

# **COMPLIANCE REPORT**

April 2023 to September 2023

**M/s St. GEORGE GRANITES**

**EC NO: 57/SEIAA/KL/7585/2012**

**Dt. 15.03.2013**

**ERNAKULAM DISTRICT, KERALA**

# St. George Granites

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Date: 22-01-2024

**The Additional Principal Chief Conservator of Forests (C)**  
Ministry of Environment, Forests & Climate Change,  
4<sup>th</sup>Floor, E& F Wing, Kendriya Sadan,  
Koramangala, Bangalore - 560034

**Ref :- FileNo. 57/SEIAA/KL/7585/2012**

**Sub :- Environment Clearance – Quarry project at Marady Village,  
Marady Panchayath, Muvattupuzha Taluk, Ernakulam District,  
Kerala.– Compliance Report – First half – Reg.**

**Respected Sir,**

The Quarry (Building stone) project was accorded Environmental Clearance for **3.8164 Ha.** by order No. 57/SEIAA/KL/7585/2012 dated 15.03.2013 by State Environmental Impact Assessment Authority, Kerala. The compliance report of **First Half** (April 2023 – September 2023) to the specific and general conditions of the Environment Clearance order is enclosed.

Thanking you,

Yours respectfully,

For

For St. George Granites  
*[Signature]*  
Proprietor

Encl: - As Above

**Copy to :The Member Secretary**  
State Environment Impact Assessment Authority (SEIAA)  
Thiruvananthapuram,

**COMPLIANCE REPORT  
TO  
THE CONDITIONS  
OF**

**ENVIRONMENTAL CLEARANCE ORDER**

**NO: 57/SEIAA/KL/7585/2012**

**DATED ON: 15.03.2013**

*BY*

**STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY  
(SEIAA)**

**FOR**

**BUILDING STONE QUARRY  
(MINOR MINERAL MINING) PROJECT**

*AT*

**SURVEY NO. 1094/1-A, 1094/1-A1, 1094/1-A6, 1097/7-A, 1097/6-B2,  
1101/3, 1097/7-B, 1097/6-A2, 1094/1-A27, 1097/6-B3, 1097/7-C2**

**MARADY VILLAGE, MARADY PANCHAYATH, MUVATTUPUZHA TALUK,  
ERNAKULAM DISTRICT, KERALA**

*BY*

**M/S St. GEORGE GRANITES**

**ERNAKULAM DISTRICT, KERALA**

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## **INTRODUCTION**

The quarry project of **M/s St. George Granites** is situated at survey no. 1094/1-A, 1094/1-A1, 1094/1-A6, 1097/7-A, 1097/6-B2, 1101/3, 1097/7-B, 1097/6-A2, 1094/1-A27, 1097/6-B3, 1097/7-C2 Marady Village, Marady Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala.

The quarry project was accorded with the Environmental Clearance (EC) by State Environmental Impact Assessment Authority on 15.03.2013. As part of general condition No.25 of Environmental Clearance order, half yearly compliance report needs to be submitted by the project proponent.

The compliance report of Second half to the specific conditions and general conditions of the Environmental Clearance order for the period of **April 2023 – September 2023** is being submitted

**COMPLIANCE REPORT**

**(SPECIFIC CONDITIONS)**

**PART A**

**PART - A – SPECIFIC CONDITIONS**

<b>01</b>	<b>The storm water should be channelized to a pit that has to be retained in the central area of the proposed mine.</b>
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***Compliance:***

As part of storm water management, the project proponent has constructed drain at entire mining area to channelize the storm water in to the existing pond in the site. -+The storm water drainage and its exit from the site are fully functional at all the time. The pit in the central area of the mine has developed. The photograph of the pit developed in the mine lease area is given below



02	<b>Indigenous varieties of horticultural crops having edible fruits should also be cultivated as part of eco-restoration.</b>
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**Compliance:**

The project proponent has planted various varieties of horticultural crops and fruit bearing trees in the project site as part of compensatory a forestation and concurrent eco restoration. The project proponent can plant various varieties as cultivation during the post closure of mine on the restored area. The extraction of minerals is being progressing in the project site.

**COMPLIANCE REPORT**

**(GENERAL CONDITIONS)**

**PART B**

**PART – B – GENERAL CONDITIONS**

<b>01</b>	<b>Rain water harvesting to collect and utilize the entire water falling in land area should be provided.</b>
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**Compliance:**

As part of conservation of rain water, the proponent has constructed a rain water harvesting pond in the project site to collect rain water falling in the entire mining area. The collected rain water is being used for irrigation purposes, watering of plants, wetting of roads, supply to public and for dust suppression system (mainly sprinklers system). The RWH facility can also act as a de-siltation pond or clarifier.

<b>02</b>	<b>Environment monitoring cell as agreed under the affidavit filed by the proponent should be formed and made functional.</b>
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**Compliance:**

Environmental Monitoring Cell (EMC) was formed with Mr. Kuriakose I. Mathai (proprietor of St. George Granites) as head and made functional. Meeting of monitoring cell is regularly convenes and discussed the status of the compliance of the specific and general conditions contained in the Environmental Clearance (EC) order.

<b>03</b>	<b>Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.</b>
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**Compliance:**

The project proponent has planted many species along either side of the road constructed in the project site. Avenue trees can perform as dust regulation mechanism therefore the project proponent is intending to plant more saplings along the road side and parking area, where the vegetation is less. There are

natural vegetation including trees, shrubs and climbers growing in the sides of the tarred road and open parking areas.

<b>04</b>	<b>The project shall incorporate devices for solar energy generation and utilization wherever possible.</b>
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***Compliance:***

As part of reduce the consumption of energy from conventional sources, energy conservation and to use renewable energy, the project proponent has installed 3 solar street lights in the project site. The consumption from renewable energy reduces the energy from conventional sources.

<b>05</b>	<b>Sprinklers shall be installed and used in the project site to contain dust emissions</b>
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***Compliance:***

The emission of dust is a major adverse effect of a mining industry. To prevent dust emission, sprinklers are installed in the project site. This help to suppress dust during the time summer season. The project proponent has deployed a vehicle with water tanker to splash water on the mining area, haulage road and public road.

<b>06</b>	<b>The eco-restoration plan submitted with the proposal should be fully implemented.</b>
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***Compliance:***

The eco restoration plan prepared is being executed in a good manner. The project proponent has started to plant various saplings in and around the project site. The mining in the EC obtained area is under progress.

<b>07</b>	<b>Corporate social responsibility agreed upon by the proponent should be implemented</b>
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**Compliance:**

The project proponent has executed various activities under Corporate Social Responsibility of the firm. The main activities were under various sectors worth Rs. 2,29,000. The bill and vouchers against CSR activities done in this period is attached as **Annexure No.1.**

<b>08</b>	<b>Barbed metal wire fencing around the mining area shall be provided with a height of not less than 5 ft so that the falling of animals/human/belongings/dumping of garbage's etc. does not happen.</b>
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**Compliance**

As part of demarcation of lease area and to ensure safety, barbed metal wire fencing was installed around the mining area at 5ft height. This prevents the falling of animals/ human/dumping of garbage's etc, in to the mining area. The fencing is maintains at all time.

<b>09</b>	<b>Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of explosive department.</b>
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**Compliance:**

Installation of warning alarm is mandatory as per the explosive department to provide warning regarding blasting to the nearby community and labors. A warning alarm has installed in the project area to attain this object. It is working properly prior to the blasting. A danger board is also installed which gives information about the blasting time to the general public. The photograph of the sign board mentioning blasting time is attached given below



10	<b>Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials</b>
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**Compliance:**

One of the main sources of dust emission is roads. To reduce emission of dust, the access road from the entrance of project site to quarry is tarred and tiled. The project is spraying water on the road to arrest the dust during summer season. The project proponent is maintaining access road to the quarry in good condition for dust emission. The photograph of the tiled approach road is given below



<b>11</b>	<b>Overburden material should be managed within the site and the old quarries, if any, should be reclaimed and restored</b>
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**Compliance:**

The project converted a slope area into terraces by systematically dumping the overburden. To prevent soil erosion this has been covered with a *geotex* mat and grass planted. As part of eco-restoration, the project is intending to plant various saplings and medicinal plants on the prepared terrace area. All overburden generated from the mining area is managed within the site.

<b>12</b>	<b>Height of benches should not exceed 5m and width should not be less than 5m.</b>
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**Compliance:**

The volume of extracted minerals was low, therefore the benches are being developed as benches. All mining activities are progressing under the supervision of qualified personnel. To enhance safety and to make environment

friendly quarrying, the excavation activity in the projects progresses by creating benches of 5m width x 5m height. The copy of certificate of First class manager is attached at **Annexure No2**.The photograph of the mining area is attached below



<b>13</b>	<b>Mats to reduce fly rock blast to a maximum of 15 PPV should be provided.</b>
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**Compliance:**

The project proponent is using blasting mats to reduce fly rocks during the time of blasting. The project proponent is using NoNEL technology for blasting therefore the problem with fly rock in the community is nil. The project can also assure the maximum PPV is under 10 with the controlled blasting operations under the supervision of qualified persons.

<b>14</b>	<b>Mining depth should not exceed beyond 40m, unless otherwise specifies or not below the level of nearest stream bed whichever is less.</b>
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**Compliance:**

The exploration of building stone has been maintained as 40 m MSL in the mining area as agreed in the proposal. To ensure this, the project appointed second class manager and mining mate as qualified personals to supervise the mining activities. The all activities of these qualified persons is being under the supervision and monitoring of Environment Monitoring Cell.

<b>15</b>	<b>Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of greenbelt and hollow brick envelope for crushers so that the noise level is kept within prescribed standards given by CPCB/KSPCB</b>
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***Compliance:***

To reduce the impact of sound to the labours in the unit, the project has provided ear plugs. Vegetation around the mining area helps to reduce noise and air pollution. This helps the noise level kept within prescribed standards as per CPCB/KSPCB standards. The project proponent is trying to enhance the vegetative cover by planting more tree saplings. The project is regularly monitors the ambient noise level at the project site by an approved laboratory.

<b>16</b>	<b>Assurance in the form of affidavit should be given to SEIAA that eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.</b>
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***Compliance:***

Assurance in the form of affidavit was already submitted to SEIAA Kerala after getting the Environmental Clearance. co restoration in the mining plan and mine closure plan will be done the own cost of the project proponent.

<b>17</b>	<b>Garland drains to be provided in the lower slopes around the core area to channelize storm water.</b>
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***Compliance:***

To channelize the storm water falling in the mine lease area, the proponent has constructed garland drain around the project site in the lower slopes. This drain leads to the de siltation traps, which is situated at the lowest portion of the project site.

<b>18</b>	<b>Debris/ silt traps to be provided to prevent entry of dust and quarry wastes entering the main streams.</b>
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**Compliance:**

As part of effective storm water management, the project proponent has constructed storm water drains in the lower slopes of the project area. This helps to channelize the storm water to the rain water collection pond and the most of the debris is settling down in the bottom of the pond. The project proponent has constructed de siltation traps in the lower slopes of the project area for storm water management to prevent the quarry waste from the site to the mainstreams.

<b>19</b>	<b>All other statutory clearances should have been obtained as applicable, by the project proponents from the respective competent authorities that for blasting and storage of explosives.</b>
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**Compliance:**

All statutory approvals required for the quarrying activity is obtained. The copy of the approvals obtained is provided at **Annexure No. 3, 4, 5, 6 & 7.**

**Table 1- The details of statutory approvals**

<b>Name of the Statutory approval</b>	<b>Name of the Statutory authority</b>
<b>“Consent to Operate”</b>	Kerala State Pollution Control Board
<b>Environmental Clearance order</b>	State Environmental Impact Assessment Authority, Kerala
	Ministry of Commerce & Industry –

<b>Explosive License</b>	Petroleum & Explosives Safety Organization (PESO)
<b>License for quarry operations</b>	Gram Panchayat
<b>Lease order</b>	Directorate of Mining and Geology

<b>20</b>	<b>In case of any change(s) in the scope of the project, the project would require a fresh appraisal by this authority.</b>
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**Compliance:**

The project proponent is working in the mine lease area which is within the EC obtained area. There is no change in the scope of the project. The project proponent will seek for a fresh Environmental clearance In the case of any change(s) in the scope of the project.

<b>21</b>	<b>The authority reserved the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.</b>
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**Compliance:**

If the authority instructs to add additional safeguard measures subsequently for enhancing safety and eco friendly mining, the project proponent will be complied with.

<b>22</b>	<b>The stipulations by Statutory Authorities under different Acts and notifications should be complied with, including the provisions of Water (Prevention and control of pollution) Act, 1974, the Air (Prevention and control of pollution) Act 1981, The Environment (Protection) Act, 1986, the public liability (Insurance) Act, 1991 and</b>
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	<b>EIA notification, 2006.</b>
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**Compliance:**

The stipulated orders and directions under different act and notification including EIA notification are being scrupulously followed. A brief list of various Acts and notifications which are followed by the proponent is given below

- Kerala Minor Mineral Concession Rules, 2015.
- Mines Act, 1952
- Explosive Rules, 2008
- Kerala Panchayat Raj Act, 1994
- Water Pollution (Prevention & Control) Act, 1974
- Air Pollution (Prevention & Control) Act, 1981
- Environment Protection Act, 1986
- EIA Notification, 2006 / 2009

<b>23</b>	<b>The project proponent should advertise in at least two local newspapers widely circulated in the region. One of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters area available with the Department of Environment and climate change, Govt. of Kerala and may also be seen on the website of the authority at <a href="http://www.seiaaKerala.org">www.seiaaKerala.org</a>. The advertisement should be made within 10 days from the date of receipt of the clearance letter and a copy of the same should be forwarded to the office of this authority as confirmation.</b>
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**Compliance:**

An advertisement in two news paper regarding the accordance of environmental clearance to the quarrying activity was given within stipulated period and the copy of the same was submitted to SEIAA.

<b>24</b>	<b>A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat / District Panchayat / Municipality / Corporation / Urban local Body and also to the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.</b>
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**Compliance:**

A copy of the Environment Clearance letter was submitted to the Panchayat Office. The project proponent did not receive any suggestions / representation from anywhere while the processing the proposal

<b>25</b>	<b>The proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hand copies as well as by e-mail) and upload the status of compliance of the stipulated EC conditions including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also the Directorate of Environment and Climate Change, Govt. of Kerala.</b>
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**Compliance:**

The compliance report is being regularly submitted to the Regional Office of MoEF&CC, Govt. of India and State environment Impact Assessment Authority, (SEIAA) Kerala, as e mail. The result of monitored data is provided in compliance report. The monitored results are attached as **Annexure No. 8 9 &10.**

<b>26</b>	<b>The conditions of the environmental clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font size of not less than 40.</b>
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**Compliance:**

The conditions of the environmental clearance prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font was installed.

<b>27</b>	<b>The proponent shall provide affidavit that all the conditions stipulated in the EC shall be scrupulously followed.</b>
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**Compliance**

An affidavit stating that all the conditions stipulated in the Environmental clearance will be scrupulously followed was submitted to State Environmental Impact Assessment Authority.

# ANNEXURE

Annexure No.1.


CSR Details

## ANNEXURE No. 2



खान अधिनियम 1952  
THE MINES ACT 1952

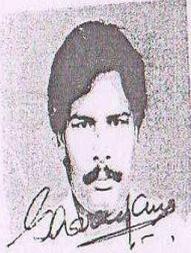
प्रथम श्रेणी प्रबंधक सक्षमता प्रमाण-पत्र धातुउत्पादक खान के प्रबंध हेतु  
MANAGER'S FIRST CLASS CERTIFICATE OF COMPETENCY TO MANAGE A METALLIFEROUS MINE  
(धातुउत्पादक खान विनियम, 1961 के अन्तर्गत)  
(Under the Metalliferous Mines Regulations 1961\*)

पी. पांडीयन ✓

जिनको जन्म तिथि 27 ~ 11 ~ 1962 है, विनियम 18 के अन्तर्गत अनुमोदित खनन अभियांत्रिकी में डिप्लोमा प्राप्त करने पर एवं दिनांक नवम्बर, 1997 को आयोजित विहित परीक्षा में उत्तीर्ण होने पर एतद्द्वारा धातुउत्पादक खान के प्रबंध हेतु प्रथम श्रेणी प्रबंधक सक्षमता प्रमाण-पत्र प्रदान किया जाता है। यह प्रमाण-पत्र 09 ~ 06 ~ 1998 से प्रभावी समझा जाएगा।

O. Pandian ✓

born on 27<sup>th</sup> November, 1962 ✓ possessing a Diploma in Mining Engineering approved under Regulation 18 and having passed the prescribed examination held on November, 1997 ✓ is hereby granted MANAGER'S FIRST CLASS CERTIFICATE OF COMPETENCY to manage a metalliferous mine. This Certificate is effective from 09 ~ 06 ~ 1998 ✓



सदस्य  
खनन परीक्षा बोर्ड  
Members of the Board of  
Mining Examinations.

Signed and Sealed  
Date: 19  
9 6 8PM 1998

CERTIFIED THAT THIS IS THE  
TRUE COPY OF THE ORIGINAL

9/06/2014

अध्यक्ष  
खनन परीक्षा बोर्ड  
Chairman of the Board of  
Mining Examinations

KUMARI JAYA.N.  
ADVOCATE & NOTARY  
Reg.No. 106 / 97 / EKM.  
KOLENCHERY - 682 311  
KERALA - INDIA

## Certificate of First class manager

## ANNEXURE No. 3



**KERALA STATE POLLUTION CONTROL BOARD**

FILE NO. :7540763  
Date of issue :16/04/2018

**INTEGRATED CONSENT TO OPERATE - RENEWAL**

Consent No : R15ERNA1292319

Ref : PCB/EKM/DO2/ICO-QR-R3/112/2015 Dated 30/6/2015 with a validity up to 30/6/2018

The 'Integrated Consent to Operate' issued as per reference above to M/s QUARRY OWNED BY KURIAKOSE I MATHAI, MARADY, MUVATTUPUZHA is hereby renewed up to 30/06/2023 and issued to M/s QUARRY OWNED BY KURIAKOSE I MATHAI, MARADY, MUVATTUPUZHA. The consent(s)/ variation order(s) cited under reference are integral part of this renewal order and this order is subject to the conditions stipulated therein and the following modifications/ additions.

**I. GENERAL**

S.No.	Items	Description
1	VALIDITY	30.06.2023
2	CAPITAL INVESTMENT	Rs. 95.55 Lakh
3	SURVEY NUMBER	1094/1-A 1094/1-A1 1094/1-A6 1097/7-A 1097/6-B2 1101/3 1097/7B 1097/6-A2 1094/1-A27 1097/6-B3 1097/7-C2
4	PRODUCTS	BUILDING STONE - 229000 MT/Annum
5	SIZE OF THE MINING	3.8164 Hectares
6	FEE REMITTED	Rs. 118750/-

**II. Stack Details**

Stack No.	Source of Emission	Emission Rate(Nm <sup>3</sup> /Hr)	Stack Height above		Control Equipment
			Ground Level(In Meters)	Roof Level(In Meters)	

**III. CONDITIONS**

Page1

- 3.1. This consent is granted subject to the power of the Board to review and make variation in all or any of the conditions as per section 21 of the Air (Prevention and control of Pollution) Act 1981 and section 25 of the Water (Prevention and control of Pollution) Act 1974
- 3.2. This consent is granted based on the Environmental Clearance No.57/SEIAA/KL/7585/2012 Building Stone Quarry(41) dated 15.03.2013. The quarrying shall be done after obtaining all statutory/necessary clearances from concerned authorities and is valid only when all other clearances from other concerned authorities are valid.
- 3.3. This consent unless withdrawn earlier and subject to condition no 3.1&3.2 shall be valid up to 30.06.2023. For continuing to operate beyond the validity date application for the renewal has to be submitted through online (website: krocmms.nic.in) at least 3 months prior to the expiry of this consent.
- 3.4. No change, deviation or alteration that may affect the environment, extent and location of quarry shall be made.
- 3.5. Any change in particulars furnished in the application/the identity of the occupier/ authorised agent is to be intimated to the Board forthwith.
- 3.6. There shall be a minimum distance of 50m from boundary of quarry operating area to residential building, place of worship, public buildings, public road having vehicular traffic, river or lake, railway line, bridges etc.
- 3.7. Quarrying shall be done only within the area marked in the location plan.
- 3.8. Quarrying area shall be earmarked before commencement of quarrying activities.
- 3.9. Blasting and quarrying shall be done without causing any nuisance or damage to occupants of adjoining or neighbouring land or building or posing damage to health, life or property.
- 3.10. After completion of excavation at any site, the abandoned quarry shall be utilized for rain water harvesting with protective barriers/ any other suitable approved purpose or may be reclaimed as per specification.
- 3.11. Proper fencing/barriers shall be provided and maintained all around the abandoned deep quarry pits to avoid accidents.
- 3.12. Mining below normal water table by continuous pumping shall be avoided in summer period (March, April & May) to prevent drinking water shortage in that area.
- 3.13. Noise creating activities such as drilling, blasting, breaking loading etc shall not be done during night time (6pm – 6am).
- 3.14. Blasting shall be done at specified time with prior signals to avoid accidents.
- 3.15. The PM10 in ambient air at the boundary shall not exceed 100 g/m<sup>3</sup>, max.
- 3.16. The Sound level (Leq) at 1m outside the boundary of the site and near residential locations should not exceed the ambient noise standard applicable to the adjoining areas.
- 3.17. "The consent issued from the Board will be valid only for a period during the period when all other statutory or necessary clearances from other concerned authorities are valid. The consent issued from the Board is only with respect to the powers vested under the Water Act, 1974, Air Act 1981 and Rules there under. The operation of the unit shall be commenced only after obtaining clearances from all concerned authorities".
- 3.18. No other machineries shall be operated without prior Consent of the Board.
- 3.19. Quarrying operations shall be started only after obtaining Mining permit/lease from Mining & Geology Department and D & O License under the Kerala Panchayat Raj Act from the concerned Local Self Government.
- 3.20. The applicant shall submit copies of all relevant permits/lease/certificate/licenses periodically to this office to ensure the validity of this consent.

### Consent to Operate from Kerala Pollution Control Board

## Annexure No.4



सत्यमेव जयते

**Proceedings of the State Environment Impact Assessment Authority Kerala**

Present: Dr. A.E. Muthunayagam, Chairman; Prof. (Dr.) K.P. Joy, Member; Sri. James Varghese IAS, Member Secretary

Sub: SEIAA Kerala - Proposed quarry project in Survey Nos. 1094/1-A, 1094/1-A1, 1094/1-A6, 1097/7-A, 1097/6-B2, 1101/3, 1097/7-B, 1097/6-A2, 1094/1-A27, 1097/6-B3, 1097/7-C2 at Marady Village, Marady Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala by M/s St. George Granites – Environmental Clearance under EIA Notification 2006 accorded – Orders issued

**Environmental Clearance**

No. 57/SEIAA/KL/7585/2012

dated, Thiruvananthapuram 15-03-2013

**ORDER**

The Proprietor of M/s St. George Granites, vide their application received on 14-11-2012, has sought environmental clearance under the EIA Notification, 2006 for the quarry project at Marady Village, Marady Panchayath, Muvattupuzha Taluk, Ernakulam District, Kerala. The proposal has been appraised by the State Level Expert Appraisal Committee Kerala constituted by the competent authority as per prescribed procedure in the lights of provisions under the EIA Notification 2006 and subsequent amendments, in its 10<sup>th</sup> meeting held on 26<sup>th</sup> and 27<sup>th</sup> November 2012 and also in the 12<sup>th</sup> meeting held on 2<sup>nd</sup> February, 2013 AND on the basis of the supporting documents enclosed with the application viz., the Form – 1, questionnaire for mining projects, pre-feasibility report, Environment Management Plan and the additional clarifications furnished in response to the observations, the SEAC, Kerala recommended environmental clearance to the project.

It is interalia, noted that the project comes under the Category B, Activity 1(a) of Schedule of EIA Notification 2006. The proposed project site falls within 9°57' N and 76°32' E. The proposed project is for quarrying of 2,29,000 TPA of building granite stone from an area of 3.8164 hectare (38,147.66 m<sup>2</sup>) of land. The expected life of mine will be 11 years. The proposed project activity involves about 70% of the pit area for exploring granite building stone. At the end of life of mine, the reclaimed area will be suitably planted and the remaining void at lower levels of excavated pit will be utilized as water storage/ground water recharge and will be utilized for domestic/agricultural purposes. The proposed project does not involve any underground mining activities. The mining will be done by open cast semi mechanised method of mining. The bench height and width proposed is 5 m. The exploitation of mineral is being done from 155-40 m RL in conceptual phase. A total quantity of 19,050 m<sup>3</sup> of top soil from two pits will be removed during the mining operations. The top soil will be utilized for green belt development/plantation and will also be utilized for filling the low lying areas or adjacent quarry site. The sewage of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. The daily water requirement of 5 KLD will be met from storm water / bore well. There will be fugitive emissions generated during material handling, transportation, loading, unloading, etc. that are proposed to be managed by regular water sprinkling on haul road, green belt development, avoiding overloading of vehicles and limiting the speed of the vehicles. The mineral produced from the proposed mine will be sent to the crusher plant located at around 15 km towards west at Palakkamattom for crushing it to the required size before dispatching it to end use.

The SEIAA considered the proposal in its 13<sup>th</sup> meeting held on 13<sup>th</sup> December 2012 and 15<sup>th</sup> meeting held on 22<sup>nd</sup> February 2013. The SEIAA, after due consideration of the relevant documents and additional clarifications submitted by the project proponent, and in view of the recommendations of SEAC, approved for issuance of Environmental Clearance for the project mentioned above at its 15<sup>th</sup> meeting held on 22<sup>nd</sup> February 2013. Accordingly, the State Level Environment Impact Assessment Authority (SEIAA) Kerala constituted by Govt. of India vide Notification No. S.O. 2484(E) dt.3-11-

Page 1 of 4

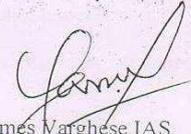
2011 of Ministry of Environment and Forests, Govt. of India, published as Gazette extraordinary No. 2074 on 3-11-2011, hereby accord necessary Environmental Clearance for the above project as per powers vested with it under the provisions of Environment Impact Assessment Notification – 2006 and subsequent amendments and also under the provisions made in the O.M. No. L-11011/47/2011-IA.II(M) dated 18<sup>th</sup> May 2012 of the Ministry of Environment and Forests, Government of India, and further subject to strict compliance of the following specific conditions, and the general conditions contained in the Annexure, which shall also form a part of this document.

1. The storm water should be channelized to a pit that has to be retained in the central area of the proposed mine.
2. Indigenous varieties of horticultural crops having edible fruits should also be cultivated as part of eco-restoration.

Compliance of the above conditions will be monitored by the Directorate of the Department of Environment and Climate Change, Government of Kerala or its agencies and also by the Regional Office of the Ministry of Environment and Forests, Government of India located at Bangalore. Necessary support for entry and inspection should be provided by the project proponent to the staff of the Directorate and Ministry for monitoring purposes.

**The given address of correspondence of the Authorized Signatory of the project is:-** Mr. Kuriakose I. Mathai, Proprietor, M/s St. George Granites, Palackamattom, Kinginimattom P.O., Kolenchery, Kerala – 682311; Telephone No: 0484-2760208.

**Agency with NABET accreditation for EIA is:-** M/s Enkay Enviro Services, 24-B, Basement, Dadu Marg, Gopal Bari, Jaipur-302001; Tel. No. 0141-2363996/4023996; Fax No: 0141-5118996; E-mail: info@enkayenviro.com

  
 Y/o James Varghese IAS  
 Member Secretary, SEIAA  
 and Principal Secretary to Government  
 Environment Department

To  
 Mr. Kuriakose I. Mathai  
 Proprietor  
 M/s St. George Granites  
 Palackamattom, Kinginimattom P.O.  
 Kolenchery, Kerala – 682311.

Copy to :

1. The Principal Secretary, Environment Dept., Government of Kerala, Secretariat
2. The Director, Dept. of Environment and Climate Change, Govt. of Kerala, Tvm – 24.
3. IA-Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi - 110003
4. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034
5. Chairman and Members of SEIAA Kerala
6. Chairman, SEAC Kerala
7. Website uploading
8. Stock file

Annexure

**STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA  
GENERAL CONDITIONS (for mining projects)**

- (i) Rain water harvesting to collect and utilize the entire water falling in land area should be provided.
- (ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
- (iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.
- (iv) The project shall incorporate devices for solar energy generation and utilization wherever possible.
- (v) Sprinklers shall be installed and used in the project site to contain dust emissions.
- (vi) The eco-restoration plan submitted with the proposal should be fully implemented.
- (vii) Corporate Social Responsibility agreed upon by the proponent should be implemented.
- (viii) Barbed metal wire fencing around the mining area shall be provided with a height of not less than 5 ft so that falling of animals/human/belongings/dumping of garbages etc. does not happen.
- (ix) Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
- (x) Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
- (xi) Overburden materials should be managed within the site and the old quarries, if any, should be reclaimed and restored.
- (xii) Height of benches should not exceed 5 m and width should not be less than 5 m.
- (xiii) Mats to reduce fly rock blast to a maximum of 15 PPV should be provided.
- (xiv) Mining depth should not exceed beyond 40 m, unless otherwise specified or not below the level of nearest stream bed, whichever is less.
- (xv) Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of green belt and hollow brick envelop for crushers so that the noise level is kept within prescribed standards given by CPCB.
- (xvi) Assurance in the form of affidavit should be given to SEIAA that eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
- (xvii) Garland drains to be provided in the lower slopes around the core area to channelize storm water.
- (xviii) Debris/ silt traps to be provided to prevent entry of dust and quarry wastes entering the main streams.

- (xix) All other statutory clearances should have been obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.
- (xx) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
- (xxi) The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- (xxii) The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- (xxiii) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at [www.seiaakerala.org](http://www.seiaakerala.org). The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the office of this Authority as confirmation.
- (xxiv) A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- (xxv) The proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (**both in hard copies as well as by e-mail**) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the Directorate of Environment and Climate Change, Govt. of Kerala.
- (xxvi) The conditions of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40.
- (xxvii) The proponent should provide affidavit that all the conditions stipulated in the EC shall be scrupulously followed.

Sd/-  
Member Secretary, SEIAA Kerala

**EC order**

## ANNEXURE No. 5

**अनुज्ञप्ति प्ररूप एल. ई.-3 | LICENCE FORM LE-3**

(विस्फोटक नियम, 2008 की अनुसूची 4 के भाग 1 के अनुच्छेद 3(क) से (घ) देखिए।)  
(See article 3(a) to (d) of Part 1 of Schedule IV of Explosives Rules, 2008)

(ग) उपयोग के लिए एक समय पर वर्ग 1,2,3,4,5 या वर्ग 7 के विस्फोटक या किसी मैगजीन में वर्ग 6 के विस्फोटक रखने के लिए अनुज्ञप्ति

Licence to possess : (c) for use,explosives of class 1, 2,3,4,5,6 or 7 in a magazine

**अनुज्ञप्ति सं. (Licence No.) : E/SC/KL/22/898(E41970)**  
वार्षिक फीस रुपए (Annual Fee Rs): 2400/-

1. Licence is hereby granted to  
**Shri Kuriakose.I.Mathai (अधिभोगी / Occupier : Kuriakose I.Mathai)**, Ithunickal House,  
Kinginimattom P.O.-682311, Kolenchery Taluk, District: Ernakulam (Kerala), Town/Village -, District-,  
State-, Pincode - 682311

को अनुज्ञप्ति अनुदत्त की जाती है।

2. अनुज्ञप्तिधारी की प्रास्थिति | Status of licensee : **Individual**

3. अनुज्ञप्ति निम्नलिखित प्रयोजनों के लिए  
विधिमान्य है। : possess for use of **Nitrate Mixture, Safety Fuse,**  
Licence is valid only for the following purpose. **Detonators, - के उपयोग के लिए**

4. अनुज्ञप्ति विस्फोटकों के निम्नलिखित किस्मों, प्रकार और मात्रा के लिए विधिमान्य है।  
Licence is valid for the following kinds and quantity of explosives: -- (क) (a)

क्र Sr. No.	नाम और विवरण Name and Description	वर्ग और प्रभाग Class & Division	उप-प्रभाग Sub-division	मात्रा किसी एक समय में Quantity at any one time
1.	Nitrate Mixture	2,0	0	125 Kg.
2.	Safety Fuse	6,1	0	3500 Mtrs
3.	Detonators	6,3	0	4000 Nos.

(ख) किसी एक कलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा [अनुच्छेद 3(ख) और (ग) के अधीन अनुज्ञप्ति के लिए] : **20 times as above.**

(b) Quantity of explosives to be purchased in a calendar month[applicable for licence under article 3 (b) and (c)] :

5. निम्नलिखित रेखाचित्र (रेखाचित्रों) से अनुज्ञप्त परिसर की पुष्टि  
होती है। रेखाचित्र क्र. (Drawing No.) E/SC/KL/22/898  
The licensed premises shall conform to the following drawing : (E41970)  
(s): दिनांक (Dated) 19/11/2007

6. अनुज्ञप्ति परिसर निम्नलिखित पते पर स्थित हैं। The licensed premises are situated at following address:  
Survey No(s) **1094/1A** , ग्राम (Town/Village) : **Marady Village, Munnar Taluk, District : Ramangalam**  
जिला (District) **ERNAKULAM** पुलिस थाना (Police Station) : **Ramangalam**  
राज्य (State) **Kerala** पिनकोड (Pincode)  
दूरभाष (Phone) **ई. मेल (E-Mail)** **फैक्स (Fax)**

7. अनुज्ञप्ति परिसर में निम्नलिखित सुविधाएं  
अंतर्विष्ट हैं। **A set of G(Sr.No.765) & G (Sr.No.766)type Portable**  
The licensed premises consist of following : **Magazines (Mfd by m/s Nobel Engg&Fab.Unit,Cochin) &**  
facilities. **one no of D type magazine mfd by thekkans engg and**  
**fabrication works**

8. अनुज्ञप्ति समय - समय पर यथासंशोधित विस्फोटक अधिनियम, 1884 और उनके अधीन विरचित विस्फोटक  
नियम, 2004 के उपबंधों, शर्तों और अतिरिक्त शर्तों और निम्नलिखित उपाबंधों के अधीन रहते हुए अनुदत्त की  
जाती है।  
The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the  
Explosives Rules, 2008 framed there under and the conditions, additional conditions and the following Annexures.

1. उपर्युक्त क्रम सं. 5 में यथा कथित रेखाचित्र (स्थान, सन्निर्माण संबंधी और अन्य विवरण दर्शित करते हुए)।  
Drawings (showing site, constructional and other details) as stated in serial No. 5 above.

2. अनुज्ञप्ति प्राधिकारी द्वारा हस्ताक्षरित इस अनुज्ञप्ति की शर्तें और अतिरिक्त शर्तें।  
Conditions and Additional Conditions of this licence signed by the licensing authority.

3. दूरी प्ररूप DE-2 | Distance Form DE-2.

9. यह अनुज्ञप्ति तारीख 31 मार्च 2009 तक विधिमान्य रहेगी। This licence shall remain valid till 31st day of March 2009.

यह अनुज्ञप्ति, अधिनियम या उसके अधीन विरचित नियमों या अनुसूची V के भाग 4 के प्रति निर्दिष्ट सेट-VII के अधीन तथा उपवर्णित इस अनुज्ञप्ति की शर्तों का अधिक्रमण करने या यदि अनुज्ञप्त परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिसंहत की जा सकती है, जहां वह लागू हो।  
This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto.

Sd/-

संयुक्त मुख्य विस्फोटक नियंत्रक | Joint Chief Controller of  
Explosives  
South Circle, Chennai

तारीख | The Date - 19/11/2007

**Amendments :**

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 02/03/2011
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 30/12/2011
- Amendment in Drawings/Facilities/Premises dated : 30/08/2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 18/12/2017

नवीनीकरण के पृष्ठांकन के लिए स्थान  
Space for Endorsement of Renewal

नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry	अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature of licensing authority and stamp
21/03/2019	31/03/2024	Dy. Chief Controller of Explosives, Ernakulam

कृते उप मुख्य विस्फोटक नियंत्रक  
For Deputy Chief Controller of Explosives  
एरनाकुलम Ernakulam

**कानूनी चेतावनी :** विस्फोटकों को गलत ढंग से चलाने या उनका दुरुपयोग विधि के अधीन गंभीर दंडिक अपराध होगा।  
**Statutory Warning :** Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

## License to possess and use of Explosives



## ANNEXURE No. 7

Ministry of Mines, Government of Kerala, Minor Minerals, Kinginimattom, P. O, Ernakulam District - 682 311 and Proprietor, M/s. St. George Granites, Kinginimattom, P.O - sanctioned - orders - issued

- Ref 1. Application dtd. 03/07/2015 from Shri. Kuriakose I Mathai, Ithoonickal House, Kinginimattom, P. O, Ernakulam District - 682 311 and Proprietor, M/s. St. George Granites, Kinginimattom, P.O
2. Letter No. DOE/3228/E2/15 dtd. 17/07/2015, 26/11/2015, 10/02/2016, 31/07/2017 from the Geologist, District Office, Ernakulam
3. Pro.order. No. 57/SEIAA/KL/7585/2012 dtd. 15/03/2013 of the State Environment Impact Assessment Authority, Thiruvananthapuram, Kerala
4. Kerala Minor Mineral Concession Rules, 2015.

No. 417/2017-18/7939/M3/2015/DMG Dated, Thiruvananthapuram 05/10/2017

ORDER

A quarrying lease is granted to Shri. Kuriakose I Mathai, Ithoonickal House, Kinginimattom, P. O, Ernakulam District - 682 311 and Proprietor, M/s. St. George Granites, Kinginimattom, P.O to quarry Granite (Building Stone) over an area of 1.2656 Hectares of land comprised in Sy. Nos. 1097/7A, 1097/7B, 1097/7C2, 1097/6A2, 1097/6B2, 1097/6B3, 1094/1A-1 of Marady Village, Muvattupuzha Taluk, Ernakulam District for 12 (Twelve) years from the date of execution of the quarrying lease deed under the Kerala Minor Mineral Concession Rules, 2015 and as per the survey map issued by the Tahsildar, Muvattupuzha and the approved Mining Plan and environmental clearance submitted by the applicant subject to the under mentioned conditions.

1. Royalty is payable to Government as per Rule 32 of the Kerala Minor Mineral Concession Rules, 2015 in respect of minor mineral quarried and moved out of the quarry subject to revision from time to time on the basis of amendments to the schedule I of the said Rules.
2. Dead rent is realizable under 40(1)(d) of the said rules subject to revision from time to time on the basis of amendments to the schedule II of the said rules.
3. Surface rent realizable under 40(1)(e) of the said rules will be equal to the land revenue assessed by the Revenue Department subject to revision from time to time on the basis of the land revenue.
4. The lessee shall execute a quarrying lease deed within a period of six months from the date of this order in form 'H' as per Rule 43 of the Kerala Minor Mineral Concession Rules, 2015.
5. The lessee shall also deposit an amount of Rs 10,000/- (Rupees Ten Thousand only) per hectare as security deposit for the observance of the terms and conditions of the lease before the deed is executed as per rule 42 of the said rules. The lessee shall commence quarrying operation only after the deed is executed and registered.
6. The quarrying area shall be demarcated and boundary stones fixed at the lessee's expenses before execution of the quarrying lease deed.
7. The lessee shall not win and dispose of any type of dimension and decorative stones from the area over which the quarrying lease has been sanctioned on the strength of this order.
8. The production of Granite (Building Stone) from the area covered under this grant shall be subject to the quantity specified in the Mining Plan submitted by the lessee and the same is restricted to 30,000 Metric Tonnes per year.
9. (i) The lessee shall erect a notice board in Malayalam at a prominent place with a minimum size of 1 metre X 1.5 metres in a metallic board near to the entrance of the quarry to the effect that it shall contain the name and address of the permit holder, mineral concession number and date, the mineral to be extracted, permit number and date and its date of expiry, quantity of extraction permitted (if applicable). Area of extraction permitted, explosives used (if any), etc.

10. The lessee shall take the necessary steps for the commencement of the quarrying operation for preventing accidents by falling of human beings, animals, vehicles or any materials into the quarry. The lessee should take effective preventive measures for the safety of labourers as well as the general public.

11. The lessee shall leave a distance of 7.5m from the boundaries of adjacent properties including government puramboke land while carrying out quarrying operations.
12. The lessee shall not assign, sublet or transfer his lease or any right or interest therein to any person without previous permission of the Director of Mining & Geology.
13. The lessee shall pay tax related to Revenue Department, if any, as directed by them and the details should be furnished to the Geologist periodically.
14. The lessee shall operate the quarry in accordance with the condition stipulated in the environmental clearance and mining plan submitted by them.
15. The lessee shall obtain all other statutory licences/clearances/No Objection Certificates from other authorities concerned including Explosive licence, consent from Pollution Control Board and D & O licence from the Local Self Government Department concerned.
16. The lessee shall produce scheme of mining before completion of five years of operation of the quarry.
17. The lessee shall produce a financial guarantee for Rs. 1,00,000/- (Rupees one lakh only) as stipulated in rule 62 of KMMC Rules 2015, before execution of lease deed.
18. The lessee shall pay 10% of the amount of royalty/consolidated royalty as the case may be paid by them, being the quarry safety fund in addition to the royalty/consolidated royalty, as per rule 63 of KMMC rules, 2015.
19. The lessee shall carryout mining operations as per the approved mining plan.
20. The quarrying permit granted from the district office, if any, in the area of this quarrying lease is hereby stands cancelled from the date of this order.

The terms and conditions stated in this order will be subject to such further modifications as may be made by the State Government from time to time.

Sd/-  
T.K. Ramakrishnan  
DIRECTOR OF MINING & GEOLOGY (I/C)

To  
Shri. Kuriakose I Mathai, Ithoonickal House, Kinginimattom. P. O,  
Ernakulam District - 682 311 and Proprietor, M/s. St. George Granites,  
Kinginimattom. P.O

Copy to:

1. The Director of Mines Safety,  
No.5, 100FT,Road,17<sup>th</sup> Main, Koramangala 4<sup>th</sup> Block  
Bengaluru, Karnataka - 560034
2. The District Collector, Ernakulam.
3. The Geologist, District Office, Ernakulam
4. The Tahsildar, Muvattupuzha
5. Stock File (2),File copy

(BY ORDER)  
*[Signature]*  
05/10/2017

SENIOR SUPERINTENDENT



### Lease order from Directotre of Mining and Geology

## ANNEXURE No. 8



## TEST REPORT

Test Report No: 20221115/R059	Date: 14-05-2023	Page 1 of 1
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## CUSTOMER DETAILS

Customer Name & Address	<b>M/s St.George Granite</b>		
	Propriator Kuriakose I Mathai Ethoonickal (H), Kinginimattom, Kolenchery, Ernakulam District		
Customer Reference	Test Request dt : 03-05-2023		

## SAMPLE DETAILS

Product Category	Atmospheric Pollution	Sample Code	20221115/S059
Sample Name	Ambient Air	Sample Received on	09-05-2023
Sample Conditions at Receipt	Fit for Analysis	Test Commenced on	10-05-2023
Sampled by	Lab Authorized Sampler	Test Completed on	12-03-2023

## DETAILS OF SAMPLING

Sampling Location	Near East Side Boundary	Date of Sampling	08-05-2023
Sampling Procedure	SEAL/ENL/GEN/SOP/02	Humidity	68%

## SAMPLING SITE DETAILS

Survey No	1094/1A, 1094/1A1, 1094/1A6, 1094/1A27, 1097/6A2, 1097/6B2, 1097/6B3, 1097/7A, 1097/7B, 1097/7C2, 1101/3		
Village	Maradi	Taluk	Muvattupuzha
District	Ernakulam	State	Kerala

## TEST RESULTS- CHEMICAL PARAMETERS

Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	NAAQ Standards
1	Particulate Matter, PM <sub>10</sub>	IS 5182 (Part 23):2006	µg/m <sup>3</sup>	57.2	Max 100
2	Particulate Matter, PM <sub>2.5</sub>	EPA 40 CFR (Part 50)Appendix – L	µg/m <sup>3</sup>	22.5	Max 60
3	Sulphur Dioxide as SO <sub>2</sub>	IS 5182 (Part 2): 2001 RA 2017	µg/m <sup>3</sup>	2.90	Max 80
4	Oxides of Nitrogen as NO <sub>2</sub>	IS 5182 (Part 6): 2006 RA 2017	µg/m <sup>3</sup>	< 2.00	Max 80

Remarks:

\*\*\*End of Report\*\*\*

**Shency Joy**  
Dy.TM-Chemical  
Checked by:



**Laiju P.N.**  
Laboratory Head  
Authorized Signatory

The results are related only to the samples submitted for analysis and this test report shall not be reproduced except in full, without the written approval of the laboratory.

Standard<sup>S</sup> Environmental & Analytical Laboratories

Approval & Recognition: "A" Grade Laboratory approved by Kerala State Pollution Control Board.

K.I. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43  
Web: www.sealabs.in, E-mail: sealab@gmail.com

## Result of ambient air

## ANNEXURE No. 9



## TEST REPORT

Test Report No: 20221115/R060	Date: 14-05-2023	Page 1 of 1			
CUSTOMER DETAILS					
Customer Name & Address	<b>M/s St. George Granite</b> Propriator Kuriakose I Mathai Ethoonickal (H), Kinginimattom, Kolenchery, Ernakulam District				
Customer Reference	Test Request dt : 03-05-2023				
DETAILS OF MONITORING					
Product Category	Atmospheric Pollution	Sample Code	20221115/S060		
Sample Name	Ambient Noise	Monitoring Commenced on	08-05-2023		
Monitoring Location	Near East Side Boundary	Monitored by	Lab Authorized Sampler		
Test Method	IS 9989:1981				
MONITORING SITE DETAILS					
Survey No	1094/1A, 1094/1A1, 1094/1A6, 1094/1A27, 1097/6A2, 1097/6B2, 1097/6B3, 1097/7A, 1097/7B, 1097/7C2, 1101/3				
Village	Maradi	Taluk	Muvattupuzha		
District	Ernakulam	State	Kerala		
MONITORING RESULTS - Leq					
TIME	RESULTS dB(A)	TIME	RESULTS dB(A)	TIME	RESULTS dB(A)
06:00	38.6	14:00	51.7	22:00	37.4
07:00	41.4	15:00	52.1	23:00	37.8
08:00	45.8	16:00	53.3	24:00	37.4
09:00	49.4	17:00	53.7	01:00	38.2
10:00	51.7	18:00	48.2	02:00	37.8
11:00	54.9	19:00	44.6	03:00	38.5
12:00	52.1	20:00	40.6	04:00	37.4
13:00	51.3	21:00	40.1	05:00	39.2
TEST RESULTS- CHEMICALPARAMETERS					
Sl. No.	PARAMETERS	UNIT	RESULT		
1	Ambient Sound Level (Leq) Day Time (06:00 to 22:00)	dB(A)	50.2		
2	Ambient Sound Level (Leq) Night Time (22:00 to 06:00)	dB(A)	37.7		

**Shency Joy**  
Dy.TM-Chemical  
Checked by:



**Laiju P.N.**  
Laboratory Head  
Authorized Signatory

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**Result of ambient Noise level**

## ANNEXURE No. 10

**TEST REPORT**

Test Report No:20221115/R061	Date:14-05-2023	Page 1 of 2
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CUSTOMER DETAILS	
Customer Name & Address	<b>M/s St.George Granite</b> Propriator Kuriakose I Mathai Ethoonickal (H), Kinginimattom, Kolenchery, Ernakulam District
Customer Reference	Test Request dt : 03-05-2023

SAMPLE DETAILS			
Product Category	Water	Sample Code	20221115/S061
Sample Name	Bore Well Water	Sample Received on	09-05-2023
Sample Conditions at Receipt	Fit for Analysis	Temperature @ Receipt	4°C
Sample Quantity& Packing	1L & 250ml Plastic Bottles	Test Commenced on	10-05-2023
Sampled by	Lab Authorized Sampler	Test Completed on	12-05-2023

DETAILS OF SAMPLING			
Sample Source	----	Date of Sampling	09-05-2023
Sampling Procedure	SEAAL/ENL/GEN/SOP/01& SEAAL/MBL/SOP/06	Sample Temperature	28 °C

SAMPLING SITE DETAILS			
Survey No	1094/1A, 1094/1A1, 1094/1A6, 1094/1A27, 1097/6A2, 1097/6B2, 1097/6B3, 1097/7A, 1097/7B, 1097/7C2, 1101/3		
Village	Maradi	Taluk	Muvattupuzha
District	Ernakulam	State	Kerala

TEST RESULTS - CHEMICAL PARAMETERS					
Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	ACCEPTABLE LIMIT (IS 10500 - 2012)
1	Colour	IS 3025 Part 4:1983 RA 2017	Hazen	1.00	5.00 (Max)

**Shency Joy**  
Dy.TM-Chemical  
Checked by



**Salini T.S.**  
Microbiologist  
Authorized Signatory

**Laiju P.N.**  
Laboratory Head  
Authorized Signatory

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Web: www.sealabs.in, E-mail: sealab@gmail.com

**TEST REPORT**

Test Report No: 20221115/R061	Date: 14-05-2023	Page 2 of 2
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TEST RESULTS - CHEMICAL PARAMETERS					
Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	ACCEPTABLE LIMIT (IS 10500 - 2012)
2	Odour	IS 3025 Part 5:2018	---	Agreeable	Agreeable
3	Turbidity	IS 3025 Part 10:1984 RA 2017	NTU	0.3	1.00 (Max)
4	pH	IS 3025 Part 11:1983 RA 2017	---	6.76	6.50 - 8.50
5	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	198	500 (Max)
6	Total Hardness (as CaCO <sub>3</sub> )	IS 3025 Part 21:2009 RA 2019	mg/L	110	200 (Max)
7	Calcium (as Ca)	IS 3025 Part 40:1991 RA 2019	mg/L	30.4	75.0 (Max)
8	Magnesium (as Mg)	IS 3025 Part 46:1994 RA 2019	mg/L	8.28	30.0 (Max)
9	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2019	mg/L	24.9	250 (Max)
10	Total Alkalinity (as CaCO <sub>3</sub> )	IS 3025 Part 23:1986 RA 2019	mg/L	30.1	200 (Max)
11	Iron (as Fe)	IS 3025 Part 53:2003 RA 2019	mg/L	0.12	1.00 (Max)
12	Sulphate (SO <sub>4</sub> )	IS 3025 Part 24:1986 RA 2019	mg/L	32.5	200 (Max)

TEST RESULTS - CHEMICAL PARAMETERS					
Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	ACCEPTABLE LIMIT (IS 10500 - 2012)
14	Total Coliform Bacteria	IS 15185 : 2016	----	Absent/100 ml	Absent/100 ml
15	E coli	IS 15185 : 2016	----	Absent/100 ml	Absent/100 ml

Remarks:

\*\*\*End of Report\*\*\*

**Shency Joy**  
Dy.TM-Chemical  
Checked by



**Salini T.S.**  
Microbiologist  
Authorized Signatory

**Laiju P.N.**  
Laboratory Head  
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**Result of water**