

COMPLIANCE REPORT

TO

THE CONDITIONS

OF

ENVIRONMENTAL CLEARANCE ORDER

NO: 823/SEIAA/EC1/2606/2015

DT. 09-08-2016

BY

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)

FOR

PROPOSED QUARRY PROJECT

AT

**SURVEY NO. 1244/1pt KILLANUR VILLAGE, THRISSUR TALUK, THRISSUR
DISTRICT, KERALA**

BY

M/S RUDRA GRANITES

(AUGUST 2016- JANUARY, 2017)

INTRODUCTION

M/S Rudra Granites is a stone quarry located at Survey No., 1244/1pt Killanur Village, Thrissur Taluk, Thrissur District, Kerala. The quarry project was accorded with the Environmental Clearance by state Environmental Impact Assessment Authority on 09-08-2016. Consequently based on this EC, mining activity started during February 2017 in this area. Six month compliance reports to the conditions of the Environmental Clearance are to be submitted as part of compliance. The compliance report to the specific conditions and general conditions of the Environmental Clearance for the period of August, 2016- January, 2017 (First Report) is being submitted.

PART A – SPECIFIC CONDITIONS

➤ Condition 1

Protection wall (Protective fencing) shall be provided at vulnerable points of the quarry to avoid accidents.

✓ Compliance

Barbed metal wire fencing has installed around the lease area with a height of 5 ft to prevent falling of animals/human/belongings/dumping of garbage's etc. Photograph showing the same is enclosed as Annexure 1.

➤ Condition 2

Overburden is to be stored at the designated place.

✓ Compliance

The quantity of topsoil and overburden estimated to be 29095MT and 138000MT respectively. The excavated top soil has been storing separately in a prefixed location. Photograph showing the same is enclosed as Annexure 2.

➤ Condition 3

The approach road to the quarry from the main road is not maintained at all. This road must be maintained at good condition by the proponent.

✓ Compliance

Most of the access road area to the quarry has well maintained by paving granite stones and we will tar the road shortly. Roads have been well

maintaining to contain dust emissions that may arise during transportation of materials. The photographs showing the same is given in Annexure 3.

➤ Condition 4

Dust suppression mechanism must be in place.

✓ Compliance

Along the road sides of the project area, fixed water sprinkling systems has installed. The road system without sprinklers, drilling area, loading area etc. has been watering in time.

➤ Condition 5

A more realistic CSR shall be prepared and submitted before SEIAA

✓ Compliance

More realistic CSR has prepared and submitted to SEIAA. As part of the Corporate Social Responsibility, the amount proposed by the company has been spending for various social activities.

PART B – GENERAL CONDITIONS

➤ Condition 1

Rainwater harvesting facility should be installed as per the prevailing provisions of KMBR/KPBR unless otherwise specified.

✓ Compliance

Rainwater harvesting systems are maintained. It consists of one harvesting tanks constructed with stone masonry wall having the capacity of 300000 liter. Photograph of the rainwater harvesting system as enclosed as Annexure 4.

➤ Condition 2

Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.

✓ Compliance

An Environmental Monitoring Cell has formed with Mr. Dineshmon NT (Owner) as head of the monitoring cell and made functional. Meeting of the monitoring cell has been arranging periodically and discuss the status of the

compliance of the specific and general conditions stated in the Environmental clearance order. The details of the monitoring cell members are given below.

Sl. No.	Post	Name
1	Head of the monitoring cell	Dineshmon NT
2	Head in charge (Environment)	Sathyanarayana Rai
2	Senior Environmental Officer	Krishna Naik R
3	Environmental Officer	Ratheesh N
4	Name of the environmental officers in charge at Site	Jacob AM
5	Address of Environmental laboratory	M/s Poluchem Laboratory Pvt. Ltd.

➤ **Condition 3**

Suitable avenue trees should be planted along either side of the tarred road and, open parking areas if any, including approach road and internal roads.

✓ **Compliance**

Along the sides of tarred road and parking areas there is natural vegetation including trees, shrub and herbs. We will plant the area with less vegetation with tree saplings at the earliest.

➤ **Condition 4**

Maximum possible solar energy generation and utilization shall done at the own cost of the project proponent.

✓ **Compliance**

In the project site, we decided to install solar lights and solar heater in connection with newly constructing office and associated buildings.

➤ **Condition 5**

Sprinklers shall be installed and used in the project site to contain dust emission.

✓ **Compliance**

Along the road sides of the project area, fixed water sprinkling systems has installed. The road system without sprinklers, drilling area, loading area etc. has been watering in time.

➤ **Condition 6**

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

✓ **Compliance**

Eco-restoration including the mine closure plan will perform at our own cost. Following the closure of the mine, it is proposes to develop a green belt in the remaining area after reclaimed with stacked dumping and overburden. Ten percent of the excavated pit area will maintain as water storage area.

➤ **Condition 7**

At least 10 percent out of the total excavated pit area should be retained as water storage area 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 E.C.

✓ **Compliance**

Ten percent of the excavated pit area will retain as water storage area following to the closure of the mine. It is proposes to develop a green belt in the remaining area with indigenous plant species after reclaimed with stacked dumping and overburden. Grass and Shrub species with strong root system will plant in the areas prone to erosion especially at the foot of the hill.

➤ **Condition 8**

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

✓ Compliance

As part of the Corporate Social Responsibility, the amount proposed by the company has been spending for various social activities.

➤ Condition 9

The lease area shall be fenced off with barbed wires to a minimum 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.

✓ Compliance

Barbed metal wire fencing has installed around the mining area with a height of 5 ft to prevent falling of animals/human/belongings/dumping of garbage's etc.

➤ Condition 10

Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulation of Explosive Department.

✓ Compliance

Warning alarm has installed in the project area and maintaining properly. The blasting time has fixed and is between 4.0pm and 5.0pm. A danger board indicating blasting time has installed in the project site.

➤ Condition 11

Control measures on noise and vibration prescribed by KSPCB should be implemented.

✓ Compliance

Noise pollution

Mitigation measures Implemented

The major noise generating source from the mining activity is working machinery, drilling, blasting and plying of vehicles. The following control measures are undertaken to bring down the noise levels:-

- Proper maintenance of machinery, equipments and improvement of design of machines.

- Personal protective devices i.e., earmuffs, ear plugs etc. are provided to workers working in high noise areas.
- Maintain a wide green belt of dense foliage between mine areas and residential colonies.
- The mining area is working only during day times.
- Noise quality is checking periodically. The sound levels are monitored through an NABL accredited laboratory during the quarry in operation and the monitored results are well within the permissible limits.

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.
- Condition 12

Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.

- ✓ Compliance

Quarrying activities is carrying out only through day time.

- Condition 13

Blasting should be in a controlled manner as specified by the regulations of Explosive department or any other concerned agency.

- ✓ Compliance

Blasting

- ❖ The controlled blasting is proposed by adopting all the safety measures as per "MMR 1961" and with the permission of DGMS.
- ❖ Blasting is carried out for the fragmentation of the granite within the project area. Multiple blast holes of 1.0 to 1.5 m depth will be drilled with

the help of 32mm drill rod, Jack Hammer and air compressor of 100 cm capacity.

- ❖ It is estimated about 250g of explosives per hole is required. About 30-50 holes per blast are proposed. Therefore the requirement of explosive will be about 10kg/ blast.

Blasting safeguard

- ❖ Blasting in the open cast is done only during day time at designated hours.
- ❖ Only competent blasters are appointed to handle explosives.
- ❖ Explosives are stored in approved and licensed magazine as per explosive Act/ Rules.
- ❖ Explosives are brought from magazine to blasting site in licensed explosive van under the care of blaster.
- ❖ Sufficient warning signals are given before blasting the holes.
- ❖ Guards are posted on all roads and paths at least 250 m distance to stop entrance to the danger zone during the blasting hour.
- ❖ Controlled blasting is practiced to control vibrations and flying fragments.
- ❖ Optimum charge is used, while blasting near office complex/ infrastructure site.
- ❖ Maximum charge per delay is always being less than 10kg to limit the PPV levels within the DGMS standards of 15 mm/sec.

➤ Condition 14

A licensed person should supervise/ control the blasting operations.

- ✓ Compliance

Licensed person is supervising/controlling the blasting operations. Copy of license of the licensed person is enclosed as Annexure 5.

➤ Condition 15

Access road to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.

✓ **Compliance**

Most of the access road area to the quarry has well maintained by paving granite stones and we will tar the road shortly. Roads have been well maintaining to contain dust emissions that may arise during transportation of materials. The photographs showing the same is given in Annexure 3.

➤ **Condition 16**

Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan/ specific condition.

✓ **Compliance**

The quantity of topsoil and overburden estimated to be 29095MT and 138000MT respectively. The excavated top soil has been storing separately in a prefixed location. Photograph showing the same is enclosed as Annexure 2.

➤ **Condition 17**

Height of the benches should not exceed 5m, and width should not be less than 5m, if there is no mention is the mining plan/ specific condition.

✓ **Compliance**

Present quarry has started working during March 2017 (3 to 4 months) and the operation is carrying out in the form of benches. The proposed shape, height and width of the benches attain shortly. The photograph showing the starting of bench type mining is enclosed as Annexure I.

➤ **Condition 18**

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

✓ **Compliance**

Various safety measures have set down to prevent fly rocks cross the lease area. Mats to prevent fly rock during blasting will arranged shortly. Safety measures include no blasting during unfavorable weather conditions, maintain optimum delay sequence and stem to column ratio etc.

➤ **Condition 19**

Maximum depth of mining from general ground level at site shall not exceed 10 m.

✓ Compliance

The exploitation of mineral is from 90-15m MSL in conceptual phases. Mining depth will not exceed beyond 10m from general ground level.

➤ Condition 20

No mining operation should be carried out at places having a slope greater than 45°.

✓ Compliance

Mining activities will not carry out at regions having a slope greater than 45°.

➤ Condition 21

Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of green belt and hollow brick envelop for crushers, so that the noise level is kept within prescribed standards given by CPCB/KSPCB.

✓ Compliance

The entire project area has covered by thick green belt and this will reduce sound amplifications produced during mining activities. The noise level is keeping within the prescribed standards given by CPCB/KSPCB.

➤ Condition 22

The workers on the site should be provided with the required protective equipment such as ear muffs, helmets, etc.

✓ Compliance

Workers has been providing with personal protective devices such as earmuffs, ear plugs, helmet etc. at the site.

➤ Condition 23

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

✓ Compliance

Storm water from entire lease area is channelizing in to an excavated pit and stored the storm water in it. During this storage all the debris/slit in the storm

water are sedimented in to the bottom of the pit. Overflow from the storm water collected pit is opened in to Garland drains which entering to the main stream.

➤ **Condition 24**

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

✓ **Compliance**

To control dust emissions during transportation, trucks are covered after loading with tarpaulin sheets. Different other precautions also set down to control dust emissions are; trucks are not overloading and the loads are maintained to the body level etc.

➤ **Condition 25**

The proponent should plant at least 5 times of the loss that has been occurred while clearing the land for the project.

✓ **Compliance**

We will plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.

➤ **Condition 26**

Disposal of spend oil from diesel engines should be as specified under relevant rules/regulations.

✓ **Compliance**

Disposal of spent oil from diesel engines is carrying out under relevant rules/regulations.

➤ **Condition 27**

Explosive should be stored in magazines in isolated place specified and approved by the Explosive Department.

✓ **Compliance**

Explosives are stored in magazines built in an isolated place specified and approved by the Explosives Department. A photograph showing the magazine is enclosed as Annexure 7.

➤ **Condition 28**

A minimum distance of 100 m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.

✓ **Compliance**

Distance of 100m from the boundary of the quarry to the nearest dwelling unit or other structures are providing.

➤ **Condition 29**

100 m buffer distance should be maintained from forest boundaries.

✓ **Compliance**

Not applicable, no forest boundary within 200m distance.

➤ **Condition 30**

Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.

✓ **Compliance**

Consent from Kerala State Pollution Control Board under Water and Air Act(s) has obtained before started the mining activity. Consent Order from Kerala State Pollution Control Board is attached as Annexure 8.

➤ **Condition 31**

All other statutory clearances should be obtained as applicable by project proponents from the respective competent authorities including that blasting and storage of explosives.

✓ **Compliance**

All statutory approvals required for the quarrying activity is obtained for the project. The details regarding the same along with the copy of the statutory approvals are enclosed as Annexure 9 and 10. Details of statutory approvals are given below.

Sl. No.	Annexure	Statutory approvals
1	9	License to possess: (c) for use, explosives of class1, 2, 3, 4, 5, 6 or

		7.
2	10	License from Panchayat

➤ **Condition 32**

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 are assessed, based on which only the E.C. 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.

✓ **Compliance**

Would be complied

➤ **Condition 33**

The Authority reserves the right to add additional safeguard measures subsequently if found necessary, and to take action including revoking of the environmental 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.

✓ **Compliance**

Would be complied

➤ **Condition 34**

The stipulation by the statutory authorities under different acts and notifications should be complied with including the 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.

✓ **Compliance**

Would be complied

➤ **Condition 35**

The project Proponent should advertise in at least two local news papers widely circulated in the region one of which (both the advertisement and the news

paper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environmental Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at www.seiaa.kerala.org. 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 the Authority as confirmation.

✓ Compliance

Regarding the accordance of environmental clearance to the quarrying activity has advertised in two local newspapers and the copy of the same was submitted to SEIAA Kerala. The copies of the advertisements are provided at Annexure P1 & P2. Details of the news paper advertisements are given below.

SI. No.	Annexure	Name of the News paper and edition	Dated
1	11	Mangalam	30/0-8/2016
2	12	Kerala Kaumadi	30/0-8/2016

➤ Condition 36

A copy of the clearance letter shall be send by the proponent to concerned Grama panchayat/ District panchayat/ Municipality/ Corporation/ Urban local body and also to the Local NGO if any, from whom suggestions/ representations if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.

✓ Compliance

A copy of the environmental clearance order has submitted to Panchayat office. There is no suggestion/representation received so far from anybody. Website of the quarry under construction and the environmental clearance order and compliance report will upload in the website shortly.

➤ **Condition 37**

The proponent shall submit half yearly reports on the status of compliance of the stipulated E.C. 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 E.C. conditions, including result of monitored data on website and shall and update the same periodically. It shall simultaneously be send to the respective Regional office, of MOEF, Govt. of India and also to the State Environmental Impact Assessment Authority (SEIAA) office.

✓ **Compliance**

First compliance report is being submitted to Department of Environment and Climate change, Govt. of Kerala and Regional Office of MoEF, Govt. of India both in hard copy as well as soft copy (CD).

➤ **Condition 38**

The details of environmental clearance should be prominently displayed in a metallic board of 3ft 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.

✓ **Compliance**

Details 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 fond was installed. The photographs showing the metallic board is given in Annexure 13.

➤ **Condition 39**

The proponent should provide notarized affidavit (indicating the number and date of environmental clearance proceedings) that all the conditions stipulated in the E.C. shall be scrupulously followed.

✓ Compliance

An affidavit stating that all the conditions stipulated in the Environmental clearance will be scrupulously followed has submitted to Department of Environment and climate change.

➤ Condition 40

No change in mining technology and scope of work should be made without prior approval of the SEIAA, No further expansion or modifications in the mines shall be carried out without prior approval of the SEIAA, as applicable.

✓ Compliance

We will not make any change in mining technology and scope of work without prior approval of the SEIAA and further expansion or modifications in the mines will not be carried out without prior approval of the SEIAA.

➤ Condition 41

The project proponent shall ensure that no natural water course and/or water recourses shall be obstructed due to any mining operations. Necessary safe guard measures to protect the first order streams if any, originated from the mine lease shall be taken.

✓ Compliance

We ensure that no natural water course and/or water recourses has not obstructed due to any mining operations. There is no first order streams originated from the mine lease.

➤ Condition 42

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

✓ Compliance

We will carry out monitoring of Ambient Air Quality based on the notification 2009, as amended from the time to time by the Central Pollution Control Board. Water sprinkling has installed at places via loading and unloading points and

transfer points to reduce fugitive emission. Copy of the Ambient Air Quality is enclosed as Annexure 14.

➤ **Condition 43**

The top soil, if any, shall be temporarily be stored at earmarked site(s) only for the top soil shall be used for land reclamation and plantation. The overburden generated during the mining operation shall be stacked at earmarked dump site(s) only. The maximum height of the dump shall not exceed 8m and width 20m and overall slope of the dump shall be maintained to 45°. The O.B. dump 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 the stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated area should continue until the vegetation become self-sustaining.

✓ **Compliance**

The top soil has been storing at earmarked site(s) and it will only used for land reclamation and plantation. The overburden generated during the mining operation also stacking at earmarked dump site only. The maximum height of the dump will not exceed 8m and width 20m and overall slope of the dump will be maintained to 45°. The O.B. dump will be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, we will use geo textiles undertaken for the stabilization of the dump. The entire excavated area will be backfilled. We will monitor and manage the rehabilitated area until the vegetation become self-sustaining.

➤ **Condition 44**

Catch drains and siltation ponds of appropriate site shall be constructed around the mine working mineral and O.B. dumps to prevent runoff 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 desilted particularly after monsoon and maintained properly.

✓ **Compliance**

Catch drains and siltation ponds of appropriate site are under construction around the mine working, mineral and O.B. dumps to prevent runoff water and flow of sediments directly into the river and other water bodies. The water so collected will be utilized for watering the mine area, roads, green belt development etc. The drains will be regularly desilted particularly after monsoon and maintained properly.

➤ **Condition 45**

Effective safe guard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM₂₅ such as haul road loading and unloading points and transfer points. It shall be ensure that the Ambient Air Quality Parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

✓ **Compliance**

Effective safe guard measures such as regular water sprinkling is carrying out in critical areas prone to air pollution and having high levels of PM₁₀ and PM₂₅ such as haul road loading and unloading points and transfer points. It will be ensuring that the Ambient Air Quality Parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

➤ **Condition 46**

Fugitive dust emission from all the sources should be controlled regularly. Water spraying arrangements on haul roads, loading and unloading at transfer points. Should be provided and properly maintained.

✓ **Compliance**

Fugitive dust emission from all the sources is controlling regularly. Water spraying arrangements on haul roads, loading and unloading at transfer points has arranged and properly maintained.

➤ **Condition 47**

Measures should be taken for the control of Noise level below 85 DBA in the work environment.

✓ Compliance

Different measures have taken for the control of noise level below 85 DBA in the work environment. We have been checking the Ambient Sound level periodically and the copy of the same as enclosed as Annexure 15.

➤ Condition 48

A separate Environment Management Cell with suitable qualified personal should be setup under the control of a senior executive who will directly report to the head of the organization.

✓ Compliance

A separate Environment Management Cell with suitable qualified personal will be setup shortly under the control of a senior executive who will directly report to the head of the organization.

➤ Condition 49

The funds earmarked for the Environmental protection measures 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 Environmental Impact Assessment Authority (SEIAA) office.

✓ Compliance

The funds earmarked for the Environmental protection measures and CSR activities are keeping in separate account and will not diverted for other purpose. We will reports year wise expenditure to the State Environmental Impact Assessment Authority (SEIAA) office.

➤ Condition 50

The regional office of MOEF and CC located at Bangalore shall monitor compliance of the stipulated conditions. The project Authorities should extent full co-operation to the officer (s) of the regional office by furnishing the requisite data/information/monitoring reports.

✓ Compliance

We will extent full co-operation to the MOEF officer (s) of the regional office by furnishing the requisite data/information/monitoring reports.

➤ **Condition 51**

Any appeal against the 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.

✓ **Compliance**

There is no appeal against this Environmental Clearance with the National Green Tribunal.

➤ **Condition 52**

Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in the withdrawal of this clearance and attract action under the provision of Environmental Protection Act, 1986.

✓ **Compliance**

We agreed

➤ **Condition 53**

The SEIAA may revoke, or suspend the order for non implementation of any of the specific or this implementation of any of the conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further conditions or stipulate any further conditions in the interest of Environmental Protection.

✓ **Compliance**

We agreed

➤ **Condition 54**

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 any other project.

✓ **Compliance**

We agreed

➤ **Condition 55**

The order is valid for a period of 5 years or the expiry date of mining lease period issued by the Government of Kerala, whichever is earlier.

✓ **Compliance**

We agreed

➤ **Condition 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.

✓ **Compliance**

There is any pending litigation related to the land or project, in any court of law regarding this project.

➤ **Condition 57**

The mining operation shall restrict to above ground water table and it should not intersect ground water table.

✓ **Compliance**

We carried out mining above ground water table and it will not intersect ground water table.

➤ **Condition 58**

All vehicles used for transportation and within the mine shall have 'PUC' certificate from authorized pollution taking center. Washing of all vehicles shall be in the lease area.

✓ **Compliance**

All vehicles using for the transportation and within the mine have obtained 'PUC' certificate from authorized pollution taking center. All the vehicles have been washing within in the lease area.

➤ **Condition 59**

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

✓ Compliance

We will obtain necessary prior permission of the competent authorities for withdrawal of requisite quantity of surface water and ground water for the project.

➤ Condition 60

Regular monitoring of flow rates and water quality upstream and down streams of the spring and perennial nallahs flowing in and around the mining lease area shall be carried out and reported in the six monthly reports to the SEIAA.

✓ Compliance

We will monitor the flow rates and water quality upstream and down streams of the spring and perennial nallahs flowing in and around the mining lease area and it will reported in the six monthly reports to the SEIAA. Copy of the water quality reports enclosed as Annexure 16.

➤ Condition 61

Occupational Health surveillance programme of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures if needed.

✓ Compliance

We are carrying out Occupational Health surveillance programme of the workers periodically to observe any contractions due to exposure to dust and take corrective measures if needed in connection with Mines Vocational Training.

ANNEXURE 1



Photograph showing the barbed metal wire fencing erected around the mining area

ANNEXURE 2



Photographs showing the top soil and OB storage area

Annexure 3



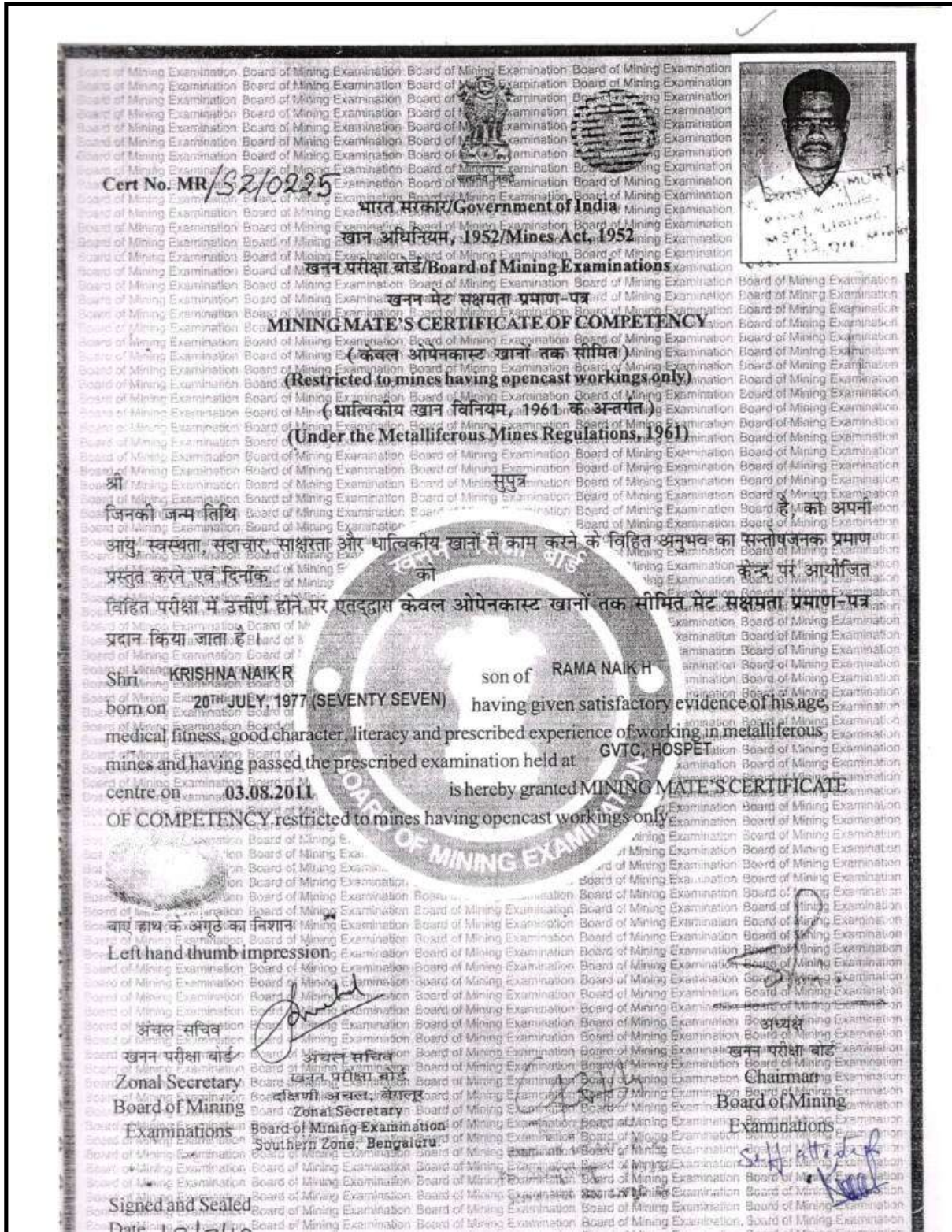
Photograph showing access road maintained by paving granite stone

Annexure 4



Photograph showing the construction of rain water harvesting tank

Annexure 5



MR

, To

SHRI KRISHNA NAIK R S/o. RAMA NAIK H,

Home Address

Village	MARIYAMMANAHALLI
PO	MARIYAMMANAHALLI
Police Station	LLITHANDA
District	BELLARY
State	KARNATAKA

प्रमाणित किया जाता है कि उनकी सक्षम चिकित्सा अधिकारी द्वारा स्वास्थ्य परीक्षा कर
 खान में कार्य करने के लिए स्वस्थ घोषित किया जाता है ।
 Certified that he has been examined by qualified medical
 officer and declared fit for employment in mines.

7. The person has been medically
 examined by qualified Medical Officer
 on 26.05.2016 and declared fit for
 employment in mine. This Certificate is
 valid upto 25.05.2021.

- | | | | |
|---|-------------|----|-------------|
| 1 | On _____ को | 2 | On _____ को |
| 3 | On _____ को | 4 | On _____ को |
| 5 | On _____ को | 6 | On _____ को |
| 7 | On _____ को | 8 | On _____ को |
| 9 | On _____ को | 10 | On _____ को |

mao GMD
26/05/2016

Prepared by _____
 Checked by *Bhargava*

Annexure 6




The photograph showing the starting of bench type mining

Annexure 7



Annexure 8

FILE NO : PCB/TSR/IC/ 7170 /2016
Date of issue : 14/06/2016



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. :2137886
Dated:27-11-2015

TO

M/s RUDRA GRANITES
KUNDUKAD P.O,
KARUVANKADU, THRISSUR-680028
680028

Consent No. :PCB/DO/TSR/F/ICO/5494 /2016
Valid Upto :31/10/2018



I. 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	31/10/2018
2	Name and Address of the establishment	RUDRA GRANITES KUNDUKAD P.O, KARUVANKADU, THRISSUR-680028 680028
3	Communication	Telephone :- Fax :- E-mail:dineshnt683@gmail.com
4	Occupier Details	DINESH MON N.T, NEENDUTHALAKKAL HOUSE, P. O. KUNDUKAD, MUTTIKKAL, KARUVANKADU, THRISSUR-680028
5	Local Body	MULAKUNNATHUKAVU
6	Survey Number	1244/IP
7	Village	KILLANNUR
8	Taluk	THRISSUR
9	District	THRISSUR
10	Capital Investment (Rs in Lakhs)	10
11	Scale	Small
12	Category	RED
13	Annual fee (Rs)	2370/-
	Total Fee remitted (Rs)	15,405/-
14	RAW MATERIAL	PRODUCTS
	GRANITE BUILDING STONE @ 150 Metric Tonnes	QUARRYING FROM 4.9531 HECTARE OF LAND
15	Total Power Required (HP)	

2. CONDITIONS AS PER

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

- 2.1 In case of generation of trade effluent from the industry, effluent treatment system consisting of treatment units having adequate capacity established as per the Integrated Consent to Establish issued shall be operational at all times during which the industry is functional. Additional facilities required, if any, to achieve the standards laid down by the Board u/s 17(1) (g) of the Water Act shall also be made along with.
- 2.2 Water consumption: 50 Litre/day
- 2.3 Effluent generation:
- 2.4 The characteristics of effluent after treatment shall conform to the following tolerance limits:



Sl.NO.	Characteristics	Unit	Tolerance Limit	
			Sewage	Trade Effluent

2.5 Mode of disposal of treated effluent:

**3. CONDITIONS AS PER
The Air(Prevention and Control of Pollution)Act, 1981**

3.1 Adequate air pollution control measures shall be operational at all times during the functioning of the industry. Additional facilities required, if any, to achieve the standards laid down by the Board shall also be made along with.

Stack No.	Sources of Emission	Emission Rate(Nm3/Hr)	Stack Height above		Control Equipment
			Ground Level	Roof Level	

3.2 Emission characteristics shall not exceed the following:

Sl.No.	Parameter	Limiting Standards (mg/Nm3)
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**4. CONDITIONS AS PER
The Environment (Protection) Act, 1986.**

4.1 The operation of the industry shall be strictly in compliance with the provisions of the Noise Pollution (Regulation and Control) Rules 2000.

4.2 Used lead acid batteries shall be disposed of as per the Batteries (Management and Handling) Rules, 2001.

4.3 Hazardous waste generated, if any, shall be handled as per the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008.

4.3.1 Activities for which Authorisation is granted

Collection	transport
Reception	Storage
Treatment	Reprocessing/Disposal

4.3.2 Type, quantity and mode of storage/collection/disposal of hazardous wastes shall be as follows:

Sl.No.	Hazardous Waste	Schedule Category	Quantity Tonne/year
Mode of			
Storage		Disposal	

4.4 e-waste shall be disposed off safely as per the e-waste (Management and Handling) Rules, 2011.

5. SPECIFIC CONDITIONS



- 5.1 The location of the industry/out let shall be as per the approved drawing attached.
- 5.2 This consent is granted for operating quarry with production capacity of 150 MT/day granite boulders.
- 5.3 The consent is granted subject to the power of the board to review and make variations to all or any of the conditions as per the Board deems fit as per the relevant Acts/Rules.
- 5.4 The applicant shall comply with the instructions that the Board may issue from time to time regarding prevention and control of air, water, land and sound pollution.
- 5.5 A minimum distance of 100m shall be kept from the boundary of quarry area to residential buildings, places of worship, public buildings, public road having vehicular traffic, river or lake, railway line and bridges.
- 5.6 All control measures provided should be maintained properly to ensure that the system is adequate to control the pollution caused.
- 5.7 The quarry should not be operated between 6.00 pm and 6.00am.
- 5.8 Necessary permission from Mining & Geology, Explosive Department may be obtained before doing blasting.
- 5.9 After excavation at the site is completed the land may be used for rain water harvesting with protective barriers any other suitable approved purpose or may be reclaimed.
- 6.0 The depth of excavation below the highest point shall not exceed 6m.
- 6.1 Fencing shall be provided around the boundary of quarry operation and shall be maintained properly.
- 6.2 This consent is granted for quarrying of exposed rock only.
- 6.3 The PM10 in ambient air at the boundary shall not exceed $100 \mu\text{g}/\text{m}^3$.
- 6.4 The PM2.5 in ambient air at the boundary shall not exceed $60 \mu\text{g}/\text{m}^3$.
- 6.5 The sound level (Leq) at 1m outside the boundary of the site should not exceed the ambient noise standard applicable to the adjoining areas.
- 6.6 Suspended particulate matter at the boundary of the premises shall not exceed the limit applicable to that area as per the National Ambient Air Quality Standards.
- 6.7 The consent issued from the Board shall be valid only for a period when all other statutory or necessary clearance from other concerned authorities are valid.
- 6.8 The renewal application shall be submitted on or before 31.07.2018. Late application shall be accepted only with fine as applicable.
- 6.9 The quarrying lease document from mining and geology department shall be produced within one month of receipt of the same from the department. Otherwise the consent shall be revoked




DATE :17/06/2016

SIGNATURE & SEAL OF ISSUING AUTHORITY
P.K. BABURAJAN
ENVIRONMENTAL ENGINEER
KERALA STATE POLLUTION CONTROL BOARD

Annexure 9

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GOVERNMENT OF INDIA
MINISTRY OF COMMERCE & INDUSTRY
PETROLEUM AND EXPLOSIVES SAFETY ORGANISATION (PESO)
(Formerly Department of Explosives)
Kendriya Bhavan, Block C-2, 3rd Floor
CSEZ PO Kakkanad Dist. Ernakulam Ernakulam 682037
Tele: 2427286 Fax: 2427276
Email: dycceernakulam@explosives.gov.in

No: **E/SE/KL/22/1(E84010)**

Dated : 11/11/2014

To,
Shri N T Dineshmon,
Neenduthalakkal House Muttikkal Kundukadu P.O. Thrissur ,KUNDUKADU
Dist. THRISSUR, State. Kerala, Pincode-680028

Subject: Possession for Use of Explosives from magazine at Survey No.:1244/1, Village/Town. Killannur, Distt. THRISSUR, State Kerala Licence No.: E/SE/KL/22/1(E84010) granted in Form LE-3 of Explosives Rules, 2008 - Endorsement regarding

Sirs),


Conditions:
 1) Valid authorised quarry permit in the name of the licensee for blasting operations at Sy.No.1244/1, Killannur Village, Thrissur Taluk and District and local State Government authorities approval as applicable renewed from time to time shall be in possession
 Reference memo No.: **E/SE/KL/22/1(E84010) Dated 10/11/2014 from Dy. Chief Controller of Explosives, Ernakulam** and inspection of the subject premises by an officer of this organization on 08/11/2014.

The subject licence No. E/SE/KL/22/1(E84010) valid upto **31st March 2018** duly endorsed as required under Rule 107(3) of the Explosives Rules 2008 is forwarded herewith.

For further renewal of licence, please submit following documents so as to reach **this office** on or before **31/03/2018**.

- Application in Form RE-1 duly filled in and signed.
- Licence fees for one to five years in the form of demand draft drawn on any Nationalized Bank in favour of **Jt. Chief Controller of Explosives, Chennai** payable at **Chennai**.
- Original licence with approved plan
- In this connection, please also refer to Rule 112 of Explosives Rules, 2008.

- Indent for purchase of explosives shall be placed in RE-11 with the supplier and copy of the same shall be sent to this office. (Not applicable for fireworks store house)
- Please submit quarterly returns of explosives in RE-7 at the end of every quarter so as to reach this office by 10th of the succeeding quarter. (Not applicable for fireworks store house)
- All blasting operations shall be carried out by a competent person holding a valid shot firer's permit granted under above rules. However, blasting operations in mines coming under the purview of the Mines Act 1952, the blaster shall have qualifications prescribed in the regulations framed under the said Act.

Yours faithfully,

(T O Sasi)
Deputy Chief Controller of Explosives
Ernakulam

Copy Forwarded to:

1. **District Magistrate, THRISSUR, Kerala with reference to his Noc No: C6/33393/2014/K.Dis Dated: 09/10/2014.**

Deputy Chief Controller of Explosives
 Ernakulam

[For more information regarding status, fees and other details, please visit our web site <http://explosives.gov.in>]

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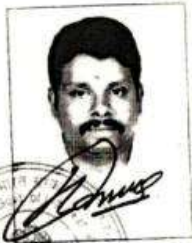
LICENCE FORM LE-3
(See article 3(a) to (d) of Part 1 of Schedule IV of Explosives Rules, 2008)

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

Licence No. : E/SE/KL/22/1(E84010)
Annual Fee Rs:2400/-

LICENCE ENDORSED

D. C. E., Ernakulam



D. C. E., Ernakulam

1. Licence is hereby granted to: **Shri N T Dineshmon (Occupier : N T Dineshmon)
Neenduthalakkal House Muttikkal Kundukadu P.O. Thrissur ,KUNNATHUR P.O. Town Village -
KILLANNUR
District-THRISSUR, State-Kerala, Pincode - 680028**

2. Status of licensee : **Individual**

3. Licence is valid only for the following purpose : possess for use of **Nitrate Mixture, Safety Fuse, Ordinary Detonator, Electric Detonators.**

4. (a) Licence is valid for the following kinds and quantity of explosives:

Sr No	Name and Description	Class & Division	Sub-division (If any)	Quantity at any one time
1.	Nitrate Mixture	2,0	0	75 Kg.
2.	Safety Fuse	6,1	0	1100 Mtrs.
3.	Ordinary Detonator	6,3	0	2000 Nos.
4.	Electric Detonators	6,3	0	1000 Nos.

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

5. The licensed premises shall conform to the following drawing(s):
Drawing No : E/SE/KL/22/1(E84010) dated : 31/10/2014

6. The licensed premises are situated at following address:
**Survey No. 1244/1, Town/Village : Killannur
Police Station : Viyyur
Pin Code : 680028
Phone : 9744766116**
District : **THRISSUR**
E-Mail : **rudragranite@gmail.com**
State **Kerala**
Fax

7. The licensed premises consist of following facilities : **Portable Magazines D Type No.706 and E type No.956**

8. The licence is granted subject to the provision of Explosives Act 1884 as amended from time to time and the Explosives Rules, 2008 framed there under and the conditions, additional conditions and the following Annexures.
(1) Drawings (showing site, constructional and other details) as stated in serial No. 5 above.
(2) Conditions and Additional Conditions of this licence signed by the licensing authority.
(3) Distance Form DE-2

9. This licence shall remain valid till **31st day of March 2018**

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.

The Date: 31/10/2014

**Dy. Chief Controller of Explosives
Ernakulam**

D. C. E., Ernakulam

Endorsement for renewal of licence:

Date of Renewal Date of Expiry Signature of licensing authority

Statutory Warning : Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

Form DE-2
(See rule 113 of the Explosives Rules, 2008)
(Distance Form to be attached to the licence)


Safety distances required to be kept clear around magazine for high explosives or fire works or factory licence number E/SE/KL/22/1(E84010) in form LE-3 granted to Shri N T Dineshmon, Neenduthalakkal House Muttikkal Kundukadu P.O. Thrissur ,KUNDUKADU, Kerala-680028 .

Type of Structure(s)	Safety distances meters	
	M	UM
Inside Safety Distances(ISD)		
1 Room or Workshop used in Connection with the Magazine	11	17
2 Any other Explosives Magazine or store House or Factory of the Applicant		
3 Magazine Office		
Middle Safety Distances(MSD)		
4 Magazine Keeper's or Chowkidar's Dwelling house		
5 Railway including Minerals and Private Railways		
6 Canal (in active use) or other navigable water		
7 Dock or Pier or Jetty		
8 Public Highway or Public Road	33	
9 Private Road which is PRINCIPAL means of access to a Temple, Mosque, Church, Gurudwara or other places of worships, Hospital, College, School or Factory		
10 River Embankment or Sea Embankment or Public Well		
11 Reservoir or Bounded tank/rope way		
12 Windmillor or Solar panel for Power Generation		
Outside Safety Distances(OSD)		
13 Dwelling House		
14 Govt. and Public Building		
15 Temple, Mosque, Church or Gurudwara or other Places of Worships		
16 Shops, Market place, Public recreation and Sports Ground, College, School, Hospital, Theater, Cinema or other Building where the public are accustomed to assemble		
17 Factory		
18 Buildings or Works used for the Storage in Bulk of Petroleum, Sprit, gas, or other inflammable or hazardous substances	45	
19 Building or Works used for Storage and Manufacture of Explosives or of articles which contain Explosives		
20 Aerodrome		
21 Furnace, Kiln or Chimney		
22 Quarry or mine pit head		
23 Power House or Electric Substation		
24 Wireless Station		
25 Warehouse or other Storage Building		
26 Any other Protected works		
Overhead Electric lines		
27 Electric Power over head Transmission Lines above 440V	45	
28 Electric Power over head Transmission Lines upto 440V	15	

The Date : 31/10/2014

For Dy. Chief Controller of Explosives
B. T. C. E. Ennakulam


Annexure 10


	
നമ്പർ <u>02/2017-18</u> <u>മുളകുന്നത്തുകാവ്</u> ഗ്രാമ പഞ്ചായത്ത്	
1994 ലെ കേരളാ പഞ്ചായത്ത് രാജ് ആക്ട് (1994 ലെ 13) 232, 233, 234, 254 എന്നീ വകുപ്പുകൾ പ്രകാരവും അതേ തുടർന്നുള്ള ചട്ടങ്ങളും അനുസരിച്ചു കൊടുത്ത	
ലൈസൻസ്	
ലൈസൻസുടമസ്ഥന്റെ പേരും മേൽവിലാസവും	ഭിദ്രേന്ദ്രമേൽ. N.T. ബ്രഹ്മദൈവൻ, 'രവീന്ദ്രമേൽ', നീണ്ടമലപ്പുറം (H) P.O. തൃശ്ശൂർ.
എന്താവശ്യത്തിന് ലൈസൻസ് അനുവദിച്ചു എന്ന്	തിരിച്ചറിയൽ വിവരണ സംസ്ഥാനത്തിൽ - രവീന്ദ്രമേൽ, SY NO 1244/1 P.
കെട്ടിടത്തിന്റെ നമ്പരും വാർഡ് നമ്പരും	VI / 356.A.
ലൈസൻസിന്റെ കാലാവധി	31-3-2018.
ലൈസൻസ് ഫീസ്	4000/- രൂപ പൈസ <u>1160 2103984</u> <u>27/3/2017</u>
നിമാർദ്ദം	2018 ഫെബ്രുവരിയിൽ ലൈസൻസ് പുതുക്കേണ്ടതാണ്.
<u>മുളകുന്നത്തുകാവ്</u> ഗ്രാമ പഞ്ചായത്ത്	
തീയതി <u>01/04/2018</u>	സെക്രട്ടറി R. SUBRAMANIAN Secretary (in charge) Mulankunnathukavu Grama Panchayat

GLM -34 K / 2000

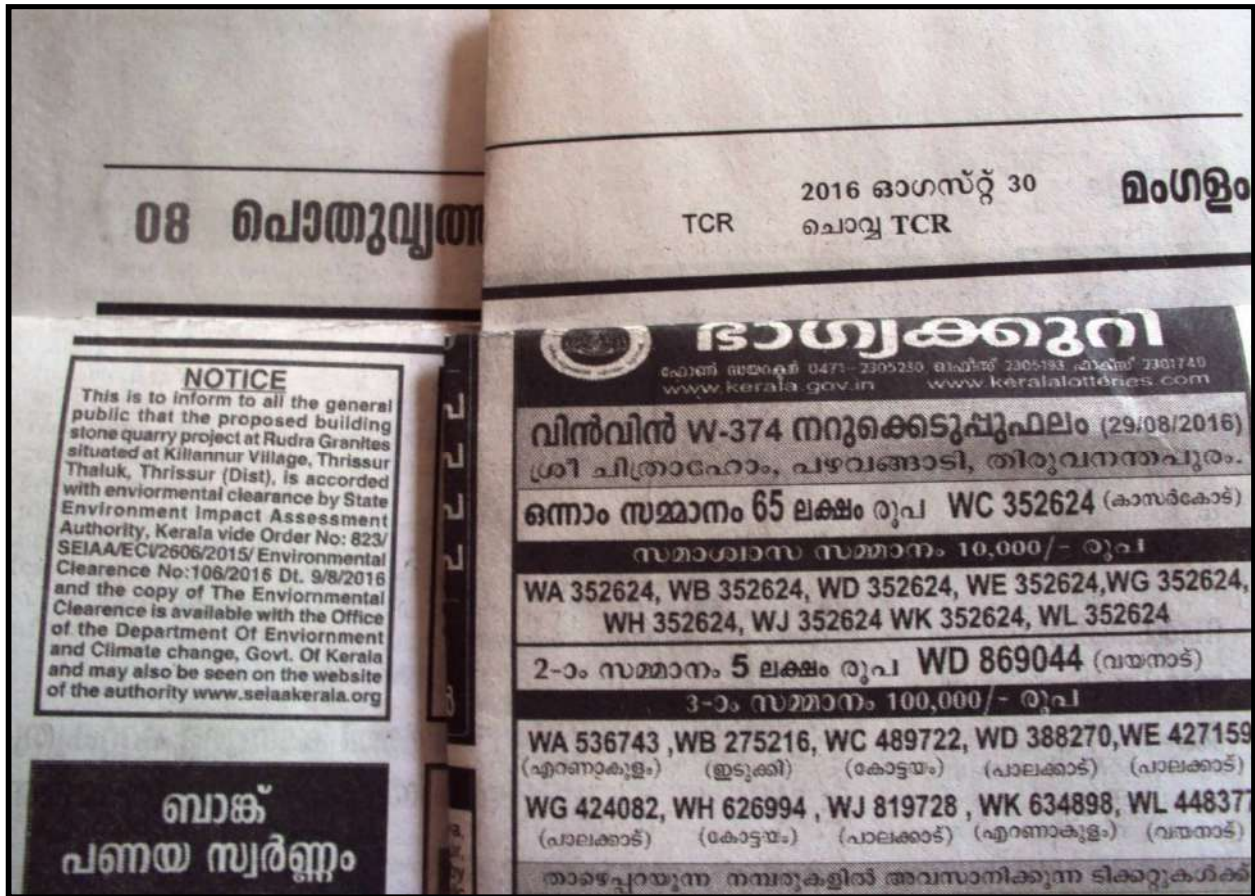
ലൈസൻസുടമസ്ഥൻ താഴെ പറയുന്ന വ്യവസ്ഥകൾ അനുസരിക്കേണ്ടതാകുന്നു.

1. പഞ്ചായത്ത് രാജ് ആക്ടും അതേ തുടർനുള്ള ചട്ടങ്ങളും അനുസരിച്ചു പ്രവർത്തിക്കേണ്ടതാകുന്നു.
2. തൊഴിൽ സ്ഥലവും പരിസരങ്ങളും വെടിപ്പായും വൃത്തിയായും സാംക്രമികരോഗാണുക്കൾ ഉണ്ടാകാത്തവിധത്തിലും പൊതുജനോപദ്രവമാകാത്ത വിധത്തിലും വ്യാപാരത്തിനു വച്ചിട്ടുള്ള ക്ഷേണപദാർത്ഥങ്ങൾ ഈച്ച, അണുക്കൾ, പൊടി മുതലായവയുടെ ശല്യം ഉണ്ടാകാത്ത വിധത്തിലും സൂക്ഷിക്കേണ്ടതാണ്.
3. തൊഴിൽ സ്ഥലവും അതിലുള്ള സാധനസാമഗ്രികളും പഞ്ചായത്തധികാരികൾക്കോ/സെക്രട്ടറി അധികാരപ്പെടുത്തുന്ന മറ്റ് ഉദ്യോഗസ്ഥർക്കോ പരിശോധിക്കുന്നതിന് ലൈസൻസുടമസ്ഥൻ വേണ്ട സൗകര്യം നൽകേണ്ടതും അവർ ആവശ്യപ്പെട്ടാൽ ഈ ലൈസൻസ് കാണിക്കേണ്ടതുമാകുന്നു.
4. പഞ്ചായത്തിൽ നിന്നും അനുവാദം സിദ്ധിച്ചശേഷമല്ലാതെ തൊഴിൽ സ്ഥലം മാറ്റാവുന്നതല്ലാത്തതും തൊഴിൽ നിർത്തുന്ന പക്ഷം വിവരം മുൻകൂട്ടി പഞ്ചായത്തിൽ അറിയിക്കേണ്ടതുമാകുന്നു.
5. ഏതൊരു പ്രവർത്തി ദിവസത്തിന്റെയും ഒടുവിൽ സ്ഥലം വൃത്തിയാക്കേണ്ടതാണ്.
6. ആ സ്ഥലത്തിന്റെയോ പുരയിടത്തിന്റെയോ, ഏതെങ്കിലും ഭാഗത്ത് വിഴുക്യോ നിക്ഷേപിക്കപ്പെടുകയോ ചെയ്യുന്ന ചപ്പുചവറോ, മൃഗങ്ങളുടെ തുണ്ടുകളോ മറ്റ് പദാർത്ഥമോ ശേഖരിച്ച സെക്രട്ടറിക്ക് തൃപ്തികരമായ രീതിയിൽ നീക്കം ചെയ്യിക്കേണ്ടതാണ്.
7. ലൈസൻസുകാരൻ ഏതൊരു കെട്ടിടത്തിന്റെയും ചുമരുകളുടെ അകവശത്തിന്റെ ഏതൊരു ഭാഗവും മേൽപറഞ്ഞ പുരയിടത്തിലുള്ള തറയും നടപ്പാതയും അവിടെ തെറിച്ച് വിഴുപ്പിടയ്ക്കുന്നതുപോലെയോ ഏതെങ്കിലും ദ്രാവകമോ, മാലിന്യമോ ചപ്പുചവറോ, അസഹ്യമോ, ഉപദ്രവകരമായ ഏതെങ്കിലും പദാർത്ഥമോ അവിടെ ലയിക്കുന്നത് തടയത്തക്കവിധം എപ്പോഴും നന്നായും കേടുപാട് തീർത്തും വയ്പിക്കേണ്ടതാണ്.
8. ലൈസൻസുകാരൻ മേൽപറഞ്ഞ പുരയിടത്തിലോ, അതോടു ചേർന്നോ ഉള്ള ഏതൊരു ഓവുചാലും, അഴുക്കുജലം കളയുന്നതിനുള്ള ഉപകരണവും എപ്പോഴും നന്നായും കേടുപാടുതീർത്തും വയ്പിക്കേണ്ടതാണ്.
9. ഏതെങ്കിലും തരത്തിലുള്ള താക്ക് രോഗമോ കുഷ്മിരോഗമോ വ്രണമോ ഉള്ള യാതൊരാളും കച്ചവടം നടത്തുന്നതിന് ഉപയോഗിക്കുന്ന യാതൊരു പരിസരത്തും പ്രവർത്തിക്കുവാൻ പാടില്ലാത്തതാകുന്നു.
10. ഏത് സ്ഥലത്തിന്റെ കാര്യത്തിൽ ലൈസൻസ് നൽകിയിരിക്കുന്നുവോ ആ സ്ഥലത്ത് എല്ലാവരും കാണത്തക്കവിധത്തിലുള്ള ഒരു ഭാഗത്ത് ലൈസൻസുകാരൻ തന്റെ പേരും, ലൈസൻസിന്റെ നമ്പരും ഉദ്ദേശവും കാണിക്കുന്ന ഒരു അടയാളപ്പലക വച്ചിരിക്കേണ്ടതാണ്.
11. അധിതരം ആചരിക്കുന്ന കടകളുടെ ലൈസൻസ് റദ്ദുചെയ്യുന്നതാണ്.
12. മുകളിൽ കാണിച്ചിരിക്കുന്ന വ്യവസ്ഥകളിൽ ഏതെങ്കിലും ലംഘിക്കുന്ന പക്ഷം ഈ ലൈസൻസ് റദ്ദു ചെയ്യുന്നതാണ്.


 സെക്രട്ടറി
R. SUBRAMANIAN
 Secretary (in charge)
 Mulankunnathukavu Grama Panchayat



Annexure 11



Annexure 12





Annexure 13



Photograph showing the details of the environmental clearance order prominently displayed in a metallic board

Annexure 14

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'A' GRADE LABORATORY APPROVED BY KERALA STATE POLLUTION CONTROL BOARD																							
TEST REPORT																							
Client Name & Address Mr.Dineshmon N.T Rudra Granites, Kundukad (P.O), Karuvankad, Thrissur.	Certificate No	PL/AMB/RT/3378/2015																					
	Date of issue	03/06/2015																					
	Date of monitoring	28/05/2015 11.45 Hrs to 29/05/2015 11.45 Hrs																					
	Date of sample received	29/05/2015																					
	Date of analysis started	30/05/2015																					
	Monitoring location	M/s. Rudra Granites, Kundukad (PO), Karuvankad, Thrissur Survey Nos: 1244/1P Village- Killannoor Panchayath- Mulakunnathukavu Taluk- Thrissur District - Thrissur																					
	Sample description	Ambient air - Near West side boundary																					
	Sample code given by the client	Nil																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">PARAMETERS</th> <th style="width: 25%;">TEST METHOD</th> <th style="width: 25%;">RESULT</th> <th style="width: 25%;">LIMITS</th> </tr> </thead> <tbody> <tr> <td>Particulate Matter (PM₁₀)</td> <td>1 S 5182 Part 4 1999</td> <td>37.6 µg/M³</td> <td>100 µg/M³</td> </tr> <tr> <td>Particulate Matter (PM_{2.5})</td> <td>CPCB</td> <td>17.5 µg/M³</td> <td>60 µg/M³</td> </tr> <tr> <td>Sulphur dioxide</td> <td>1 S 5182 Part 2 2001</td> <td>10.5 µg/M³</td> <td>80 µg/M³</td> </tr> <tr> <td>Nitrogen dioxide</td> <td>IS 5182 Part 06 1975</td> <td>6.2 µg/M³</td> <td>80 µg/M³</td> </tr> </tbody> </table>				PARAMETERS	TEST METHOD	RESULT	LIMITS	Particulate Matter (PM ₁₀)	1 S 5182 Part 4 1999	37.6 µg/M ³	100 µg/M ³	Particulate Matter (PM _{2.5})	CPCB	17.5 µg/M ³	60 µg/M ³	Sulphur dioxide	1 S 5182 Part 2 2001	10.5 µg/M ³	80 µg/M ³	Nitrogen dioxide	IS 5182 Part 06 1975	6.2 µg/M ³	80 µg/M ³
PARAMETERS	TEST METHOD	RESULT	LIMITS																				
Particulate Matter (PM ₁₀)	1 S 5182 Part 4 1999	37.6 µg/M ³	100 µg/M ³																				
Particulate Matter (PM _{2.5})	CPCB	17.5 µg/M ³	60 µg/M ³																				
Sulphur dioxide	1 S 5182 Part 2 2001	10.5 µg/M ³	80 µg/M ³																				
Nitrogen dioxide	IS 5182 Part 06 1975	6.2 µg/M ³	80 µg/M ³																				
The results are related only to the sample collected for analysis. This certificate shall not be reproduced except in full and without the written permission with authorized signatory.		For and on behalf of POLUCHEM LABORATORIES (P) LTD.  AUTHORIZED SIGNATORY SREEJA RAMESH Quality Manager Poluchem Laboratories (P) Ltd.																					
Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil Tea, Spices, Oil, Fertilisers, Basic Chemicals etc; Pesticide Residue, Heavy Metals, Microbiology																							



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TEST REPORT

Client Name & Address Mr.Dineshmon N.T Rudra Granites, Kudukad (P.O), Karuvankad, Thrissur.	Certificate No	PL/AMB/RT/3377/2015
	Date of issue	03/06/2015
	Date of monitoring	28/05/2015 11.30 Hrs to 29/05/2015 11.30 Hrs
	Date of sample received	29/05/2015
	Date of analysis started	30/05/2015
	Monitoring location	M/s. Rudra Granites, Kudukad (PO), Karuvankad, Thrissur Survey Nos: 1244/1P Village- Killannoor Panchayath- Mulakunnathukavu Taluk- Thrissur District -Thrissur
	Sample description	Ambient air - Near South side boundary
	Sample code given by the client	Nil

PARAMETERS	TEST METHOD	RESULT	LIMITS
Particulate Matter (PM ₁₀)	I S 5182 Part 4 1999	39.5 µg/M ³	100 µg/M ³
Particulate Matter (PM _{2.5})	CPCB	18.8 µg/M ³	60 µg/M ³
Sulphur dioxide	I S 5182 Part 2 2001	11.1 µg/M ³	80 µg/M ³
Nitrogen dioxide	IS 5182 Part 06 1975	6.8 µg/M ³	80 µg/M ³

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SREEJA RAMESH
Quality Manager
PoluChem Laboratories (P) Ltd.

Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil
Tea, Spices, Oil, Fertilisers, Basic Chemicals etc; Pesticide Residue, Heavy Metals, Microbiology



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TEST REPORT

Client Name & Address Mr.Dineshmon N.T Rudra Granites, Kundukad (P.O), Karuvankad, Thrissur.	Certificate No	PL/AMB/RT/3375/2015
	Date of issue	03/06/2015
	Date of monitoring	28/05/2015 11.00 Hrs to 29/05/2015 11.00 Hrs
	Date of sample received	29/05/2015
	Date of analysis started	30/05/2015
	Monitoring location	M/s. Rudra Granites, Kundukad (PO), Karuvankad, Thrissur Survey Nos: 1244/1P Village- Killannoor Panchayath- Mulakunnathukavu Taluk- Thrissur District -Thrissur
	Sample description	Ambient air – Near east side boundary
	Sample code given by the client	Nil

PARAMETERS	TEST METHOD	RESULT	LIMITS
Particulate Matter (PM ₁₀)	IS 5182 Part 4 1999	38.3 µg/M ³	100 µg/M ³
Particulate Matter (PM _{2.5})	CPCB	18.0 µg/M ³	60 µg/M ³
Sulphur dioxide	IS 5182 Part 2 2001	10.8 µg/M ³	80 µg/M ³
Nitrogen dioxide	IS 5182 Part 06 1975	6.5 µg/M ³	80 µg/M ³

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SREEJA RAMISH
Quality Manager
PoluChem Laboratories [P] Ltd.

Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil
Tox, Spices, Oil, Fertilizers, Basic Chemicals, etc. Particulate, Pesticides, Metals, Microbiology



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TEST REPORT

Client Name & Address Mr.Dineshmon N.T Rudra Granites, Kudukad (P.O), Karuvankad, Thrissur.	Certificate No	PL/AMB/RT/3376/2015
	Date of issue	03/06/2015
	Date of monitoring	28/05/2015 11.15 Hrs to 29/05/2015 11.15 Hrs
	Date of sample received	29/05/2015
	Date of analysis started	30/05/2015
	Monitoring location	M/s. Rudra Granites, Kudukad (PO), Karuvankad, Thrissur Survey Nos: 1244/1P Village- Killannoor Panchayath- Mulakunnathukavu Taluk- Thrissur District -Thrissur
	Sample description	Ambient air – Near North side boundary
	Sample code given by the client	Nil

PARAMETERS	TEST METHOD	RESULT	LIMITS
Particulate Matter (PM ₁₀)	IS 5182 Part 4 1999	35.4 µg/M ³	100 µg/M ³
Particulate Matter (PM _{2.5})	CPCB	16.6 µg/M ³	60 µg/M ³
Sulphur dioxide	IS 5182 Part 2 2001	10.1 µg/M ³	80 µg/M ³
Nitrogen dioxide	IS 5182 Part 06 1975	6.0 µg/M ³	80 µg/M ³

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SREEJA RAMESH
Quality Manager
PoluChem Laboratories [P] Ltd.

Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil

Annexure 15

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TEST REPORT

Client Name & Address	Certificate No:	PL/RT/SD/3382/2015
Mr.Dineshmon N.T Rudra Granites, Kundukad (P.O), Karuvankad, Thrissur.	Date of issue:	03/06/2015
	Date of monitoring	28/05/2015 11.45 Hrs to 29/05/2015 11.45 Hrs
	Monitoring Location	M/s. Rudra Granites, Kundukad (PO), Karuvankad, Thrissur Survey Nos: 1244/1P Village- Killannoor Panchayath- Mulakunnathukavu Taluk- Thrissur District - Thrissur
	Sample Description	Ambient Sound Level (Leq)

Monitoring Location	Monitoring Time	Results
Near West side boundary	11.45 Hrs	39.1 dB (A)
	12.45 Hrs	40.3 dB (A)
	13.45 Hrs	42.1 dB (A)
	14.45 Hrs	41.7 dB (A)
	15.45 Hrs	40.5 dB (A)
	16.45 Hrs	37.6 dB (A)
	17.45 Hrs	37.8 dB (A)
	18.45 Hrs	37.4 dB (A)
	19.45 Hrs	37.2 dB (A)
	20.45 Hrs	36.8 dB (A)
	21.45 Hrs	37.7 dB (A)
	22.45 Hrs	36.9 dB (A)
	23.45 Hrs	36.3 dB (A)
	00.45 Hrs	36.0 dB (A)
	01.45 Hrs	35.6 dB (A)
	02.45 Hrs	35.1 dB (A)
	03.45 Hrs	36.2 dB (A)
	04.45 Hrs	36.7 dB (A)
	05.45 Hrs	37.3 dB (A)
	06.45 Hrs	37.9 dB (A)
07.45 Hrs	39.4 dB (A)	
08.45 Hrs	40.3 dB (A)	
09.45 Hrs	41.5 dB (A)	
10.45 Hrs	42.6 dB (A)	
Leq (Day time)		39.4 dB (A)
Leq (Night time)		36.1 dB (A)

For PoluChem Laboratories (P) Ltd.

Sreeja
SREEJA RAMESH
Authorized Signatory
Quality Manager
PoluChem Laboratories (P) Ltd.

Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil
Tea, Spices, Oil, Fertilisers, Basic Chemicals etc.; Pesticide Residue, Heavy Metals, Microbiology



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TEST REPORT

Client Name & Address Mr.Dineshmon N.T Rudra Granites, Kundukad (P.O), Karuvankad, Thrissur.	Certificate No:	PL/RT/SD/3379/2015
	Date of issue:	03/06/2015
	Date of monitoring	28/05/2015 11.00 Hrs to 29/05/2015 11.00 Hrs
	Monitoring Location	M/s. Rudra Granites, Kundukad (PO), Karuvankad, Thrissur Survey Nos: 1244/1P Village- Killannoor Panchayath- Mulakunnathukavu Taluk- Thrissur District -Thrissur
	Sample Description	Ambient Sound Level (Leq)

Monitoring Location	Monitoring Time	Results
Near east side boundary	11.00 Hrs	38.9 dB (A)
	12.00 Hrs	36.1 dB (A)
	13.00 Hrs	39.5 dB (A)
	14.00 Hrs	40.6 dB (A)
	15.00 Hrs	40.9 dB (A)
	16.00 Hrs	42.1 dB (A)
	17.00 Hrs	41.2 dB (A)
	18.00 Hrs	40.6 dB (A)
	19.00 Hrs	38.1 dB (A)
	20.00 Hrs	37.4 dB (A)
	21.00 Hrs	36.1 dB (A)
	22.00 Hrs	35.4 dB (A)
	23.00 Hrs	35.1 dB (A)
	00.00 Hrs	35.0 dB (A)
	01.00 Hrs	35.7 dB (A)
	02.00 Hrs	35.4 dB (A)
	03.00 Hrs	34.9 dB (A)
	04.00 Hrs	35.3 dB (A)
	05.00 Hrs	35.6 dB (A)
	06.00 Hrs	36.4 dB (A)
07.00 Hrs	36.8 dB (A)	
08.00 Hrs	39.2 dB (A)	
09.00 Hrs	40.4 dB (A)	
10.00 Hrs	43.2 dB (A)	
Leq (Day time)		39.3 dB (A)
Leq (Night time)		35.5 dB (A)

For PoluChem Laboratories (P) Ltd.

[Signature]
 Authorized Signatory
 Quality Manager
 PoluChem Laboratories (P) Ltd.

Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil
 Tea, Spices, Oil, Fertilizers, Basic Chemicals, etc.



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TEST REPORT

Client Name & Address	Certificate No:	PL/RT/SD/3381/2015
Mr.Dineshmon N.T Rudra Granites, Kundukad (P.O), Karuvankad, Thrissur.	Date of issue:	03/06/2015
	Date of monitoring	28/05/2015 11.30 Hrs to 29/05/2015 11.30 Hrs
	Monitoring Location	M/s. Rudra Granites, Kundukad (PO), Karuvankad, Thrissur Survey Nos: 1244/IP Village- Killannoor Panchayath- Mulakunnathukavu Taluk- Thrissur District -Thrissur
	Sample Description	Ambient Sound Level (Leq)

Monitoring Location	Monitoring Time	Results
Near South side boundary	11.30 Hrs	37.8 dB (A)
	12.30 Hrs	37.5 dB (A)
	13.30 Hrs	39.1 dB (A)
	14.30 Hrs	38.6 dB (A)
	15.30 Hrs	39.0 dB (A)
	16.30 Hrs	38.9 dB (A)
	17.30 Hrs	38.6 dB (A)
	18.30 Hrs	38.4 dB (A)
	19.30 Hrs	38.0 dB (A)
	20.30 Hrs	37.9 dB (A)
	21.30 Hrs	38.3 dB (A)
	22.30 Hrs	37.4 dB (A)
	23.30 Hrs	37.1 dB (A)
	00.30 Hrs	37.0 dB (A)
	01.30 Hrs	36.9 dB (A)
	02.30 Hrs	37.1 dB (A)
	03.30 Hrs	37.3 dB (A)
	04.30 Hrs	37.0 dB (A)
	05.30 Hrs	37.4 dB (A)
	06.30 Hrs	39.2 dB (A)
07.30 Hrs	37.8 dB (A)	
08.30 Hrs	38.4 dB (A)	
09.30 Hrs	39.0 dB (A)	
10.30 Hrs	39.7 dB (A)	
Leq (Day time)		38.2 dB (A)
Leq (Night time)		36.5 dB (A)

For PoluChem Laboratories (P) Ltd.
 SREEJA RAMI SH
 Authorized Signatory
 PoluChem Laboratories (P) Ltd.

Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil



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TEST REPORT

Client Name & Address Mr.Dineshmon N.T Rudra Granites, Kundukad (P.O), Karuvankad, Thrissur.	Certificate No:	PL/RT/SD/3380/2015
	Date of issue:	03/06/2015
	Date of monitoring	28/05/2015 11.15 Hrs to 29/05/2015 11.15 Hrs
	Monitoring Location	M/s. Rudra Granites, Kundukad (PO), Karuvankad, Thrissur Survey Nos: 1244/IP Village- Killannoor Panchayath- Mulakunnathukavu Taluk- Thrissur District - Thrissur
	Sample Description	Ambient Sound Level (Leq)

Monitoring Location	Monitoring Time	Results
Near North side boundary	11.15 Hrs	41.5 dB (A)
	12.15 Hrs	40.3 dB (A)
	13.15 Hrs	41.7 dB (A)
	14.15 Hrs	41.2 dB (A)
	15.15 Hrs	42.1 dB (A)
	16.15 Hrs	40.4 dB (A)
	17.15 Hrs	39.5 dB (A)
	18.15 Hrs	39.7 dB (A)
	19.15 Hrs	39.3 dB (A)
	20.15 Hrs	38.4 dB (A)
	21.15 Hrs	37.6 dB (A)
	22.15 Hrs	37.2 dB (A)
	23.15 Hrs	37.0 dB (A)
	00.15 Hrs	36.8 dB (A)
	01.15 Hrs	36.4 dB (A)
	02.15 Hrs	36.1 dB (A)
	03.15 Hrs	35.9 dB (A)
	04.15 Hrs	36.3 dB (A)
	05.15 Hrs	36.8 dB (A)
	06.15 Hrs	37.1 dB (A)
07.15 Hrs	38.8 dB (A)	
08.15 Hrs	38.1 dB (A)	
09.15 Hrs	39.4 dB (A)	
10.15 Hrs	39.7 dB (A)	
Leq (Day time)		39.5 dB (A)
Leq (Night time)		36.0 dB (A)

For PoluChem Laboratories (P) Ltd.

Sreeja Ramish
 SREEJA RAMISH
 Authorized Signatory
 Quality Manager

Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil
 Tea, Spices, Oil, Fertilizers, Basic Chemicals etc; Pesticide Residue, Heavy Metals, Microbiology

Annexure 16

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 PHONE: 0484 - 3261174, 2544030, E-mail: poluchem@gmail.com

'A' GRADE LABORATORY APPROVED BY KERALA STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref.No. PL/RT/BW/3370/2015
 Name & address of customer

Date of Issue: 03/06/2015

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Project Site

: Mr.Dineshmon N.T
 Rudra Granites,Kundukad (P.O),
 Karuvankad,Thrissur.
 : M/s. Rudra Granites,
 Kundukad (PO), Karuvankad, Thrissur
 Survey Nos: 1244/IP
 Village- Killannoor
 Panchayath- Mulakunnathukavu
 Taluk- Thrissur
 District -Thrissur
 : Drinking Water
 Openwell Water I - West Side (Outside)
 : 29/05/2015
 : 30/05/2015
 : 02/06/2015

Sample description

Location of sampling

Date of sample collected

Date of analysis started

Date of completion of analysis

Parameters tested	Test method	Result	Desirable Limit As Per IS 10500
Color	IS 3025 (P) 04 - 1983	7 Hazen Unit	5 Hazen Unit
Odour	IS 3025 (P) 05 - 1983	Unobjectionable	Unobjectionable
Turbidity	IS 3025 (P) 10 - 1984	5 NTU	5 NTU
pH	IS 3025 (P) 11 - 1983	6.49	6.5 - 8.5
Total Dissolved Solids	IS 3025 (P) 15 - 1984	51 mg/l	500 mg/l
Total Hardness as CaCO ₃	IS 3025 (P) 21 - 1983	23.76 mg/l	300 mg/l
Total Alkalinity as CaCO ₃	IS 3025 (P) 23 - 1986	24 mg/l	200 mg/l
Residual Chlorine	IS 3025 (P) 26 - 1986	BDL	Min 0.2 mg/l
Chloride as Cl	IS 3025 (P) 32 - 1988	9.85 mg/l	250 mg/l
Calcium as Ca	IS 3025 (P) 40 - 1991	7.14 mg/l	75 mg/l
Magnesium as Mg	IS 3025 (P) 46 - 1994	1.44 mg/l	30 mg/l
Iron as Fe	IS 3025 (P) 53 - 2003	0.51 mg/l	0.3 mg/l
Sulphate as SO ₄	IS 3025 (P) 31 - 1988	BDL	200 mg/l
Fluoride as F	IS 3025 (P) 60 - 2008	BDL	1.0 mg/l

Note : BDL - Below Detection Level

For PoluChem Laboratories (P) Ltd.


 Authorized signatory
 SREEJA RAMISH
 Quality Manager
 PoluChem Laboratories (P) Ltd.

Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil
 Tea, Spices, Oil, Fertilisers, Basic Chemicals etc; Pesticide Residue, Heavy Metals, Microbiology



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Continuation of Test Certificate No: 3370/2015

Parameters tested	Test method	Results	Desirable Limits as per IS-10500
Selenium as Se	APHA 3111B	BDL	0.01 mg/l
Arsenic as As	APHA 3111B	BDL	0.05 mg/l
Copper as Cu	APHA 3111B	BDL	0.05 mg/l
Manganese as Mn	APHA 3111B	BDL	0.1 mg/l
Cadmium as Cd	APHA 3111B	BDL	0.01 mg/l
Chromium as Cr	APHA 3111B	BDL	0.05 mg/l
Zinc as Zn	APHA 3111B	BDL	5 mg/l
Mercury as Hg	APHA 3111B	BDL	0.001 mg/l
Cyanide as CN	APHA 4500 E	BDL	0.05 mg/l
Lead as Pb	APHA 3111 B	BDL	0.05 mg/l
Aluminum as Al	APHA3500 D	BDL	0.03 mg/l
Boron as B	APHA 4500 B	BDL	1 mg/l

Note : BDL – Below Detection Level

MICROBIOLOGICAL TESTS:

Parameters	Unit	Results	Desirable Limits
MPN Coliform Count	MPN/100ml	50	1.0
Coliform bacteria	/100ml	Present	Absent
E coli	/100ml	Absent	Absent

For PoluChem Laboratories (P) Ltd.

End of the report

Sujeetha
 S. Authorized Signatory
 Quality Manager

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



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TEST REPORT

Ref.No. PL/RT/BW/3373/2015
Name & address of customer

Date of Issue: 03/06/2015

Page 01 of 02

Project Site


: Mr.Dineshmon N.T
Rudra Granites,Kundukad (P.O),
Karuvankad,Thrissur.
: M/s. Rudra Granites,
Kundukad (PO), Karuvankad, Thrissur
Survey Nos: 1244/1P
Village- Killannoor
Panchayath- Mulakunnathukavu
Taluk- Thrissur
District -Thrissur
: Drinking Water
: Pond Water – North Side (Santhivanam Estate)
: 28/05/2015
: 29/05/2015
: 02/06/2015

Sample description
Location of sampling
Date of sample collected
Date of analysis started
Date of completion of analysis

Parameters tested	Test method	Result	Desirable Limit As Per IS 10500
Color	IS 3025 (P) 04 – 1983	5 Hazen Unit	5 Hazen Unit
Odour	IS 3025 (P) 05 – 1983	Unobjectionable	Unobjectionable
Turbidity	IS 3025 (P) 10 – 1984	3 NTU	5 NTU
pH	IS 3025 (P) 11 – 1983	7.11	6.5 – 8.5
Total Dissolved Solids	IS 3025 (P) 15 – 1984	51 mg/l	500 mg/l
Total Hardness as CaCO ₃	IS 3025 (P) 21 – 1983	9.90 mg/l	300 mg/l
Total Alkalinity as CaCO ₃	IS 3025 (P) 23 – 1986	22 mg/l	200 mg/l
Residual Chlorine	IS 3025 (P) 26 – 1986	BDL	Min 0.2 mg/l
Chloride as Cl	IS 3025 (P) 32 – 1988	16.75 mg/l	250 mg/l
Calcium as Ca	IS 3025 (P) 40 – 1991	3.17 mg/l	75 mg/l
Magnesium as Mg	IS 3025 (P) 46 – 1994	<1 mg/l	30 mg/l
Iron as Fe	IS 3025 (P) 53 – 2003	0.37 mg/l	0.3 mg/l
Sulphate as SO ₄	IS 3025 (P) 31 – 1988	BDL	200 mg/l
Fluoride as F	IS 3025 (P) 60 – 2008	BDL	1.0 mg/l

Note : BDL – Below Detection Level

For Poluchem Laboratories (P) Ltd.


Authorized signatory
SREEJA
Quality Control
Poluchem Laboratories



POLUCHEM LABORATORIES [P] LTD.

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Page 02 of 02

Continuation of Test Certificate No: 3373/2015

Parameters tested	Test method	Results	Desirable Limits as per IS-10500
Selenium as Se	APHA 3111B	BDL	0.01 mg/l
Arsenic as As	APHA 3111B	BDL	0.05 mg/l
Copper as Cu	APHA 3111B	BDL	0.05 mg/l
Manganese as Mn	APHA 3111B	BDL	0.1 mg/l
Cadmium as Cd	APHA 3111B	BDL	0.01 mg/l
Chromium as Cr	APHA 3111B	BDL	0.05 mg/l
Zinc as Zn	APHA 3111B	BDL	5 mg/l
Mercury as Hg	APHA 3111B	BDL	0.001 mg/l
Cyanide as CN	APHA 4500 E	BDL	0.05 mg/l
Lead as Pb	APHA 3111 B	BDL	0.05 mg/l
Aluminum as Al	APHA3500 D	BDL	0.03 mg/l
Boron as B	APHA 4500 B	BDL	1 mg/l

Note : BDL – Below Detection Level

MICROBIOLOGICAL TESTS:

Parameters	Unit	Results	Desirable Limits
MPN Coliform Count	MPN/100ml	23	1.0
Coliform bacteria	/100ml	Present	Absent
E coli	/100ml	Absent	Absent

For PoluChem Laboratories (P) Ltd.

[Signature]
 Authorised Signatory
 Quality Manager
 PoluChem Laboratories Ltd.

End of the report

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Analysis of Ambient air, Stack emission, Noise, Light, Water, Waste water / Effluent, Soil
 Tea, Spices, Oil, Fertilisers, Basic Chemicals etc; Pesticide Residue, Heavy Metals, Microbiology