

# COMPLIANCE REPORT

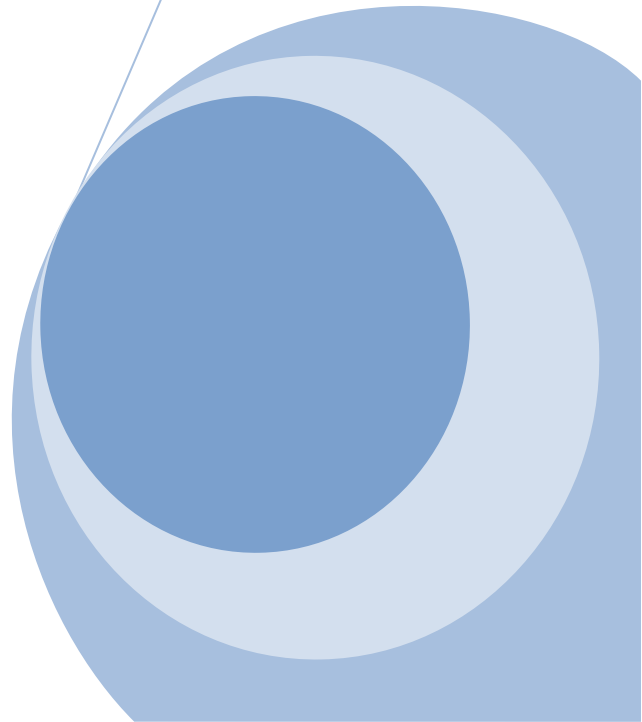
**APRIL 2018 – SEPTEMBER  
2018**

**M/s CHENDAYAD GRANITES PVT LTD**

(QUARRY PROJECT)

*KANNUR DISTRICT*

*KERALA*





Dt.31-12-2018

The Member Secretary  
District Environment Impact Assessment Authority (DEIAA),  
DEIAA, Kannur

Ref :- File No. 45/KNR/2017/ DEIAA

Sub :- Environment Clearance – Quarry project at Trippangottur Village,  
Thalassery Taluk, Kannur District, Kerala – Compliance Report –First half -  
Reg.

Respected Sir,

The Quarry (Building stone) project was accorded Environmental Clearance for 1.5176 Ha. by order No. 45/KNR/2017/ DEIAA dated 02-09-2017 by District Environmental Impact Assessment Authority, Kannur, Kerala. The compliance report of First half (April 2018 – September 2018) to the specific and general conditions of the Environment Clearance order is enclosed.

Thanking you,  
Yours respectfully,

For M/S Chendayad Granites Pvt. Ltd

For CHENDAYAD GRANITES PRIVATE LIMITED

  
Joint Managing Director

Chendayad Granites (P) Limited  
Building No.: CPIIC40, KSIDC Industrial Growth Centre, Valiyavelicham, Koothuparamba, Pin: 670643  
Kannur Dt., Kerala. Ph : 0490 2364300. Mob: 8113 041 112, 8113 041 113, 8113 041 114, 8113 041 119  
e-mail: geosandin@gmail.com. www.geosand.in

**COMPLIANCE REPORT  
TO  
THE CONDITIONS  
OF  
ENVIRONMENTAL CLEARANCE ORDER  
NO: 45/KNR/2017/ DEIAA  
Dated: 02-09-2017**

*BY*  
**DISTRICT ENVIRONMENT IMPACT ASSESSMENT AUTHORITY  
(DEIAA)  
FOR  
BUILDING STONE QUARRY  
(MINOR MINERAL MINING) PROJECT**

*AT*  
**SURVEY NOS. 275/1A  
TRIPANGOTTUR VILLAGE, THALASEERY TALUK  
KANNUR DISTRICT, KERALA**

*BY*  
**M/s Chendayad Granites Pvt. Ltd  
KANNUR DISTRICT  
KERALA**

## **INDEX**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Page No.</b>
<b>1.</b>	Introduction	<b>07</b>
<b>2.</b>	Compliance Report – Specific conditions – Part A	<b>08</b>
<b>3.</b>	Conditions of Health	<b>15</b>
<b>4.</b>	Compliance Report – General conditions – Part B	<b>18</b>
<b>5.</b>	Plates	<b>40</b>
<b>6.</b>	Annexure	<b>45</b>

## **LIST OF TABLES**

<b>Table No.</b>	<b>Particulars</b>	<b>Page No.</b>
<b>1.</b>	Environmental Monitoring Cell (EMC)	<b>19</b>
<b>2.</b>	The details of performed activities under CSR	<b>21</b>
<b>3.</b>	The details of statutory approvals	<b>29</b>
<b>4.</b>	Details of news paper where advertisement published	<b>31</b>

## **LIST OF PLATES**

<b>Plate No.</b>	<b>Particulars</b>	<b>Page No.</b>
1.	Photograph of Board showing blasting time	41
2.	Boundary Pillars	41
3.	Sanitary latrine and urinals	42
4.	No Smoking Board	42
5.	Photograph of Emergency Contact Numbers	43
6.	Photograph of Warning Alarm	43
7.	Photograph of metallic board	44
8.	Photograph of sign Boards	44

**LIST OF ANNEXURE**

<b>Annexure No.</b>	<b>Particulars</b>	<b>Page No.</b>
<b>1.</b>	Receipts of CSR Activities	<b>46</b>
<b>2.</b>	Copy of Licensed Person	<b>48</b>
<b>3.</b>	Copy of Form D	<b>49</b>
<b>4.</b>	Copy of the “ <i>Consent to Operate</i> ” from Kerala State Pollution Control Board (Renewal)	<b>51</b>
<b>5.</b>	Copy of E C order	<b>53</b>
<b>6.</b>	Copy of Explosive License issued by the Ministry of Commerce & Industry – Petroleum & Explosives Safety Organization (PESO)	<b>54</b>
<b>7.</b>	Copy of License for quarry operations from <i>Gram</i> Panchayath	<b>55</b>
<b>8.</b>	Copy of permit from mining and Geology Dept.	<b>56</b>
<b>9.</b>	news paper where advertisement published	<b>57</b>
<b>10.</b>	Copy of acknowledgement	<b>58</b>
<b>11.</b>	Copy of result of ambient air	<b>59</b>
<b>12.</b>	Copy of results of sound	<b>60</b>
<b>13.</b>	<b>Copy of result of Water</b>	<b>61</b>

## INTRODUCTION

Quarry project of **M/S Chendayad Granites Pvt. Ltd** is situated at Survey No. 275/1A, Trippangottur Village, Thalassery Taluk, Kannur District, Kerala.

The quarry project was accorded with the Environmental Clearance (EC) by District Environmental Impact Assessment Authority, Kannur on 02-09-2017. 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 First half to the specific condition, health conditions and general conditions of the Environmental Clearance order for the period of **April 2018 – September 2018** is being submitted.

# **COMPLIANCE REPORT**

## **(SPECIFIC CONDITIONS)**

### **PART A**



**PART - A – SPECIFIC CONDITIONS**

<b>01</b>	<b>A mines manager shall be appointed to control ,direct, manage and supervise the quarrying operations required under the mines Act ,1952</b>	<b>complied</b>
-----------	--	-----------------

The project proponent has appointed Mines manager to control direct, manage and supervise the quarrying operations as per the Mines Act 1952. Certificates of Mines engineer were attached as **Annexure No.2** and Form D is attached as **Annexure No 3.**

<b>02</b>	<b>Health and welfare for the persons employed shall be implemented</b>	<b>complied</b>
-----------	---	-----------------

The project proponent has basic health and welfare for the persons employed in the project site. The project is keeping a First aid box in the project site. In association with Primary Health Centre of Local Self Government, the project proponent will conduct health check up for the labours. Other facility of housing, food, water and sanitation has been providing by the project proponent.

<b>03</b>	<b>Controlled blasting should be practiced and blasting shall be done only during day time. The mitigate measures for control of ground vibration to arrest the fly rocks and boulder should be implemented.</b>	<b>Complied</b>
-----------	--	-----------------

To reduce ground vibration, the blasting is done in controlled manner by using ordinary and electric delayed detonators. All blasting activities are carrying out with the stipulated guidelines of explosive department and other concerned agency. No work will be there in the quarry site at Night. The blasting time in the quarry is in from 7 am to 6 pm. The mitigate measures to arrest ground vibration and fly rock is detailed in General condition No 11. The board showing the blasting time is attached as **Plate No. 1**

<b>04</b>	<b>Plantation shall be done which includes a green belt of adequate width around the mining lease area excluding the rocky area, along roads, overburden dumps and non-mineralized area by planting suitable native species in consultation with the local DFO/Agriculture department.</b>	<b>Being Complied</b>
-----------	--	-----------------------

To plant the native species in the project site the project proponent has taken suggestion from the agricultural department. Various saplings were planted the project site to develop a green belt around the project area. Avenue tress also planted along the road side to minimise the dust emission.

<b>05</b>	<b>The drains should be regularly de silted and maintained properly check dam and gully checks shall be constructed wherever to required to arrest siltation. De siltation shall be done every year before the onset of monsoon</b>	<b>Being Complied</b>
-----------	---	-----------------------

The project has constructed De siltation chambers to arrest the quarry waste entering in to the public drain and stream. These chambers will be de silted during summer season.

<b>06</b>	<b>Fencing shall be maintained properly all around the lease area.</b>	<b>Complied</b>
-----------	--	-----------------

As part of demarcation and enhance safety, the project proponent 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>07</b>	<b>The CSR need redrafting with inclusion of felt needs of the locality with special emphasize for implementing ground water recharging water recharging techniques in and at the vicinity of the proposed site.</b>	<b>Complied</b>
-----------	--	-----------------

CSR has redrafted with including the felt needs of the locality with special emphasize or implementing ground water recharging techniques.

<b>08</b>	<b>Appropriates sign boards should be displayed.</b>	<b>Complied</b>
-----------	--	-----------------

In the project site the project has installed appropriate sign board. The photographs of the Sign boards are attached as **Plate No. 8**

<b>09</b>	<b>The blasting time must be displayed and strictly adhered to.</b>	<b>Complied</b>
-----------	---	-----------------

To aware the labours and general public about the blasting a board containing blasting time has displayed in the project site. The board showing the blasting time is attached as **Plate No. 1**

<b>10</b>	<b>Dust suppression mechanism must be in place.</b>	<b>Complied</b>
-----------	---	-----------------

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. Splashing of water can reduce the dust emission during the time of transportation.

<b>11</b>	<b>A separate small plot to be maintained in the premise to preserve rare and endemic species. If any, listed in the biodiversity assessment etc.</b>	<b>Being Complied</b>
-----------	---	-----------------------

Project proponent demarcated a small plot to preserve the endemic species in the project site. The project has started to plant various saplings in the project site.

<b>12</b>	<b>The PPV values must be less than 10 mm/sec.</b>	<b>Noted</b>
-----------	--	--------------

The project is using ordinary/electric delayed detonator for blasting therefore there is no incident of fly rock is happened in the community. The project is also assuring the maximum PPV is under 10 during the time of blasting.

<b>13</b>	<b>The green belt shall be provides around the periphery.</b>	<b>being complied</b>
-----------	---	-----------------------

To reduce the air and noise pollution the project proponent has provided Green belt around the project area.

<b>14</b>	<b>Where the height of the bench formed during earlier workings exceeds the maximum each of the excavator engaged for work, such bench height shall be reduced from top to bottom.</b>	<b>Noted</b>
-----------	--	--------------

All mining activities are progressing under the supervision of qualified personals. 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. The extraction of minerals will be from top to bottom. The exploration will be done as per the plan submitted before District Environment Impact Assessment Authority (DEIAA), Kannur.

<b>15</b>	<b>Loose or hanging rock or mineral boulder on the side wall shall be dressed down before engaging persons for work at the bottom of the bench.</b>	<b>Being Complied</b>
-----------	---	-----------------------

The labours will work on the bottom bench only after clearing loose minerals form the side wall. The vehicles like JCB, breakers are used to remove the loose or hanging mineral boulders in the project site.

<b>16</b>	<b>Permanent boundary pillars should be fixed by the proponent before commencing quarrying</b>	<b>complied</b>
-----------	--	-----------------

The project proponent has fixed permanent boundary pillars in the project site before commencing quarrying to demarcate the project site. The photograph showing the boundary pillars are attached as **Plate No. 2**

<b>17</b>	<b>No quarry blasting to be undertaken and sustained till warning time limit expires and /or when continues 48 hours cumulative rainfall exceeds 8 cm and blasting shall be resumed until 24hrs</b>	<b>Noted</b>
-----------	---	--------------

	<b>of rain free situation arises in the quarry locality based on the evaluation by the revenue officials.</b>	
--	---	--

It shall be ensured that the directions contained are strictly followed when required.

<b>18</b>	<b>All waste dumps and topsoil dumps shall be properly stabilized by using coir mats or bio regeneration. Proper drainage system shall be provides so the water is properly diverted away from the dump slopes with no disturbance to the stability of the slopes.</b>	<b>Being Complied</b>
-----------	--	-----------------------

The waste dumps and topsoil dumps are stabilised by using coir mats or bio regeneration. Proper drainages are constructed by the project proponent, which will help to manage the storm water during monsoon season.

<b>19</b>	<b>All dumps slopes shall be sufficiently stabilized by using appropriate species mix of grass .creepers, shrubs &amp; trees. This shall be done in consultation with the forest department and local research institution and experts in stabilization of mine dumps.</b>	<b>Noted</b>
-----------	--	--------------

Overburden is an inevitable by-product of building stone quarry. The overburden materials are stored within the site at designated place. The overburden and topsoil stacking is progressing, once it is attain its maximum capacity, the project will plant appropriate grass on the dump to prevent sliding and soil erosion.

<b>20</b>	<b>Garland drains of at least 2m width shall be provided all along 7.5 m buffer zone to divert the water from entering the quarrying slopes. These drains shall be cleaned every year before the monsoon season.</b>	<b>Noted</b>
-----------	--	--------------

The project proponent has constructed garland drain to catch the rain water along 7.5 m buffer zone. This can divert the storm water entering the quarrying slopes.

21	<b>The water from the garlands drainage shall directed to the silt settling ponds. The clarified overflow from silt settling ponds shall be directed to a Rain Water Harvesting (RWH) pond before releasing the clarified water to the natural watercourse.</b>	<b>Being complied</b>
----	---	-----------------------

The proponent is very conscious to prevent all quarry waste to enter in 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. The water from the garlands drainage will direct to the silt settling ponds. The clarified overflow from silt settling ponds shall be directed to a Rain Water Harvesting (RWH) pond before releasing the clarified water to the natural watercourse.

22	<b>A retaining wall of stone rubbles with wire mesh, of sufficient width and strength (not less than 2m) shall be constructed at the bottom of the slope of the quarry lease area to arrest any likely roll of boulders during heavy rainfall.</b>	<b>Will be complied</b>
----	--	-------------------------

A retaining wall of stone rubbles with wire mesh, of sufficient width and strength (not less than 2m) will be constructed at the bottom of the slope of the quarry lease area to arrest any likely roll of boulders during heavy rainfall.

# **COMPLIANCE REPORT**

## **(GENERAL CONDITIONS)**

### **HEALTH**

01	<b>First Aid kit provide in the work site. It shall be periodically maintained properly. Some labourers shall be trained on First Aid.</b>	<b>Complied</b>
----	--	-----------------

In order to provide first aid during injuries happen to the labours in the project site. The project proponent has kept first aid box in the project site. Selected labours from the project site has given special training on First Aid.

02	<b>Whole some drinking water should be provided.</b>	<b>Complied</b>
----	--	-----------------

Drinking water will be available at all time in the project area. The project proponent has provided drinking water in the project site.

03	<b>Premises should be maintained as wet to suppress the dust.</b>	<b>complied</b>
----	---	-----------------

To reduce the emission of dust the project splashes water on haulage roads and loading and unloading point.

04	<b>Sanitary type of latrines and urinals should be provided.</b>	<b>Complied</b>
----	--	-----------------

In the project site the project proponent has arranged sanitary type of latrine and urinals to every labours. The photograph of the sanitary type of latrines and urinals are attached as **Plate No 3**

05	<b>Resting place should be provided for workers.</b>	<b>Complied</b>
----	--	-----------------

To get proper rest to the labours, the project has arranged adequate rest rooms in the project area.

06	<b>'No Smoking' board should be exhibited according to COTPA Act.</b>	<b>Complied</b>
----	---	-----------------



No smoking board has displayed in the project site. The photograph of the No smoking Board is attached as **Plate No.4**

07	Work should not be done in night.	Complied
----	-----------------------------------	----------

To reduce the inconvenience of community, the quarrying activities are limited to day time only as per KSPCB guidelines. The working time of quarrying is from 7 am to 6 pm.

08	Details of nearest hospitals, shortest route to hospitals and contact no etc. Should be available.	Complied
----	--	----------

Details of nearest hospital, Fire station, Police station, etc are available in the project site. The photograph of the emergency contact numbers are attached as **Plate No. 5**

09	Approach roads should be maintained properly.	Being complied
----	---	----------------

To arrest the dust emission and easy transportation the approach road has been properly maintaining by the project proponent in the project site.

# **COMPLIANCE REPORT**

## **(GENERAL CONDITIONS)**

### **PART B**

**PART – B – GENERAL CONDITION**

<b>01</b>	<b>Rain Water Harvesting capacity should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.</b>	<b>Being Complied</b>
-----------	--	-----------------------

**Compliance:**

The project proponent is developing one rain water harvesting pond in the project site as part of water conservation. The storm water from all mining areas is properly channelized to this pond. It is situated in the lowest level of quarry area. The storm water flow is leading to the pond through natural drainage.

<b>02</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:**

To monitor and evaluate the works done under the conditions stipulated in the EC order, the project proponent has constituted an Environmental Monitoring Cell (EMC) with Mr. C.G George as head of the monitoring cell. The EMC meeting convenes regularly for a sustainable environment. The details of the monitoring cell are given below:

**Table 1 - Environmental Monitoring Cell (EMC)**

<b>Sl. No.</b>	<b>Post</b>	<b>Name</b>
1	Head of monitoring cell	C G George
2	Member	Jovin George
3	Member	Malla Suresh

<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>	<b>complied</b>
-----------	--	-----------------

**Compliance:**

As part of eco restoration and to prevent dust emission during transportation of materials, suitable avenue trees were planted. The project proponent has planted 75 different avenue trees along either side of the road. There are natural vegetation including trees, shrubs, herbs and climbers present either side of tarred road and in the parking areas. This will help to reduce air and sound pollution.

04	Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.	Will be complied
----	--	------------------

**Compliance:**

The installation of solar can reduce the consumption from conventional sources therefore the project is intending to use maximum renewable energy to reduce electrical consumption from KSEB. As part of this, the project proponent is yet to install a solar street light in the project site.

05	Sprinklers shall be installed and used in the project site to contain dust emissions.	complied
----	---	----------

**Compliance:**

To arrest dust emissions from the road while transportation of materials the project splashes the haulage road and critical areas with the help of vehicles in regular intervals in the project site. The sprinklers will also install in the project site for suppression of dust.

06	Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.	Noted
----	---	-------

**Compliance:**

The eco restoration plan prepared by the project will be executed in a good manner. The eco restoration and the mine closure plan will be done at the own cost of the project proponent as per the approved mining plan.

07	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, if no other specific condition on reclamation of pit is stipulated in the EC.	Will be complied
----	---	------------------

**Compliance:**

Ten percent of the excavated pit area will be retained as water storage area to conserve rain water. This will help to improve the ground water table. 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

08	Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented.	complied
----	---	----------

**Compliance:**

As part of inclusive growth of the community, the project proponent executes various activities under Corporate Social Responsibility of the firm with the consultation of Panchayath. The main activities were under the sectors of education, housing, health etc. The details of CSR provided in the period of first half is mentioned in the **Table No.2**. The receipts of the CSR activity are provided at **Annexure No.1**.

**Table No.2 – Detail of performed activities under CSR**

Sectors	Activities	Partners	Beneficiaries	Amount spent in Rs.
Medical Aid	Donation	Sarika Pradeepan		10,000.00
Social	Donation	Snehalayam	Public	6,00,000.00
	Donation	Cmdrf Thalassery	Public	25,000.00
	Donation	Matha Amritanandamayi Math	Public	24,000.00

	Donation	Poyolloor Muthapan Seva Samithi	Public	50,000.00
	Donation	Cmdrf Chittariparamba Gramapanjayathc	Public	25,000.00
	<b>Total</b>			<b>7,34,000</b>

<b>09</b>	<b>The lease area shall be fenced off with barbed wires to a maximum height of 4ft around, before starting of mining. All the boundary indicators (boards, stores, markings etc) shall be protected at all times and shall be conspicuous.</b>	<b>Complied</b>
-----------	--	-----------------

**Compliance:**

As part of demarcation and enhance safety, the project proponent has installed fencing around project site with barbed wires to maximum height of 4 ft. where Environmental Clearance and lease obtained. This will help to prevent falling of animals/human being/dumping of garbage etc. The proponent is intending to install fencing where ever it is missing.

<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:**

The project has installed warning alarms as per the stipulation of Explosive department, to give warning to the labours and community people prior to the blasting in quarry in the quarry site. The photograph of the warning alarms are attached as **Plate No. 6**

<b>11</b>	<b>Control measures on noise and vibration prescribed by KSPCB should be implemented.</b>	<b>Being 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., ear plugs are provided to workers working in high noise areas.
- The mining activity held in day time only.
- Noise level at quarry site checked periodically.

***Blast vibrations and control measures***

- ❖ Controlled blasting technique is adopted in this project in order to reduce blast vibrations.
- ❖ Ordinary detonators are using for the blasting
- ❖ 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.

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

***Compliance:***

To reduce the inconvenience of community, the quarrying activities are limited to day time only as per KSPCB guidelines. The quarrying time is from 7 am - 6 pm.

<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:**

To reduce fly rock and ground vibration, the blasting is done in controlled manner by using ordinary/electric delayed detonators. All blasting activities are supervising by a qualified person with the specified regulations of explosive department. The blasting time is fixed at 9.00 am-10.30 am, 2.00 pm- 3.00 pm and 4.00 pm to 5.30 pm. The photograph of the Time showing blasting board is attached as **Plate No. 1**.

14	A licensed person should supervise/control the blasting operations.	Complied
----	---	----------

**Compliance:**

The project proponent has appointed mines manager and foreman in the site to supervise/control exploitation of minor minerals including blasting at the project site. **Annexure No. 2** is showing the certificate of qualified person. The **Annexure No. 3** Shows the Form D.

15	Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.	Being Complied
----	---	----------------

**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 maintained well. The project is spraying water on the road to arrest the dust during summer season

16	Overburden materials should be managed within the site and used for reclamation of mine pits as per mine closure plan/ specific conditions.	complied
----	---	----------

**Compliance:**

Overburden is an inevitable by-product of building stone quarry. The overburden and topsoil extracts during the time of mining are being staked in the



project site. This will be used for plantation, haulage roads and land filling in the mining area. No overburden will let out from the project site.

17	Height of the benches should not exceed 5m, and width should not be less than 5m, if there is no mention in the mining plan/specific conditions.	Being complied
----	--	----------------

**Compliance:**

The quarrying is carrying out as per mining plan to enhance safety and conserve environment,. The project extracts the minerals by creating benches. The benches will not exceed 5 meters of height and the width of the bench will have minimum of 5 meters.

18	Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.	Noted
----	--	-------

**Compliance:**

The project is using ordinary delayed detonator for blasting therefore there is no incident of fly rock is happened in the community. The project is also assuring the maximum PPV is under 10 during the time of blasting.

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

**Compliance:**

The depth of mining won't exceed beyond 10 meter or not below the level of the nearest stream bed, whichever is less. The exploration will be done as per the plan submitted before District Environment Impact Assessment Authority (DEIAA), Kerala.

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

**Compliance:**

There is no mining operation is carried out with a slope greater than 45°.

21	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.	Will be complied
----	--	------------------

**Compliance:**

To reduce sound amplification, the project has provided ear plugs. Vegetation around the mining area will help to reduce noise and air pollution. This helps the noise level kept within prescribed standards. The project will try to enhance the vegetative cover by planting more tree saplings.

22	The workers on the site should be provided with the required protective equipments such as ear muffs, helmet, etc.	Complied
----	--	----------

**Compliance:**

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

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

**Compliance:**

The project proponent ensured that all storm water from the mining area will flow in to the pond creating at mining area. The project proponent is intending to create garland drains where it is necessary in the project area for storm water management.

24	The transportation of minerals should be done in covered trucks to contain dust emissions.	complied
----	--	----------

**Compliance:**

The project assured that the trucks were covered before it leaving the project site to avoid dust emission while transportation of materials

25	<b>The proponent should plant trees at least 5 times of the loss that has occurred while clearing the land for the project.</b>	<b>Being complied</b>
----	---	-----------------------

**Compliance:**

As part of concurrent eco restoration, the project proponent has started to plant various saplings in the project area as a compensation of loss of trees while the project is clearing the land for mining.

26	<b>Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations.</b>	<b>Noted</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 sell only to the approved recyclers/ local recyclers.

27	<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 as part of safety. The magazine is situated in an isolated place specified and approved by the explosives department. The area surrounded to the magazine was fenced with barbed metal wire.

28	<b>A minimum buffer distance of 100m meter 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:**

To prevent possible fly rock and vibration to nearby houses, the norms of Kerala State Pollution Control Board regarding the distance criteria of residences, roads, rivers and worship places is adhered by the project. A minimum buffer distance of 100 meter from the boundary of the quarry to the nearest dwelling unit or other structures are maintained.

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

**Compliance:**

The project is maintaining a minimum of 100 meter buffer distance from forest boundaries.

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 to Operate" (Renewal) from Kerala State Pollution Control Board. The copy of consent is provided in **Annexure No. 4**.

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.4, 5, 6, 7 & 8**. The details are given in **Table No 3**

**TABLE 3 – APPROVALS FROM COMPETENT AUTHORITIES**

<b>Name of the Statutory approval</b>	<b>Name of the Statutory authority</b>
<i>"Consent to Operate"</i>	Kerala State Pollution Control Board
Environmental Clearance order	State Environmental Impact Assessment Authority, Kerala
Explosive License	Ministry of Commerce & Industry – Petroleum & Explosives Safety Organization (PESO)
License for quarry operations	Gram Panchayath
Permit order	Directorate of Mining and Geology

<b>32</b>	<b>In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the EC is issued, the project would require a fresh appraisal by this Authority, for which the proponent shall apply and get the approval of this Authority.</b>	<b>Will be complied</b>
-----------	--	-------------------------

**Compliance:**

In case of any change(s) in the scope of the project the project will seek for a new Environmental clearance. There is no change in the scope of the project at the present working condition.

<b>33</b>	<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:**

If the authority found necessary the project is willing to add all possible additional safe guard measures subsequently.

34	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.	Noted
----	---	-------

**Compliance:**

The stipulated orders and directions under different act and notification including EIA notification will be scrupulously followed.

35	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> . 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.	Complied
----	--	----------

**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. . The copy of the advertisement given in two local newspapers is provided at **Annexure No.9**. The details of the news papers are given in the **Table No.4**.

**Table No.4- Details of advertisement in news papers**

Sl. No.	News paper	Language	Date of edition
1	Deepika	Malayalam	02-10-2017
2	The Hindu	English	07-10-2017

36	<b>A copy of the clearance letter shall be sent by the proponent to concerned Grama/District Panchayath / 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 Environmental Clearance shall also be put on the website of the company by the proponent.</b>	<b>Complied</b>
----	--	-----------------

**Compliance:**

A copy of the Environment Clearance letter was submitted to the Panchayath Office. The project proponent did not receive any suggestions / representation from anywhere while the processing the proposal therefore did not give the copy of clearance letter to anyone. The Acknowledgement of the clearance letter sent to the panchayth is attached as **Annexure No. 10**

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 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 State Environment Impact Assessment Authority (SEIAA) office.</b>	<b>Complied</b>
----	---	-----------------

**Compliance:**

The compliance report is being submitted to the District Environmental Impact assessment Authority, Kannur, State Environmental Impact assessment Authority,

Kerala and the Regional Office of MoEF&CC, Bangalore both in hard copy as well as mail. The results of Monitored data is attached as **Annexure No. 11, 12 & 13**

38	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 size of not less than 40. Sign board with extent of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public.	Will be Complied
----	--	------------------

**Compliance:**

The conditions of Environmental Clearance are prominently displayed in a metallic board. The details of the environmental clearance displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font. **Plate No. 7** is the photograph of the Metallic board.

39	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.	Complied
----	---	----------

**Compliance:**

An assurance in the form of affidavit was already submitted to DEIAA, Kannur.

40	No change in mining technology and scope of working should be made without prior approval of the SEIAA, No further expansion or modification in the mine shall be carried out without prior approval of the SEIAA, as applicable.	Noted
----	---	-------

**Compliance:**

The project proponent is not intending to expand the area of mine, technology and scope of working. The project will appear DEIAA, Kannur for Environment Clearance if the project wants to expand its scope.



41	The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any originating from the mine lease shall be taken.	Noted
----	--	-------

**Compliance:**

The project will ensure that no natural runoff of storm water obstructed due to any mining operations. No stream is originating from the lease area. There is no such natural water course or thodu is flowing along the project site.

42	Monitoring of Ambient air Quality to be carried out based on the notification 2009, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.	Noted
----	---	-------

**Compliance:**

The monitoring of Ambient Air Quality is carried out based on the notification 2009. The project proponent has monitored the ambient air quality as per National Ambient Air quality Standard (NAAQS). The project is intending to increase the splashing of water and installed sprinklers at loading, unloading and transfer points. This activity can reduce the fugitive emission.

43	The top soil, if any, shall be temporarily be stored at earmarked site(s) only for the topsoil shall be used for land reclamation and plantation. The Over Burden (OB) generated during the mining operations shall be staked at earmarked dump site(s) only. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of	Noted
----	---	-------

	<b>the bump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.</b>	
--	--	--

**Compliance:**

In the project site in order to prevent the soil erosion, the top soil and overburden are stacked in a designated place within the project site. Only the topsoil will use for plantation purposes. Overburden will be used for landfill and to construct haulage roads in the mining area. The excess will be stored in a designated place.

<b>44</b>	<b>Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc., The drains shall be regularly de silted particularly after monsoon and maintained properly.</b>	<b>complied</b>
-----------	--	-----------------

**Compliance:**

The project proponent has constructed effective garland drains to catch all the storm water during the time of monsoon season. These channels will direct the water to the rain water collection pond. All sediments and silts will settle at the bottom of the pond and only cleared water is letting out.

<b>45</b>	<b>Effective safeguard measures such as regular water sprinkling shall be carries out in critical areas prone to air pollution and having high levels of PM<sub>10</sub> and PM<sub>2.5</sub>, such as haul road, loading an un loading points and transfer points – it shall be ensured that the Ambient Air Quality Parameters confirm to the norm prescribed by the Central Pollution Control Board in this regard.</b>	<b>Being complied</b>
-----------	--	-----------------------

**Compliance:**

To prevent dust emissions, the project proponent installed sprinklers in critical areas to reduce the dust emission such as loading and unloading points, haul roads and transfer points. The water spraying has been carried out regularly to arrest the dust emission. The vehicle for water spraying will be properly maintained.

46	<b>Fugitive dust emission from all the sources should be controlled regularly. Water spraying arrangements on haul roads, loading and unloading and at transfer point should be provided and properly maintained.</b>	<b>complied</b>
----	---	-----------------

**Compliance:**

To reduce the dust emission in critical areas such as loading and unloading points, haul roads and transfer points the project proponent splashes water.

47	<b>Measures should be taken for control of noise levels below 85 dBA in the work environment.</b>	<b>complied</b>
----	---	-----------------

**Compliance:**

The main sound generating activities are the playing of jack hammer, breaker, vehicles and blasting operations. The level noise from all these activities will not go beyond 85dBA. The project proponent will take appropriate action to reduce the sound by employing possible measures. These are mentioned under the condition number 11.

48	<b>A separate Environmental Management Cell with suitable qualified personal should be set up under the control of a senior executive, who will report directly to the Head of the Organization.</b>	<b>complied</b>
----	--	-----------------

**Compliance:**

To monitor all conditions stipulated in the Environment Clearance and environment Management Plan, the project proponent constitutes an Environment Monitoring Cell with Mr. C.G George as the head of the Cell.

49	The funds earmarked for environmental protection and CSR activities should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact assessment authority (SEIAA) office.	Being complied
----	--	----------------

**Compliance:**

The project proponent executes many activities under Corporate Social Responsibility (CSR) for community development. To implement these activities in a good manner, the project proponent will open an account for keeping the funds earmarked for environmental protection and CSR.

50	The Regional Office of MoEF &CC located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the regional Office by furnishing the requisite data/information/monitoring reports.	Will be complied
----	--	------------------

**Compliance:**

The project proponent will extent all possible cooperation to the officers from regional office of MoEF & CC and can produce all data/information/reports when they are asking for.

51	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under section 16 of the National Green tribunal Act, 2010.	Noted
----	--	-------

52	<b>Concealing the factual data or submission of false/ fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.</b>	<b>Noted</b>
----	---	--------------

53	<b>The SEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of any of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.</b>	<b>Will be complied</b>
----	---	-------------------------

**Compliance:**

The project proponent is willing to implement the conditions stipulated in the Environment Clearance order. The project can execute all possible measures in the project site for the conservation of environment.

54	<b>The above conditions shall prevail notwithstanding anything to the contrary, in consistent, or simplified, contained in 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.

55	<b>This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Govt. of Kerala, whichever is earlier.</b>	<b>Noted</b>
----	---	--------------

56	The environmental clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.	Noted
----	---	-------

57	The mining operation shall be restricted to above ground water table and is should not intersect ground water table.	Will be complied
----	--	------------------

**Compliance:**

The project proponent will restrict its mining operations above the ground water table.

58	All vehicle used for transportation and within the mine shall have “PUC” certificate from authorized pollution taking center. Washing of all vehicles shall be inside the lease area.	complied
----	---	----------

**Compliance:**

As part of reduce air pollution, the project proponent is monitoring the pollution level of all vehicles playing in the project site. This monitoring conducts only in authorized pollution testing center.

59	Project proponent should obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project.	Noted
----	--	-------

**Compliance:**

At present, the need of prior approval is not necessary to draw ground water and surface water for the project.

60	Regular monitoring of flow rates and water quality upstream and down streams of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly report to SEIAA.	Noted
----	---	-------

**Compliance:**

There is no stream or springs flowing in and around to the mine lease area. The project will install de-siltation trap and other mechanism to prevent sediments and wastes from the mining area to the public drainage system.

61	Occupational health surveillance program of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	complied
----	---	----------

**Compliance:**

The project proponent has started an occupational health surveillance programme for the labours working in mining area in association with Primary Health center.

.

# PLATES



Plate No. 1



Board showing blasting time

Plate No. 2



Boundary Pillars



Plate No. 3



Sanitary Latrine and Urinals

Plate No. 4



No Smoking Board

Plate No. 5



Emergency Contact Numbers

Plate No. 6



Warning Alarms



Plate No. 7



Metallic Board

Plate No. 8




Sign Boards

# ANNEXURE



## Annexure No.1

 **MATA AMRITANANDAMAYI MATH**  
Amritapuri P.O. • Kollam • Keralam 690 525 • India.  
Ph.: (0476) 2897578 / 2896278 • Fax: 2897678

**RECEIPT**

No : **D 62572** Date... 20/8/2018...

Received with thanks from Sri/Smt Chendayad Granite Pvt. Ltd.  
residing at... Chendayad - Panoor...

a sum of Rs. Twenty Four Thousand only  
by Cash / MO / Cheque\* / DD / TC No. .... Dated .....  
Drawn on (Bank) ..... (Branch) .....  
as donation towards Voluntary Contribution / Hospital / Medical Project / Orphanage / Corpus.  
Rs. 24000/-

\*Cheques are subject to realization

For MATA AMRITANANDAMAYI MATH

ശ്രീരാമസേവാകേന്ദ്രത്തിന്റെയും പൊയിലൂർ മുത്തപ്പൻ സേവാസമിതിയുടെയും ആഭിമുഖ്യത്തിൽ

**രാഹുവീര്യം**  
2018

നമ്പർ: **151** തീയതി: 07-08-2018

ശ്രീ/ശ്രീമതി... Geo sand - Pathirai Granite

അവർകളിൽ നിന്ന് Chendayad Granite

രൂപത്തിൽ രൂപ സംഭാവനയായി കിട്ടിയിരിക്കുന്നു.

**₹ 50,000/-**

സെക്രട്ടറി

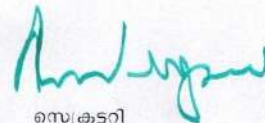
**Chittariparamba Gramapanchayath office**

Chittariparamba P O. 670650. Phone 04902300540

e mail. [secretarychittariparamba@gmail.com](mailto:secretarychittariparamba@gmail.com)**കൈപ്പറ്റ് രശീത്**

ശ്രീ ചെണ്ടയാട് ഗ്രാമപഞ്ചായത്ത് ഏതാനും വർഷമായിട്ടും മുമ്പുതന്നെയും CMDRF അക്കൗണ്ടിലേക്ക് നൽകുന്നതിന് 25000/- രൂപയുടെ ചെക്ക് (387661 തീ 07/09/2018 എസ് ബി ഐ ) ഈ ഓഫീസിൽ സ്വീകരിച്ചു.

ചിറ്റാരിപറമ്പ്  
12.09.2018



സെക്രട്ടറി

ചിറ്റാരിപറമ്പ് ഗ്രാമ പഞ്ചായത്ത്

**SECRETARY****Chittariparamba Grama Panchayat**

Receipts of CSR Activities



## Annexure No.2

Cert No. FRE / 3828

भारत सरकार/Government of India  
खान अधिनियम, 1952/Mines Act, 1952  
खान परीक्षा बोर्ड/Board of Mining Examinations

फोरमैन सक्षमता प्रमाण-पत्र  
FOREMAN'S CERTIFICATE OF COMPETENCY  
(केवल ओपनकास्ट खानों तक सीमित)  
(Restricted to mines having opencast working only)  
(धात्विकीय खान विनियम, 1961 के अन्तर्गत)  
(Under the Metalliferous Mines Regulations, 1961)

श्री मल्ला सुरेश  
जिनकी जन्म तिथि 12.07.1993

सुपुत्र मल्ला सुरी अप्पाराव  
है, को विहित अर्हताएं एवं अनुभव प्राप्त करने का सन्तोषजनक प्रमाण प्रस्तुत करने पर एतद्वारा केवल ओपनकास्ट धात्विकीय खानों के लिए फोरमैन सक्षमता प्रमाण-पत्र प्रदान किया जाता है। यह प्रमाण-पत्र दिनांक 06.05.2016 से प्रभावी है।

Shri Mallala Suresh  
born on 12th July, 1993

son of Mallala Suresh Apparao  
having given satisfactory evidence of possessing the prescribed qualifications and experience is hereby granted FORMAN'S CERTIFICATE OF COMPETENCY for metalliferous mine having opencast workings only. This certificate is effective from 06.05.2016

सचिव  
खान परीक्षा बोर्ड  
Secretary  
Board of Mining  
Examinations

अध्यक्ष  
खान परीक्षा बोर्ड  
Chairman  
Board of Mining  
Examinations

Signed and Sealed  
Date: 09.07.16

Certificate of licensed Person



## Annexure No.3

**FORM D**

[See clause (a) of rule 10 and clause (m) of sub-rule (1) of rule 40]

**NOTICE**

24.10.2017

**From:**

**Shri. C G George**  
Joint Managing Director  
Chendayad Granites Pvt Ltd  
CP3/C40, KSIDC Industrial Growth centre  
Valiyavalicham, Koothuparamba Mooryad Post, 670643

**To:**

1. The District Magistrate,  
Kannur District,
2. The Regional Controller of Mines,  
Yeswantpur, Bangalore 560022
3. The Deputy Director General, Directorate General of Mine and Safety South Zone,  
#5, 17<sup>th</sup> Main, 100ft. Road, 4<sup>th</sup> B-Block,  
Koramangala, Bangalore- 560 034

1	a. Name of Mine	M/S Chendayad granites pvt ltd Office: Poyiloor, Poyiloor P.O, Kannur Dist- 670 643, Kannur District, Kerala State.
	b. Name of Mineral	Granite Building Stone
	c. Situation of Mine	Location: Poyiloor Village: Thripangom Village, Post office: Poyiloor P.O Town: Thalassery, Taluk: Thalassery District: Kannur, State: Kerala State.
	d. Date when work was first started	15.01.2008
2	a) Name & postal address of present owner(s)	Shri. C.G. George, Joint Managing Director Chendayad Granites Pvt Ltd CP3/C40, KSIDC Industrial area Valiyavalicham, Koothuparamba Mooryad Post, 670643
	b) Name & postal address of agents, if any	
3	a. Name & postal address of Mines Manager	<b>Mr. Malla Suresh</b> S/o. Malla Suri Appa Rao, Diploma in Mining Engineering Foreman's Certificate No.FRE/3828 w.e.f 06.05.2016 Valid up to 05.05.2021 <u>Address:</u> Gavarapeta Street, Kasimkota, Visakapatnam - 531031
	b. His age	24 Years
	c. His qualification	Diploma in Mining Engineering Foreman's Certificate No.FRE/3828 w.e.f 06.05.2016 Valid up to 05.05.2021

d.	His experience in Mining	2 years Experience
4	Whether working are likely to be Extended below ground	Yes in future
5	a. Maximum depth of open cast excavation measured from its highest to its lowest point	Above ground 4 meters from its highest to lowest point
	b. Date when depth exceeded 6 meter	Not Yet reached 6meter depth
6	a. Nature, amount and kind of explosives used if any	Nitrate Mixture Class 2 division 0 Class 6 division 1 Class 6 division 3
	b. Date when explosives were first used	27.02.2015

Thanking You,

M/S Chendayad Granites Pvt Ltd


(C.G.George)

Joint Managing Director

Date: 24.10.2017

Form D

## Annexure No.4



**KERALA STATE POLLUTION CONTROL BOARD**

FILE NO. :PCB/KNR/ICO/814/2008  
Date of issue :2017-09-08

**CONSENT VARIATION ORDER**

Consent No : O14KANCTOA250074

Ref : 1. Consent No:O14KANCTOA250074 dated 11/11/2014.  
2. Consent Variation Order dated 27/04/2015.  
3.Consent Variation Order No:O14KANCTOA250074 dated 24/02/2016.

The ' Integrated Consent to Operate' issued as per reference above to M/s Quarry Owned By Sri.C G George ,Joint Managing Director Chendayad Granites pvt ltd, Poiloor P.O,Via Panoor,Thalassery is hereby modified & issued to M/s Quarry Owned By Sri.C G George ,Joint Managing Director Chendayad Granites pvt ltd, Poiloor P.O,Via Panoor,Thalassery The consent(s)/ variation order(s) cited under reference are integral part of this consent variation order and this order is subject to the conditions stipulated therein and the following modifications/ additions.

**I. GENERAL**

S.No.	Items	Description
1	1.1 VALIDITY	30/04/2020
2	1.13 CAPITAL INVESTMENT	25 LAKHS
3	1.12 ANNUAL FEE	4420/-
4	1.12 FEE REMITTED	13260/-
5	1.16 ACTIVITY	granite quarrying of 1.5176 Ha in RS NO.275/1A of Thrippangottoor Village of Thalassery Thaluk

**II. CONDITIONS**

2.2 This integrated consent, unless withdrawn earlier and subject to condition No.2.1 Shall be valid up to 30/04/2020. In case the operation of the Industrial plant is to be continued thereafter, application for renewal of the consent is to be made before 30/01/2020.

2.6 Deleted.

3.2 Deleted.

3.3 Deleted.

Page1

4.1 Deleted.  
4.3 Deleted.  
4.4 Deleted.  
4.5 Deleted.  
4.8 Location of quarry shall be as per the drawing attached.No change or alteration to the above shall be made.  
4.10 Deleted.  
4.13 Deleted.

All other conditions of the Integrated Consent to Operate issued as per reference above remain unchanged.

DATE :08/06/2017 Dist. Office  
Kannur - 670002

SIGNATURE & SEAL OF ISSUING AUTHORITY

**Krishnan M.N.**  
Environmental Engineer


To  
C.G. GEORGE, JOINT MANAGING DIRECTOR, CHENDAYAD GRANITES PVT LTD., KSIDC  
INDUSTRIAL GROWTH CENTRE, VALIYAVELICHAM, KOOOTHUPARAMBA, KANNUR DT -  
670693

Page2

Copy of Consent form PCB



## Annexure No.5



सत्यमेव जयते

Validity expires on 01.09.2022

**Proceedings of the District Environment Impact Assessment Authority  
Kannur**

*Present: Sri.Mir Mohammed Ali I.A.S., Chairman; Sri.S. Chandrasekar I.A.S., Member  
Secretary & Sub Collector Thalassery; Sri.Suneel Pamidi.I.F.S., Member and  
Sri. O Jayarajan I.F.S (Rtd) Member*

Sub: DEIAA- Environmental clearance for the Proposed Granite (Building Stone) Quarry project for an area of 1.5176 Ha in Sy. No.275/1A, Trippangottur village, Thalassery Thaluk, Kannur District of Mr. C. G. George, Joint Managing Director M/S Chendayad Granites Pvt Ltd, CP3/C40, KSIDC Industrial Centre, Valiyavalicham, Koothuparamba, Kannur, Kerala-670643


**DISTRICT ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KANNUR**

No. 45/KNR/2017/DEIAA Dated 02/09/2017, Kannur

Ref: 1.Online Application dated 12 May 2017 from Mr. C. G. George, Joint Managing Director M/S Chendayad Granites Pvt Ltd, CP3/C40, KSIDC Industrial Centre, Valiyavalicham, Koothuparamba, Kannur, Kerala-670643  
2. Minutes of the 6<sup>th</sup> meeting of DEAC held on 15/06/2017.  
3. Minutes of the 7<sup>th</sup> meeting of DEAC held on 22/08/2017.  
4. Minutes of the 8<sup>th</sup> meeting of DEIAA held on 29/08/2017.

**ENVIRONMENTAL CLEARANCE NO. 19/2017**

Mr. C. G. George, Joint Managing Director M/S Chendayad Granites Pvt Ltd, CP3/C40, KSIDC Industrial Centre, Valiyavalicham, Koothuparamba, Kannur, Kerala-670643 vide his application received on 12 May 2017, has sought Environmental Clearance under EIA Notification, 2006 for the quarry project of an area of 1.5176 Ha in Sy. No.275/1A, Trippangottur village, Thalassery Thaluk, Kannur District. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 and as per O.M. No. L-11011/47/2011-IA.II (M) dated 18<sup>th</sup> 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) dtd. 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares. As per gazette notification no SO 190(E) dtd 20/01/2016, Government of India and GO(Ms)no.05/2016/Envtd 04/04/2016, Govt:of Kerala DEIAA and DEAC constituted for considering the applications for environmental clearance less than 5 hectares in individual cases and 25 hectares in cluster



Page 1 of 8

Copy of Environmental Clearance

## Annexure No. 6

Transferred from T.Rajan

**अनुज्ञप्ति प्रारूप 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 I 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/SE/KL/22/13(E84556)  
वार्षिक फीस रूप (Annual Fee Rs): 2400/-

1. Licence is hereby granted to  
**C.G. GEORGE JOINT MANAGING DIRECTOR (अधिभोगी / Occupier : C G GEORGE), CHENDAYAD GRANITES PVT LTD, CP III C 40 KSIDC INDUSTRIAL GROWTH CENTER, VALIYAVELICHAM, KOOOTHUPARAMBA, Town/Village - KOOOTHUPARAMBA, District-KANNUR, State-Kerala, Pincode - 670643**  
को अनुज्ञप्ति अनुदत्त की जाती है।

2. अनुज्ञप्तिधारी की प्रस्थिति : Status of licensee : Company

3. अनुज्ञप्ति निम्नलिखित प्रयोजनों के लिए विधिमाम्य है।  
Licence is valid only for the following purpose. : possess for use of Nitrate Mixture, Safety Fuse, Electric and/or Ordinary Detonators, - के उपयोग के लिए

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

क्र. सं.	नाम और विवरण	वर्ग और प्रभाग	उप-प्रभाग	मात्रा किसी एक समय में
Sr. No.	Name and Description	Class & Division	Sub-division	Quantity at any one time
1.	Nitrate Mixture	2, 0	0	100 Kg.
2.	Safety Fuse	6, 1	0	2000 Mtrs.
3.	Electric and/or Ordinary Detonators	6, 3	0	1000 Nos.

(ख) किसी एक कलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा (अनुच्छेद 3(ख) और (ग) के अधीन अनुज्ञप्ति के लिए) : 3 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 अनुज्ञप्ति परिसर की पृष्ठ होती है।  
The licensed premises shall conform to the following drawing(s): : रेखाचित्र क्र. (Drawing No.) E/SE/KL/22/13(E84556)  
दिनांक (Dated) 29/02/2016

6. अनुज्ञप्ति परिसर निम्नलिखित पते पर स्थित हैं। The licensed premises are situated at following address:  
Survey No. 275/1A, ग्राम (Town/Village) : Trippangottur  
जिला (District) : KANNUR राज्य (State) : Kerala पुलिस थाना (Police Station) : Kolavallur  
दूरभाष (Phone) : 9447485245 ई.मेल (E-Mail) : फोनकोड (Pincode) : 0  
फैक्स (Fax) :

7. अनुज्ञप्ति परिसर में निम्नलिखित सुविधाएं अंतर्भूत हैं।  
The licensed premises consist of following facilities. : Constructed type C magazines for explosives and detonators as per Specification 2 of Schedule VII of Explosives Rules 2008

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.

- 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.
- अनुज्ञप्ति प्राधिकारी द्वारा हस्ताक्षरित इस अनुज्ञप्ति की शर्तों और अतिरिक्त शर्तों।  
Conditions and Additional Conditions of this licence signed by the licensing authority.
- दूरी प्रारूप DE-2 | Distance Form DE-2.

9. यह अनुज्ञप्ति तारीख 31 मार्च 2019 तक विधिमाम्य रहेगी। This licence shall remain valid till 31st day of March 2019.

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 अधिग्रहण करने या यदि अनुज्ञप्ति 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.

तारीख | The Date - 20/02/2015

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

यु.ए. उप मुख्य विस्फोटक नियंत्रक  
For Deputy Chief Controller of Explosives  
एरनाकुलम Ernakulam

Transfers :  
• Change in Licensee Name/Address/Status dated : 29/02/2016

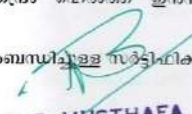
नवीनीकरण के पृष्ठान्त के लिए स्थान  
Space for Endorsement of Renewal

नवीनीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry	अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature of licensing authority and stamp

कानूनी चेतावनी : विस्फोटकों को गलत ढंग से चलाने या उनका दुरुपयोग विधि के अधीन गंभीर दंडित अपराध होगा।

Copy of Explosive

## Annexure No. 7

	
ലൈസൻസ് നമ്പർ ബി3. 2947/2017	തീയതി 26-09-2017
തൃപ്രങ്ങോട്ടൂർ ഗ്രാമ പഞ്ചായത്തിൽ നിന്നും 1994 ലെ കേരളാ പഞ്ചായത്ത് രാജ് ആക്ട് ( 1994 ലെ 13 ) 232, 233, 234, 254 എന്നീ വകുപ്പുകളും അതേ തുടർന്നുള്ള ചട്ടങ്ങളും അനുസരിച്ച് നൽകുന്ന <b>ഡി &amp; ഒ ലൈസൻസ്</b>	
ലൈസൻസിനുള്ള പേരും മേൽവിലാസവും	സി ജി ജോർജ്ജ് ജോയിന്റ് മാനേജിംഗ് ഡയറക്ടർ ചെണ്ടയാട് ഗ്രാനൈറ്റ്സ് പ്രൈവറ്റ് ലി. വലിയവെളിച്ചം, കുത്തുപറമ്പ് പി.ഒ
സ്ഥാപനത്തിന്റെ പേരും, സ്ഥലനാമവും	ചെണ്ടയാട് ഗ്രാനൈറ്റ്സ് പ്രൈവറ്റ് ലി. നരിക്കോട് മല
ലൈസൻസ് നൽകിയിട്ടുള്ള പ്രവർത്തനങ്ങൾ	കരിങ്കൽ ഖനനം നടത്തുന്നതിന്
കെട്ടിട നമ്പരും വാർഡ് നമ്പരും	റീസ നമ്പർ 275/1എ തൃപ്രങ്ങോട്ടൂർ വില്ലേജ്
ലൈസൻസ് കാലയളവ്	26-09-2017 മുതൽ 31-03-2018 വരെ
ഈടാക്കിയ ലൈസൻസ് ഫീസ്	2500/-11170110102453 തീയതി 26 -09-2017
ലൈസൻസ് അനുവദിക്കുന്നതിനായി ഹാജരാക്കിയ നിരാക്ഷേപ പത്രങ്ങളുടെ വിശദാംശങ്ങൾ ( നമ്പർ, തീയതി, കാലയളവ്, നൽകിയ അധികാര സ്ഥാനം)	
1.	ഡിസ്ട്രിക്റ്റ് എൻവയൺമെന്റിൽ ഇപ്പോൾ അഡ്മിഷൻ അതോറിറ്റി യുടെ 02-09-2017 തീയതിയിലെ 45/KNR/2017DEIAA നമ്പർ അനുജതി.
2.	കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡിന്റെ 08-09-2017 ലെ PCB/KNR/ICO/814/2018
3.	മൈനിംഗ് ആന്റ് ജിയോളജി ഡിപ്പാർട്ട്മെന്റിൽ നിന്നും 03-05-2017 ലെ 4138/M3/2017 നമ്പർ ലൈറ്റർ ഓഫ് ഇന്റർ.
4.	തൃപ്രങ്ങോട്ടൂർ വില്ലേജ് ഓഫീസറുടെ 16-03-2017 ലെ 23767597 നമ്പർ കൈവശാവകാശ സർട്ടിഫിക്കറ്റ്.
5.	തൃപ്രങ്ങോട്ടൂർ പ്രാഥമിക ആരോഗ്യ കേന്ദ്രം ഫെർത്തൽ ഇൻസ്പെക്ഷറുടെ ശുചിത്വ സർട്ടിഫിക്കറ്റ്.
6.	കാറ്റി നടത്താനുദ്ദേശിക്കുന്ന സർവ്വേ മാപ്പ്
7.	പാഠപാട്ടിക്കുന്ന ആളുടെ വൈറ്റ് ഡ്യൂം സാമ്പിൾ ഉള്ള സർട്ടിഫിക്കറ്റ്
8.	ലൈസൻസ് നമ്പർ 2947/2017 നൽകിയ പത്രം
	
<b>T. P. MUSTHAFA</b> <b>SECRETARY</b> <b>TRIPPRANCHOTTOR GRAMA PANCHAYAT</b> <b>P.O. KALLIKKANDY 670 603, KANNUR (DIST)</b> <b>Ph. 9496049126</b>	
	

Copy of license from Gram Panchayat



## Annexure No.8

## PROCEEDINGS OF THE DIRECTOR OF MINING &amp; GEOLOGY

**Sub:** Mining & Geology - Mines & Minerals - Minor Minerals – Granite Building Stone – Quarrying Lease to M/s. Chendayad Granites Pvt. Ltd., CP3/C40, KSIDC Industrial Growth Centre, Mooryad. P.O, Valiyavalicham, Koothuparamba, Kannur District – 670 643 (Represented by one of its Joint Managing Director, Shri. C. G. George) –sanctioned – Orders – issued.

- Ref:** 1. Application dtd. 21/02/2017 from M/s. Chendayad Granites Pvt. Ltd., CP3/C40, KSIDC Industrial Growth Centre, Mooryad. P.O, Valiyavalicham, Koothuparamba, Kannur District – 670 643 (Represented by one of its Joint Managing Director, Shri. C. G. George)
2. Letter No. DOC/M-938/2017 dtd. 28/04/2017 from the Geologist, District Office, Kannur
3. Pro.order. No. 45/KNR/2017/DEIAA dtd. 02/09/2017 of the District Environment Impact Assessment Authority, Kannur, Kerala
4. Kerala Minor Mineral Concession Rules, 2015.

No. 408/2017-18/4138/M3/2017/DMG

Dated, Thiruvananthapuram 04/10/2017

ORDER

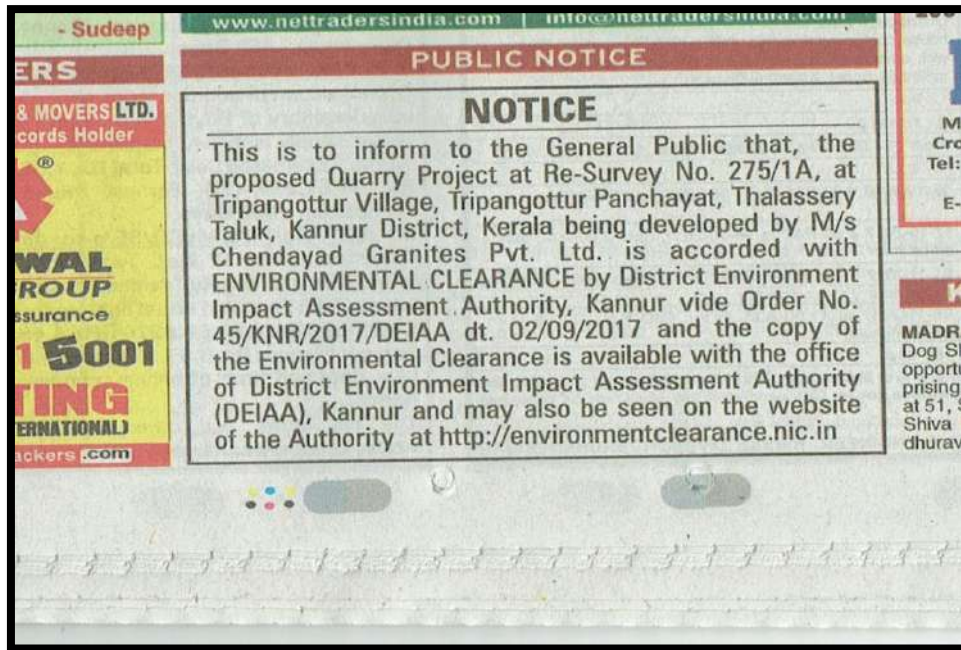
A quarrying lease is granted to M/s. Chendayad Granites Pvt. Ltd., CP3/C40, KSIDC Industrial Growth Centre, Mooryad. P.O, Valiyavalicham, Koothuparamba, Kannur District – 670 643 (Represented by one of its Joint Managing Director, Shri. C. G. George) to quarry Granite (Building Stone) over an area of 1.5176 Hectares of land comprised in Re - Sy. No. 275/1A of Tripangottur Village, Thalassery Taluk, Kannur District for 6 (Six) 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, Thalassery 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 **26,000 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,

Copy of Lease



## Annexure No. 9



Advertisement in News papers

## Annexure No. 10



The Secretary,  
Tripangottur Panchayat,  
Thalassery Taluk, Kannur District,  
Kerala.

Dt. 08/09/2017

Sub:- Environmental Clearance (E.C.) – Proposed Quarry Project at Re-Survey No. 275/1A, Tripangottur Village, Tripangottur Panchayat, Thalassery Taluk, Kannur District, Kerala – Submission of the E.C. Order – Compliance to the condition of Environment Clearance – Reg.


Respected Sir,

1. This refers to the Environmental Clearance obtained to the proposed Quarry Project at Re-Survey No. 275/1A, Tripangottur Village, Tripangottur Panchayat, Thalassery Taluk, Kannur District, Kerala vide Order No. 45/KNR/2017/DEIAA dt. 02/09/2017.
2. We hereby submit a self attested copy of the Environment Clearance Order No. 45/KNR/2017/DEIAA dt. 02/09/2017. This is in compliance to the condition of the E.C. Order.


Kindly acknowledge the receipt of the same.

Thanking you,

Yours respectfully,  
for Chendayad Granites Pvt. Ltd.,

  
C.G George,  
(Joint Managing Director)

Encl: As above

  
for Secretary  
(Tripangottur Grama Panchayat)

Chendayad Granites (P) Ltd.  
Building No.: CPIIC40, KSIDC Industrial Growth Centre, Valiyavelicham, Koothuparamba, Pin: 670643  
Kannur Dt., Kerala. Ph : 0490 2364300. Mob: 8113 041 112, 8113 041 113, 8113 041 114, 8113 041 119  
e-mail: geosandin@gmail.com. www.geosand.in

Copy of acknowledgement

## Annexure No. 11


**TEST REPORT**

Test Report No: TC540218000000882F	Date: 26.12.2018	Page 1 of 1
------------------------------------	------------------	-------------

CUSTOMER DETAILS			
Customer Details	Name & Address	Mr. C.G George Joint Managing Director M/s Chendayad Granites (P) Ltd CP 3C40, KSIDC, Industrial Growth Centre, Mooryad, Kannur District.	
Location Of Site	Survey No	275/1 A	
	Village	Thripangottor	
	Taluk	Thalassery	
	District	Kannur	
	State	Kerala	
Customer Reference		Test Request form dated 20.12.2018	
Monitoring Site		Poyiloor	
SAMPLE DETAILS			
Source of Sample	Ambient Air	Sample Code	TC540218000000882F
Location of Monitoring	South West Side	Sampled By	Laboratory
Date of Monitoring	20.12.2018	Test Started On	24.12.2018
Sample Received On	24.12.2018	Test Completed On	26.12.2018
Humidity	59 %	Sampling Procedure	IS 5182 Part V & XIV

SL NO	TEST PARAMETER	TEST METHOD	UNIT	RESULTS	NAAQ STANDARD
01	Particulate matter (PM <sub>10</sub> )	IS 5182 Part 23: 2006 RA 2012	µg/m <sup>3</sup>	65.9	100
02	Particulate matter (PM <sub>2.5</sub> )	EPA 40 CFR Part 50 Appendix - L	µg/m <sup>3</sup>	21.4	60.0
03	Sulphur dioxide (SO <sub>2</sub> )	IS 5182 Part 2: 2001 RA 2012	µg/m <sup>3</sup>	< 2.00	80.0
04	Nitrogen dioxide (NO <sub>2</sub> )	IS 5182 Part 6: 2006 RA 2012	µg/m <sup>3</sup>	< 2.00	80.0

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

For and on behalf of  
Standard<sup>S</sup> Environmental & Analytical Laboratories
  
Authorized Signatory
Rija Joseph  
Technical Manager


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

Result of Air



## Annexure No.12





NABL(TC-5402)

### TEST REPORT

Test Report No: TC540218000000884F	Date: 26.12.2018	Page 1 of 1
------------------------------------	------------------	-------------

CUSTOMER DETAILS		
Customer Details	Name & Address	Mr. C.G George Joint Managing Director M/s Chendayad Granites (P) Ltd CP 3C40, KSIDC, Industrial Growth Centre, Mooriyad, Kannur District
Location Of Site	Survey No	275/1 A
	Village	Thripangottor
	Taluk	Thalassery
	District	Kannur
	State	Kerala
Customer Reference		Test Request Form Dated 20.12.2018
Monitoring Site		Poyiloor

SAMPLE DETAILS	
Source of sample	Ambient Sound Level
Sample Code	TC540218000000884F
Location of Monitoring	North Side Boundary
Date of Monitoring	20.12.2018

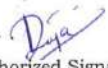
DAYTIME	RESULT	NIGHTTIME	RESULT
06.00 Hrs	36.7 dB (A)	23.00 Hrs	35.1 dB (A)
07.00 Hrs	39.3 dB (A)	00.00 Hrs	37.6 dB (A)
08.00 Hrs	43.5 dB (A)	01.00 Hrs	38.4 dB (A)
09.00 Hrs	46.9 dB (A)	02.00 Hrs	38.0 dB (A)
10.00 Hrs	49.1 dB (A)	03.00 Hrs	38.7 dB (A)
11.00 Hrs	52.2 dB (A)	04.00 Hrs	37.6 dB (A)
12.00 Hrs	49.5 dB (A)	05.00 Hrs	39.5 dB (A)
13.00 Hrs	48.8 dB (A)	RESULTS	
14.00 Hrs	49.1 dB (A)		
15.00 Hrs	49.5 dB (A)	Noise Level (Leq) Daytime	47.6 dB (A)
16.00 Hrs	50.7 dB (A)		
17.00 Hrs	51.0 dB (A)	Noise Level (Leq) Nighttime	37.9 dB (A)
18.00 Hrs	45.7 dB (A)		
19.00 Hrs	42.3 dB (A)		
20.00 Hrs	38.6 dB (A)		
21.00 Hrs	38.1 dB (A)		
22.00 Hrs	35.5 dB (A)		

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

For and on behalf of

StandardS Environmental & Analytical Laboratories

**Rija Joseph**  
Technical Manager



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.

**StandardS Environmental & Analytical Laboratories**

## Result of Noise

## Annexure No.13



## TEST REPORT



Test Report No: TC540218000000883F	Date: 26.12.2018	Page 1 of 1
------------------------------------	------------------	-------------

CUSTOMER DETAILS			
Customer Details	Name & Address	Mr. C.G George Joint Managing Director M/s Chendayad Granites (P) Ltd CP 3C40, KSIDC, Industrial Growth Centre, Mooryad, Kannur District	
Location of Site	Survey No	275/1 A	
	Village	Thripangottor	
	Taluk	Thalassery	
	District	Kannur	
	State	Kerala	
Customer Reference		Test Request Form dated 20.12.2018	
Monitoring Site		Poyiloor	
SAMPLE DETAILS			
Sample Code	TC540218000000883F	Sample Received On	24.12.2018
Sample Name	Water	Sampling Procedure	
Sample Description	Stream Water	Sampling Location	South East
Identification By Customer	---	Sample Condition	Good
Sampled On	---	Test Started On	24.12.2018
Sampled By	Customer	Test Completed On	26.12.2018

SL NO	TEST PARAMETER	TEST METHOD	UNITS	RESULT	ACCEPTABLE LIMIT (IS 10500 - 2012)
01	Colour	IS 3025 Part 4:1983 RA 2012	Hazen	1.00	5.00 (Max)
02	Odour	IS 3025 Part 5:1983 RA 2012	---	Unobjectionable	Unobjectionable
03	Turbidity	IS 3025 Part 10:1984 RA 2012	NTU	0.50	1.00 (Max)
04	pH	IS 3025 Part 11:1983 RA 2012	---	6.53	6.50 - 8.50
05	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2012	mg/L	27.0	500 (Max)
06	Total Hardness (as CaCO <sub>3</sub> )	IS 3025 Part 21:2009 RA 2014	mg/L	6.06	200 (Max)
07	Calcium (as Ca)	IS 3025 Part 40:1991 RA 2014	mg/L	1.62	75.0 (Max)
08	Magnesium (as Mg)	IS 3025 Part 46:1994 RA 2014	mg/L	< 1.00	30.0 (Max)
09	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2014	mg/L	5.99	250 (Max)
10	Total Alkalinity (as CaCO <sub>3</sub> )	IS 3025 Part 23:1986 RA 2014	mg/L	7.88	200 (Max)
11	Iron (as Fe)	IS 3025 Part 53:2003 RA 2014	mg/L	0.20	1.00 (Max)
12	Sulphate (SO <sub>4</sub> )	IS 3025 Part 24:1986 RA 2014	mg/L	1.18	200 (Max)
13	Total Coliform Bacteria	IS 1622:1981 RA 2014	----	Absent/100 ml	Absent/100 ml
14	E coli	IS 15185: 2016	----	Absent/100 ml	Absent/100 ml

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

For and on behalf of  
StandardS Environmental & Analytical LaboratoriesVidhyalakshmi Das  
Microbiologist

Authorized Signatory

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.

StandardS Environmental &amp; Analytical Laboratories

Rija Joseph

## Result of Water