppanthattai | Vengalam(E)         | 200/1C Part, Block-16  | 1.50.0       | Unassessed waste land - Malai       | 10              |

Perambalur,  
17<sup>th</sup> February 2025.

GRACE PACHUAU,  
District Collector.



**LOCATION OF QUARRY LEASE**  
**BLOCK AREA:**  
**S.F.NO :** 10/71.  
**EXTENT :** 69.07 CHA.  
**VILLAGE :** PADALUR EAST,  
**TALUK :** ALATHUR,  
**DISTRICT:** PERAMBALUR



Assistant Director  
Dept. of Geology and Mining  
P.O. Box 2, Har

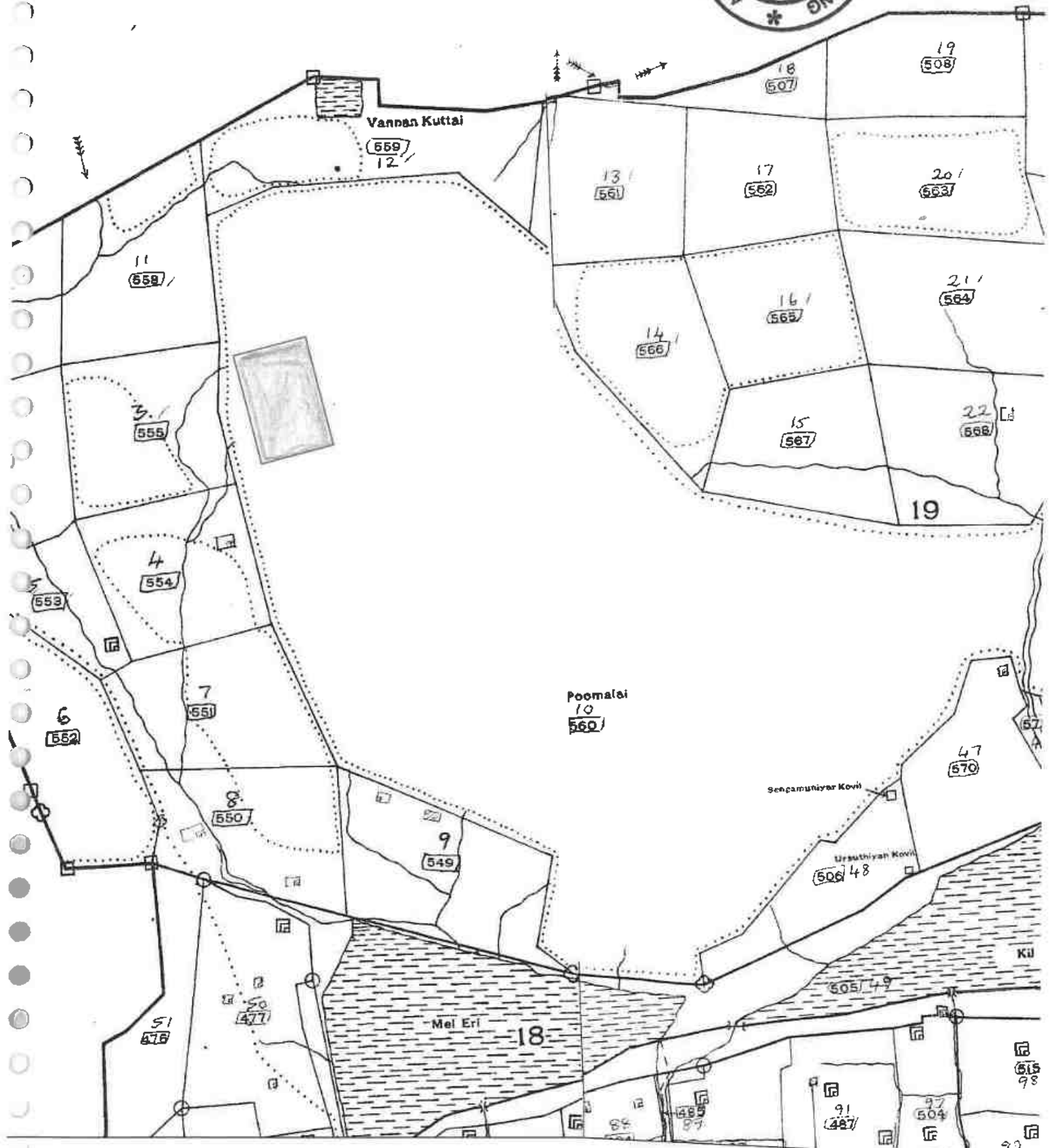
[illegible]

**STUDY OBJECTIVES**



ADALUR EAST. BH NO. 1

V. No



LEASE APPLIED AREA



| 1  | 2   | 3      | 4 | 5      | 6   | 7   | 8   | 9             | 10                  | 11            |                                           |
|----|-----|--------|---|--------|-----|-----|-----|---------------|---------------------|---------------|-------------------------------------------|
| 8  | 3A  | 8-3A   | ர | பு     | ... | 8-4 | 16  | நு.பை<br>1 09 | ஹெ. ஏர்ஸ்<br>0 26.0 | நு.பை<br>0 28 | 653 ரெ.ராணி(1).<br>சு.முத்தி<br>சாமி(2).  |
|    | 3B  | -3B    | அ | பு     | ... | 8-4 | 10  | 1 09          | 1 26.5              | 1 37          | .....                                     |
|    | 4   | -4     | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 20.0              | 0 22          | 653 ரெ.ராணி(1),<br>சு.முத்தம்<br>மாள்(2). |
|    | 5   | -5     | ர | பு     | ... | 8-4 | 16  | 1 09          | 1 22.5              | 1 33          | 5 ரா.அமிர்தம்<br>மாள்.                    |
|    |     |        |   |        |     |     |     |               | 3 79.0              | 3 78          |                                           |
| 9  | 1A  | 9-1A   | அ | பு     | ... | 8-4 | 16  | 1 09          | 0 21.0              | 0 23          | ...                                       |
|    | 1B  | -1B    | ர | பு     | ... | 8-4 | 16  | 1 09          | 1 02.5              | 1 11          | 604 ஸீ.ரெங்கம்<br>மாள்.                   |
|    | 1C  | -1C    | ர | பு     | ... | 8-4 | 16  | 1 09          | 1 43.5              | 1 56          | 633 ரெ.வீரன்<br>செட்டி.                   |
|    | 2   | -2     | அ | புற    | ... | ... | ... | ...           | 1 73.0              | ...           | .....                                     |
|    |     |        |   |        |     |     |     |               | 4 40.0              | 2 90          |                                           |
| 10 | 1   | 10-1   | அ | தி.ஏ.த | ... | ... | ... | ...           | 66 61.5             | ...           | .....                                     |
|    | 2   | -2     | அ | பு     | ... | 8-4 | 16  | 1 09          | 2 08.5              | 2 98          | .....                                     |
|    |     |        |   |        |     |     |     |               | 68 70.0             | 2 98          |                                           |
| 11 | 1   | 11-1   | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 38.0              | 0 42          | 65 செ.ராமராஜ்.                            |
|    | 2   | -2     | அ | புற    | ... | ... | ... | ...           | 0 13.5              | ...           | .....                                     |
|    | 3A  | -3A    | அ | பு     | ... | 8-4 | 16  | 1 09          | 1 18.0              | 1 28          | .....                                     |
|    | 3B1 | -3B பா | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 06.0              | 0 07          | 128 வீ.காராளன்.                           |
|    | 3B2 | -3B பா | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 06.5              | 0 08          | 6 வீ.அண்ணாவி.                             |
|    | 3B3 | -3B பா | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 03.0              | 0 06          | 176 பொ.சாமிக்<br>கண்ணு.                   |
|    | 3B4 | -3B பா | ர | பு     | ... | 8-4 | 16  | 1 09          | 0 03.0              | 0 06          | 307 பொ.தங்<br>கையா.                       |

தரிக்.

சதுரக்.  
கிணறு

சதுரக்.  
கிணறு.

தரிக்.

சதுரக்  
கிணறும்  
கூரைவிடும்.

நீர்ப்பிடிப்பு

கல்லாங்  
குத்து.

தரிக்.

வாரி.

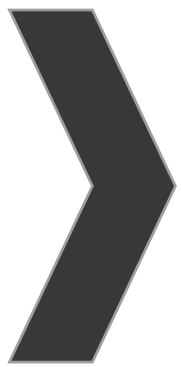
தரிக்.

12.7.20

12525  
கிராம நிர்வாக அலுவலர்  
73 - பாடாலூர் (கிழக்கு).  
தலைவர் வட்டம்.







# ANNEXURE-7



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1917 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1917  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 04.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results        | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 67.9           | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 32.7           | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.9            | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.4           | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL(D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1918 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1918  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 04.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 54.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1919 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1919  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 05.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 71.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 34.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.8            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1920 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1920  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 05.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 51.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.6             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1921 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1921  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 06.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1922 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

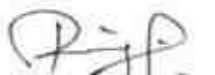
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1922  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 06.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 59.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 29.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.9            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1923 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

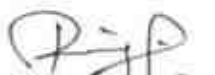
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1923  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 07.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.7            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1924 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1924  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 07.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 55.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1925 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1925  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 08.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 26%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 44.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.6             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1926 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1926  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 08.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.0             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1927 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Padalur Village       |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1927  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 08.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 43.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1928 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

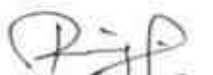
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1928  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 09.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1929 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1929  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 09.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 51.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

**Verified**



\*\*\*END OF THE REPORT\*\*\*

**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1930 | Report Date. | 17.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

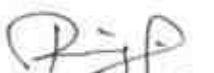
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1930  | Sample Received on | 10.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 10.03.2025 |
| Sample Collected on | 09.03.2025       | Test Completed on  | 17.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1971 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1971  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 11.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 41.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 19.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.0             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1972 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1972  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 11.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1973 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1973  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 11.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1974 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1974  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 12.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.  
CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1975 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

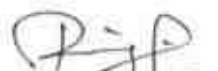
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1975  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 12.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |             |              |            |
|------------|-------------|--------------|------------|
| Report No. | SARL/25/197 | Report Date. | 24.03.2025 |
|------------|-------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1976  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 11.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 44.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1977 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1977  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 13.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

### For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1978 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1978  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 13.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 56.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.3            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1979 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1979  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 14.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.8            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

### For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1980 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1980  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 14.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1981 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1981  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 15.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 66.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 31.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1982 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1982  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 15.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 57.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.7            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1983 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1983  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 16.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.0            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/1984 | Report Date. | 24.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-1984  | Sample Received on | 17.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 17.03.2025 |
| Sample Collected on | 16.03.2025       | Test Completed on  | 24.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.0            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 14 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2025 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2025  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 18.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results        | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 59.8           | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 28.8           | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.0            | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.6           | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL(D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2026 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2026  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 18.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 59.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 28.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 8.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.9            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2027 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2027  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 19.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 65.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 31.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2028 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2028  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 19.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 55.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 4 of 15



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2029 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2029  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 20.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2030 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2030  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 20.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2031 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2031  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 21.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2032 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2032  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 21.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 52.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.6             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2033 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2033  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 22.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 26%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2034 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2034  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 22.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1)

The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2035 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2035  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 22.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 43.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 11 of 15





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2036 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2036  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 23.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 43.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 12 of 15

# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

---

report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2037 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2037  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 23.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

**LAB SERVICES FOR:-** Food, Water, Milk, Environment, Academic & Industrial Segment.

**CIN :** U74999TN2017PTC116807 / **GST No :** 33AAYCS7325R1ZA / **PAN No:** AAYCS7325R

Page 14 of 15



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2038 | Report Date. | 31.03.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2038  | Sample Received on | 24.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 24.03.2025 |
| Sample Collected on | 23.03.2025       | Test Completed on  | 31.03.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.6             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2079 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2079  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 25.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 41.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 19.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2080 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2080  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 25.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2081 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2081  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 25.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 52.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2082 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2082  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 26.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 43.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

Verified 



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2083 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

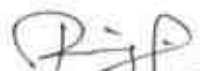
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2083  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 26.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2084 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

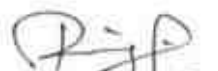
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2084  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 26.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2085 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2085  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 27.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.4            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified 



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2086 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2086  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 27.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2087 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2087  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 28.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified 



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2088 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2088  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 28.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 51.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2089 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2089  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 29.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 73.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 35.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 13.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2090 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2090  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 29.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 12 of 14





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2091 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2091  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 30.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 69.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 33.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.6            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2092 | Report Date. | 07.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2092  | Sample Received on | 31.03.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 31.03.2025 |
| Sample Collected on | 30.03.2025       | Test Completed on  | 07.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.0             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2133 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2133  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 01.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results        | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 56.2           | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.0           | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.6            | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.2           | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL(D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2134 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2134  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 01.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 58.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 8.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.8            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2135 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

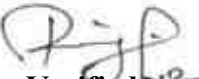
|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2135  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 02.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 61.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 29.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.8            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2136 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

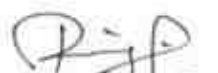
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2136  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 02.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 55.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.3            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2137 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2137  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 03.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.5            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2138 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2138  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 03.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 58.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 28.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.7            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2139 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2139  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 04.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2140 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2140  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 04.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2141 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2141  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 05.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 26%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 42.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2142 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2142  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 05.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 44.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2143 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2143  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 05.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 42.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2144 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2144  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 06.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.6             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2145 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

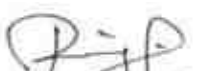
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2145  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 06.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2146 | Report Date. | 14.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

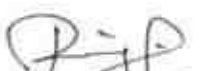
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2146  | Sample Received on | 07.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 07.04.2025 |
| Sample Collected on | 06.04.2025       | Test Completed on  | 14.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2187 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2187  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 08.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 41.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 19.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.0             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2188 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2188  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 08.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2189 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2189  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 08.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2190 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2190  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 09.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 44.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2191 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

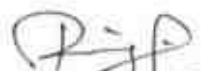
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2191  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 09.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.6             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2192 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

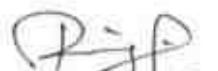
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2192  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 09.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2193 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2193  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 10.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2194 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2194  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 10.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 56.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.4            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2195 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2195  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 11.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified 



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2196 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2196  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 11.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 10 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2197 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2197  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 12.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 54.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2198 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2198  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 12.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2199 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2199  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 13.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 60.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 29.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.7            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2200 | Report Date. | 21.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2200  | Sample Received on | 14.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 14.04.2025 |
| Sample Collected on | 13.04.2025       | Test Completed on  | 21.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 14 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2241 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2241  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 15.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results        | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 67.0           | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 32.2           | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.8            | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.4           | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL(D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2242 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2242  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 15.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2243 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

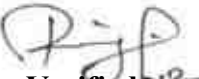
|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2243  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 16.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 72.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 34.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.9            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2244 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

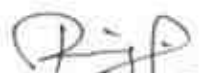
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2244  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 16.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 57.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.6            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2245 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2245  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 17.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.0            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2246 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2246  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 17.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.6             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2247 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2247  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 18.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified 



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2248 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2248  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 18.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 51.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2249 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2249  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 19.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 26%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2250 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2250  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 19.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 44.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2251 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2251  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 19.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 42.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2252 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2252  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 20.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2253 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

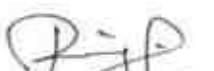
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2253  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 20.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2254 | Report Date. | 28.04.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2254  | Sample Received on | 21.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 21.04.2025 |
| Sample Collected on | 20.04.2025       | Test Completed on  | 28.04.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2295 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2295  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 22.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2296 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2296  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 22.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2297 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2297  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 22.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2298 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2298  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 23.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2299 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

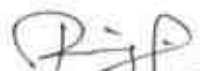
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2299  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 23.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 52.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2300 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

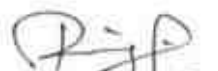
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2300  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 23.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2301 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2301  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 24.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 55.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 8.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.7            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2302 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2302  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 24.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 57.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.6            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2303 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2303  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 25.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.4            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2304 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2304  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 25.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 54.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2305 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2305  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 26.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 58.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.4            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2306 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2306  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 26.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2307 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2307  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 27.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 63.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 30.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.0            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2308 | Report Date. | 05.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2308  | Sample Received on | 29.04.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 29.04.2025 |
| Sample Collected on | 27.04.2025       | Test Completed on  | 05.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 14 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2349 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2349  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 29.04.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results        | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 68.8           | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 33.0           | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.0            | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.5           | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL(D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2350 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2350  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 29.04.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2351 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

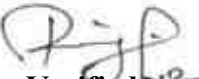
|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2351  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 30.04.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 74.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 35.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 13.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2352 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

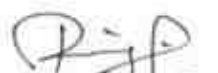
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2352  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 30.04.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 52.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.8             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2353 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2353  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 01.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.0            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.3            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2354 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2354  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 01.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 58.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 28.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.8            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2355 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2355  | Sample Received on | 05.05.2025 |
| Sample Collected by | 02.05.2025       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 18.04.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.9            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2356 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2356  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 02.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 55.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2357 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

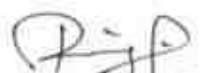
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2357  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 03.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 26%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 51.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2358 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2358  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 03.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 55.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2359 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2359  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 03.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 44.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2360 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2360  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 04.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 12 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2361 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

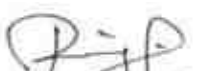
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2361  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 04.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 21.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 6.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2362 | Report Date. | 12.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2362  | Sample Received on | 05.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 05.05.2025 |
| Sample Collected on | 04.05.2025       | Test Completed on  | 12.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

**LAB SERVICES FOR:-** Food, Water, Milk, Environment, Academic & Industrial Segment.

**CIN :** U74999TN2017PTC116807 / **GST No :** 33AAYCS7325R1ZA / **PAN No:** AAYCS7325R

Page 14 of 14





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2403 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2403  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 06.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 42.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2404 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2404  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 06.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 57.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2405 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2405  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 06.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.0             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2406 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2406  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 07.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 45.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.0             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2407 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

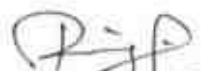
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2407  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 07.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

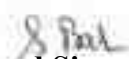
| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 53.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.0             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2408 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

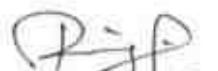
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2408  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 07.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

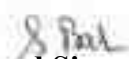
| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 43.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 3.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.3             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2409 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2409  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 08.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.0            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified 



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2410 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2410  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 08.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2411 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2411  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 09.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 51.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.1            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified 



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2412 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50 hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                        |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2412  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 09.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2413 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2413  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 10.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 70.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 33.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 12.7            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2414 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2414  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 10.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 56.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.4            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2415 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2415  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 11.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 58.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 28.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.5            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2416 | Report Date. | 19.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2416  | Sample Received on | 12.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 12.05.2025 |
| Sample Collected on | 11.05.2025       | Test Completed on  | 19.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 52.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 14 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2457 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2457  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 13.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results        | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 62.5           | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 30.0           | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.4            | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.9           | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL(D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2458 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2458  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 13.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 25%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 59.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 28.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 8.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.0            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2459 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2459  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 14.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 57.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.4            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2460 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

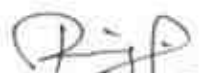
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2460  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 14.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 56.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.5            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2461 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2461  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 15.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 34°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 56.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 8.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.8            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2462 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2462  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 15.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2463 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2463  | Sample Received on | 19.05.2025 |
| Sample Collected by | 02.05.2025       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 16.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 27%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 52.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.3            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2464 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2464  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 16.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 52.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2465 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

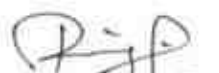
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2465  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 17.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 26%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 46.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2466 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2466  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 17.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 7.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2467 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2467  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 17.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 36°C             | Relative Humidity  | 28%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 48.3            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2468 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2468  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 18.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 43.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 20.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2469 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2469  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 18.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 54.6            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.4             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 13 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2470 | Report Date. | 26.05.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

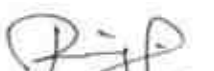
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2470  | Sample Received on | 19.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 19.05.2025 |
| Sample Collected on | 18.05.2025       | Test Completed on  | 26.05.2025 |
| Temperature         | 35°C             | Relative Humidity  | 32%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 50.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

**For Shrient Analytical and Research Labs Pvt. Ltd**

  
**Verified**



\*\*\*END OF THE REPORT\*\*\*

  
**Authorized Signatory**  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

**LAB SERVICES FOR:-** Food, Water, Milk, Environment, Academic & Industrial Segment.

**CIN :** U74999TN2017PTC116807 / **GST No :** 33AAYCS7325R1ZA / **PAN No:** AAYCS7325R

Page 14 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2543 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2543  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 20.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.0            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2544 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2544  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 20.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 54.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.3             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.1             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2545 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2545  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 20.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 49.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.4            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.6             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2546 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A5-Koothanur             |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2546  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 21.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 23.2            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.5             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2547 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

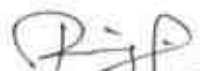
|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A6-Irur                  |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2547  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 21.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 56.4            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.8            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.5             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.4             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2548 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A7-Tiruvalankurichi      |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2548  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 21.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 37°C             | Relative Humidity  | 21%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 47.5            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 22.6            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 4.8             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 8.2             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2549 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2549  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 22.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 54.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 25.7            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 8.0             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.5            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2550 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2550  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 22.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 37°C             | Relative Humidity  | 23%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 57.2            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 27.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.1             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.5            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2551 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A3-Padalur East          |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2551  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 23.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 51.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.3            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.7             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 11.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified 



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2552 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A4-Perumalpalayam        |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2552  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 23.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 54.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.0            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 5.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.9             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2553 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2553  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 24.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 36°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 76.1            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 36.5            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.9             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 13.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2554 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2554  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 24.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 54.7            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 26.1            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.2             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 10.2            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

\*\*\*END OF THE REPORT\*\*\*

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2555 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                           |
|------------------------------|---------------------------|
| Sample Location              | A1-Within Mine Lease area |
| Positioned height of Sampler | 1.5 M above Ground Level  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2555  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 72.8            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 34.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 7.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 13.0            | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL –Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues&Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, DhargasRoad, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: -[info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2556 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | AMBIENT AIR QUALITY                                                                                                                                                                                         |
| Sampling Procedure      | IS – 5182 (Part – 14: 2000 & Part – V: Reaffirmed - 2003), CPCB Guide lines                                                                                                                                 |

|                              |                          |
|------------------------------|--------------------------|
| Sample Location              | A2-Therani               |
| Positioned height of Sampler | 1.5 M above Ground Level |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Duration  | 24 hrs     |
| Sample Reference No | SARL/A/CHE-2556  | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Temperature         | 35°C             | Relative Humidity  | 30%        |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                                                       | Protocol                                               | Unit              | Results         | *Limits |
|--------|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-----------------|---------|
| 1      | Particulate Matter less than 10micron size (PM <sub>10</sub> )   | IS:5182: Part 23:2006                                  | µg/m <sup>3</sup> | 51.9            | 100     |
| 2      | Particulate Matter less than 2.5micron size (PM <sub>2.5</sub> ) | IS 5182 (Part 24):2019                                 | µg/m <sup>3</sup> | 24.9            | 60      |
| 3      | Sulphur dioxide (SO <sub>2</sub> )                               | IS:5182: Part 02:2001                                  | µg/m <sup>3</sup> | 6.6             | 80      |
| 4      | Nitrogen Dioxide (NO <sub>2</sub> )                              | IS:5182: Part 06:2006                                  | µg/m <sup>3</sup> | 9.7             | 80      |
| 5      | Carbon monoxide (CO)                                             | SARL/IOP/013 (Issue No:01,<br>Issue Date – 01.03.2023) | mg/m <sup>3</sup> | BDL (D.L – 1.1) | -       |

Remarks: Limits: \*National Ambient air quality standards from CPCB. BDL- Below detectable limit. DL – Detectable limit

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 14 of 14



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2557 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | GW 1 - Within Mine Lease area                                                                                                                                                                               |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2557  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No. | Parameters                    | Protocol                                        | Unit    | Result    | *Limits     |
|---------|-------------------------------|-------------------------------------------------|---------|-----------|-------------|
|         |                               |                                                 |         |           | Permissible |
| A.      | Physical parameters           |                                                 |         |           |             |
| 1       | Odour                         | IS 3025 (Part 5): 2018                          | -       | Agreeable | Agreeable   |
| 2       | Turbidity                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      | 5.0         |
| 3       | pH at 25 °C                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.89      | 6.50-8.50   |
| 4       | Electrical Conductivity       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 514.5     | -           |
| B.      | Chemical parameters           |                                                 |         |           |             |
| 5       | Total Dissolved Solids        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 310       | 2000        |
| 6       | Total hardness (as CaCO3)     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 169       | 600         |
| 7       | Calcium (as Ca)               | IS 3025 (Part 40): 1991                         | mg/L    | 42        | 200         |
| 8       | Magnesium (as Mg)             | IS 3025 (Part 46): 1994                         | mg/L    | 15.4      | 100         |
| 9       | Calcium Hardness (as CaCO3)   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 105       | -           |
| 10      | Magnesium Hardness (as CaCO3) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 64.0      | -           |
| 11      | Total alkalinity (as CaCO3)   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 152       | 600         |
| 12      | Chloride (as Cl)              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 70.2      | 1000        |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2557 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                       | Protocol                                          | Unit | Result           | *Limits     |
|--------|----------------------------------|---------------------------------------------------|------|------------------|-------------|
|        |                                  |                                                   |      |                  | Permissible |
| 13     | Free Residual chlorine           | APHA 24th Edition 4500 Cl- B: 2023                | mg/L | BDL (D.L - 0.2)  | 1.0         |
| 14     | Sulphate as (SO <sub>4</sub> 2-) | APHA 24th Edition 4500 SO <sub>4</sub> 2- E: 2023 | mg/L | 49.8             | 400         |
| 15     | Iron (as Fe)                     | APHA 24th Edition 3500 Fe B: 2023                 | mg/L | 0.05             | 0.3         |
| 16     | Nitrate (as NO <sub>3</sub> )    | IS 3025 (Part 34): 1988                           | mg/L | BDL(D.L-1.0)     | 45          |
| 17     | Fluoride (as F)                  | APHA 24th Edition 4500 F- D: 2023                 | mg/L | 0.11             | 1.5         |
| 18     | Manganese (as Mn)                | APHA 24th Edition 3500 Mn B: 2023                 | mg/L | BDL (D.L - 0.05) | 0.3         |

Remarks: \*Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2558 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | GW 2-Therani                                                                                                                                                                                                |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2558  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No. | Parameters                    | Protocol                                        | Unit    | Result    | *Limits     |
|---------|-------------------------------|-------------------------------------------------|---------|-----------|-------------|
|         |                               |                                                 |         |           | Permissible |
| A.      | Physical parameters           |                                                 |         |           |             |
| 1       | Odour                         | IS 3025 (Part 5): 2018                          | -       | Agreeable | Agreeable   |
| 2       | Turbidity                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      | 5.0         |
| 3       | pH at 25 °C                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.84      | 6.50-8.50   |
| 4       | Electrical Conductivity       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 1665      | -           |
| B.      | Chemical parameters           |                                                 |         |           |             |
| 5       | Total Dissolved Solids        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 1002      | 2000        |
| 6       | Total hardness (as CaCO3)     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 354       | 600         |
| 7       | Calcium (as Ca)               | IS 3025 (Part 40): 1991                         | mg/L    | 64.4      | 200         |
| 8       | Magnesium (as Mg)             | IS 3025 (Part 46): 1994                         | mg/L    | 46.3      | 100         |
| 9       | Calcium Hardness (as CaCO3)   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 161       | -           |
| 10      | Magnesium Hardness (as CaCO3) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 193       | -           |
| 11      | Total alkalinity (as CaCO3)   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 327       | 600         |
| 12      | Chloride (as Cl)              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 342       | 1000        |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2558 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                       | Protocol                                          | Unit | Result           | *Limits     |
|--------|----------------------------------|---------------------------------------------------|------|------------------|-------------|
|        |                                  |                                                   |      |                  | Permissible |
| 13     | Free Residual chlorine           | APHA 24th Edition 4500 Cl- B: 2023                | mg/L | BDL (D.L - 0.2)  | 1.0         |
| 14     | Sulphate as (SO <sub>4</sub> 2-) | APHA 24th Edition 4500 SO <sub>4</sub> 2- E: 2023 | mg/L | 270              | 400         |
| 15     | Iron (as Fe)                     | APHA 24th Edition 3500 Fe B: 2023                 | mg/L | 0.12             | 0.3         |
| 16     | Nitrate (as NO <sub>3</sub> )    | IS 3025 (Part 34): 1988                           | mg/L | 2.14             | 45          |
| 17     | Fluoride (as F)                  | APHA 24th Edition 4500 F- D: 2023                 | mg/L | 0.48             | 1.5         |
| 18     | Manganese (as Mn)                | APHA 24th Edition 3500 Mn B: 2023                 | mg/L | BDL (D.L - 0.05) | 0.3         |

Remarks: \*Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2559 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | GW 3-Padalur East                                                                                                                                                                                           |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2559  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No. | Parameters                    | Protocol                                        | Unit    | Result    | *Limits     |
|---------|-------------------------------|-------------------------------------------------|---------|-----------|-------------|
|         |                               |                                                 |         |           | Permissible |
| A.      | Physical parameters           |                                                 |         |           |             |
| 1       | Odour                         | IS 3025 (Part 5): 2018                          | -       | Agreeable | Agreeable   |
| 2       | Turbidity                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      | 5.0         |
| 3       | pH at 25 °C                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.19      | 6.50-8.50   |
| 4       | Electrical Conductivity       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 1975      | -           |
| B.      | Chemical parameters           |                                                 |         |           |             |
| 5       | Total Dissolved Solids        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 1186      | 2000        |
| 6       | Total hardness (as CaCO3)     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 392       | 600         |
| 7       | Calcium (as Ca)               | IS 3025 (Part 40): 1991                         | mg/L    | 84        | 200         |
| 8       | Magnesium (as Mg)             | IS 3025 (Part 46): 1994                         | mg/L    | 43.7      | 100         |
| 9       | Calcium Hardness (as CaCO3)   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 210       | -           |
| 10      | Magnesium Hardness (as CaCO3) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 182       | -           |
| 11      | Total alkalinity (as CaCO3)   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 380       | 600         |
| 12      | Chloride (as Cl)              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 365       | 1000        |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2559 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                       | Protocol                                          | Unit | Result           | *Limits     |
|--------|----------------------------------|---------------------------------------------------|------|------------------|-------------|
|        |                                  |                                                   |      |                  | Permissible |
| 13     | Free Residual chlorine           | APHA 24th Edition 4500 Cl- B: 2023                | mg/L | BDL (D.L - 0.2)  | 1.0         |
| 14     | Sulphate as (SO <sub>4</sub> 2-) | APHA 24th Edition 4500 SO <sub>4</sub> 2- E: 2023 | mg/L | 342              | 400         |
| 15     | Iron (as Fe)                     | APHA 24th Edition 3500 Fe B: 2023                 | mg/L | 0.11             | 0.3         |
| 16     | Nitrate (as NO <sub>3</sub> )    | IS 3025 (Part 34): 1988                           | mg/L | 4.65             | 45          |
| 17     | Fluoride (as F)                  | APHA 24th Edition 4500 F- D: 2023                 | mg/L | 0.55             | 1.5         |
| 18     | Manganese (as Mn)                | APHA 24th Edition 3500 Mn B: 2023                 | mg/L | BDL (D.L - 0.05) | 0.3         |

Remarks: \*Drinking Water Specifications as per IS - 10500:2012. BDL - Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2560 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | GW 4-Perumalpalayam                                                                                                                                                                                         |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2560  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No. | Parameters                    | Protocol                                        | Unit    | Result    | *Limits     |
|---------|-------------------------------|-------------------------------------------------|---------|-----------|-------------|
|         |                               |                                                 |         |           | Permissible |
| A.      | Physical parameters           |                                                 |         |           |             |
| 1       | Odour                         | IS 3025 (Part 5): 2018                          | -       | Agreeable | Agreeable   |
| 2       | Turbidity                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      | 5.0         |
| 3       | pH at 25 °C                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.91      | 6.50-8.50   |
| 4       | Electrical Conductivity       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 2068      | -           |
| B.      | Chemical parameters           |                                                 |         |           |             |
| 5       | Total Dissolved Solids        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 1240      | 2000        |
| 6       | Total hardness (as CaCO3)     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 424       | 600         |
| 7       | Calcium (as Ca)               | IS 3025 (Part 40): 1991                         | mg/L    | 96.8      | 200         |
| 8       | Magnesium (as Mg)             | IS 3025 (Part 46): 1994                         | mg/L    | 43.7      | 100         |
| 9       | Calcium Hardness (as CaCO3)   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 242       | -           |
| 10      | Magnesium Hardness (as CaCO3) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 182       | -           |
| 11      | Total alkalinity (as CaCO3)   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 399       | 600         |
| 12      | Chloride (as Cl)              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 380       | 1000        |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2560 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                       | Protocol                                          | Unit | Result           | *Limits     |
|--------|----------------------------------|---------------------------------------------------|------|------------------|-------------|
|        |                                  |                                                   |      |                  | Permissible |
| 13     | Free Residual chlorine           | APHA 24th Edition 4500 Cl- B: 2023                | mg/L | BDL (D.L - 0.2)  | 1.0         |
| 14     | Sulphate as (SO <sub>4</sub> 2-) | APHA 24th Edition 4500 SO <sub>4</sub> 2- E: 2023 | mg/L | 355              | 400         |
| 15     | Iron (as Fe)                     | APHA 24th Edition 3500 Fe B: 2023                 | mg/L | 0.12             | 0.3         |
| 16     | Nitrate (as NO <sub>3</sub> )    | IS 3025 (Part 34): 1988                           | mg/L | 5.23             | 45          |
| 17     | Fluoride (as F)                  | APHA 24th Edition 4500 F- D: 2023                 | mg/L | 0.62             | 1.5         |
| 18     | Manganese (as Mn)                | APHA 24th Edition 3500 Mn B: 2023                 | mg/L | BDL (D.L - 0.05) | 0.3         |

Remarks: \*Drinking Water Specifications as per IS - 10500:2012. BDL - Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2561 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | GW 5-Koothanur                                                                                                                                                                                              |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2561  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No. | Parameters                    | Protocol                                        | Unit    | Result    | *Limits     |
|---------|-------------------------------|-------------------------------------------------|---------|-----------|-------------|
|         |                               |                                                 |         |           | Permissible |
| A.      | Physical parameters           |                                                 |         |           |             |
| 1       | Odour                         | IS 3025 (Part 5): 2018                          | -       | Agreeable | Agreeable   |
| 2       | Turbidity                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      | 5.0         |
| 3       | pH at 25 °C                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.45      | 6.50-8.50   |
| 4       | Electrical Conductivity       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 1286.0    | -           |
| B.      | Chemical parameters           |                                                 |         |           |             |
| 5       | Total Dissolved Solids        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 772       | 2000        |
| 6       | Total hardness (as CaCO3)     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 235       | 600         |
| 7       | Calcium (as Ca)               | IS 3025 (Part 40): 1991                         | mg/L    | 57.6      | 200         |
| 8       | Magnesium (as Mg)             | IS 3025 (Part 46): 1994                         | mg/L    | 21.8      | 100         |
| 9       | Calcium Hardness (as CaCO3)   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 144       | -           |
| 10      | Magnesium Hardness (as CaCO3) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 91.0      | -           |
| 11      | Total alkalinity (as CaCO3)   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 260       | 600         |
| 12      | Chloride (as Cl)              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 241       | 1000        |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2561 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                       | Protocol                                          | Unit | Result           | *Limits     |
|--------|----------------------------------|---------------------------------------------------|------|------------------|-------------|
|        |                                  |                                                   |      |                  | Permissible |
| 13     | Free Residual chlorine           | APHA 24th Edition 4500 Cl- B: 2023                | mg/L | BDL (D.L - 0.2)  | 1.0         |
| 14     | Sulphate as (SO <sub>4</sub> 2-) | APHA 24th Edition 4500 SO <sub>4</sub> 2- E: 2023 | mg/L | 206              | 400         |
| 15     | Iron (as Fe)                     | APHA 24th Edition 3500 Fe B: 2023                 | mg/L | 0.04             | 0.3         |
| 16     | Nitrate (as NO <sub>3</sub> )    | IS 3025 (Part 34): 1988                           | mg/L | 4.32             | 45          |
| 17     | Fluoride (as F)                  | APHA 24th Edition 4500 F- D: 2023                 | mg/L | 0.42             | 1.5         |
| 18     | Manganese (as Mn)                | APHA 24th Edition 3500 Mn B: 2023                 | mg/L | BDL (D.L - 0.05) | 0.3         |

Remarks: \*Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2562 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | GW 6-Irur                                                                                                                                                                                                   |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2562  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No. | Parameters                    | Protocol                                                    | Unit    | Result    | *Limits     |
|---------|-------------------------------|-------------------------------------------------------------|---------|-----------|-------------|
|         |                               |                                                             |         |           | Permissible |
| A.      | Physical parameters           |                                                             |         |           |             |
| 1       | Odour                         | IS 3025 (Part 5): 2018                                      | -       | Agreeable | Agreeable   |
| 2       | Turbidity                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023                  | NTU     | <1.0      | 5.0         |
| 3       | pH at 25 °C                   | APHA 24 <sup>th</sup> Edition 4500 – H <sup>+</sup> B: 2023 | -       | 7.77      | 6.50-8.50   |
| 4       | Electrical Conductivity       | APHA 24 <sup>th</sup> Edition 2510 B: 2023                  | (µS/cm) | 1989.0    | -           |
| B.      | Chemical parameters           |                                                             |         |           |             |
| 5       | Total Dissolved Solids        | APHA 24th Edition 2540-C: 2023                              | mg/L    | 1194      | 2000        |
| 6       | Total hardness (as CaCO3)     | APHA 24th Edition 2340 C: 2023                              | mg/L    | 385       | 600         |
| 7       | Calcium (as Ca)               | IS 3025 (Part 40): 1991                                     | mg/L    | 83.2      | 200         |
| 8       | Magnesium (as Mg)             | IS 3025 (Part 46): 1994                                     | mg/L    | 42.5      | 100         |
| 9       | Calcium Hardness (as CaCO3)   | APHA 24th Edition 3500 Ca B: 2023                           | mg/L    | 208       | -           |
| 10      | Magnesium Hardness (as CaCO3) | APHA 24th Edition 3500 Mg B: 2023                           | mg/L    | 177       | -           |
| 11      | Total alkalinity (as CaCO3)   | APHA 24th Edition 2320 B: 2023                              | mg/L    | 376       | 600         |
| 12      | Chloride (as Cl)              | APHA 24th Edition 4500 Cl- B: 2023                          | mg/L    | 363       | 1000        |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2562 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                       | Protocol                                          | Unit | Result           | *Limits     |
|--------|----------------------------------|---------------------------------------------------|------|------------------|-------------|
|        |                                  |                                                   |      |                  | Permissible |
| 13     | Free Residual chlorine           | APHA 24th Edition 4500 Cl- B: 2023                | mg/L | BDL (D.L - 0.2)  | 1.0         |
| 14     | Sulphate as (SO <sub>4</sub> 2-) | APHA 24th Edition 4500 SO <sub>4</sub> 2- E: 2023 | mg/L | 338              | 400         |
| 15     | Iron (as Fe)                     | APHA 24th Edition 3500 Fe B: 2023                 | mg/L | BDL(D.L-0.01)    | 0.3         |
| 16     | Nitrate (as NO <sub>3</sub> )    | IS 3025 (Part 34): 1988                           | mg/L | 5.62             | 45          |
| 17     | Fluoride (as F)                  | APHA 24th Edition 4500 F- D: 2023                 | mg/L | 0.63             | 1.5         |
| 18     | Manganese (as Mn)                | APHA 24th Edition 3500 Mn B: 2023                 | mg/L | BDL (D.L - 0.05) | 0.3         |

Remarks: \*Drinking Water Specifications as per IS – 10500:2012. BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2563 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | GW 7-Tiruvalankurichi                                                                                                                                                                                       |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2563  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No. | Parameters                    | Protocol                                        | Unit    | Result    | *Limits     |
|---------|-------------------------------|-------------------------------------------------|---------|-----------|-------------|
|         |                               |                                                 |         |           | Permissible |
| A.      | Physical parameters           |                                                 |         |           |             |
| 1       | Odour                         | IS 3025 (Part 5): 2018                          | -       | Agreeable | Agreeable   |
| 2       | Turbidity                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      | 5.0         |
| 3       | pH at 25 °C                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.36      | 6.50-8.50   |
| 4       | Electrical Conductivity       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 2137      | -           |
| B.      | Chemical parameters           |                                                 |         |           |             |
| 5       | Total Dissolved Solids        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 1282      | 2000        |
| 6       | Total hardness (as CaCO3)     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 454       | 600         |
| 7       | Calcium (as Ca)               | IS 3025 (Part 40): 1991                         | mg/L    | 102       | 200         |
| 8       | Magnesium (as Mg)             | IS 3025 (Part 46): 1994                         | mg/L    | 47.5      | 100         |
| 9       | Calcium Hardness (as CaCO3)   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 256       | -           |
| 10      | Magnesium Hardness (as CaCO3) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 198       | -           |
| 11      | Total alkalinity (as CaCO3)   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 392       | 600         |
| 12      | Chloride (as Cl)              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 510       | 1000        |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2563 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                       | Protocol                                          | Unit | Result           | *Limits     |
|--------|----------------------------------|---------------------------------------------------|------|------------------|-------------|
|        |                                  |                                                   |      |                  | Permissible |
| 13     | Free Residual chlorine           | APHA 24th Edition 4500 Cl- B: 2023                | mg/L | BDL (D.L - 0.2)  | 1.0         |
| 14     | Sulphate as (SO <sub>4</sub> 2-) | APHA 24th Edition 4500 SO <sub>4</sub> 2- E: 2023 | mg/L | 212              | 400         |
| 15     | Iron (as Fe)                     | APHA 24th Edition 3500 Fe B: 2023                 | mg/L | 0.03             | 0.3         |
| 16     | Nitrate (as NO <sub>3</sub> )    | IS 3025 (Part 34): 1988                           | mg/L | 5.51             | 45          |
| 17     | Fluoride (as F)                  | APHA 24th Edition 4500 F- D: 2023                 | mg/L | 0.58             | 1.5         |
| 18     | Manganese (as Mn)                | APHA 24th Edition 3500 Mn B: 2023                 | mg/L | BDL (D.L - 0.05) | 0.3         |

Remarks: \*Drinking Water Specifications as per IS - 10500:2012. BDL - Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2564 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | SW 1-Nattaramangalam Eri                                                                                                                                                                                    |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2564  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.06.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No.   | Parameters                                    | Protocol                                        | Unit    | Result    |
|-----------|-----------------------------------------------|-------------------------------------------------|---------|-----------|
| <b>A.</b> | <b>Physical parameters</b>                    |                                                 |         |           |
| 1         | Odour                                         | IS 3025 (Part 5): 2018                          | -       | Agreeable |
| 2         | Turbidity                                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      |
| 3         | pH at 25 °C                                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.52      |
| 4         | Electrical Conductivity                       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 218.6     |
| <b>B.</b> | <b>Chemical parameters</b>                    |                                                 |         |           |
| 5         | Total Dissolved Solids                        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 132       |
| 6         | Total hardness<br>(as CaCO <sub>3</sub> )     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 47.2      |
| 7         | Calcium (as Ca)                               | IS 3025 (Part 40): 1991                         | mg/L    | 10.56     |
| 8         | Magnesium (as Mg)                             | IS 3025 (Part 46): 1994                         | mg/L    | 4.99      |
| 9         | Calcium Hardness<br>(as CaCO <sub>3</sub> )   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 26.4      |
| 10        | Magnesium Hardness<br>(as CaCO <sub>3</sub> ) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 20.8      |
| 11        | Total alkalinity<br>(as CaCO <sub>3</sub> )   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 45.6      |
| 12        | Chloride (as Cl)                              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 42.8      |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2564 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                                | Protocol                             | Unit | Result          |
|--------|-------------------------------------------|--------------------------------------|------|-----------------|
| 13     | Free Residual chlorine                    | APHA 24th Edition 4500 Cl- B: 2023   | mg/L | BDL (D.L - 0.2) |
| 14     | Sulphate as (SO42-)                       | APHA 24th Edition 4500 SO42- E: 2023 | mg/L | 15.2            |
| 15     | Iron (as Fe)                              | APHA 24th Edition 3500 Fe B: 2023    | mg/L | 0.15            |
| 16     | Nitrate (as NO3)                          | IS 3025 (Part 34): 1988              | mg/L | BDL(D.L-1.0)    |
| 17     | Fluoride (as F)                           | APHA 24th Edition 4500 F- D: 2023    | mg/L | 0.21            |
| 18     | Manganese (as Mn)                         | APHA 24th Edition 3500 Mn B: 2023    | mg/L | BDL(D.L-0.05)   |
| 19     | Chemical Oxygen Demand                    | APHA 24th Edition 5220 B: 2023       | mg/L | BDL (D.L – 4.0) |
| 20     | Bio Chemical Oxygen Demand 3 Days at 27°C | IS 3025 (Part 44): 1993              | mg/L | BDL (D.L – 2.0) |
| 21     | Total Suspended Solids                    | APHA 24th Edition 2540 D: 2023       | mg/L | 22.0            |
| 22     | Dissolved Oxygen                          | IS 3025 (Part 38): 1989              | mg/L | 5.8             |

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2565 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | SW 2-Nanthai River (up Stream)                                                                                                                                                                              |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2565  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.06.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No.   | Parameters                                    | Protocol                                        | Unit    | Result    |
|-----------|-----------------------------------------------|-------------------------------------------------|---------|-----------|
| <b>A.</b> | <b>Physical parameters</b>                    |                                                 |         |           |
| 1         | Odour                                         | IS 3025 (Part 5): 2018                          | -       | Agreeable |
| 2         | Turbidity                                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      |
| 3         | pH at 25 °C                                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.94      |
| 4         | Electrical Conductivity                       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 167.9     |
| <b>B.</b> | <b>Chemical parameters</b>                    |                                                 |         |           |
| 5         | Total Dissolved Solids                        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 102       |
| 6         | Total hardness<br>(as CaCO <sub>3</sub> )     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 35.2      |
| 7         | Calcium (as Ca)                               | IS 3025 (Part 40): 1991                         | mg/L    | 10.36     |
| 8         | Magnesium (as Mg)                             | IS 3025 (Part 46): 1994                         | mg/L    | 2.23      |
| 9         | Calcium Hardness<br>(as CaCO <sub>3</sub> )   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 25.9      |
| 10        | Magnesium Hardness<br>(as CaCO <sub>3</sub> ) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 9.30      |
| 11        | Total alkalinity<br>(as CaCO <sub>3</sub> )   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 37.2      |
| 12        | Chloride (as Cl)                              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 40.8      |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2565 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                                | Protocol                             | Unit | Result          |
|--------|-------------------------------------------|--------------------------------------|------|-----------------|
| 13     | Free Residual chlorine                    | APHA 24th Edition 4500 Cl- B: 2023   | mg/L | BDL (D.L - 0.2) |
| 14     | Sulphate as (SO42-)                       | APHA 24th Edition 4500 SO42- E: 2023 | mg/L | 16.9            |
| 15     | Iron (as Fe)                              | APHA 24th Edition 3500 Fe B: 2023    | mg/L | 0.12            |
| 16     | Nitrate (as NO3)                          | IS 3025 (Part 34): 1988              | mg/L | 2.14            |
| 17     | Fluoride (as F)                           | APHA 24th Edition 4500 F- D: 2023    | mg/L | 0.45            |
| 18     | Manganese (as Mn)                         | APHA 24th Edition 3500 Mn B: 2023    | mg/L | BDL(D.L-0.05)   |
| 19     | Chemical Oxygen Demand                    | APHA 24th Edition 5220 B: 2023       | mg/L | BDL (D.L – 4.0) |
| 20     | Bio Chemical Oxygen Demand 3 Days at 27°C | IS 3025 (Part 44): 1993              | mg/L | BDL (D.L – 2.0) |
| 21     | Total Suspended Solids                    | APHA 24th Edition 2540 D: 2023       | mg/L | 12.0            |
| 22     | Dissolved Oxygen                          | IS 3025 (Part 38): 1989              | mg/L | 6.1             |

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2566 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | WATER                                                                                                                                                                                                       |
| Sample Mark             | SW 3 -Nanthai River (Down Stream)                                                                                                                                                                           |

|                     |                  |                    |                         |
|---------------------|------------------|--------------------|-------------------------|
| Customer Reference  | By Mail          | Sampling Procedure | IS 17614: Part 14: 2021 |
| Sample Reference No | SARL/W/CHE-2566  | Sample Received on | 26.05.2025              |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025              |
| Sample Collected on | 25.06.2025       | Test Completed on  | 02.06.2025              |
| Sample Condition    | Fit for Analysis |                    |                         |

| Sl. No.   | Parameters                                    | Protocol                                        | Unit    | Result    |
|-----------|-----------------------------------------------|-------------------------------------------------|---------|-----------|
| <b>A.</b> | <b>Physical parameters</b>                    |                                                 |         |           |
| 1         | Odour                                         | IS 3025 (Part 5): 2018                          | -       | Agreeable |
| 2         | Turbidity                                     | APHA 24 <sup>th</sup> Edition 2130 B: 2023      | NTU     | <1.0      |
| 3         | pH at 25 °C                                   | APHA 24 <sup>th</sup> Edition 4500 – H+ B: 2023 | -       | 7.85      |
| 4         | Electrical Conductivity                       | APHA 24 <sup>th</sup> Edition 2510 B: 2023      | (µS/cm) | 192.3     |
| <b>B.</b> | <b>Chemical parameters</b>                    |                                                 |         |           |
| 5         | Total Dissolved Solids                        | APHA 24th Edition 2540-C: 2023                  | mg/L    | 115       |
| 6         | Total hardness<br>(as CaCO <sub>3</sub> )     | APHA 24th Edition 2340 C: 2023                  | mg/L    | 42.5      |
| 7         | Calcium (as Ca)                               | IS 3025 (Part 40): 1991                         | mg/L    | 9.8       |
| 8         | Magnesium (as Mg)                             | IS 3025 (Part 46): 1994                         | mg/L    | 4.3       |
| 9         | Calcium Hardness<br>(as CaCO <sub>3</sub> )   | APHA 24th Edition 3500 Ca B: 2023               | mg/L    | 24.5      |
| 10        | Magnesium Hardness<br>(as CaCO <sub>3</sub> ) | APHA 24th Edition 3500 Mg B: 2023               | mg/L    | 18.0      |
| 11        | Total alkalinity<br>(as CaCO <sub>3</sub> )   | APHA 24th Edition 2320 B: 2023                  | mg/L    | 42.2      |
| 12        | Chloride (as Cl)                              | APHA 24th Edition 4500 Cl- B: 2023              | mg/L    | 39.8      |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2566 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

| Sl. No | Parameters                                | Protocol                             | Unit | Result          |
|--------|-------------------------------------------|--------------------------------------|------|-----------------|
| 13     | Free Residual chlorine                    | APHA 24th Edition 4500 Cl- B: 2023   | mg/L | BDL (D.L - 0.2) |
| 14     | Sulphate as (SO42-)                       | APHA 24th Edition 4500 SO42- E: 2023 | mg/L | 16.1            |
| 15     | Iron (as Fe)                              | APHA 24th Edition 3500 Fe B: 2023    | mg/L | 0.1             |
| 16     | Nitrate (as NO3)                          | IS 3025 (Part 34): 1988              | mg/L | 1.95            |
| 17     | Fluoride (as F)                           | APHA 24th Edition 4500 F- D: 2023    | mg/L | 0.42            |
| 18     | Manganese (as Mn)                         | APHA 24th Edition 3500 Mn B: 2023    | mg/L | BDL(D.L-0.05)   |
| 19     | Chemical Oxygen Demand                    | APHA 24th Edition 5220 B: 2023       | mg/L | BDL (D.L – 4.0) |
| 20     | Bio Chemical Oxygen Demand 3 Days at 27°C | IS 3025 (Part 44): 1993              | mg/L | BDL (D.L – 2.0) |
| 21     | Total Suspended Solids                    | APHA 24th Edition 2540 D: 2023       | mg/L | 10.0            |
| 22     | Dissolved Oxygen                          | IS 3025 (Part 38): 1989              | mg/L | 6.3             |

Remarks: BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



\*\*\*END OF THE REPORT\*\*\*

Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2557 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | SOIL                                                                                                                                                                                                        |
| Sample Mark             | S1-Within Mine Lease area                                                                                                                                                                                   |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Procedure | -          |
| Sample Reference No | SARL/SO/CHE-2557 | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                         | Protocol                                                     | Unit        | Results         |
|--------|------------------------------------|--------------------------------------------------------------|-------------|-----------------|
| 1      | pH at 25 °C                        | IS 2720: Part 26: 1987                                       | -           | 7.24            |
| 2      | Electrical Conductivity            | IS 14767: 2000                                               | µmhos/cm    | 172.5           |
| 3      | Dry matter content                 | IS 15106: 2002                                               | %           | 94.58           |
| 4      | Water Content                      | IS 15106: 2002                                               | %           | 5.42            |
| 5      | Organic Matter                     | IS 2720: Part 22: 1972                                       | %           | 0.86            |
| 6      | Nitrogen and Nitrogenous compounds | IS 14684: 1999                                               | mg/kg       | 285             |
| 7      | Soil Texture                       | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | Silty Clay loam |
| 8      | <u>Grain Size Distribution</u>     | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 16.05           |
|        | i. Sand                            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 45.22           |
|        | ii. Silt                           | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 38.73           |
|        | iii. Clay                          | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | BDL (D.L.0.02)  |
| 9      | Phosphorus as P                    | IS 10158: 1982                                               | mg/kg       | 1.42            |
| 10     | Sodium as Na                       | USEPA 3050 B: 1996                                           | mg/kg       | 310             |
| 11     | Potassium as K                     | USEPA 3050 B: 1996                                           | mg/kg       | 590             |
| 12     | Total soluble sulphates            | IS 2720: Part 27: 1977                                       | %           | BDL (D.L.0.02)  |
| 13     | Porosity                           | SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023 | %           | 19.2            |
| 14     | Water holding capacity             | Methods Manual - Soil testing in India - P. No-76: 2011      | Inches/foot | 40              |

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2558 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | SOIL                                                                                                                                                                                                        |
| Sample Mark             | S2-Therani                                                                                                                                                                                                  |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Procedure | -          |
| Sample Reference No | SARL/SO/CHE-2558 | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                         | Protocol                                                     | Unit        | Results        |
|--------|------------------------------------|--------------------------------------------------------------|-------------|----------------|
| 1      | pH at 25 °C                        | IS 2720: Part 26: 1987                                       | -           | 7.94           |
| 2      | Electrical Conductivity            | IS 14767: 2000                                               | µmhos/cm    | 290.8          |
| 3      | Dry matter content                 | IS 15106: 2002                                               | %           | 96.52          |
| 4      | Water Content                      | IS 15106: 2002                                               | %           | 3.48           |
| 5      | Organic Matter                     | IS 2720: Part 22: 1972                                       | %           | 0.95           |
| 6      | Nitrogen and Nitrogenous compounds | IS 14684: 1999                                               | mg/kg       | 405            |
| 7      | Soil Texture                       | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | Silty Clay     |
| 8      | <u>Grain Size Distribution</u>     | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 10.42          |
|        | i. Sand                            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 44.33          |
|        | ii. Silt                           | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 45.25          |
|        | iii. Clay                          | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | BDL (D.L.0.02) |
| 9      | Phosphorus as P                    | IS 10158: 1982                                               | mg/kg       | 1.62           |
| 10     | Sodium as Na                       | USEPA 3050 B: 1996                                           | mg/kg       | 322            |
| 11     | Potassium as K                     | USEPA 3050 B: 1996                                           | mg/kg       | 664            |
| 12     | Total soluble sulphates            | IS 2720: Part 27: 1977                                       | %           | BDL (D.L.0.02) |
| 13     | Porosity                           | SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023 | %           | 19.4           |
| 14     | Water holding capacity             | Methods Manual - Soil testing in India - P. No-76: 2011      | Inches/foot | 38             |

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.





# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2559 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | SOIL                                                                                                                                                                                                        |
| Sample Mark             | S3-Padalur East                                                                                                                                                                                             |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Procedure | -          |
| Sample Reference No | SARL/SO/CHE-2559 | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                         | Protocol                                                     | Unit        | Results        |
|--------|------------------------------------|--------------------------------------------------------------|-------------|----------------|
| 1      | pH at 25 °C                        | IS 2720: Part 26: 1987                                       | -           | 8.06           |
| 2      | Electrical Conductivity            | IS 14767: 2000                                               | µmhos/cm    | 220.4          |
| 3      | Dry matter content                 | IS 15106: 2002                                               | %           | 97.21          |
| 4      | Water Content                      | IS 15106: 2002                                               | %           | 2.79           |
| 5      | Organic Matter                     | IS 2720: Part 22: 1972                                       | %           | 0.82           |
| 6      | Nitrogen and Nitrogenous compounds | IS 14684: 1999                                               | mg/kg       | 146            |
| 7      | Soil Texture                       | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | Silty Clay     |
| 8      | Grain Size Distribution            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 8.55           |
|        | i. Sand                            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 42.75          |
|        | ii. Silt                           | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 48.7           |
|        | iii. Clay                          | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | BDL (D.L.0.02) |
| 9      | Phosphorus as P                    | IS 10158: 1982                                               | mg/kg       | 1.24           |
| 10     | Sodium as Na                       | USEPA 3050 B: 1996                                           | mg/kg       | 346            |
| 11     | Potassium as K                     | USEPA 3050 B: 1996                                           | mg/kg       | 735            |
| 12     | Total soluble sulphates            | IS 2720: Part 27: 1977                                       | %           | BDL (D.L.0.02) |
| 13     | Porosity                           | SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023 | %           | 17.9           |
| 14     | Water holding capacity             | Methods Manual - Soil testing in India - P. No-76: 2011      | Inches/foot | 40             |

BDL – Below Detectable limit (DL - Detectable limit).

**For Shrient Analytical and Research Labs Pvt. Ltd**

Verified



Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

**LAB SERVICES FOR:-** Food, Water, Milk, Environment, Academic & Industrial Segment.

**CIN :** U74999TN2017PTC116807 / **GST No :** 33AAYCS7325R1ZA / **PAN No:** AAYCS7325R



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2560 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | SOIL                                                                                                                                                                                                        |
| Sample Mark             | S4-Perumalpalayam                                                                                                                                                                                           |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Procedure | -          |
| Sample Reference No | SARL/SO/CHE-2560 | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                         | Protocol                                                     | Unit        | Results        |
|--------|------------------------------------|--------------------------------------------------------------|-------------|----------------|
| 1      | pH at 25 °C                        | IS 2720: Part 26: 1987                                       | -           | 7.95           |
| 2      | Electrical Conductivity            | IS 14767: 2000                                               | µmhos/cm    | 273.5          |
| 3      | Dry matter content                 | IS 15106: 2002                                               | %           | 86.54          |
| 4      | Water Content                      | IS 15106: 2002                                               | %           | 13.46          |
| 5      | Organic Matter                     | IS 2720: Part 22: 1972                                       | %           | 1.32           |
| 6      | Nitrogen and Nitrogenous compounds | IS 14684: 1999                                               | mg/kg       | 205            |
| 7      | Soil Texture                       | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | Clay           |
| 8      | Grain Size Distribution            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 17.05          |
|        | i. Sand                            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           |                |
|        | ii. Silt                           | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 38.97          |
|        | iii. Clay                          | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 43.98          |
| 9      | Phosphorus as P                    | IS 10158: 1982                                               | mg/kg       | 1.67           |
| 10     | Sodium as Na                       | USEPA 3050 B: 1996                                           | mg/kg       | 498            |
| 11     | Potassium as K                     | USEPA 3050 B: 1996                                           | mg/kg       | 904            |
| 12     | Total soluble sulphates            | IS 2720: Part 27: 1977                                       | %           | BDL (D.L.0.02) |
| 13     | Porosity                           | SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023 | %           | 17.1           |
| 14     | Water holding capacity             | Methods Manual - Soil testing in India - P. No-76: 2011      | Inches/foot | 47             |

BDL – Below Detectable limit (DL - Detectable limit).

**For Shrient Analytical and Research Labs Pvt. Ltd**

Verified



Authorized Signatory

S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

**LAB SERVICES FOR:-** Food, Water, Milk, Environment, Academic & Industrial Segment.

**CIN :** U74999TN2017PTC116807 / **GST No :** 33AAYCS7325R1ZA / **PAN No:** AAYCS7325R

Page 1 of 1



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2561 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | SOIL                                                                                                                                                                                                        |
| Sample Mark             | S5-Koothanur                                                                                                                                                                                                |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Procedure | -          |
| Sample Reference No | SARL/SO/CHE-2561 | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                         | Protocol                                                     | Unit        | Results        |
|--------|------------------------------------|--------------------------------------------------------------|-------------|----------------|
| 1      | pH at 25 °C                        | IS 2720: Part 26: 1987                                       | -           | 7.89           |
| 2      | Electrical Conductivity            | IS 14767: 2000                                               | µmhos/cm    | 190.2          |
| 3      | Dry matter content                 | IS 15106: 2002                                               | %           | 97.25          |
| 4      | Water Content                      | IS 15106: 2002                                               | %           | 2.75           |
| 5      | Organic Matter                     | IS 2720: Part 22: 1972                                       | %           | 0.77           |
| 6      | Nitrogen and Nitrogenous compounds | IS 14684: 1999                                               | mg/kg       | 254            |
| 7      | Soil Texture                       | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | Silty Clay     |
| 8      | Grain Size Distribution            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 13.22          |
|        | i. Sand                            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 42.76          |
|        | ii. Silt                           | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 44.02          |
|        | iii. Clay                          | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | BDL (D.L.0.02) |
| 9      | Phosphorus as P                    | IS 10158: 1982                                               | mg/kg       | 1.36           |
| 10     | Sodium as Na                       | USEPA 3050 B: 1996                                           | mg/kg       | 535            |
| 11     | Potassium as K                     | USEPA 3050 B: 1996                                           | mg/kg       | 1030           |
| 12     | Total soluble sulphates            | IS 2720: Part 27: 1977                                       | %           | BDL (D.L.0.02) |
| 13     | Porosity                           | SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023 | %           | 18.9           |
| 14     | Water holding capacity             | Methods Manual - Soil testing in India - P. No-76: 2011      | Inches/foot | 42             |

BDL – Below Detectable limit (DL - Detectable limit).

**For Shrient Analytical and Research Labs Pvt. Ltd**

Verified



Authorized Signatory

S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

**LAB SERVICES FOR:-** Food, Water, Milk, Environment, Academic & Industrial Segment.

**CIN :** U74999TN2017PTC116807 / **GST No :** 33AAYCS7325R1ZA / **PAN No:** AAYCS7325R

Page 1 of 1



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2562 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | SOIL                                                                                                                                                                                                        |
| Sample Mark             | S6-Irur                                                                                                                                                                                                     |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Procedure | -          |
| Sample Reference No | SARL/SO/CHE-2562 | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                         | Protocol                                                     | Unit        | Results        |
|--------|------------------------------------|--------------------------------------------------------------|-------------|----------------|
| 1      | pH at 25 °C                        | IS 2720: Part 26: 1987                                       | -           | 8.12           |
| 2      | Electrical Conductivity            | IS 14767: 2000                                               | µmhos/cm    | 295.6          |
| 3      | Dry matter content                 | IS 15106: 2002                                               | %           | 93.67          |
| 4      | Water Content                      | IS 15106: 2002                                               | %           | 6.33           |
| 5      | Organic Matter                     | IS 2720: Part 22: 1972                                       | %           | 0.95           |
| 6      | Nitrogen and Nitrogenous compounds | IS 14684: 1999                                               | mg/kg       | 312            |
| 7      | Soil Texture                       | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | Silty Clay     |
| 8      | <u>Grain Size Distribution</u>     | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 10.79          |
|        | i. Sand                            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 45.66          |
|        | ii. Silt                           | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 43.55          |
|        | iii. Clay                          | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | BDL (D.L.0.02) |
| 9      | Phosphorus as P                    | IS 10158: 1982                                               | mg/kg       | 1.61           |
| 10     | Sodium as Na                       | USEPA 3050 B: 1996                                           | mg/kg       | 420            |
| 11     | Potassium as K                     | USEPA 3050 B: 1996                                           | mg/kg       | 634            |
| 12     | Total soluble sulphates            | IS 2720: Part 27: 1977                                       | %           | BDL (D.L.0.02) |
| 13     | Porosity                           | SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023 | %           | 18.2           |
| 14     | Water holding capacity             | Methods Manual - Soil testing in India - P. No-76: 2011      | Inches/foot | 40             |

BDL – Below Detectable limit (DL - Detectable limit).

For Shrient Analytical and Research Labs Pvt. Ltd

Verified



Authorized Signatory  
S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 1 of 1



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2563 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | SOIL                                                                                                                                                                                                        |
| Sample Mark             | S7-Tiruvalankurichi                                                                                                                                                                                         |

|                     |                  |                    |            |
|---------------------|------------------|--------------------|------------|
| Customer Reference  | By Mail          | Sampling Procedure | -          |
| Sample Reference No | SARL/SO/CHE-2563 | Sample Received on | 26.05.2025 |
| Sample Collected by | LABORATORY       | Test Commenced on  | 26.05.2025 |
| Sample Collected on | 25.05.2025       | Test Completed on  | 02.06.2025 |
| Sample Condition    | Fit for Analysis |                    |            |

| S. No. | Parameters                         | Protocol                                                     | Unit        | Results        |
|--------|------------------------------------|--------------------------------------------------------------|-------------|----------------|
| 1      | pH at 25 °C                        | IS 2720: Part 26: 1987                                       | -           | 7.92           |
| 2      | Electrical Conductivity            | IS 14767: 2000                                               | µmhos/cm    | 265.7          |
| 3      | Dry matter content                 | IS 15106: 2002                                               | %           | 92.58          |
| 4      | Water Content                      | IS 15106: 2002                                               | %           | 7.42           |
| 5      | Organic Matter                     | IS 2720: Part 22: 1972                                       | %           | 1.03           |
| 6      | Nitrogen and Nitrogenous compounds | IS 14684: 1999                                               | mg/kg       | 175            |
| 7      | Soil Texture                       | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | Silty Clay     |
| 8      | <u>Grain Size Distribution</u>     | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 7.89           |
|        | i. Sand                            | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 41.32          |
|        | ii. Silt                           | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | 50.79          |
|        | iii. Clay                          | Methods Manual - Soil testing in India - P. No-67: 2011      | %           | BDL (D.L.0.02) |
| 9      | Phosphorus as P                    | IS 10158: 1982                                               | mg/kg       | 1.74           |
| 10     | Sodium as Na                       | USEPA 3050 B: 1996                                           | mg/kg       | 396            |
| 11     | Potassium as K                     | USEPA 3050 B: 1996                                           | mg/kg       | 652            |
| 12     | Total soluble sulphates            | IS 2720: Part 27: 1977                                       | %           | BDL (D.L.0.02) |
| 13     | Porosity                           | SARL/SOP/SO/001 (Issue No:01, Issue Date – 01.03.2023): 2023 | %           | 17.3           |
| 14     | Water holding capacity             | Methods Manual - Soil testing in India - P. No-76: 2011      | Inches/foot | 42             |

BDL – Below Detectable limit (DL - Detectable limit).

**For Shrient Analytical and Research Labs Pvt. Ltd**

Verified



Authorized Signatory

S. BALAMURUGAN  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

**LAB SERVICES FOR:-** Food, Water, Milk, Environment, Academic & Industrial Segment.

**CIN :** U74999TN2017PTC116807 / **GST No :** 33AAYCS7325R1ZA / **PAN No:** AAYCS7325R

Page 1 of 1



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045  
Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)  
[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |              |            |
|------------|--------------|--------------|------------|
| Report No. | SARL/25/2564 | Report Date. | 02.06.2025 |
|------------|--------------|--------------|------------|

|                         |                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer Name & Address | Rough Stone Quarry Of Thiru.R.Rajkumar,<br>Over an extent of 1.50.0hectares of Government land in S.F.No. 10/1 (Block-1)<br>Of Padalur (East) Village, Alathur Taluk, Perambalur District, Tamil Nadu State |
| Sample Description      | NOISE LEVEL DATA                                                                                                                                                                                            |

|                     |                   |                    |                        |
|---------------------|-------------------|--------------------|------------------------|
| Customer Reference  | As per work order | Sampling Method    | SARL/IOP/023           |
| Sample Reference No | SARL/NO/CHE-2564  | Date of Monitoring | 24.03.2025/ 25.03.2025 |
| Sample Collected by | LABORATORY        |                    |                        |

| Time in hrs | N1   | N2   | N3   | N4   | N5   | N6   | N7   |
|-------------|------|------|------|------|------|------|------|
| 06.00       | 42.4 | 38.5 | 41.4 | 42.3 | 39.9 | 49.0 | 49.1 |
| 07.00       | 43.9 | 39.9 | 39.1 | 44.9 | 42.4 | 51.3 | 52.7 |
| 08.00       | 45.7 | 43.0 | 42.4 | 43.3 | 43.0 | 49.8 | 53.5 |
| 09.00       | 49.1 | 45.0 | 43.8 | 46.9 | 46.8 | 49.6 | 52.1 |
| 10.00       | 51.0 | 47.4 | 50.8 | 49.0 | 44.6 | 48.6 | 52.6 |
| 11.00       | 52.7 | 49.3 | 49.9 | 51.8 | 44.0 | 47.8 | 50.8 |
| 12.00       | 53.6 | 53.7 | 46.6 | 53.0 | 42.8 | 45.6 | 47.3 |
| 13.00       | 55.4 | 55.1 | 47.5 | 49.3 | 47.3 | 47.9 | 46.7 |
| 14.00       | 56.7 | 52.8 | 53.1 | 46.9 | 44.5 | 53.5 | 49.6 |
| 15.00       | 54.1 | 54.0 | 52.9 | 44.8 | 47.9 | 47.3 | 52.8 |
| 16.00       | 59.6 | 50.9 | 51.5 | 48.9 | 45.8 | 49.3 | 53.7 |
| 17.00       | 57.7 | 50.1 | 52.9 | 47.9 | 44.8 | 48.6 | 53.5 |
| 18.00       | 52.5 | 50.9 | 49.6 | 46.0 | 48.0 | 50.0 | 48.9 |
| 19.00       | 51.3 | 44.8 | 46.0 | 46.6 | 47.1 | 51.7 | 43.6 |
| 20.00       | 50.5 | 40.9 | 45.4 | 44.0 | 40.0 | 46.3 | 41.2 |
| 21.00       | 47.4 | 39.9 | 43.5 | 42.3 | 38.9 | 46.7 | 37.5 |
| 22.00       | 44.5 | 39.3 | 45.0 | 42.9 | 37.8 | 50.7 | 39.2 |
| 23.00       | 41.0 | 39.0 | 43.1 | 41.3 | 36.1 | 39.7 | 39.8 |
| 24.00       | 39.9 | 38.6 | 40.9 | 40.4 | 37.6 | 39.8 | 38.8 |
| 01.00       | 39.1 | 37.6 | 42.4 | 41.8 | 36.3 | 38.1 | 39.1 |
| 02.00       | 40.3 | 37.3 | 41.4 | 41.0 | 35.1 | 38.7 | 38.3 |
| 03.00       | 38.2 | 37.8 | 40.4 | 41.1 | 37.5 | 37.4 | 39.6 |
| 04.00       | 41.1 | 37.5 | 39.6 | 39.7 | 38.3 | 38.6 | 39.9 |
| 05.00       | 42.3 | 38.9 | 39.0 | 39.3 | 39.7 | 38.1 | 38.6 |



# Shrient Analytical and Research Labs Pvt. Ltd

416/15, Dhargas Road, West Tambaram, Chennai- 600045

Phone Number +91 82208 36377 Email: - [info@shrientanalytical.com](mailto:info@shrientanalytical.com)

[www.shrientanalytical.com](http://www.shrientanalytical.com)

## TEST REPORT

|            |              |
|------------|--------------|
| Report No. | SARL/25/2564 |
|------------|--------------|

|              |            |
|--------------|------------|
| Report Date. | 02.06.2025 |
|--------------|------------|

|                        | N1   | N2   | N3   | N4   | N5   | N6   | N7   |
|------------------------|------|------|------|------|------|------|------|
| DAY EQUIVALENT         | 53.7 | 50.0 | 49.1 | 47.9 | 45.1 | 49.4 | 50.8 |
| NIGHT EQUIVALENT       | 41.2 | 38.3 | 41.9 | 41.1 | 37.5 | 43.3 | 39.2 |
| DAY & NIGHT EQUIVALENT | 52.1 | 48.4 | 47.8 | 46.5 | 43.7 | 48.2 | 49.2 |

Remarks:

### LOCATIONS:

N1-Within Mine Lease area

N2-Therani

N3-Padalur East

N4-Perumalpalayam

N5-Koothanur

N6-Irur

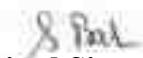
N7-Tiruvalankurichi

For Shrient Analytical and Research Labs Pvt. Ltd

  
Verified



\*\*\*END OF THE REPORT\*\*\*

  
Authorized Signatory  
**S. BALAMURUGAN**  
Asst. Technical Manager

Please Contact:

For any Technical Issues & Complaints: [technical@shrientanalytical.com](mailto:technical@shrientanalytical.com)

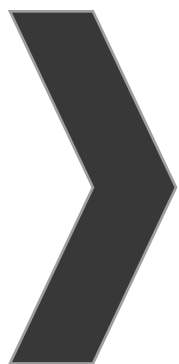
Terms and conditions:

(1) The test items will not be retained for more than 15 days from the date of issue of test report. (2) The results relate only to the items tested (3) The test report shall not be reproduced except in full without the written approval of the laboratory (4) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (5) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same.

LAB SERVICES FOR:- Food, Water, Milk, Environment, Academic & Industrial Segment.

CIN : U74999TN2017PTC116807 / GST No : 33AAYCS7325R1ZA / PAN No: AAYCS7325R

Page 2 of 2



# **ANNEXURE-8**





National Accreditation Board for  
Testing and Calibration Laboratories

**CERTIFICATE OF ACCREDITATION**

**SHRIENT ANALYTICAL & RESEARCH LABS PRIVATE  
LIMITED**

has been assessed and accredited in accordance with the standard

**ISO/IEC 17025:2017**

**"General Requirements for the Competence of Testing &  
Calibration Laboratories"**

for its facilities at

416/15, DHARGAS ROAD, PERUNGALATHUR, WEST TAMBARAM, CHENNAI, KANCHIPURAM, TAMIL  
NADU, INDIA

in the field of

**TESTING**

Certificate Number: TC-12339

Issue Date: 30/09/2025

Valid Until: 29/09/2029

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued  
satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website [www.nabl-india.org](http://www.nabl-india.org))

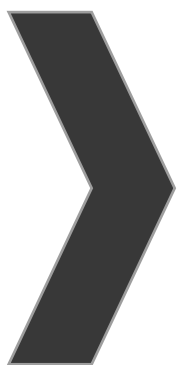
Name of Legal Entity: SHRIENT ANALYTICAL AND RESEARCH LABS PRIVATE LIMITED

Signed for and on behalf of NABL



  
Anuja Anand  
Director

  
Chakravarthy T. Kannan  
Chief Executive Officer



# ANNEXURE-9

24.4.2025.  
திருவளக்குறிச்சி.

இருநர் :- திருவளையாசுரியர்,  
ஊ. ஒ. ந. நி. பள்ளி,  
திருவளக்குறிச்சி.  
புறப்பேட்டை (கிழக்கு).  
சேலத்தூர் (உடல்). பெரும்பேட்டை (மேல்)  
621109.

பெரும்பேட்டை :- திரு. ரா. ரமணி.  
4/0. புறப்பேட்டை.  
A.C. 4th Floor, சேலம் ஸ்டீ மாடம்.  
குடகுறை நகர், அக்கிரகன் பள்ளி.  
கிழக்கு, 621216.

பெரும்பேட்டை :- கிழப்பேட்டை கட்டிடம் சேலத்தூர் கிராம  
கோட்டை சேலம் :-

சேலத்தூர் பள்ளியில், மாணவ -  
மாணவியர் சேலத்தூர் கட்டிடம் கட்டிடம் கட்டிடம்  
கிழப்பேட்டை கட்டிடம் கட்டிடம் கட்டிடம்  
கட்டிடம் கட்டிடம் கட்டிடம்.



இப்பேட்டை,  
ஊ. ஒ. ந. நி. பள்ளி,  
திருவளக்குறிச்சி,  
சேலத்தூர் வட்டம்,  
பெரும்பேட்டை மாவட்டம்-621 109.