

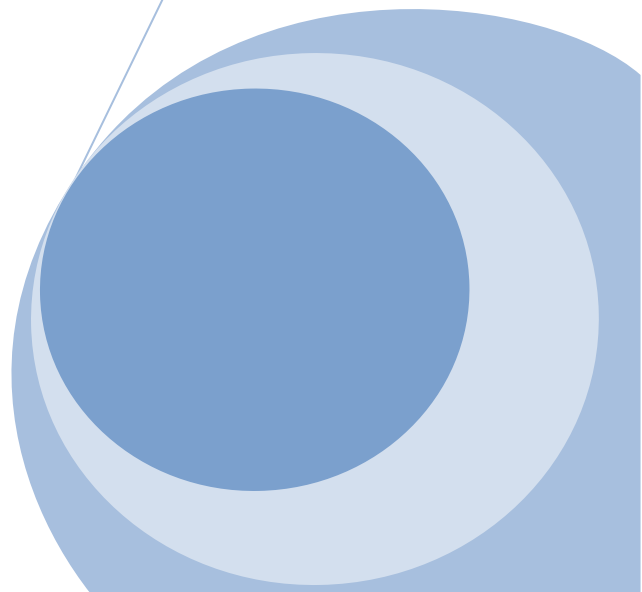
# *COMPLIANCE REPORT*

**OCTOBER 2018 – MARCH 2019**

**Quarry project of Binu Cheriyan**

**Malappuram District**

**Kerala**



Dt. 29-05-2019

**From**  
**Binu Cherian,**  
Thakkirickal House,  
Chelad P O, Kothamangalam,  
Kerala. Pin: 686681

**To**  
**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 :- File No. 839/SEIAA/EC1/2717/2015**

**Subj :- Environment Clearance – Quarry project at Village & Panchayat Edayur, Thirur Taluk, Malappuram District, Kerala – Compliance Report – second half – Reg.**

**Respected Sir,**

The Quarry (Building stone) project was accorded Environmental Clearance for **2.6872 Ha.** by order No. **839/SEIAA/EC1/2717/2015**, dated 05/02/2016 by State Environmental Impact Assessment Authority, Kerala. The compliance report of **second Half** (October 2018 – March 2019) to the specific and general conditions of the Environment Clearance order is enclosed.

Thanking you,  
Yours respectfully,



**Binu Cherian**

Encl: - As Above

**Copy to : The Chairman & The Member Secretary**  
State Environment Impact Assessment Authority (SEIAA)  
Thiruvananthapuram, Kerala – 695 024.

**COMPLIANCE REPORT**

**TO**

**THE CONDITIONS**

**OF**

**ENVIRONMENTAL CLEARANCE ORDER**

**NO: 839/SEIAA/EC1/2717/2015**

**DATED: 05-02-2016**

*BY*

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

**FOR**

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

*AT*

**SURVEY NOS. 101/5, 101/6,  
VILLAGE & PANCHAYAT EDAYUR, THIRUR TALUK,  
MALAPPURAM DISTRICT, KERALA**

**BY**

**MR. BINU CHERIAN,  
THAKKIRICKAL HOUSE, CHELAD P.O,  
KOTHAMANGALAM, ERNAKULAM DISTRICT**

**KERALA**

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## INTRODUCTION

Quarry project of **Sri. Binu Cheriyam** Thakkirickal House, Chelad P. O Kothamangalam, Ernakulam District is a building metal stone quarry located at Survey No. 101/5, 101/6,, Edayur Village, Edayur Panchayat, Thirur Taluk, Malappuram District, Kerala.

The quarry project was accorded with the Environmental Clearance (EC) by State Environmental Impact Assessment Authority on 05-02-2016. As part of general condition No.37 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 **October 2018 – March 2019** is being submitted.

# **COMPLIANCE REPORT**

## **(GENERAL CONDITIONS)**

**GENERAL CONDITIONS**

|          |  |                 |
|----------|--|-----------------|
| <b>1</b> | <b>Rain Water Harvesting capacity should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified elsewhere.</b> | <b>Complied</b> |
|----------|--|-----------------|

**Compliance**

To collect rain water from the entire project land, the proponent has constructed a trench with a width of 6-7 meter and length of 30 meter to collect storm water from the upper slope of the project. The storm water flow is leading to the trench through natural drainage. The water from pond is mainly used for watering of plants, wetting of roads and sprinkler system for contain dust emission.

|          |   |                 |
|----------|---|-----------------|
| <b>2</b> | <b>Environment Monitoring Cell (EMC) as agreed under the affidavit filed by the proponent should be formed and made functional.</b> | <b>Complied</b> |
|----------|---|-----------------|

**Compliance**

The Environmental Monitoring Cell (EMC) will be formed with Mr. Judy James as head of the monitoring cell. The EMC meeting convenes regularly to evaluate and monitor quarrying work in connection with the specific and general conditions stipulated in the Environmental Clearance (EC) order. The details of the monitoring cell are given below:

**TABLE No. 1 - ENVIRONMENTAL MONITORING CELL (EMC)**

| Sl. No. | Post                        | Name       |
|---------|-----------------------------|------------|
| 1.      | Head of the monitoring cell | Judy James |
| 2.      | Member                      | Nithesh    |
| 3.      | Member                      | Varghese   |

|          |  |                       |
|----------|--|-----------------------|
| <b>3</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> | <b>Being complied</b> |
|----------|--|-----------------------|



**Compliance**

To enrich vegetation and prevent air pollution, the project proponent planted suitable avenue trees along either side of the roads, parking area and other areas in the project land. There are natural vegetations including trees, shrubs, herbs and climbers also present. The details of vegetation are given below.

**TABLE No. 2 - Details of the natural vegetation existing along the road side**

| Sl. No. | Scientific Name            | Common Name      | Family           | Habit   |
|---------|----------------------------|------------------|------------------|---------|
| 1.      | <i>Mucuna bracteata</i>    | Thottapayar      | Fabaceae         | Climber |
| 2.      | <i>Swietenia mahagoni</i>  | Mahagony         | <i>Meliaceae</i> | Tree    |
| 3.      | <i>Bambusa bambos</i>      | Mula             | <i>Poaceae</i>   | Herb    |
| 4.      | <i>Chromolaena odorata</i> | Communist-pacha  | Compositae       | Shrub   |
| 5.      | <i>Coccos nucifera</i>     | Thengu / Coconut | Arecaceae        | Tree    |
| 6.      | <i>Mangifera indica</i>    | Mavu             | Anacardiaceae    | Tree    |
| 7.      | <i>Tectona grandis</i>     | Thekku           | Verbenaceae      | Tree    |
| 8.      | <i>Ziziphus oenopolia</i>  | Thodalli         | Rhamnaceae       | Climber |

|           |   |                         |
|-----------|---|-------------------------|
| <b>04</b> | <b>Maximum possible solar energy generation and utilization shall be ensures as an essential part of the project.</b> | <b>Will be Complied</b> |
|-----------|---|-------------------------|

**Compliance:**

To reduce the consumption of electricity from the conventional sources, the project will install solar street lights to use maximum renewable energy to reduce electrical consumption from KSEB. As part of this, the project proponent could reduce the use of energy from conventional sources.

|           |  |                 |
|-----------|--|-----------------|
| <b>05</b> | <b>Sprinklers shall be installed and used in the project site to contain dust emissions.</b> | <b>Complied</b> |
|-----------|--|-----------------|

**Compliance:**

To prevent dust emissions from the road while transportation of materials, the project is splashing water on roads. There is sufficient water in the rain water

harvesting ponds for the purpose. The sprinklers installed in and around the crusher unit.

|           |  |                       |
|-----------|--|-----------------------|
| <b>06</b> | <b>Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.</b> | <b>Being complied</b> |
|-----------|--|-----------------------|

**Compliance:**

As part of eco restoration, the project started to plant various saplings within the project area. The list of tree/shrub/herb saplings planted in the project site is given below in **table No. 3**. The mine closure plan will be done at own cost of project proponent as agreed in the proposal.

**TABLE 3 Details of the saplings planted within the project area**

| <b>Sl. No.</b> | <b>Scientific Name</b>          | <b>Common Name</b> | <b>Family</b> | <b>Habitat</b> |
|----------------|---------------------------------|--------------------|---------------|----------------|
| <b>1</b>       | <i>Mucuna bracteata</i>         | Thottapayar        | Fabaceae      | Climber        |
| <b>3</b>       | <i>Artocarpus heterophyllus</i> | Plavu              | Moraceae      | Tree           |
| <b>4</b>       | <i>Capsicum frutescens</i>      | Kantharimulaku     | Solanaceae    | Herb           |
| <b>5</b>       | <i>Carica papaya</i>            | Papaya             | Caricaceae    | Tree           |
| <b>6</b>       | <i>Cocos nucifera</i>           | Thengu             | Arecaceae     | Tree           |
| <b>7</b>       | <i>Curcuma longa</i>            | Manjal             | Zingiberaceae | Herb           |
| <b>8</b>       | <i>Mangifera indica</i>         | Mavu               | Anacardiaceae | Tree           |
| <b>9</b>       | <i>Musa paradisiaca</i>         | Vazha              | Musaceae      | Herb           |
| <b>10</b>      | <i>Swietenia mahagoni</i>       | Mahagony           | Meliaceae     | Tree           |
| <b>11</b>      | <i>Tectona grandis</i>          | Thekku             | Verbenaceae   | Tree           |

|           |  |                         |
|-----------|--|-------------------------|
| <b>07</b> | <b>At least 10 percent out of the total excavated pit area should be retained as water storage areas and the remaining area should be reclaimed with stacked dumping and overburden and planted with indigenous plant species that are eco-friendly.</b> | <b>Will be complied</b> |
|-----------|--|-------------------------|

**Compliance:**

The project is intending to retain 10 percent of total excavated pit as rain water storage area after closure of the mine. The remaining area will be reclaimed with

stacked dumping of overburden and top soil. As part of its eco – restoration plan, the project will plant indigenous plant species that are eco – friendly on the reclaimed area.

|           |   |                 |
|-----------|---|-----------------|
| <b>08</b> | <b>Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented</b> | <b>complied</b> |
|-----------|---|-----------------|

***Compliance:***

The activities under Corporate Social/Environmental Responsibility (CSR/CER) activities are executed worth Rs. one lakh in the sectors of Health and education. To The project proponent is intending to carry out more activities under CSR for inclusive growth in the community.

|           |  |                 |
|-----------|--|-----------------|
| <b>09</b> | <b>The lease are shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mine.</b> | <b>Complied</b> |
|-----------|--|-----------------|

***Compliance:***

To demarcate the boundary and to ensure safety, the project has erected barbed metal wire fencing around the mining area with height of 5 ft. This will help to prevent falling of animals/human being/dumping of garbage etc.

|           |  |                 |
|-----------|--|-----------------|
| <b>10</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> | <b>Complied</b> |
|-----------|--|-----------------|

***Compliance:***

As per the stipulation of Explosive department, to give warning to the labours and community people prior to the blasting in quarry, the project installed warning alarms in the quarry site. This is properly working prior to the blasting time.

|           |   |                 |
|-----------|---|-----------------|
| <b>11</b> | <b>Control measures on noise and vibration prescribed by KSPCB should be implemented.</b> | <b>complied</b> |
|-----------|---|-----------------|

**Compliance:**

To reduce noise level in the project site, the project proponent has implemented mitigate masseurs. The major noise generating sources from the mining activity is working machineries, drilling, blasting and plying of vehicles. The following control measures are undertaken to bringing down the noise levels:-

- Proper maintenance of machinery and equipments
- The machineries like breaker and excavator has well sound proof cabin so that the machine operators can work without stress due to the sound.
- Personal protective devices i.e., earmuffs, ear plugs etc. are provided to workers working in high noise areas.
- The mining activity held in day time only.

**Blast vibrations and control measures**

- ❖ Controlled blasting technique is adopted in this project in order to reduce blast vibrations.
- ❖ The maximum charge per delay is not more than 10kg to limit the PPV values to 10mm/sec.
- ❖ Optimum delay sequence and stem to column ratio is maintaining to minimize the ground vibration intensity.
- ❖ The project proponent has appointed qualified persons to monitor the mining operations

|           |  |                 |
|-----------|--|-----------------|
| <b>12</b> | <b>Quarrying activities should be limited to day time as per KSPCB guidelines.</b> | <b>Complied</b> |
|-----------|--|-----------------|

**Compliance:**

Quarrying activities are limited to day time only as per KSPCB guidelines. The quarry working time is 7.30 am - 5 pm. This will help to limit the sound pollution.

|           |   |                 |
|-----------|---|-----------------|
| <b>13</b> | <b>Blasting should be done in a controlled manner as specified by the regulations of explosives department or any other concerned agency.</b> | <b>Complied</b> |
|-----------|---|-----------------|

**Compliance:**

The blasting is done in controlled manner by using ordinary delayed detonators. All blasting activities are carrying out with the specified regulations of explosive department. All blasting are under careful supervision of qualified persons.

|    |  |                 |
|----|--|-----------------|
| 14 | <b>A licensed person should supervise/control the blasting operations.</b> | <b>complied</b> |
|----|--|-----------------|

**Compliance:**

The project has appointed a licensed person having certificate of short fire to supervise/control the blasting operations for the extraction of granite building stones.

|    |  |                 |
|----|--|-----------------|
| 15 | <b>Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.</b> | <b>Complied</b> |
|----|--|-----------------|

**Compliance:**

To reduce emission of dust through the vehicle movement, the access road from the entrance of project site to quarry has tarred 250 meter and maintaining in good manner. The project splashes water on the road to arrest the dust production during summer season. The project proponent is intending maintain access road to the quarry in good condition for dust emission and easiness of transportation of vehicles.

|    |   |                 |
|----|---|-----------------|
| 16 | <b>Overburden materials should be managed within the site and the old quarries, if any, should be restored.</b> | <b>complied</b> |
|----|---|-----------------|

**Compliance:**

There is no old quarry in the site for restoration. The overburden materials are stored within the site. This will be used to restore the exploited area in future.

|    |   |                       |
|----|---|-----------------------|
| 17 | <b>Height of the benches should not exceed 5m and width should not be less than 5m.</b> | <b>Being complied</b> |
|----|---|-----------------------|

**Compliance:**

To enhance safety and to make environment friendly quarrying, the excavation activity in the project is progressing by creating benches of 5m width x 5m height.

|    |   |              |
|----|---|--------------|
| 18 | <b>Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.</b> | <b>Noted</b> |
|----|---|--------------|

**Compliance:**

The project is yet to use mats during the time of blasting. The project is using ordinary delayed detonator for blasting therefore there is no issue with fly rock in the community and the project is also assure the maximum PPV is under 10.

|    |  |                         |
|----|--|-------------------------|
| 19 | <b>Maximum depth of mining from general ground level at site shall not exceed 10m.</b> | <b>Will be complied</b> |
|----|--|-------------------------|

**Compliance:**

Mining depth will not exceed beyond 10 meter or not below the level of the nearest stream bed, whichever is less.

|    |  |              |
|----|--|--------------|
| 20 | <b>No mining operations should be carried out at places having a slope greater than 45°.</b> | <b>Noted</b> |
|----|--|--------------|

**Compliance:**

In the project site, there is no area with a slope greater than 45°. Therefore it is not necessary to explore from the slopes greater than 45°.

|    |   |                 |
|----|---|-----------------|
| 21 | <b>Acoustic enclosures should be 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/KSPCB.</b> | <b>Complied</b> |
|----|---|-----------------|

**Compliance:**

To reduce sound amplification, the machines of crusher unit is housed with solid bricks. A green belt is also developed around the unit to reduce noise and air pollution. This helps the noise and sound level is kept within the prescribed standards. The labours in the unit are wearing ear plugs to reduce the impact of noise generating from the machines. The project proponent is maintained all machineries in a good manner.

|    |  |                 |
|----|--|-----------------|
| 22 | <b>The workers on the site should be provided with the required protective equipments such as ear muffs, helmet, etc</b> | <b>Complied</b> |
|----|--|-----------------|

**Compliance:**

To ensure the safety of workers in working site, the project proponent provided adequate Personnel Protective Equipments (PPE) such as helmets, ear muffs, safety belts, glows, etc. to labours in the quarry site.

|    |  |              |
|----|--|--------------|
| 23 | <b>Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.</b> | <b>Noted</b> |
|----|--|--------------|

**Compliance:**

The proponent is very conscious to prevent all quarry waste to enter in the the public drainage or stream. The project has constructed storm water drains in the lower slopes of the project area for effective management of storm water. This helps to channelize the storm water to the rain water collection pond and the most of the debris will be settled down in the bottom of the pond. The clarifiers will be installed soon.

|    |   |                 |
|----|---|-----------------|
| 24 | <b>The transportation of minerals should be done in covered trucks to contain dust emissions.</b> | <b>Complied</b> |
|----|---|-----------------|

**Compliance:**

The project assure that the trucks are covered to avoid dust emission from the vehicle while transportation of materials.

|    |  |              |
|----|--|--------------|
| 25 | <b>The proponent should plant trees at least 5 times of the loss</b> | <b>Being</b> |
|----|--|--------------|

|  |   |                 |
|--|---|-----------------|
|  | <b>that has occurred while clearing the land for the project.</b> | <b>complied</b> |
|--|---|-----------------|

**Compliance:**

The project planted various saplings in the project area as a compensation of loss of trees while the project is clearing the land for mining as part of concurrent eco restoration. The project proponent is planning to plant more tree saplings in the project site.

|           |   |                       |
|-----------|---|-----------------------|
| <b>26</b> | <b>Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations.</b> | <b>Being Complied</b> |
|-----------|---|-----------------------|

**Compliance:**

The project proponent is using the used oil as lubricant for machineries and other equipments. Disposal of spent oil from diesel engines will be sold only to the approved recyclers as specified under relevant Rules/Regulations.

|           |  |                 |
|-----------|--|-----------------|
| <b>27</b> | <b>Explosives should be stored in magazines in isolated place specified and approved by the explosives department.</b> | <b>complied</b> |
|-----------|--|-----------------|

**Compliance:**

Explosives are stored in magazine. The magazine situated in an isolated place specified and approved by the explosives department.

|           |   |                 |
|-----------|---|-----------------|
| <b>28</b> | <b>A minimum buffer distance of hundred meters from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.</b> | <b>Complied</b> |
|-----------|---|-----------------|

**Compliance:**

The norms of Kerala State Pollution Control Board regarding the distance criteria of residences, roads, rivers and worship places is adhered by the project. The distance of the nearest house was 1329meter form the quarry, the KSPCB condition is 100 meter.



|    |  |          |
|----|--|----------|
| 29 | 100 m buffer distance should be maintained from forest boundaries. | Complied |
|----|--|----------|

**Compliance:**

There is no forest area near to the project site.

|    |  |          |
|----|--|----------|
| 30 | Consent from Kerala Pollution Control Board under water and Air act(s) should have been obtained before initiating activity. | Complied |
|----|--|----------|

**Compliance:**

The project has obtained consent from KSPCB under Water and Air Act(s). The copy of certificate of “*Consent to Operate*” (Renewal) from Kerala State Pollution Control Board is provided in **Annexure No.1**.

|    |   |          |
|----|---|----------|
| 31 | 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. | Complied |
|----|---|----------|

**Compliance:**

The certificates obtained from concerned statutory authorities are enclosed in **Annexure No.1, 2, 3, 4 & 5**. The details are given below

**TABLE 4 – APPROVALS FROM COMPETENT AUTHORITIES**

| Name of the Statutory approval | Name of the Statutory authority                                 | Approval Number & Date                      |
|--------------------------------|---|---|
| Environmental Clearance order  | State Environmental Impact Assessment Authority, Kerala         | 839/SEIAA/EC1/2717/2015<br>Dated 05-02-2016 |
| “ <i>Consent to Operate</i> ”  | Kerala State Pollution Control Board                            | PCB/CO/R1/EXP/1142/17<br>01-04-2017         |
| Explosive License              | Ministry of Commerce & Industry – Petroleum & Explosives Safety | E/SC/KL/30/358(E64051)<br>Dated 08-09-2016  |

|                               |                                   |   |
|-------------------------------|-----------------------------------|---|
|                               | Organization (PESO)               |   |
| License for quarry operations | Gram Panchayath                   | A4-1291/18<br>dated 22-03-2018                              |
| Permit order                  | Directorate of Mining and Geology | 07/201300595<br>8-19/GR/DOM/M-3129/2018<br>Dated 30-08-2018 |

|    |  |                         |
|----|--|-------------------------|
| 32 | <b>In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority</b> | <b>Will be complied</b> |
|----|--|-------------------------|

**Compliance:**

In case of any change(s) in the scope of the project, the proponent will apply for fresh appraisal to get the Environmental Clearance.

|    |   |              |
|----|---|--------------|
| 33 | <b>The Authority reserves the right to add additional safe guard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.</b> | <b>Noted</b> |
|----|---|--------------|

**Compliance:**

The project is willing to add additional safe guard measures subsequently if the authority found necessary.

|    |   |                       |
|----|---|-----------------------|
| 34 | <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 EIA notification, 2006.</b> | <b>Being complied</b> |
|----|---|-----------------------|

**Compliance:**

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

1. **The Environment Protection Act,1986**
2. **Water (Prevention and Control of Pollution) Act, 1974**
3. **The Air (Prevention and Control of Pollution) Act, 1981**
4. **The Public Liability (Insurance) Act,1991**
5. **Municipal Solid Waste (Management and Handling) Act,2016**
6. **Hazardous and Other Wastes (Management and handling) Rules, 2016.**
7. **EIA notification, 2006**

|           |  |                 |
|-----------|--|-----------------|
| <b>35</b> | <p><b>The project proponent should advertise in at least two local news papers widely circulated in the region, one which (both advertisement and the newspaper) 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 <a href="http://www.seiaakerala.org">www.seiaakerala.org</a>. <u>The advertisement should be made within 10 days from the date of receipt of the Clearance letter and the copy of the same signed in all pages should be forwarded to the office of this authority as confirmation.</u></b></p> | <b>Complied</b> |
|-----------|--|-----------------|

**Compliance:**

An advertisement in two local newspapers regarding Environmental Clearance accorded to the quarry project was given within the stipulated period and the copy of the same was submitted at SEIAA Kerala.

|           |   |                 |
|-----------|---|-----------------|
| <b>36</b> | <p><b>A copy of the clearance letter shall be sent by the proponent to concerned Grama/District Panchayath / Municipality /</b></p> | <b>Complied</b> |
|-----------|---|-----------------|

|  |  |  |
|--|--|--|
|  | <b>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 Environmental Clearance shall also be put on the website of the company by the proponent.</b> |  |
|--|--|--|

**Compliance:**

To comply the conditions and as part of procedure to obtain D & O license, 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 therefore does not give the copy of clearance latter to anyone. The project does not have a website and it will create a company website soon.

|           |   |                 |
|-----------|---|-----------------|
| <b>37</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>Complied</b> |
|-----------|---|-----------------|

**Compliance:**

The compliance of the stipulated specific and general conditions of Environmental Clearance is being submitted to the State Environment Impact Assessment Authority Govt. of Kerala, and also to the Regional Office of MoEF&CC, Govt. of India both in hard copy as well as mail. The monitored data of Air, Water and Noise is attached as **Annexure No. 5, 6 & 7.**

|           |   |                 |
|-----------|---|-----------------|
| <b>39</b> | <b>The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3ft with green background and yellow letters of Times New Roman font of</b> | <b>complied</b> |
|-----------|---|-----------------|

|  |  |  |
|--|--|--|
|  | <b>size of not less than 40. Sign board with extant of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public.</b> |  |
|--|--|--|

**Compliance:**

The specific 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>39</b> | <b>The proponent should provide notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously followed.</b> | <b>Complied</b> |
|-----------|--|-----------------|

**Compliance:**

An assurance in the form of affidavit was already submitted to SEIAA Kerala.

|           |   |              |
|-----------|---|--------------|
| <b>40</b> | <b>The above conditions shall prevail notwithstanding anything to the contrary; in consistent, or simplified, contained any other permit, license on consent given by any other authority for the same project.</b> | <b>Noted</b> |
|-----------|---|--------------|


**Compliance:**

The project will give priority to the conditions stipulated in the Environment clearance Order for its execution.

# ANNEXURE

Annexure No.1

FILE NO : 4987794  
Date of issue : 01/04/2017



**KERALA STATE POLLUTION CONTROL BOARD**

CONSENT TO

OPERATE/AUTHORISATION/REGISTRATION

ISSUED UNDER

The Water (Prevention & Control of Pollution) Act, 1974  
The Air (Prevention & Control of Pollution) Act, 1981

and


The Environment (Protection) Act, 1986

As per Application No. :4987794  
Dated:18-03-2017

TO

M/s QUARRY OWNED BY BINU CHERIYAN  
EDAYUR, KAREKAD P.O, VALANCHERY, MALAPURAM 676552

Consent No. :PCB/CO/R1/EXP/1142/17  
Valid Upto :31/03/2020



Page1

## 1. GENERAL

1.1. This integrated consent is granted subject to the power of the Board to withdraw consent, review and make variation in or revoke all or any of the conditions as the Board deems fit.

|    |  |   |
|----|--|---|
| 1  | VALIDITY   | 31/03/2020  |
| 2  | Name and Address of the establishment  | QUARRY OWNED BY BINU CHERIYAN<br>EDAYUR,<br>KAREKAD P.O, VALANCHERY, MALAPURAM<br>676552 676552 |
| 3  | Communication  | Telephone :91-9447139682<br>Fax :-<br>E-mail:binuthakkiri@gmail.com                             |
| 4  | Occupier Details   | BINU CHERIYAN<br>THAKKIRIKKAL HOUSE<br>CHELAD P.O<br>KOTHAMANGALAM-686681<br>ERNAKULAM          |
| 5  | Local Body   | EDAYUR  |
| 6  | Survey Number  | 101/5,101/6   |
| 7  | Village  | EDAYUR  |
| 8  | Taluk  | THIRUR  |
| 9  | District   | MALAPPURAM  |
| 10 | Capital Investment(Rs in Lakhs)  | 150/-   |
| 11 | Scale  | Small   |
| 12 | Category   | RED   |
| 13 | Annual fee(Rs)   | 20,000/-  |
|    | Total Fee remitted(Rs)   | 70,000/-  |
| 14 | RAW MATERIAL   | PRODUCTS  |
|    | NITRATE MIXTURE @ Kilogram/Day<br>SAFETY FUSE, ORDINARY DETONATORS @<br>Numbers/Day<br>RUBBLES @ Metric Tonnes/Day | BLASTED RUBBLES @350 Metric Tonnes/DaY  |
| 15 | Total Power Required (HP)  | NIL   |

## 2. CONDITIONS AS PER


The Water (Prevention and Control of Pollution) Act, 1974



Copy of Consent from PCB



## Annexure No. 2



सत्यमेव जयते

Validity expires on 04-02-2021

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

*Present : Prof. (Dr.) K.P. Joy, Chairman; Dr. J. Subhashini, Member and Sri. P. Mara Pandiyan, I.A.S.,  
Member Secretary.*

Sub: SEIAA- Environmental Clearance for the proposed building stone quarry project in Survey Nos. 101/5 and 101/6 at Edayur Village, Edayur Panchayath, Thirur Taluk, Malappuram District by Sri. Binu Cheriyan, Thakkirickal House, Chelad P.O., Kothamangalam, Ernakulam District-686681-Granted- Orders issued.

---

**STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY**

**No. 839/SEIAA/EC1/2717/2015** *dated, Thiruvananthapuram 05-02-2016*


---

*Read:* - 1. Application dated 07-07-2015 submitted by Sri. Binu Cheriyan, Thakkirickal House, Chelad P.O., Kothamangalam, Ernakulam District-686681  
2. Minutes of the 48<sup>th</sup> meeting of SEAC held on 06/07-11-2015.  
3. Minutes of the 47<sup>th</sup> meeting of SEIAA held on 07-01-2016.

**Environmental Clearance No. 11/2016.**

Sri.Binu Cheriyan, Thakkirickal House, Chelad P.O., Kothamangalam, Ernakulam District-686681, vide his application received on 14-07-2015 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project in Sy. Nos. 101/5 and 101/6 at Edayur Village, Edayur Panchayath, Thirur Taluk, Malappuram District, Kerala for an area of 2.6872 hectares. The project comes under Category B, Activity 1(a),(i) as per the Schedule of EIA Notification 2006 (since it is below 50hectares) and as per O.M. No. L-11011/47/2011-IA.II (M) dated 18th May 2012 of Ministry of Environment and Forests. It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dt. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

2. This is an existing Quarry. The quarry was in operation with a short term quarrying permit issued by Mining & Geology Department, Government of Kerala for an area of 0.4046 hectares. The land use as per revenue records is private own land of 3.6460 hectares. Main rock type in the area is granite and the area is mineral specific and hence no alternate site was examined. The present land use is some native trees, shrubs, herbs etc. The proposed project is for quarrying of 100,000 MTA of building stone from an area of 2.6872 hectares of land. Domestic effluent will be discharged in septic tank and soak pit system. The quarry operation is proposed to carry out with conventional open cast semi-mechanized mining by maintaining the bench height and width to 5.0 meter. Considering the stability of rocks the final slope or ultimate pit slope is proposed 45° from vertical. Mining will be carried out from the top to bottom by slicing of 2.5 m thick. The mineral exploitation is being done from 150 m MSL to 85 m MSL for the expected life of ten years. At the end of life of mine, excavated area will be converted into water pond and plantation. A storm water collection pond is proposed for

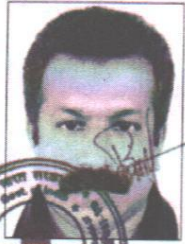


Copy of EC order

Annexure No.3

अनुमति प्ररूप एल.ई - 10 | Form LE-10  
 शॉट फायरिंग कर्ता प्रमाण-पत्र | Shot Firer's Certificate  
 (अनुसूची IV के भाग 1 का अनुच्छेद 10 देखें | See article 10 of Part I of Schedule IV)  
 [विस्फोटक नियम, 2008 का नियम 107(5) देखें | see rule 107(5) of Explosives Rules, 2008]

(खान अधिनियम, 1952 के अधीन न आने वाले क्षेत्र में विस्फोट करने के लिए सक्षमता प्रमाण  
 (Certificate of competency to carry out blasting of explosives in area not coming under the Min-



संख्या | No.: E/SE/KL/30/358(E64051)

प्रमाणित किया जाता है कि **श्री Shri Binu Cheriyan**,  
 जिनका जन्म 26/03/1973 को हुआ था, जो Thakkirikkal House Chelad P.O.,Kothamangalam, Ernakulam, ERNAKULAM, Kerala का निवासी है। कोच्ची द्वारा  
 तारीख को आयोजित शॉट फायरिंग की परीक्षा तारीख को उत्तीर्ण कर ली है और वह विस्फोटक अधिनियम, 1884 और उसके अधीन विहित नियमों की शर्तों के अधीन  
 रहते हुए खान अधिनियम, 1952 की परिधि के अधीन आनेवाले खानों से अन्यथा क्षेत्र में नीचे यथा उल्लिखित विस्फोटकों का उपयोग करके विस्फोट प्रदान करने  
 के लिए प्राधिकृत है।  
 This is to certify that **Shri Binu Cheriyan**,  
 born on 26/03/1973, resident of Thakkirikkal House Chelad P.O.,Kothamangalam, Ernakulam, ERNAKULAM, Kerala passed the shotfirer's examination held  
 on conducted by Ernakulam and is authorised to conduct blasting operations as mentioned below using explosives in areas other than mines coming under the purview  
 of the Mines Act 1952, subject to the provisions of the Explosives Act, 1884 and the rules framed thereunder.

विस्फोट करने के प्राधिकृत वर्ग, प्रवर्ग और प्रकार :  
 वर्ग: (ख), श्रेणी: सामान्य जमीन के ऊपर, जमीन के ऊपर ब्लास्टिंग आपरेशन

Authorised class, category and type of blasting :  
 Class : (B), Category : General aboveground, All phases of aboveground blasting operation

[ नियम 107 का उप-नियम (5) का स्पष्टीकरण देखें | See explanation of sub-rule (5) of rule 107]

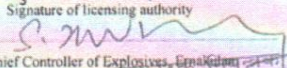
**यह प्रमाणपत्र 05/09/2016 (जारी करने की तारीख से पांच वर्ष) तक विधिमान्य होगा |**  
 This certificate shall remain valid till 05/09/2016 (five years from the date of issue)

यह प्रमाण-पत्र अधिनियम या उसके अधीन विहित नियमों अथवा इस प्रमाण-पत्र की शर्तों का कोई अधिग्रहण करने पर या यदि आवेदक द्वारा आवेदन प्ररूप में  
 दी गई सूचना में कोई फर्क या विचलन होता है तो निलम्बित या अभिखण्डित कर दिया जाएगा।  
 This certificate is liable to be suspended or revoked for any violation of the Act or rules framed thereunder or the conditions of this certificate or if there is any  
 discrepancy or deviation in the information or suppression of facts furnished by the applicant in his application form.

स्थान | Place : परणाकुलम | Ernakulam  
 दिनांक | Date : 05/09/2011

Sd-  
 उप मुख्य विस्फोटक नियंत्रक | Dy. Chief Controller of Explosives  
 परणाकुलम | Ernakulam


पुनर्विधिमान्यकरण के लिए पृष्ठंकन  
 Endorsement for revalidation

| पुनर्विधिमान्यकरण की<br>तारीख<br>Date of Revalidation | समाप्ति की तिथि<br>Date of Expiry | अनुमति प्राधिकारी के हस्ताक्षर<br>Signature of licensing authority  |
|---|-----------------------------------|---|
| 08/09/2016  | 05/09/2021                        | <br>Dy. Chief Controller of Explosives, Ernakulam<br>कुले उप मुख्य विस्फोटक नियंत्रक<br>For Deputy Chief Controller of Explosives<br>परणाकुलम Ernakulam |

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

Copy of License - explosive

Annexure No. 4




ലൈസൻസ് നമ്പർ A-1291118 തീയതി 22/03/2018

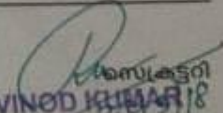
എടയൂർ ഗ്രാമ പഞ്ചായത്തിൽ നിന്നും

1994 ലെ കേരള പഞ്ചായത്ത് രാജ് ആക്ട് ( 1994 ലെ 13 ) 232, 233, 234, 254 എന്നീ വകുപ്പുകളും അതേ തുടർന്നുള്ള പട്ടങ്ങളും അനുസരിച്ചു നൽകുന്ന

**ഡി & ഒ ലൈസൻസ്**

|  |   |  |
|--|---|--|
| ലൈസൻസിയുടെ പേരും മേൽവിലാസവും   | ജി.സി. മണലി<br>തൊഴിലാളി (വീട്)<br>പോലീസ് (പി.ഒ), കോതമംഗലം.  |  |
| സ്ഥാപനത്തിന്റെ പേരും സ്ഥലനാമവും  | കിരോളാട്  |  |
| ലൈസൻസ് നൽകിയിട്ടുള്ള പ്രവർത്തനങ്ങൾ   | റി.സി.പി നമ്പർ 101/6-ൽ 99.58 ഏക്കറിൽ നൂലാൽ 50 എച്ച്.പി മെഗാവാട്ട് ഉപയോഗിച്ച് ക്വറി പ്രവർത്തിപ്പിക്കുന്നതിനും, വില്പന നടത്തുന്നതിനും.  |  |
| കെട്ടിടത്തിന്റെ നമ്പരും വാർഡ് നമ്പരും  | റി.സി. 101/6  |  |
| ലൈസൻസ് കാലയളവ്   | 01/04/2017 മുതൽ   | 31-3-2019<br>23/08/2018  |
| ഊടാക്കിയ ലൈസൻസ് ഫീസ്   | LF- 5000<br>MRF- 500<br>PT- 2500  | സെീൽ നമ്പർ Secretary<br>Edayur Grama Panchayat<br>117130106635/<br>117130106636/24/218 |
| ലൈസൻസ് അനുവദിക്കുന്നതിനായി ഹാജരാക്കിയ നിരാകരണപത്രങ്ങളുടെ വിവരങ്ങൾ ( നമ്പർ, തീയതി, കാലയളവ്, നൽകിയ അധികാരസ്ഥാനം) | 1) തൊഴിലാളി രാജൻ ജി.പി.എസ്. വെള്ളാർ 24/2/18 തിരുത്തലില്ലെന്ന് സമ്മതിച്ചത് (കാലാവധി 23/08/18)<br>2) തൊഴിലാളി സി.എസ്. മണലിയിൽ നിന്നുള്ള 01/04/2017 തിരുത്തലില്ലെന്ന് സി.സി.സി/സി.എ/ആർ.പി.എസ്. 21/11/17 നമ്പർ രാജൻ (കാലാവധി 31/03/2020)<br>3) മെട്രോളിഡം എ.എസ്.പി.സി.വ്. മെട്രോളിഡം രാജൻ (കാലാവധി- 05/09/2021) |  |



  
**P. VINOD KUMAR**  
 ഗ്രാമപഞ്ചായത്ത്  
 Edayur Grama Panchayath  
 Edayur (P.O)- 676552  
 Ph: 945617887

SLM-30-Y-2014

Copy of license from Gram Panchayat

## Annexure No. 5

**FORM M**  
(See sub – rule(2) of rule 9)  
(For all type of quarrying permits)

**GOVERNMENT OF KERALA**

**DEPARTMENT OF MINING & GEOLOGY DISTRICT OFFICE MALAPPURAM**  
**QUARRYING PERMIT FOR EXTRACTION OF GRANITE BUILDING UNDER RULES 3(1),9**  
**AND 10 OF THE KERALA MINOR MINERAL CONCESSION RULES, 2015**  
**and KMMC(2<sup>nd</sup> Amendment) Rules 2015**

**No. 07/2018-19/GR/DOM/M- 3129/2018 Dated. 30/8/2018**

**Shri.Binu Cherian, Thakkirikkal House,**  
**P.O.Chelad, Kothamangalam** is hereby permitted to extract and remove  
**Granite Building Stone** (Name of mineral) from an area of **0. 9958 Hectares** in  
Re Sy. No. **101/6** of **Edayur** village of **Tirur** Taluk of Malappuram District, Kerala State  
under rule 3(1) and 9 of the Kerala Mineral Concession Rules, 2015 subject to the conditions  
mentioned in rule 10.(The extraction of mineral is subject to the Proceeding Order No. D.M 1-  
5734/2018 dtd.24.8.2018(2) of the Chairman District Disaster Management Authority and  
District Collector, Malappuram)

Quantity of extraction of mineral permitted : 30,000 MT  
(Not applicable in the case of CRP System) :

Whether the permit holder opted CRP System : No  
Number of mineral transit passes to be issued : 6000 Nos.  
Name and address of the owner of the land : Sri.Ulleerithodi Unneenkutty & Shanavas,  
Vadakkumbram.

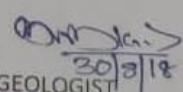
Under mineral concession/particulars of consent }  
NOC received from the occupier of the } Consent letter attached  
land (if applicable ) }  
Date of expiry of permit : **29/08/2019**

**Details of fee remitted**

| Item                         | Chalan No.&Date                      | Amount   | Name of Treasury |
|------------------------------|--------------------------------------|----------|------------------|
| Application fee              | KL004390676201819 M<br>dtd.25.7.2018 | 1000     | S.T.Manjeri      |
| Royalty                      | KL005419485201819 M<br>dtd.30.8.2018 | 7,20,000 | do               |
| Surface Rent                 | do                                   | 400      | do               |
| Addl.Royalty remitted,if any | -                                    | -        |                  |

To  
Sri.Ulleerithodi Unneenkutty & Shanavas  
Vadakkumbram.

Copy to :  
The District Collector, Malappuram (with C/L)

  
30/8/18  
GEOLOGIST  
GEOLOGIST  
DIST. Office Of Mining & Geolog  
Mini Civil Station, Manjeri  
Malappuram District.

Copy of Permit order

## Annexure No.6

**TEST REPORT**

|                               |                  |             |
|-------------------------------|------------------|-------------|
| Test Report No: 20200221/R076 | Date: 26.02.2020 | Page 1 of 1 |
|-------------------------------|------------------|-------------|

**CUSTOMER DETAILS**

|                    |                                    |   |
|--------------------|------------------------------------|---|
| Customer Details   | Name & Address                     | Mr.Binu Cherian<br>Thakkirickal (H),<br>Chelad, Kothamangalam,<br>Ernakulam District. |
|                    | Monitoring Site                    | Quarry of Mr. Binu Cherian<br>Karakkad, Edayoor, Malappuram District.                 |
| Location of Site   | Survey No                          | 101/5, 101/6  |
|                    | Village                            | Edayoor   |
|                    | Panchayath                         | Edayoor   |
|                    | Taluk                              | Thirur  |
|                    | District                           | Malappuram  |
|                    | State                              | Kerala  |
| Customer Reference | Test Request Form dated 21.02.2019 |   |

**SAMPLE DETAILS**

|                        |                    |                    |                      |
|------------------------|--------------------|--------------------|----------------------|
| Source of Sample       | Ambient Air        | Sample Code        | 20200221/S076        |
| Location of Monitoring | East Side Boundary | Sampled By         | Laboratory           |
| Date of Monitoring     | 21.02.2019         | Test Started On    | 22.02.2019           |
| Sample Received On     | 22.02.2019         | Test Completed On  | 26.02.2019           |
| Humidity               | 78 %               | Sampling Procedure | IS 5182 Part V & XIV |

| SL NO | TEST PARAMETER                          | TEST METHOD                     | UNIT              | RESULT | NAAQ STANDARD |
|-------|---|---------------------------------|-------------------|--------|---------------|
| 01    | Particulate Matter (PM <sub>10</sub> )  | IS 5182 Part 23: 2006 RA 2017   | µg/m <sup>3</sup> | 60.5   | 100           |
| 02    | Particulate Matter (PM <sub>2.5</sub> ) | EPA 40 CFR Part 50 Appendix – L | µg/m <sup>3</sup> | 22.4   | 60.0          |
| 03    | Sulphur Dioxide (SO <sub>2</sub> )      | IS 5182 Part 2: 2001 RA 2017    | µg/m <sup>3</sup> | < 2.00 | 80.0          |
| 04    | Oxides of Nitrogen (NO <sub>2</sub> )   | IS 5182 Part 6: 2006 RA 2017    | µg/m <sup>3</sup> | < 2.00 | 80.0          |

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

For and on behalf of  
Standard<sup>s</sup> Environmental & Analytical Laboratories

*Rija*  
Authorized Signatory  
**Rija Joseph**  
Technical Manager

**Standard<sup>s</sup> Environmental & Analytical Laboratories**

Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB  
K.J. 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: seaalab@gmail.com

Monitoring result of Air

## Annexure No.7

**TEST REPORT**

|                               |                  |             |
|-------------------------------|------------------|-------------|
| Test Report No: 20200221/R078 | Date: 26.02.2019 | Page 1 of 1 |
|-------------------------------|------------------|-------------|

**CUSTOMER DETAILS**

|                    |                                    |   |  |
|--------------------|------------------------------------|---|--|
| Customer Details   | Name & Address                     | Mr.Binu Cherian<br>Thakkirickal (H),<br>Chelad, Kothamangalam,Ernakulam District. |  |
|                    | Monitoring Site                    | Quarry of Mr. Binu Cherian<br>Karakkad, Edayoor, Malappuram District.             |  |
| Location of Site   | Survey No                          | 101/5, 101/6  |  |
|                    | Village                            | Edayoor   |  |
|                    | Panchayath                         | Edayoor   |  |
|                    | Taluk                              | Thirur  |  |
|                    | District                           | Malappuram  |  |
|                    | State                              | Kerala  |  |
| Customer Reference | Test Request Form dated 22.02.2019 |   |  |

**SAMPLE DETAILS**

|                            |               |                    |                                |
|----------------------------|---------------|--------------------|--------------------------------|
| Sample Code                | 20200221/S078 | Sample Received On | 22.02.2019                     |
| Sample Name                | Water         | Sampling Procedure | ---                            |
| Sample Description         | Open Well     | Sampling Location  | Adjoint plot on West direction |
| Identification By Customer | ---           | Sample Condition   | Good                           |
| Sampled On                 | ---           | Test Started On    | 22.02.2019                     |
| Sampled By                 | Customer      | Test Completed On  | 26.02.2019                     |

| SL NO | TEST PARAMETER                           | TEST METHOD                  | UNITS | RESULT          | ACCEPTABLE LIMIT (IS 10500 – 2012) |
|-------|--|------------------------------|-------|-----------------|------------------------------------|
| 01    | Colour                                   | IS 3025 Part 4:1983 RA 2017  | Hazen | 1.00            | 5.0 (Max)                          |
| 02    | Odour                                    | IS 3025 Part 5:1983 RA 2017  | ---   | Unobjectionable | Unobjectionable                    |
| 03    | Turbidity                                | IS 3025 Part 10:1984 RA 2017 | NTU   | < 0.10          | 1.0 (Max)                          |
| 04    | pH                                       | IS 3025 Part 11:1983 RA 2017 | ---   | 7.26            | 6.5 – 8.5                          |
| 05    | Conductivity                             | IS 3025 Part 14:1984 RA 2013 | µS/cm | 139             | ---                                |
| 06    | Total Dissolved Solids                   | IS 3025 Part 16:1984 RA 2017 | mg/L  | 88.0            | 500 (Max)                          |
| 07    | Total Hardness (as CaCO <sub>3</sub> )   | IS 3025 Part 21:2009 RA 2014 | mg/L  | 36.0            | 200 (Max)                          |
| 08    | Calcium (as Ca)                          | IS 3025 Part 40:1991 RA 2014 | mg/L  | 8.00            | 75.0 (Max)                         |
| 09    | Magnesium (as Mg)                        | IS 3025 Part 46:1994 RA 2014 | mg/L  | 3.89            | 30.0 (Max)                         |
| 10    | Chloride (as Cl)                         | IS 3025 Part 32:1988 RA 2014 | mg/L  | 23.9            | 250 (Max)                          |
| 11    | Total Alkalinity (as CaCO <sub>3</sub> ) | IS 3025 Part 23:1986 RA 2014 | mg/L  | 27.7            | 200 (Max)                          |
| 12    | Iron (as Fe)                             | IS 3025 Part 53:2003 RA 2014 | mg/L  | < 0.10          | 1.00 (Max)                         |
| 13    | Sulphate (SO <sub>4</sub> )              | IS 3025 Part 24:1986 RA 2014 | mg/L  | 1.20            | 200 (Max)                          |
| 14    | Total Coliform Bacteria                  | IS 15185 : 2016              | ---   | Absent/100 ml   | Absent                             |
| 15    | E coli                                   | IS 15185 : 2016              | ---   | Absent/100 ml   | Absent                             |

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

For and on behalf of  
Standard<sup>S</sup> Environmental & Analytical Laboratories

Rija Joseph  
Technical Manager  
Authorized Signatory

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

Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB  
K.J. 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: seaalab@gmail.com

Copy of result of Water

## Annexure No.8

**TEST REPORT**

|                               |                  |             |
|-------------------------------|------------------|-------------|
| Test Report No: 20200221/R077 | Date: 26.02.2019 | Page 1 of 1 |
|-------------------------------|------------------|-------------|

| CUSTOMER DETAILS       |                                    |  |
|------------------------|------------------------------------|--|
| Customer Details       | Name & Address                     | Mr.Binu Cherian<br>Thakkirickal (H),<br>Chelad, Kothamangalam, Ernakulam District. |
| Location of Site       | Monitoring Site                    | Quarry of Mr. Binu Cherian<br>Karakkad, Edayoor, Malappuram District.              |
|                        | Survey No                          | 101/5, 101/6   |
|                        | Village                            | Edayoor  |
|                        | Panchayath                         | Edayoor  |
|                        | Taluk                              | Thirur   |
|                        | District                           | Malappuram   |
|                        | State                              | Kerala   |
| Customer Reference     | Test Request Form dated 21.02.2019 |  |
| SAMPLE DETAILS         |                                    |  |
| Source of Sample       | Ambient Sound Level                |  |
| Sample Code            | 20200221/S077                      |  |
| Location of Monitoring | East side Boundary                 |  |
| Date of Monitoring     | 21.02.2019                         |  |
| Method                 | IS 9989:1981 RA:2008               |  |

| DAYTIME   | RESULT      | NIGHTTIME                           | RESULT      |
|-----------|-------------|-------------------------------------|-------------|
| 06.00 Hrs | 37.2 dB (A) | 23.00 Hrs                           | 34.0 dB (A) |
| 07.00 Hrs | 39.9 dB (A) | 00.00 Hrs                           | 36.5 dB (A) |
| 08.00 Hrs | 44.2 dB (A) | 01.00 Hrs                           | 37.2 dB (A) |
| 09.00 Hrs | 47.6 dB (A) | 02.00 Hrs                           | 36.9 dB (A) |
| 10.00 Hrs | 49.9 dB (A) | 03.00 Hrs                           | 37.6 dB (A) |
| 11.00 Hrs | 53.0 dB (A) | 04.00 Hrs                           | 36.5 dB (A) |
| 12.00 Hrs | 50.3 dB (A) | 05.00 Hrs                           | 38.3 dB (A) |
| 13.00 Hrs | 49.5 dB (A) | RESULTS                             |             |
| 14.00 Hrs | 49.9 dB (A) |                                     |             |
| 15.00 Hrs | 50.3 dB (A) | Ambient Sound Level (Leq) Daytime   | 48.4 dB (A) |
| 16.00 Hrs | 51.5 dB (A) |                                     |             |
| 17.00 Hrs | 51.8 dB (A) |                                     |             |
| 18.00 Hrs | 46.5 dB (A) |                                     |             |
| 19.00 Hrs | 43.0 dB (A) | Ambient Sound Level (Leq) Nighttime | 36.8 dB (A) |
| 20.00 Hrs | 39.2 dB (A) |                                     |             |
| 21.00 Hrs | 38.7 dB (A) |                                     |             |
| 22.00 Hrs | 36.1 dB (A) |                                     |             |

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

For and on behalf of  
Standard<sup>s</sup> Environmental & Analytical Laboratories

*Rija*  
Authorized Signatory  
**Rija Joseph**  
Technical Manager

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## Monitoring results of Sound