

COMPLIANCE REPORT

TO
THE CONDITIONS OF

ENVIRONMENTAL CLEARANCE ORDER

No. – 60/2018

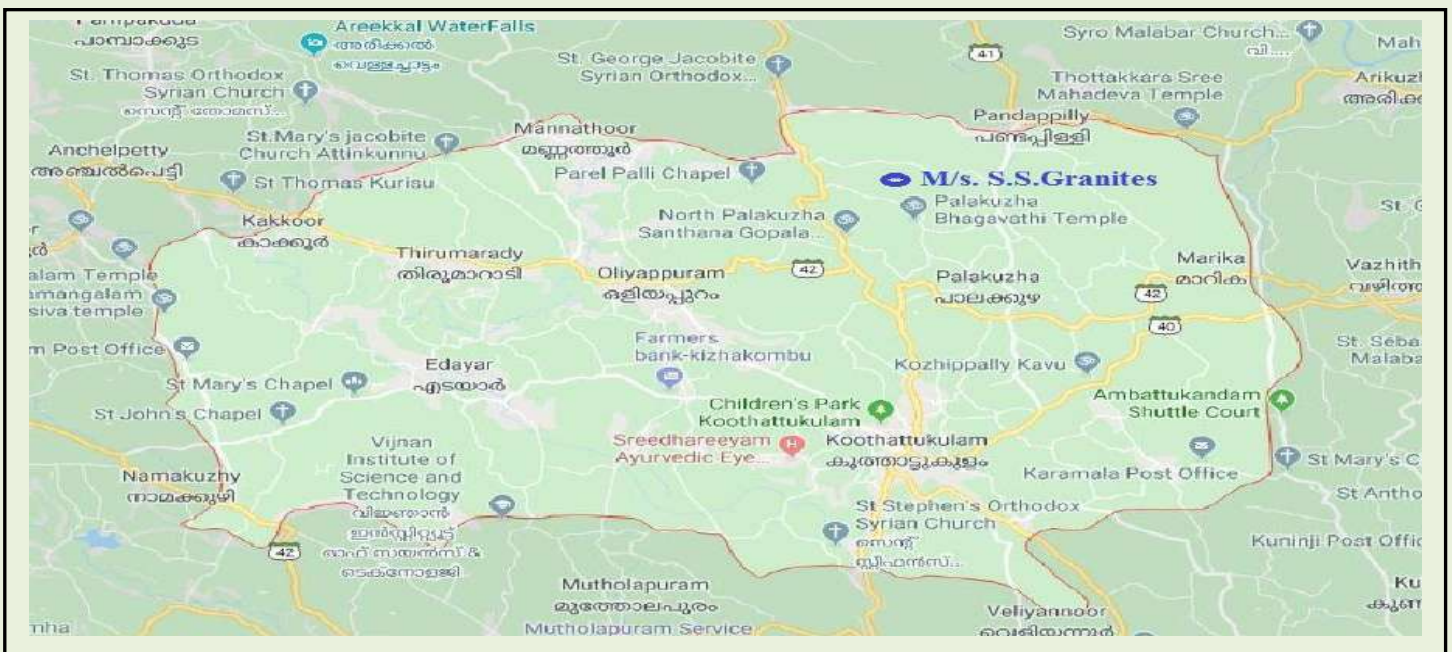
Issued on: 10-12-2018 and Validity up to 09-12-2023

For

Granite Building Stone Quarry Project (Minor Mineral)

Of M/s. S.S.Granites Situated at

| | | | |
|--------------------------------------|---|----------------------|--------------|
| Survey No. | 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 | Taluk | Muvattupuzha |
| Village | Palakkuzha | District | Ernakulam |
| State | Kerala | Pin Code | 686662 |
| Extent | 4.3046 Ha. | Category | B2 |
| Production Capacity Per Annum | | 2,03,750 metric tons | |



SUBMITTED BY

M/s. S.S.Granites
Palakkuzha Village, Muvattupuzha
Taluk, Ernakulam District, Kerala

Ist COMPLIANCE
JAN ↔ JUL 2019

S S GRANITES

322/XII, Kurangolithadathil Bldgs., Karimpana P.O., Koothattukulam,
Ernakulam Dist., Kerala - 686 6621

Date: 07.02.2020

To,
The Regional Director,
MOEF Regional Office,
Southern Zone, Kendriya Sadan,
4th floor, E&F wing, 2nd Block,
Koramangala, Bangalore-560034

Sub: Compliance Report to Environmental Clearance No.60/2018 of M/s. S.S.Granites Building Stone Quarry project situated over an extent of 4.3046 hectare (10.632 acres) in survey numbers 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 of Palakkuzha Village, Muvattupuzha Taluk and Ernakulam district, Kerala State.

Dear Sir,

Our Quarry project was accorded with Environmental Clearance vides order No. 60/2018 dated 10.12.2018. The First compliance report to the specific and general conditions of the Environmental Clearance for the period January-June, 2019 is enclosed.

Thanking You,
Yours Faithfully,

For M/s. S.S.Granites



Sabu Varghese
MANAGING PARTNER



Copy to: 1) The Director,

Directorate of Environment and Climate Change (DoECC)
4th Floor, K.S.R.T.C Bus Terminal Complex, Thampanoor,
Thiruvananthapuram, Kerala -695 001

2) The Member secretary,

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)
4th Floor, K.S.R.T.C Bus Terminal Complex, Thampanoor,
Thiruvananthapuram, Kerala -695 001

TABLE OF CONTENTS

| SI NO. | Descriptions | Page No |
|--------|---|---------|
| 1. | INTRODUCTION | 2 |
| | A. Basic details about the Firm. | 2 |
| | B. General details about the project. | 2 |
| | C. Accessibility or Route to quarry project | 2 |
| | PART -A | |
| 2. | GENERAL CONDITIONS COMPLIANCE REPORT GC-1 to GC-62. | 3-11 |
| | PART -B | |
| 3. | SPECIFIC CONDITIONS COMPLIANCE REPORT SPC-1 to SPC-12. | 12-13 |
| 4. | PLATES | 13-21 |
| 5. | ANNEXURES | 22-84 |
| | Annexure-1 – Environent Clearance copy | 22-34 |
| | Annexure-2 – Quarry lease order & Lease deed | 35-49 |
| | Annexure-3 – KSPCB Consent | 50-54 |
| | Annexure-4 – Explosive Licence | 55-63 |
| | Annexure-5 – Copy of Mining Plan Approval | 64 |
| | Annexure-6 – Panchayat Licence | 65-66 |
| | Annexure-7 – EC undertaking Certificate | 67-68 |
| | Annexure-8– Mine Foreman Competancy Certificate | 69-70 |
| | Annexure- 9– Public Notice Advertsiment | 71 |
| | Annexure- 10– NABL certificate of laboratory | 72-76 |
| | Annexure- 11– Air, Nose and water Monitoring lab reports. | 77- 84 |
| | Annexure- 12– Soft Copy of the project in CD | |




 SABU VARGHESE
 MANAGING PARTNER
 M/s. S.S.Granite

INTRODUCTION

A. Basic details about the Firm.

M/s. S.S.Granites is a Partnership Firm registered under Partnership Act, 1956 represented by one of the Managing Partner and Authorized signatory Sri Sabu Varghese who is well experienced in the field of granite building stone mining operations for the last five years and has operated other quarry by obtaining valid Permit.

M/s.S.S.Granites has obtained Environmental Clearance bearing no. 60/2018 from District Environment Impact Assessment Authority, (DEIAA), Ernakulam and also Quarry Lease from the State Government (Department of Mining and geology) over an extent of 4.3046 hectare (10.632 acres) in survey numbers 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 of Palakkuzha Village, Muvattupuzha Taluk and Ernakulam district, Kerala State.

M/s. S.S.Granites has also obtained Consent from Kerala Pollution control board, Explosive Licence from Explosive Department and Panchayat Licence which are statutory requirements for Quarry operations and also involved in producing sized ROM by Scientific Mining using Heavy Earth Moving Machineries (HEMM) by forming benches with Controlled Blasting techniques. The Sized Rom material is sold in the local market and used for various construction purposes.

B. General details about the project.

❖ Production Capacity: 2,03,750 Metric Tons per annum

| PERMISSIONS | VALIDITY | DOCUMENT No. |
|--------------------------------|-----------------|------------------------------|
| EC validity | 09-12-2023 | 60/2018 |
| Quarry Lease Proceedings order | 15-02-2031 | 786/2018-19/8253/M3/2017/DMG |
| Lease Deed | 15-02-2031 | 374/019 |
| KSPCB Consent | 09-12-2023 | R18ERNA CTO 942019 |
| Explosive Licence | 31-03-2020 | E/SC/KL/22/1145 (E55019) |

C. Accessibility or Route to quarry project (From Aluva).

- ALUVA → PERUMBAVOOR → MUVATTUPUZHA → MARADY → AROOR → MANATHOOR KAVALA → TO SITE: Total Distance 47.7 km shown as **PLATE-9A.** (Fastest Route).

PART A.

GENERAL CONDITIONS COMPLIANCE REPORT

| Item No. | EC Condition | Status of Compliance | Remarks |
|------------|--|--|------------------|
| GC1 | Rain water harvesting facility should be installed as per the prevailing provisions of KMBR/ KPBR, unless otherwise specified. | Lower Mine Pits is used as Rain water storage Area and Rain Water harvesting. | Complied |
| GC2 | Environment Monitoring cell as agreed under the affidavit filed by the proponent should be formed and made functional. | Environment Monitoring Cell formed under Mines Manager. | Complied |
| GC3 | Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, including of approach road and internal roads. | Avenue trees are planted along either side of the tarred road and open parking areas inclusive of approach road and internal roads as shown in PLATE-2A&3A. | Complied |
| GC4 | Maximum possible solar energy generation and utilisation shall be ensured as an essential part of the project. | Quarry operations done only in day light therefore Solar energy is used for the purpose of lighting in mine office only. | Complied |
| GC5 | Sprinklers shall be installed and used in project site to contain dust emissions. | Truck Mounted water sprinkler is used in mines to contain dust emissions as shown in PLATE-8A&8B. | Complied |
| GC6 | Eco-Restoration including the mine closure plan shall be done at the own cost of the project proponent | Eco-restoration plan shall be fully implemented during Closure of mine. | Will be Complied |
| GC7 | 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 E.C. | Since Production work is continuous it shall be ensured that the directions contained are scrupulously followed at the time of the closure of the mine as per Progressive Mine Closure Plan. | Will be Complied |
| GC8 | Corporate Social Responsibility(CSR) agreed upon by the proponent should be implemented | Expenditure incurred on account of CSR for the period from JAN 2019 to JUN 2019 is Rs. 100000/-. (Rs. 50000/- for providing drinking water to local residents and Rs. 20000/- for charity institutions; Rs. 30,000/- for local People Medical Aid. | Complied |

| | | | |
|-------------|--|---|----------|
| GC9 | 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. | Barbed Wire Fencing Provided all around the Mining Lease area and Boundary pillars with GPS readings erected to demarcate the boundary as shown in PLATE-1A & 1B. | Complied |
| GC10 | Warning alarms indicating the time of blasting has to be arranged as per stipulations of explosive department. | Warning alarms indicating the time of blasting has been arranged. | Complied |
| GC11 | Control measures on noise and vibration prescribed by KSPCB should be implemented. | Suitable measures are implemented and noise and vibration levels are under control The dust and sound levels were monitored through an NABL accredited laboratory during the quarry in operation and the monitored results are well within the standards applicable. The copy of the ambient air quality monitoring report, ambient sound monitoring report, quality of drinking water along with the comparative chart is provided at Annexure -11. | Complied |
| GC12 | Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions. | Quarry is operated in Day Light only between 8am to 5pm.No night operations. | Complied |
| GC13 | Blasting should be done in a controlled manner as specified by the regulations of explosives department or any other concerned agency. | Blasting is carried out safely adhering to the conditions specified in the licence LE-3 as per Indian Explosive Rules 2008 shown as Annexure-4. | Complied |
| GC14 | A licensed person should supervise /control the blasting operations. | Blasting Carried out under Statutory Mine Foreman and copy of his certificate Shown as Annexure-8. | Complied |
| GC15 | Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials. | Access road with Plantation alongside developed to the quarry site and tarred as shown in PLATE-2A & 2B. | Complied |
| GC16 | Overburden material should be managed within the site and used for reclamation of mine pit as per mine closure plan/specific conditions. | Overburden is stacked in pre-determined site outside the mining lease area specified for the purpose. | Complied |
| GC17 | Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention in the mine plan/specific condition. | Height and width of benches is will be maintained as 5 m x 5 m and work done as per Mining Plan as shown in PLATE- 6A | Complied |

| | | | |
|-------------|---|--|----------|
| GC18 | Mats to reduce fly rock blast to a maximum of 10 PPV should be provided. | Since controlled Blasting technique using delay detonators is practised at site, which results in less PPV and fly rocks, therefore Mats are not required and will be used if required during blasting. | Complied |
| GC19 | Maximum depth of mining from General ground level at site shall not exceed 10 m. | Scientific and safe working procedures is practised by forming benches for material extraction and ensure that maximum depth of mining from general ground level shall not exceed 10 m shown in PLATE-6A & 6B . | Complied |
| GC20 | No mining operations should be carried out at places having a slope greater than 45° | It is ensured that no mining is carried out at places having a Slope greater than 45°. | Complied |
| GC21 | 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. | No crusher at site only quarrying operations done with Heavy Earth Moving Machineries. Lot of trees around the Mining area acts as natural buffer as shown in PLATE-3A . | Complied |
| GC22 | The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc. | The workers on the site are provided with the required protective equipment such as ear muffs, helmet, safety shoes, dust mask as shown in PLATE-3B . | Complied |
| GC23 | Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water. | The quarry has a natural dendritic drainage pattern. Rain water from higher elevations follows the slope towards the lower elevation i.e., from East to West in the present quarry. | Complied |
| GC24 | The transportation of minerals should be done in covered trucks to contain dust emissions. | Sized ROM is loaded to truck using Excavator and covered with Tarpaulins before transportation to contain dust emissions as shown in PLATE-6A & 6B . | Complied |
| GC25 | The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project. | Most of the plantation around the quarry area Planted previously since the mine was in operation and Also plantation will be done yearly as specified in the mining plan. The plantation surrounding the mine | Complied |

| | | | |
|-------------|--|---|----------|
| | | is shown in PLATE-2A&3A. | |
| GC26 | Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations. | Disposal of spent oil from excavators during oil change will be done as per relevant Rules / Regulations. | Complied |
| GC27 | Explosives should be stored in magazines in isolated place specified and approved by explosive department. | Explosives stored in magazines as specified and as approved by explosive department by obtaining relevant Licence as shown in Annexure-4. | Complied |
| GC28 | A minimum buffer distance of 50 m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided. | Minimum 100 m from the boundary of the quarry maintained to the nearest dwelling unit or structure and the boundary is well fenced using barbed wires. | Complied |
| GC29 | 50m buffer distance should be maintained from forest boundaries. | No social or reserve forest near by the mining area. | Complied |
| GC30 | Consent from Kerala state pollution control board under Water and Air act(s) should be obtained before initiating mining activity. | Consent is obtained and shown as Annexure -3. | Complied |
| GC31 | All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives. | Clearances are obtained from : 1. Quarry Lease from Department of Mining and Geology shown as Annexure -2. 2. Consent from Kerala State Pollution Control Board shown as Annexure-3. 3. Permission for storage and use of explosive from PESO (Explosives Dept) shown as Annexure -4. 4. Panchayat Licence from Palakkuzha panchayath shown as Annexure- 6. | Complied |
| GC32 | 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 E.C is Issued, the project would require a fresh appraisal the proponent shall get the approval . | If there is any change in the scope of the project the Firm shall abide by the directions of DEIAA/SEIAA and apply for a fresh appraisal within the specified time period. | Agreed |
| GC33 | The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the | The Firm shall abide by the directions of DEIAA/SEIAA Kerala in such a context, if arises. | Agreed |

| | | | |
|-------------|---|--|-------------------|
| | provisions of the environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguards measures in a time bound and satisfactory manner. | | |
| GC34 | The stipulations by statutory authorities under different acts and Notification 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 E.I.A. Notification, 2006. | Suitable measures are implemented to control noise and vibration levels. Strict compliance is adhered and is reviewed periodically. The dust and sound levels were monitored through an NABL accredited laboratory during the quarry in operation as Shown in PLATE-4A, 4B, 5A, 5B,7A & 7B and the monitored results are well within the standards applicable. The Environmental monitoring reports (Ambient Air, sound, water & Soil) with the comparative chart is provided as Annexure-11 . | Complied |
| GC35 | The Project proponents should advertise in at least two local newspapers widely circulated in the region, One of which (both the advertisement and 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 SEIAA office and may also be seen on the website of the Authority at www.seiaakerala.org . The advertisement should be made within 10days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as conformation. | Advertisements regarding the obtaining of Environmental Clearance were given in two local news paper- Annexure-9 | Complied |
| GC36 | A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/ Municipality/ Corporation/ Urban Local Body .The EC shall also be put on the website of the company by the proponent. | Copy of EC has been sent to Secretary, Erumely Grama Panchayat and the copy of the same is shown as Annexure -6 . | Complied |
| GC37 | The Proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard | Conditions are being complied with. This First report is in Compliance with the submission of six month compliance reports | Agreed & Complied |

| | | | |
|-------------|---|---|----------------------------------|
| | 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 SEIAA office Kerala. | and is for the period from Jan 2019 to July 2019. | |
| GC38 | The details of EC should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40. Sign board with extent of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public. | The conditions of Environmental Clearance are prominently displayed in a metallic board of 3 Ft x 3 Ft with green background and yellow letters of Times New Roman font of size of not less than 40. | Complied |
| GC39 | 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. | Assurance in the form of affidavit was submitted stating all the conditions stipulated in the EC shall be scrupulously followed and the copy of the same is attached at Annexure -7. | Complied |
| GC40 | No change in mining technology and scope of working should be made without prior approval of the DEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the DEIAA, as applicable. | The Firm shall abide by the directions of DEIAA/SEIAA Kerala in such a context, if arises. | Agreed & Will Comply if required |
| GC41 | 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. | There is no natural water resource in and around mining lease area. | Agreed & Will Comply if required |
| GC42 | 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. | The copy of the ambient air quality monitoring report, with the comparative chart is provided at Annexure -11. Truck mounted water sprinkler is used at loading points and haulage roads to reduce dust emissions as shown in PLATE8A & 8B. | Complied |
| GC43 | The top soil, if any, shall temporarily be stored at earmarked site (s) only for the top soil shall be used for land reclamation and plantation. The over | Top soil and over burden stored separately outside the Mining lease area belonging to the applicant. Plantations around the | Complied |

| | | | |
|-------------|---|---|------------------|
| | burden (OB) generated during the mining operations shall be stacked 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. The entire excavated area shall be backfilled, Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. | OB dump done to prevent erosion and surface runoff. Since mining operation is continuous backfilling will be done at the end stage of mining as per Progressive mine closure plan. | |
| GC44 | Catch drains and siltation ponds of appropriate sizes 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 desilted particularly after monsoon and maintained properly. | Catch drain along with parapet wall will be constructed below the OB dump yard to prevent run off water and flow of sediments. | Will be Complied |
| GC45 | Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM ₁₀ and PM _{2.5} such as haul Road, loading and unloading points and transfer points – it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the CPCB in this regard. | Truck mounted water sprinkler is used at loading points and haulage roads to reduce dust emissions. The copy of the ambient air quality monitoring report, with the comparative chart as per Central Pollution Control Board is provided at Annexure -11 . | Complied |
| GC46 | Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained. | Truck mounted water sprinkler is used at loading points and haulage roads to reduce dust emissions as shown in PLATE 8A & 8B . | Complied |
| GC47 | Measures should be taken for control of noise levels below 85dBA in the work environment. | Periodical overhauling of Machineries carried out to reduce excess noise. Delay detonators used in Blasting to avoid excess noise. Ear muff are provided to drillers and operators as safety measure. | Complied |
| GC48 | A separate environmental management cell with suitable qualified personnel should be set-up under the control of a | Formed Under Mines Manager | Complied |

| | | | |
|-------------|---|--|----------------------|
| | Senior Executive, who will report directly to the Head of the Organization. | | |
| GC49 | The funds earmarked for environmental protection measures and CSR activate should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the DEIAA office. | The Firm shall abide by the directions of DEIAA/SEIAA Kerala and keep funds separately and report the expenditure incurred on environmental protection and CSR activity. | Agreed & will Comply |
| GC50 | 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. | Full support will be extended to MoEF and CC officials to inspect the mines and Will furnish required data/information and monitoring reports. | Agreed |
| GC51 | Any appeal against this Environment Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the NGT Act, 2010. | No appeal against this Environment clearance till date of this compliance. | Agreed |
| GC52 | 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. | All data provided to obtain Environment clearance are true and not concealed any information and if found guilty the DEIAA/SEIAA authority may take suitable action. | Agreed |
| GC53 | The DEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of any of the above conditions is not satisfactory. The DEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection. | All specific and general conditions will be implemented during the mining operation phase as per the Environment clearance obtained. | Agreed |
| GC54 | 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. | Specific and General conditions will be adhered | Agreed |
| GC55 | This order is valid for a period of 5 years or expiry date of mine lease period issued by the Government of Kerala. | Valid Up to 09-12-2023 | |
| GC56 | 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. | No any litigation related to land or project pending in any court of law till date of this compliance. | Agreed |

| | | | |
|-------------|--|---|----------------------------------|
| GC57 | The mining operation shall be restricted to above ground water table and it should not intersect ground water table. | Mining operation is carried out above ground level with top RL 160 msl and bottom RL 100 msl as shown in PLATE- 6A. | Agreed & Complied |
| GC58 | All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area. | All vehicles have valid PUC Certificate. No washing of vehicles carried out inside the mining lease area. | Agreed |
| GC59 | Project Proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project. | No crusher/ washing unit is installed therefore water is only used for sprinkling and drinking. Daily 2KL used for Drinking and washing purpose and 5KL for dust suppression and Afforestation. If required prior permission will be obtained from competent authorities. | Agreed & will Comply if required |
| GC60 | Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to DEIAA. | No upstream and downstream water near by the mining lease area. | Agreed & will Comply if required |
| GC61 | 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. | Yearly once Occupational health surveillance check up planned and carried out for workers in mines involved in drilling , loading and hauling operations | Agreed & Complied |
| GC62 | Commitment of CST should be fulfilled | Fulfilled as per CST rules | Complied |

PART B.

SPECIFIC CONDITIONS COMPLIANCE REPORT

| Item No. | EC Condition | Status of Compliance | Remarks |
|-------------|--|--|------------------|
| SPC1 | The applicant should establish a permanent Bench Mark outside the mining area from which the relative depths of mining should be established and submitted in the calculation as well as in drawings | Boundary Corner Pillars BP 16 & BP 17 of the mining lease established as Permanent Bench Mark which will not be disturbed during mining / quarry operations | Complied |
| SPC2 | The relative levels from the established bench marks should be permanently marked in the boundary points. | All Boundary Pillar Fixed & Gps readings Marked on the pillar PLATE-1A&1B. | Complied |
| SPC3 | The solid waste generated during the course of operation shall be utilized for formation of safety bunds all along 7.5m safety zone, internal road maintenance and green belt works | Since Mine Operation and Production work is continuous, restoration will be done during the end stage of Mining at suitable places as per Progressive Mine Closure Plan. | Will be Complied |
| SPC4 | Sufficient number of suitable parapet walls shall be made all along quarries, Haulage roads where ever necessary in order to maintain safe working conditions. | All attempt made to maintain safe working conditions and safety bunds have been provided at the top bench and Barbed wire fencing done to avoid unauthorised humans and animals. | Complied |
| SPC5 | Proper blast design avoiding over charging and controlled blasting techniques shall be adopted. | Controlled Blasting technique using delay detonators is practised at site, which results in less PPV and fly rocks. Powder Factor Fixed at optimum rate. | Complied |
| SPC6 | Construction of garland drains to divert surface run off away from mining area shall be implemented | The quarry has a natural dendritic drainage pattern. Rain water from higher elevations follows the slope towards the lower elevation i.e., from East to West in the present quarry | Complied |

| | | | |
|--------------|---|--|------------------|
| SPC7 | Environmental auditing shall be done every year and same shall be reported to District Collector through District Geologist. | Accepted and will be followed | Will be Complied |
| SPC8 | Quarrying area shall be under water sprinklers for dust control | Haul roads are water sprinkled as shown in PLATE-8A&8B. | Complied |
| SPC9 | Ideal locations shall be identified in and around quarry site suitable for rain water harvesting | Mined out lower level quarry pit will act as storm water storage and rain water harvesting. | Complied |
| SPC10 | Implementation of artificial geo-textiles shall be promoted along borders of buffer zone where chances of rock creep may exist during rainy season. | The rock is intact and chance of rock creep is negligible | Complied |
| SPC11 | Future excavations shall be conducted by strictly forming systematic benches as per the norms of Mine Safety Departments and Kerala Minor Mineral Concession Rules 2015 | Mine operations carried out as per approved mining plan and adopting bench system mining. All statutory norms will be followed | Complied |
| SPC12 | All quarry workers shall be allowed to enter the blasting area only with personal protective equipments (helmets, safety shoes, reflecting jackets...etc) | Safety PPE provided as shown in PLATE-3B. | Complied |

SABU VARGHESE
MANAGING PARTNER
M/s. S.S.Granites



PLATES







PLATE-4A



PLATE-4B



PLATE-5A



PLATE-5B





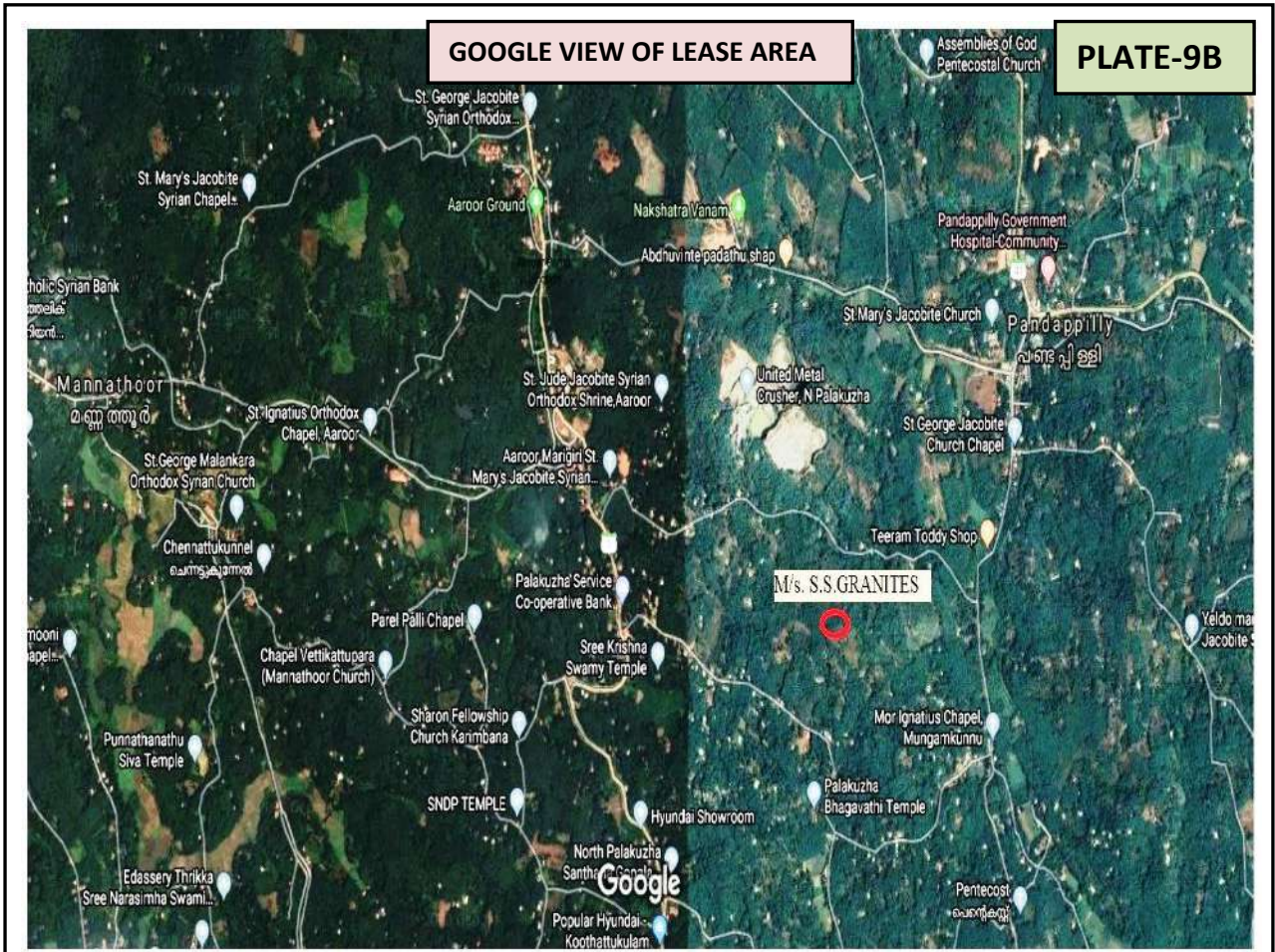
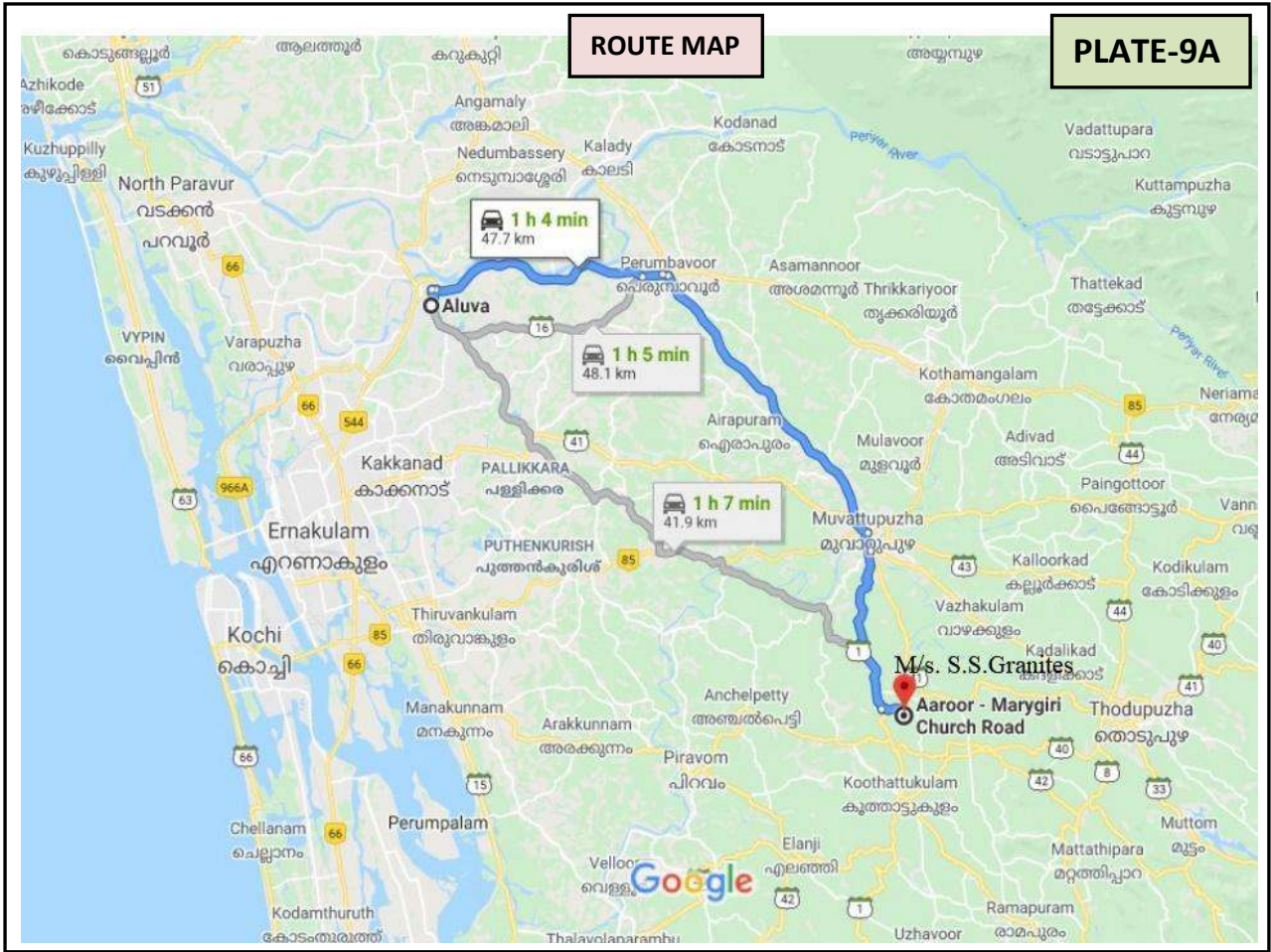




PLATE-8A



PLATE-8B



ANNEXURE

ENVIRONMENTAL CLEARANCE

ANNEXURE-1

Proceedings of the District Environment Impact Assessment Authority (DEIAA), Ernakulam (Present. Sri. Muhammed Y Safirulla. IAS, District Collector & Chairman DEIAA, Sri. Snehil Kumar Singh. IAS, Member Secretary, DEIAA & Sub Collector, Fort Kochi, Sri. A. Renjan I.F.S, DFO Malayattoor & Member DEIAA, Dr. P.S. Easa, Member National board for Wildlife & Member DEIAA.)

Environmental Clearance No.60/2018
Building Stone Quarry (68)

No. P/333/2018
DIA/KL/MIN/12528/2018

Ernakulam.
Dated.10/12/2018

Sub: - DEIAA Ernakulam – meeting held on 05/11/2018 – Environmental clearance for excavation of Granite Building Stone – Orders issued

- Ref: -
1. Minutes of the meeting of 21st DEIAA held on 05/11/2018 at Chamber of District Collector, Ernakulam.
 2. Minutes of the meeting of 20th DEAC held on 06/04/2018.
 3. Minutes of the meeting of 21st DEAC held on 03/05/2018.
 4. Application filed by Sri Sabu Varghese, M/s S.S. Granites, Korangolithadathil House, Karimpana P.O., Koothattukulam, Ernakulam , Kerala.

Sri Sabu Varghese, M/s S.S. Granites, Korangolithadathil House, Karimpana P.O., Koothattukulam, Ernakulam , Kerala filed an application for an Environment Clearance for Mining of Granite Building Stone from the Survey Nos. 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 in Palakkuzha Village, Muvattupuzha Taluk. The total area of land is 4.3046 hectares and the capacity of the Mining is ROM 2, 03,750 TPA (Salable 1, 93,562 TPA).

THE DETAILS AS MENTIONED IN FORM 1M(APPENDIX VIII) OF THE APPLICATION.

| | | | | |
|----|------------------------------------|---|--------------------|--------------------|
| 1 | Proposal No. | DIA/KL/MIN/ 12528 /2018 | | |
| 2 | Name of Mining Lease Site | Building Stone Quarry of M/s S.S. GRANITES. | | |
| 3 | Location / site (GPS Co-ordinates) | B.P.No | Latitude | Longitude |
| | | 01 | N : 09° 54' 6.85" | E : 76° 35' 47.83" |
| | | 02 | N : 09° 54' 5.97" | E : 76° 35' 47.60" |
| | | 03 | N : 09° 54' 4.53" | E : 76° 35' 49.33" |
| | | 04 | N : 09° 54' 5.76" | E : 76° 35' 50.62" |
| | | 05 | N : 09° 54' 5.33" | E : 76° 35' 51.43" |
| | | 06 | N : 09° 54' 4.74" | E : 76° 35' 52.61" |
| | | 07 | N : 09° 54' 4.12" | E : 76° 35' 53.69" |
| | | 08 | N : 09° 54' 3.96 " | E : 76° 35' 53.56" |
| | | 09 | N : 09° 54' 2.87" | E : 76° 35' 56.15" |
| | | 10 | N : 09° 54' 0.89 " | E : 76° 35' 55.45" |
| | | 11 | N : 09° 53' 59.66" | E : 76° 35' 54.39" |
| 12 | N : 09° 54' 0.18 " | E : 76° 35' 53.64" | | |

District Environment Impact Assessment Authority [DEIAA]



Su
SUB COLLECTOR
FORTKOCHI

| | | | | |
|----------------------------------|---|--|--------------------|-------------------|
| | | 13 | N : 09° 54'0.41 " | E : 76° 35'53.12" |
| | | 14 | N : 09° 54'0.87 " | E : 76° 35'51.87" |
| | | 15 | N : 09° 53'59.81 " | E : 76° 35'50.06" |
| | | 16 | N : 09° 54'1.25 " | E : 76° 35'48.07" |
| | | 17 | N : 09° 54'0.74 " | E : 76° 35'46.22" |
| | | 18 | N : 09° 54'1.43 " | E : 76° 35'44.49" |
| | | 19 | N : 09° 54'2.60 " | E : 76° 35'45.10" |
| | | 20 | N : 09° 54'3.14 " | E : 76° 35'47.35" |
| | | 21 | N : 09° 54'4.15 " | E : 76° 35'46.93" |
| | | 22 | N : 09° 54'4.80 " | E : 76° 35'46.38" |
| | | 23 | N : 09° 54'5.17 " | E : 76° 35'45.66" |
| | | 24 | N : 09° 54'6.93 " | E : 76° 35'45.11" |
| 4 | Size of the Mining Lease | 4.3046 Ha | | |
| 5 | Capacity of Mining Lease (TPA) | ROM 2,03,750 TPA(Salable 1,93,562 TPA) | | |
| 6 | Period of Mining Lease | 5 years | | |
| 7 | Expected cost of the Project | 1.50 Crores | | |
| Environmental Sensitivity | | | | |
| 8 | Distance of Project site from nearest rail or road bridge over the concerned River, Rivulet, Nallah etc | Thodupuzha River is at 5.5 Kms (NE) | | |
| | Distance from infrastructural facilities | Arakkuzha- 5 km | | |
| | Railway Line | Kochi Station is at 39 Kms (Aerial Distance) | | |
| | National Highway | NH-7 at 32 Kms (Aerial Distance) | | |
| | State Highway | Main Central (M C) Road at 900 mtrs west of the lease area. | | |
| | Major District Road | Moovattupuzha-Koothakulam Road.1.60 Km(W) | | |
| 9 | Any other Road | Public Road is connecting MC Road- Pandappilly is passing about 0.9 km to the North the lease area | | |
| | Electric Transmission line pole or tower | Koothattukulam-6.5 km. | | |
| | Canal or check dam or reservoirs or lake or ponds | Pandappaly-1.8 km. | | |
| | In take for Drinking water | MVIP arakkuzha-5.3 km | | |

District Environment Impact Assessment Authority [DEIAA]

SUB COLLECTOR
FORTKOCHI



| | | |
|-----|--|--|
| | Intake for irrigation | MVIP canal Arakkuzha-5.3 km. |
| 10. | Areas protected under international conventions, National or Local legislation for their ecological, landscape, cultural or other related value. | None within 5 km radius |
| 11. | Areas which are important or sensitive for ecological reasons- wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests. | Todupuzha River is at 3.2 Kms (NE) |
| 12. | Areas used by protected, important or sensitive species of flora or Fauna for breeding, nesting, foraging, resting, over wintering, migration. | None within 5 km radius |
| 13 | Inland, Coastal, Marine or underground waters | None within 5 km radius |
| 14 | State, National boundaries | None within 5 km radius |
| 15 | Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas | None within 5 km radius |
| 16 | Defense Installations | None within 5 km radius |
| 17 | Densely populated or built-up area, distance from nearest human habitation | Koothattukulam an aerial distance of 5 km |
| 18 | Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities) | <p><u>Schools & Colleges</u></p> <ol style="list-style-type: none"> 1. St Joseph Girls High School-Arakupuzha 4.9km 2. St Mary's Higher secondary School-Arakupuzha 5.4 km 3. Govt.Model High School-Palkuzha 4 km 4. Manimalakkunnu Govt. college 7.2km <p><u>Hospitals</u></p> <ol style="list-style-type: none"> 1. S H Hospital- Arakupuzha 5.3 km 2. Govt Hospital- palakupuzha 3.5 km 3. Veterinary Hospital -Palakupuzha. 3.6 km 4. Panchayath Homeo Dispensary- Arakupuzha. 4.5km 5. Deva Matha Hospital- Koothattukulam 6 km <p><u>Worship</u></p> <ol style="list-style-type: none"> 1. St JMary Foranc Church- Arakupuzha5.8 km 2. St ude shrine-Uppukkundam 1.2 km |

District Environment Impact Assessment Authority [DEIAA]



SUB COLLECTOR
FORTKOCHI

| | | |
|----|--|--|
| | | <p>3. St. Mary's Church, -Pandappilly 1.8km</p> <p>4. St. Jhon Baptist Catholic Church-Vadakara 6 km</p> <p>5. Bhagavathi Temple-Palakuzha 2.5 km</p> <p>6. Sree Subramanya-Ambalamkannu 7 km.</p> |
| 19 | Areas containing important high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals) | No |
| 20 | Area already subjected to pollution or environmental damage (those where existing legal environmental standards are exceeded) | No. this Fresh proposal. |
| 21 | Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions) | No, lease area is not susceptible to natural hazard, as there is no history of such incidents. |
| 22 | Is proposed mining site located over or near fissure / fracture for ground water recharge | No-geological disturbances are observed, The quarry will act as a reservoir & shall help in ground water recharging. |
| 23 | <p>Whether the proposal involves approval or clearance under the following regulations or acts, namely</p> <p>(a) The Forest (Conservation) Act, 1980</p> <p>(b) The Wildlife (Protection) Act, 1972</p> <p>(c) The Coastal Regulation Zone Notification, 2011</p> <p>If yes, details of the same and their status to be given</p> | No |
| 24 | Forest land involved (hectares) | No forest land is involved. |
| 25 | <p>Whether there is any litigation pending against the project and /or land in which the project is propose to be set up</p> <p>(a) Name of the Court</p> <p>(b) Case No.</p> <p>(c) Orders or directions of the Court, if any, and its relevance with the proposed project.</p> | As per FORM 1M applicant has stated that no litigation pending against the project and /or land in which the project is propose to be set up. |
| 26 | Type of Land | Private Patta Land |

TECHNICAL SCRUTINY AND ENVIRONMENTAL IMPACT ASSESSMENT BY DEAC

District Environment Impact Assessment Authority [DEIAA]

SUB COLLECTOR
FORTKOCHI



The proposal was placed in the 20th DEAC meeting held on 06/04/2018. (Reference 2). The committee appraised the proposal and decided to defer the item for field visit by the sub committee concerned. The DEAC sub committee visited the Quarry project site of Sri Sabu Varghese, M/s S.S. Granites, Palakkuzha Village and Muvattupuzha Taluk and submitted the report to DEAC.

The field inspection details as reported by DEAC (Reference 3).

The proposed quarry is located between north latitudes 9⁰53'59.66" and 9⁰54'06.93" and east longitudes 76⁰35'44.49" and 76⁰35'56.15". Geologically the area is occupied by hard crystalline rocks representing Precambrian metamorphosed rocks. The applied area forms the upper side slope portion of a hilly terrain which, in general, slopes towards north-west. The reported highest elevation of the applied area is 170m AMSL and lowest is 110m AMSL. This proposal corresponds to a fresh quarry i.e., the applied area is virgin and the major portion is occupies by mixed crops. Rock exposures comprises of complex associates of charnockites, quartz, feldspathic and biotite gneiss. The overburden thickness averages about 1m to 2m. (Reference 3).

The inspection team, in general, looked into the impacts on eco-system, flora, fauna, soil, land form, air quality etc, which are likely to alter with the onset of quarrying operations. The potential for natural hazards such as landslides, surface creep, erosion, flooding or any adverse environmental conditions during the time of mining are ruled out, provided if mining is carried out in accordance with the approved mining plan. (Reference 3).

Groundwater generally occurs under phreatic conditions in weathered and fractured crystalline rocks and laterite. It occurs under semi-confined conditions in the deep seated fractured aquifer of the crystalline rocks and tertiary sediments. The geologic zone important to ground water is identified in terms of water holding and water yielding capabilities. Porous granular formations like laterite, weathered and decomposed crystalline rocks as well as fissures, joints and fractures in crystalline rocks constitute the main water-bearing formations. The water table is below 4m-5m from general ground level as observed from an open well located 150 meters further north from the applied area. (Reference 3).

There are no perennial water courses or streams within the applied area. The rain water passes as minor water courses through natural geographic slope and joins the local water bodies forming dendritic drainage pattern. The proposed site does not possess any valuable resources other than granite



building stone. The revenue official present at the time of inspection reported that the area is not under any legal procedures. (Reference 3).

Considering all the aspects the DEAC approved the mining project and recommended DEIAA to grant Environmental Clearance. (Reference 3).

DEIAA DECISIONS

As per DEAC recommendation, DEIAA considered the project proposal. The applicant submitted detailed CSR and remitted Rs. 1, 00,000/- (Rupees One Lakh Only) as processing fee vide chalan no. KL010394902201718M dt. 02/02/2018 of District Treasury, Ernakulam. The applicant has submitted a CSR plan of Rs.2,00,000/- (Rupees Two Lakh Only) as recurring and non recurring expenses for CSR activities.

The proposal was considered in the 21st meeting of DEIAA (Reference 1). The DEIAA committee decided to grant Environmental Clearance to the quarry project of Sri Sabu Varghese, M/s S.S. Granites, Kurangolithadathil House, Karimpana P.O., Koothattukulam, Ernakulam , Kerala in strict compliance with the following General conditions and specific conditions recommended by DEAC.

GENERAL CONDITIONS

1. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR/KPBR, unless otherwise specified.
2. Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
3. Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, including of approach road and internal roads.
4. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
5. Sprinklers shall be installed and used in the project site to contain dust emissions.
6. Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
7. 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 E.C.

District Environment Impact Assessment Authority [DEIAA]

Su
SUB COLLECTOR
FORTKOCHI



8. Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented.
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.
10. Warning alarms including the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
11. Control measures on noise and vibration prescribed by KSPCB should be implemented.
12. Quarrying activities should be limited to day time as per KSPCB should be implemented.
13. Blasting should be done in a controlled manner as specified by regulations of Explosives Department or any other concerned agency.
14. A licensed person should supervise/control the blasting operations.
15. Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan/specific conditions.
17. Height of benches should not exceed 5m, and width should not be less than 5m, if there is no mention in the mining plan/specific condition.
18. Mats to reduce fly rock blast to maximum of 10PPV should be provided.
19. Maximum depth of mining from general ground level at site shall not exceed 10m.
20. No mining operations should be carried out at places having a slope greater than 45°.
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.
22. The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
23. Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
24. The transportation of minerals should be done in covered trucks to contain dust emissions.
25. The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
26. Disposal of spent oil from diesel engines should be specified under relevant rules/regulations.

District Environment Impact Assessment Authority [DEIAA]



SUB COLLECTOR
FORTKOCHI

27. Explosives should be stores in magazines in isolated place specified and approved by the Explosives Department.
28. A minimum buffer distance of 50m from the boundary of the quarry to the nearest dwelling unit or other structures not being any facility for mining shall be provided.
29. 50m buffer distance should be maintained from forest boundaries.
30. Consent from Kerala State Pollution Control Board under Water and Air Act(S) should obtained before initiating mining activity.
31. All other statutory clearance should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of Explosives.
32. In the case of any changes in the scope of the project, extent quality, 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.
33. The authority reserves the right to add the additional safe guard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provision of the environment (Protection Act), 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
34. The stipulation 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, environment (Protection) Act 1986, the Public Liability (Insurance) Act 1991 and EIA notification, 2006.
35. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which(both the advertisement and 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 District Environmental Impact and Assessment Authority(DEIAA) office and may also been on the website of the Authority at www.environmentalclearance.nic.in . The advertisement should be made within 10 days from the date of receipt of the clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.
36. A copy of the clearance letter shall be sent by the proponent to the concerned Grama Panchayath/District Panchayath/Municipality/Corporation/Urban Local Body also to the NGO, if

District Environment Impact Assessment Authority [DEIAA]


SUB COLLECTOR
FORTKOCHI



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.

37. The proponent shall submit half yearly reports complaints of the stipulated EC conditions including results of monitored data(both in hard as well as by email) and upload the status of compliance of stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. Each shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the District Environment Impact Assessment Authority (DEIAA) office.
38. The details of Environment Clearance should be prominently displayed in a metallic board of 3ft x 3ft with green background and yellow letters of Times New Roman Font 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.
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.
40. No change in mining technology and scope of working should be made without prior approval of the DEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the DEIAA, as applicable.
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.
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.
43. The top soil, if any, shall temporarily be stored at earmarked site(s) only for the top soil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site (s) only. The maximum height of the dumps shall not exceed 8 meter and width 20 meter 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 the dump. The entire excavated area shall be backfilled. Monitoring and management or rehabilitated areas should continue until the vegetation becomes self sustaining

District Environment Impact Assessment Authority [DEIAA]




SUB COLLECTOR
FORTKOCHI

44. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working mineral and OB dumps to prevent run off 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, road, green belt development etc. The drains shall be regularly desalted particularly after monsoon and maintained properly.
45. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading points and transfer points – it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Control Board in this regard.
46. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads. Loading and unloading and at transfer points should be provided and properly maintained.
47. Measures should be taken for control of noise levels below 85 dBA in the work environment.
48. A separate environment management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the Organization.
49. The funds earmarked for environmental protection measures and CSR activate should kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the District Environment Impact Assessment Authority (DEIAA) office.
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.
51. Any appeal against this Environment Clearance shall lie with the National Green Tribunal. If preferred with a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.
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 withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
53. The DEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of any of the above conditions is not satisfactory. The DEIAA reserve the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

District Environment Impact Assessment Authority [DEIAA]

Su
SUB COLLECTOR
FORTKOCHI



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 the same project.
55. The order is valid for a period of 5 years from the date of this clearance or the expiry of mine lease period issued by the Government of Kerala, whichever is earlier.
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.
57. The mining operation shall be restricted to above ground water table and it should not interest ground water table.
58. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area.
59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.
60. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to DEIAA.
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.
62. Commitment of CST should be fulfilled.

SPECIFIC CONDITIONS PROPOSED BY DEAC

1. The applicant should establish a permanent bench mark outside the mining area from which the relative depths of mining should be established and submitted in the calculations as well as in the drawings.
2. The relative levels from the established bench marks should be permanently marked in the boundary points.
3. The solid waste generated during the course of operation shall be utilized for formation of safety bunds all along 7.5m safety zone, internal road maintenance and green belt works.
4. Sufficient number of suitable parapet walls shall be made all along quarries, haulage roads where ever necessary in order to maintain safe working conditions.
5. Proper blast design avoiding over charging and controlled blasting techniques shall be adopted.
6. Construction of garland drains to divert surface run off away from mining area shall be implemented.

District Environment Impact Assessment Authority [DEIAA]





**SUB COLLECTOR
FORTKOCHI**

7. Environmental auditing shall be done every year and same shall be reported to District Collector through District Geologist.
8. Quarrying area shall be under water sprinklers for dust control.
9. Ideal locations shall be identified in and around quarry site suitable for rain water harvesting.
10. Implementation of artificial geo-textiles shall be promoted along borders of buffer zone where chances of rock creep exist during rainy season.
11. Future excavations shall be conducted by strictly forming systematic benches as per the norms of Mine Safety Departments and Kerala Minor Mineral Concession Rules 2015.
12. All quarry workers shall be allowed to enter the blasting area only with personal protective equipments (helmets, safety shoes, reflecting jackets...etc)

Validity of the environmental clearance will be for five years from the date of this clearance, subject to earlier review in the event of genuine complaint from anybody from the safety area or violation or non-compliance of any of the conditions stipulated herein.

MONITORING AND ACTION AGAINST VIOLATION OF GENERAL & SPECIFIC CONDITIONS

- 1) This environmental clearance is subject to the general and specific condition mentioned in this proceeding. This EC is liable to be cancelled if general and specific conditions are violated and also Penal action will be taken if DEIAA finds any false statement / information in the project proposal.
- 2) Compliance of the conditions here in will be monitored by the Authority or its agencies and also by the regional office of the Ministry of Environment & Forests, Government of India, Bangalore
- 3) Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.
- 4) Instances of violation if any shall be reported to the District Collector, Ernakulam to take legal action under the Environment (Protection) Act, 1986.
- 5) All the inventory records and other documents related to the operations and maintenance of the quarry should be maintained and produced to the monitory authorities whenever needed or directed to produce the same in the future.
- 6) The given address for correspondence with the authorized signatory of the project of Sri Sabu Varghese, M/s S.S. Granites, Korangolithadathil House, Karimpana P.O., Koothattukulam, Ernakulam , Kerala.


District Environment Impact Assessment Authority [DEIAA]

**DISTRICT COLLECTOR
FORTKOCHI**



Snehi
Sri. Snehil Kumar Singh. IAS
Member Secretary, DEIAA
&
Sub Collector, Fort Kochi

To
Sri Sabu Varghese, M/s S.S. Granites,
Korangolithadathil House, Karimpana P.O.,
Koothattukulam, Ernakulam , Kerala.



Copy to:

1. The Additional Chief Secretary to Government, Environment Dept, Govt. Of Kerala
2. Director, Mining & Geology, Thiruvananthapuram - 4
3. Chairman DEIAA & District Collector, Ernakulam
4. Sri. A. Renjan I.F.S, DFO Malayattoor & Member DEIAA
5. Dr. P.S. Easa, Member, National Board of Wildlife & Member DEIAA
6. Sri. A. K Manoj, Geologist, Mining & Geology, Kakkanad, Ernakulam
7. The Secretary, Palakkuzha Grama Panchayath,
8. Tahsildar, Muvattupuzha Taluk.
9. Village Officer, Palakkuzha Village
10. Website
11. Stock File

LEASE ORDER & LEASE DEED

ANNEXURE-2

**PROCEEDINGS OF THE ADDITIONAL DIRECTOR OF MINING & GEOLOGY,
THIRUVANANTHAPURAM, KERALA**

(Present Shri. T K Ramakrishnan)

- Sub:** Department of Mining & Geology, Government of Kerala - Mines & Minerals - Minor Minerals – Granite (Building Stone) – Quarrying Lease to M/s. S. S. Granites, House No. 322/12, Kurangolithadathil, Karimpana. P. O, Koothattukulam, Ernakulam District – 686 662 (Represented by its Managing Partner, Shri. Sabu Varghese) – sanctioned-orders-issued.
- Ref:** 1 Application dated 26/04/2017 from M/s. S. S. Granites, House No. 322/12, Kurangolithadathil, Karimpana. P. O, Koothattukulam, Ernakulam District – 686 662 (Represented by its Managing Partner, Shri. Sabu Varghese)
- 2 Letter No. DOE/979/E2/17 dtd. 29/08/2017, 02/02/2019 from the Geologist, District Office, Ernakulam.
- 3 Letter of Intent No. 8253/M3/2017 dtd. 15/09/2017 issued by Director of Mining and Geology
- 4 Environmental clearance No. 60/2018 issued vide Pro. Order No. P/333/2018 (DIA/KL/MIN/12528/2018) dtd. 10/12/2018 by the State Environment Impact Assessment Authority Kerala (valid till 09/12/2023)
- 5 Integrated consent to operate No. R18 ERNA CTO 942019 dtd. 06/01/2019 issued by Kerala State Pollution Control Board, Ernakulam (valid till 09/12/2023)
- 6 Explosive License No. E/SC/KL/22/1145(E55019) dated. 11/01/2019 issued by Petroleum and Explosive Safety Organization, Ernakulam (valid till 31.3.2020)
- 7 Dangerous and Offensive Trade License No. 128/18-19 dated. 23/01/2019 issued by Palakkuzha Grama Panchayat (valid till 31.03.2019).
- 8 Mines and Minerals (Development & Regulation) Act, 1957.
- 9 Kerala Minor Mineral Concession Rules, 2015
- 10 Kerala Minerals (Prevention of Illegal Mining, Storage & Transportation) Rules 2015

No. 786/2018-19/8253/M3/2017/DMG

Dated, Thiruvananthapuram

16/02/2019

ORDER

M/s. S. S. Granites, House No. 322/12, Kurangolithadathil, Karimpana. P. O, Koothattukulam, Ernakulam District – 686 662, a Partnership firm having registration No. 3536/2016, represented by its Managing Partner, Shri. Sabu Varghese (Aadhaar No. 9693 1724 0523) submitted an application vide reference first cited to obtain quarrying lease to quarry Granite (Building Stone) over an area of **4.3046** Hectares of land (as per the survey map No. 183/17 issued by Tahsildar, Muvattupuzha) comprised in **Survey Nos. 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3, 459/2B2 of Palakkuzha Village, Muvattupuzha Taluk.** The District Geologist, Ernakulam has intimated that the applied area is virgin and there was no dues by way of royalty to be collected from the applicant.



Based on the merit of the application and the enclosed mandatory documents including survey map, possessions certificates, demarcation certificate and land assignment certificate issued by Revenue Authorities and based on the recommendation of the District Geologist, a letter of intent was issued to the applicant vide reference cited 3 intimating the intention of the department to grant quarrying lease subject to production of approved mining plan and other statutory licenses. The District Geologist forwarded the mining plan (prepared by Shri. Ramachandra. K. T, Recognized Qualified Person – Reg. No. RQP/BNG/040/1988/A approved by him and other statutory licenses submitted by the applicant to this office. In the approved mining plan it is mentioned that mineable mineral reserve of granite (building stone) in the applied area is **20,56,928** tonnes and that it is proposed to mine **20,56,928** tonnes of granite (building stone) for 12 years with an average annual production of **1,71,411** tonnes. Since the applicant has produced all statutory documents as per the Letter of Intent, it is decided to grant a quarrying lease in the said land and hence the following orders are issued:

A quarrying lease is hereby granted to **M/s. S. S. Granites, House No. 322/12, Kurangolithadathil, Karimpana. P. O, Koothattukulam, Ernakulam District – 686 662, a Partnership firm having registration No. 3536/2016, represented by its Managing Partner, Shri. Sabu Varghese (Aadhaar No. 9693 1724 0523)** to quarry Granite (Building Stone) over an area of **4.3046** Hectares of land (as per the survey map No. 183/17 issued by Tahsildar, Muvattupuzha) comprised in **Survey Nos. 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3, 459/2B2 of Palakkuzha Village, Muvattupuzha Taluk, Ernakulam District** for **12 (Twelve)** years as per the Kerala Minor Mineral Concession Rules, 2015, subject to the conditions mentioned below.

1. 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 and the quarrying leases deed shall be registered in accordance with the provisions of the Indian Registration Act, 1908.
2. The lessee shall commence quarrying operation only after the deed is executed and registered.
3. The lessee shall not assign, sublet or transfer his lease or any right or interest therein to any person without previous written permission of the Director of Mining & Geology.
4. 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. In case the lessee opts for consolidated royalty payment system by registering attached metal crusher units as per Rule 89, then consolidated royalty at the rate specified in

dy

Schedule III said Rules shall be paid instead of royalty specified in Schedule I.

5. 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.
6. 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.
7. The lessee shall also deposit an amount of **Rs. 43,046/- (Rupees forty three thousand and forty six only)** being the security deposit at the rate of Rs 10,000/- 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.
8. The lessee shall produce financial guarantee for **Rs. 1,07,615/- (Rupees one lakh seven thousand six hundred and fifteen only)** as stipulated in rule 62 of KMMC Rules 2015, before execution of lease deed.
9. The lessee shall pay tax related to Revenue Department, if any, as directed by them and the details should be furnished to the District Geologist periodically.
10. The lessee shall pay 10% of the amount of royalty/consolidated royalty as the case may be paid by them, being the quarry safety fund in addition to the royalty/consolidated royalty, as per rule 63 of KMMC rules, 2015.
11. In addition to the royalty, rents, funds, fees etc. that are required to be remitted by the lessee as per the Mines and Minerals (Development and Regulation) Act, 1957 and Rules made thereunder, the lessee shall pay all other fees, rents, taxes etc. as required by other agencies including Goods and Service Tax (GST) for royalty.
12. The quarrying shall be carried out as per the conditions stipulated in Kerala Minor Mineral Concession Rules 2015 and storage and transportation of mineral shall be carried out as per Kerala Minerals (Prevention of Illegal Mining, Storage and Transportation) Rules 2015.
13. The lessee shall renew Environmental Clearance on or before **09/12/2023** for the operation of the quarry for the remaining period.
14. The quarrying operations shall be strictly as per the approved mining plan and schemes of mining.
15. The lessee shall review the progressive quarry closure plan every five years from the date of opening of the quarry and shall submit to the competent authority for its approval. The lessee shall submit to the competent authority in this behalf an yearly report before 1st July of every year describing protective works including reclamation and rehabilitation work

- carried out as envisaged in the approved quarry closure plan and if there is any deviation, reasons thereof.
16. The lessee shall submit a scheme of mining for the next five years or remaining period of the lease to the competent authority for approval at least one hundred and twenty days before the expiry of the first five year period for which it was approved on the last occasion.
 17. The lessee shall submit final quarry closure plan one year prior to the proposed closure of the quarry and close the quarry as per the approved quarry closure plan.
 18. The production of Granite (Building Stone) from the area covered under this grant shall be subject to the year-wise quantity specified in the approved Mining Plan and scheme of mining.
 19. 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.
 20. The Lessee shall comply with any and all laws, ordinances, rules and orders related to quarrying operations of any and all governmental or quasi-governmental authorities.
 21. The lessee shall comply with all the conditions mentioned in other statutory license required for carrying out quarrying operations.
 22. The lessee shall stop all quarrying activities in the event of expiry of any other statutory licenses which is required for carrying out quarrying activities in the State as per the prevailing Acts and Rules. Any quarrying activity undertaken violating the above condition will be treated as illegal and lessee will be solely responsible for such act and lessee will be liable to pay the penalty imposed by any officer competent to enforce such Acts and Rules.
 23. In case the lessee makes any breaches in the conditions of the lease deed or violates the conditions stipulated in relevant Act and Rules based on which all Statutory Licenses are issued for quarrying, then the lessee will be solely responsible for any such breaches and violation and in such cases, the lessee will be solely liable to pay such sum of money as fixed by competent authorities as due and penalty.
 24. The Lessee shall indemnify and keep indemnified the State Government against all actions, proceedings, suits, claims, demands, losses, damages, costs, charges, and expenses incurred or suffered by them as a reason of any non-observance or non-performance of rules and regulations
 25. This lease is granted in good faith based on the documents/licenses submitted by the lessee. The lessee is solely responsible for the authenticity of the documents/licenses submitted. At any stage, if it is observed that the

✓

- documents submitted are incorrect or fake or forged or if it is found that some information was omitted or suppressed, then this lease is liable to be cancelled. In such an event the quarrying carried out with the strength of this lease will be treated as quarrying conducted without any lawful authority.
26. The lessee shall properly maintain the boundary pillars erected as per the demarcation certificate issued by the Village Officer till the expiry of lease.
 27. 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 lessee, mineral concession number and date, validity of concession, the name of the mineral quarried, proposed annual production etc. In addition, details of other statutory licenses shall also be displayed.
 28. The lessee shall erect by the side of the road leading to quarry (preferably 100 m away from quarry), a warning board with danger sign regarding operation of the quarry and use of explosives.
 29. The lessee should take effective preventive measures for the safety of labourers as well as the general public. In due course of quarrying, if any part of the quarry becomes unsafe, then the lessee shall properly fence that area for preventing accidents by falling of human beings, animals, vehicles or any objects into the pit formed by quarrying.
 30. The lessee shall not carry out any quarrying operations within 7.5 meters from the boundary of the lease area and quarrying operations shall be carried out in benches.
 31. The lessee shall start mining operation with the strength of this lease only after sending a notice in form D appended to KMMC Rules 2015 to the Director (Mining), Directorate General of Mines Safety, No.5, 14th Main (100ft) Road, 4th B Block, Koramangla, Bengaluru - 560034 and to District Magistrate concerned and shall intimate the same to the District office of the Department of Mining and Geology.
 32. The lessee shall keep book of accounts of production and dispatch of granite (building stone) and shall file monthly and annual returns in Form F and Form G appended to KMMC Rules 2015.
 33. The quarrying permit granted from the district office, if any, in the area of this quarrying lease is hereby stands cancelled from the date of this order.
 34. In this case, the anticipated royalty to be remitted for the mineral extracted per year at the present rate of royalty of **Rs. 24/-** per tonne with average annual production of of **1,71,411 tonne** is **Rs. 41,13,864/- (Rupees forty one lakhs thirteen thousand eight hundred and sixty four only)**. In this case, the surface rent to be remitted per year at the present rate of Rs. 5 per Are



per year is **Rs. 2,152/- (Rupees two thousand one hundred and fifty two only)** and in the event of non - functioning of quarry the Dead Rent to be realized for the 1st year - NIL IInd year - Rs. 300/- (Rupees three hundred only) and IIIrd year onwards - Rs. 1,200/- (Rupees one thousand and two hundred only) per hectare subject to revision from time to time.

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

Sd/-

T. K. RAMAKRISHNAN
ADDITIONAL DIRECTOR OF MINING & GEOLOGY

To

M/s. S. S. Granites,
House No. 322/12, Kurangolithadathil,
Karimpana. P. O, Koothattukulam, Ernakulam District - 686 662
(Represented by its Managing Partner, Shri. Sabu Varghese)

Copy to:

- 1 The Director (Mining), Directorate General of Mines Safety, No.5, 14th Main (100ft) Road, 4th B Block, Koramangla, Bengaluru - 560034
- 2 The District Collector & Chairman, DEIAA, Ernakulam.
- 3 The Deputy Chief Controller of Explosives, PESO, C2-III Floor, CGO Complex, Kakkanad, Ernakulam
- 4 The Environmental Engineer, Kerala State Pollution Control Board, District Office, Ernakulam.
- 5 The Secretary, Palakkuzha Grama Panchayath, Ernakulam District.
- 6 The Tahsildar, Muvattupuzha Taluk Office, Ernakulam District.
- 7 The Village officer, Palakkuzha Village, Ernakulam District.
- 8 Shri. Shri. K. T. Ramachandra, C/o. Abey Mathew Associates, Aikkarakudiyil Chambers, Padamugal, Ernakulam District - 682 021.
- 9 The Geologist, District Office of the Dept. of Mining and Geology, Ernakulam.
- 10 Stock File
- 11 File Copy

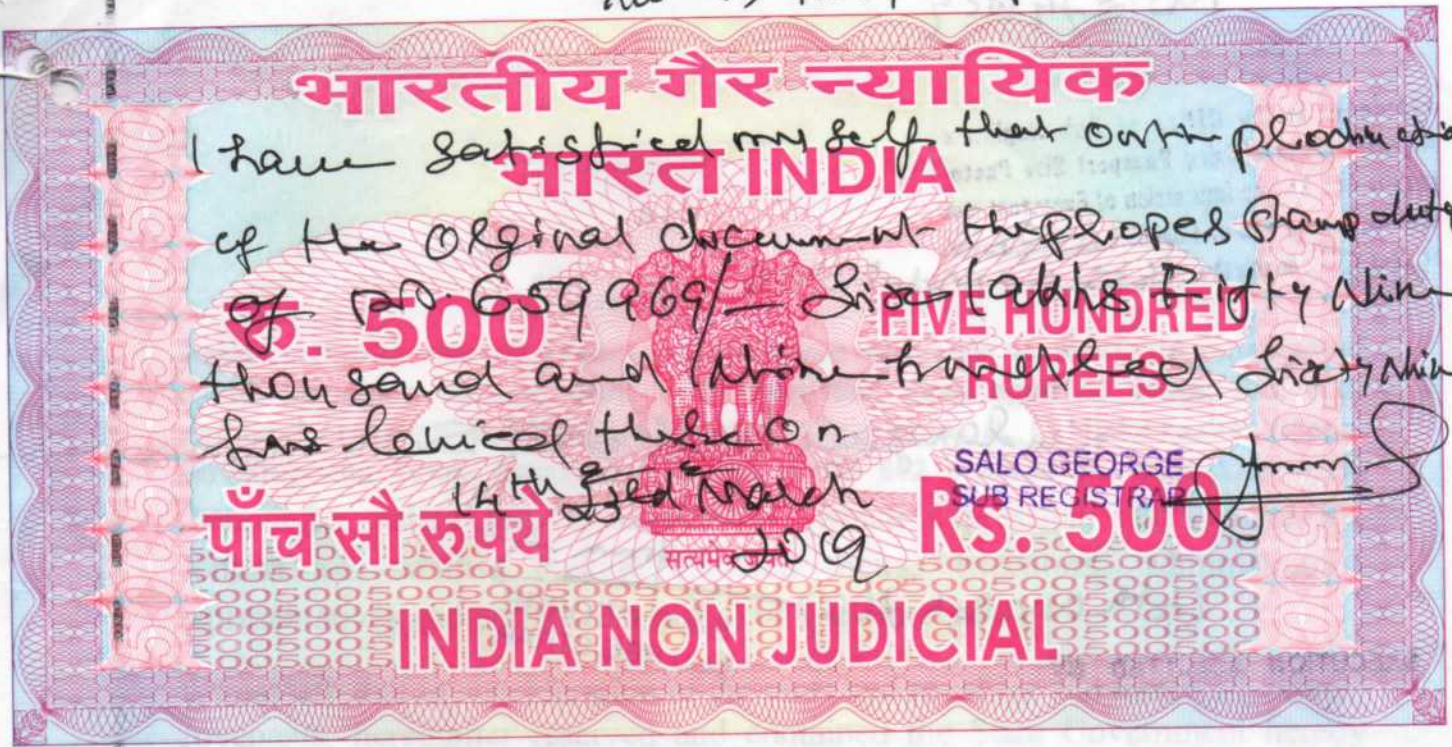
(By Order)

Sd/-
16/02/2019

Senior Superintendent



no 374619 duplicate



കേരളം കേരल KERALA

E 613845

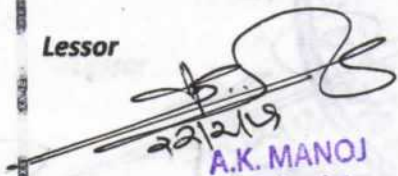
Executant
Sabu Varghese



FORM H
(See Rule 43)
QUARRYING LEASE

This deed of lease made on this the ~~Twenty Second~~ February day of 2019 between the Governor of Kerala (hereinafter referred to as the "State Government" which expression shall, where the context so admits be deemed to include his successors and assigns) of the one part and M/s. S. S. Granites, House No. 322/12, Kurangolithadathil, Karimpana. P. O, Koothattukulam

Lessor


22/2/19

A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030

For S.S. GRANITES

Lessee PARTNER

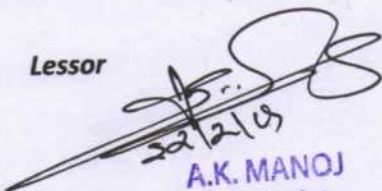


Ernakulam District – 686 662, a Partnership firm having registration No. 3536/2016, represented by its Managing Partner, Shri. Sabu Varghese, aged aged 46 years, S/o. K.C. Varghese, residing at Korangalithadathil, Karimpana. P. O, Palakkuzha Village, Muvattupuzha Taluk, Ernakulam District – 686 662 (Aadhaar No. 9693 1724 0523) (hereinafter called the “lessee/lessees” which expression shall where the context so admits, include his/their heirs, executors, administrators, representatives and permitted assigns) of the other part.

Witnesseth that in consideration of the rents and royalties and lessee’s/Lessees’ covenants, hereinafter reserved and contained the State Government hereby give on lease to the lessee/lessees the land measuring **4.3046 hectares** described in the schedule hereunder and delineated on the plan hereto annexed and therein coloured red (hereinafter called the “said lands”) to hold the same for a period of **12 (Twelve) years** commencing from the~~22.02.2019~~ and ending on the ~~21.02.2031~~. for the purposes of extracting minor mineral/minerals and subject to the terms and conditions contained in the Kerala Minor Mineral Concession Rules, 2015 (hereinafter referred to as “the Rules”) and to the terms and conditions hereinafter appearing

1. The lessee/lessees shall have the right in and upon the said lands to extract Granite Building Stone (here in after called the said mineral/minerals) and to do all acts necessary for the extraction of the said mineral/minerals including the erection on the said lands, buildings and plant required for the purposes and also to take lead and carry away over the said lands and to dispose of the said minerals extracted as aforesaid.
2. The lessee/lessees shall during the subsistence of this lease have the liberty to work the said mineral/minerals and remove the same from the leasehold on permits issued by the State Government/competent authority or any other officer authorized by him in this regard. The permits shall be issued only on the basis of pre-paid royalty at the rates specified in Schedule I to these Rules. The royalty rates shall be subject to revision from time to time as the State Government may order.

Lessor

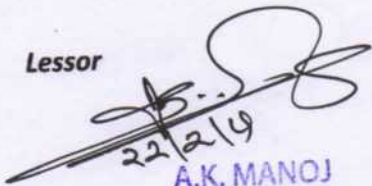

22/2/19
A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030

For S.S. GRANITES

Lessee PARTNER

3. The lessee/lessees shall pay to the State Government a yearly surface rent equal to the land revenue if any, assessable under the rules for the time being in force, or if the land be the property of Government or in reserve forest then equal to the land revenue plus cess, if any, per hectare of the land the surface whereof shall be occupied or used by the lessee/lessees for any of the purposes of this deed and so in proportion for any area less than one hectare. The said surface rent shall be paid by yearly payments; the first of such payments to be made on or before the last day of the first year of occupation provided always that no such rent shall be paid or demanded in respect of any roads or ways now in existence.
4. The lessee/lessees shall at all times during the currency of this lease keep correct and intelligible books of account showing accurately the quantity of the said minerals extracted and the weight and value of the said mineral sold or exported together with the names of the purchasers or consignees. The lessee shall also maintain a register of employees showing therein separately men, women employed daily and shall at reasonable times allow the competent authority appointed under the rules (hereinafter referred to as "competent authority") or the officer authorised by him to examine the said books of account and the register of employees and to take copies and extracts there from. The lessee/lessees shall submit reports in Forms F and G on the specified dates.
5. All sums found due under or by virtue of this deed from the lessee/lessees may be recovered from him jointly and severally from them and his/their properties movable and immovable under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of land revenue or in any other manner as the State Government may deem fit.
6. The lessee/lessees shall at the lessee's/lessees' own expense erect and at all times maintain and keep in repair boundary marks and pillars along the boundaries of the said lands according to the demarcation shown in the plan here to annexed.
7. The lessee shall not carry on or allow to be carried on any quarrying operations at or to any points within a distance of 100 metres from any railway line except with the previous written permission of the railway

Lessor



22/2/19

A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030

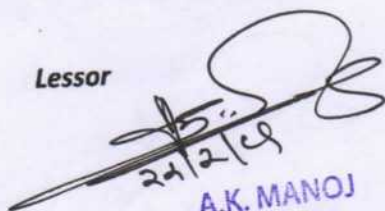
For S.S. GRANITES

Lessee

MG. PARTNER

- administration concerned and any bridge on National Highway or 50 metres from any reservoir, tanks, canals, rivers, bridges, public roads, other public works, residential buildings, the boundary walls of places of worship, burial grounds, burning ghats or one kilometer from the boundaries of National Park or Wildlife Sanctuaries except with the previous permission of the authorities concerned or the Government or competent authority.
8. The sides of open workings shall be sloped, stepped or secured by the lessee in such a manner as to prevent slope failure, when an open working is worked in steps, steps shall be of sufficient breadth in relation to their height to secure safety. In open workings trees liable to fall and all loose ground and material shall be removed by the lessee sufficiently far from the edge or otherwise made source in order to prevent danger to persons employed in the quarry.
 9. If a working place is found to be unsafe all persons shall be withdrawn by the lessee/lessees immediately from the dangerous area and all access to such working place except for the purpose of removing the danger of saving life shall be prevented by securely fencing the full width of all entrances to the place.
 10. The lessee/lessees shall at all reasonable times allow any officer authorised by the Central Government or by the State Government in that behalf to inspect the said lands and the buildings and plants erected thereon and the lessee/lessees shall assist such persons in conducting the inspection and afford them all information they may reasonably require, and shall conform to and observe all orders which the Central and State Governments as the result of such inspection or otherwise, may from time to time pass.
 11. The lessee shall be responsible for implementing the provisions of the Various labour laws applicable, from time to time, to the quarry.
 12. The lessee/lessees shall not assign or underlet the said lands or any part thereof or the rights or privileges, therein hereby granted or any of them without the previous permission in writing of the State Government / competent authority.
 13. Where the lease or any right, title or interest therein has been assigned, sublet or transferred as provided in rule 45 read with condition 12, then the

Lessor



A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-692 030

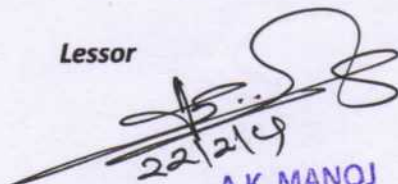
For S.S. GRANITES

Lessee
MG. PARTNER

person in whose favour such assignment, sublease or transfer has been made shall be responsible for implementing the provisions of the various labour laws applicable, from time to time, to the quarry.

14. The lease may be surrendered by the lessee/lessees at any time after 3 months notice in writing to the State Government/competent authority provided the lessee/lessees has/have paid all sums due on account of the lease: Provided that if the lessee/lessees elects/elect to determine this lease before the expiry of the term of the lease, shall pay in addition to other dues a sum equal to the dead rent payable for the remaining part of the term of the lease deed.
15. If the lessee/lessees shall be desirous of taking a further lease of the said lands he/they shall give three months' previous notice in writing of such desire to the State Government/competent authority and if the lessee/lessees has/have duly observed all the conditions of this lease, the State Government/competent authority may agree to renew the lease for such further term and on such terms and conditions as the State Government/competent authority may determine which shall be in accordance with the provisions of these rules.
16. If the lessee/lessees shall at any time during the said term use the said lands or any part thereof in any manner other than as authorised by this lease or fail to carry on quarrying operations continuously without sufficient cause of which the State Government/competent authority shall be the judge or shall commit a breach of any of the conditions of this lease it shall be lawful for the State Government/competent authority to cancel this lease and take possession of the said lands or the alternative to receive from the lessee/lessees such penalty not exceeding Rs. 25,000/- (Rupees twenty five thousand only) for the breach as the State Government/competent authority may fix.
17. If at the expiration of three calendar months after the expiry of the lease or its sooner determination, there shall remain in or the said lands, any engines, machinery, plant buildings, structures and other works, erections and conveniences, the said minerals or other property which the lessee is/lessees are entitled to remove from the said lands, the same shall, if not

Lessor


22/2/19
A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030

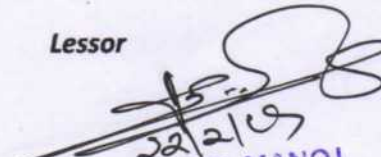
For S.S. GRANITES

Lessee
MG. PARTNER

removed by the lessee/lessees within one calendar month after notice in writing requiring their removal be given to the lessee/lessees by the State Government/competent authority be deemed to become the property of the State Government in such manner as they may deem fit without liability to pay any compensation or to account to the lessee/lessees in respect thereof.

18. This lease subject to all rules and regulations which may from time to time be issued by the State Government regulating the working of the quarries and other matters affecting safety, health and convenience of the lessee's/lessees' employees or of the public, whether under the Indian Mines Act or otherwise.
19. The lessee/lessees shall without delay send to the District Collector and the competent authority or the officer authorised by him in this regard report of any accident causing loss of life or serious bodily injuries or seriously affecting or endangering life or property which may at any time occur at or in the said lands in the course of operations under this lease.
20. The lessee/lessees shall furnish such reports and returns relating to output, labourers employed and other matters as the State Government may prescribe.
21. The lessee/lessees shall make and pay such reasonable compensation as may be assessed by lawful authority in accordance with the law in force on the subject for all damage, injury or disturbance which may be done by him/them in exercise of the powers granted by this lease and shall indemnify and shall keep indemnified fully and completely the State Government against all claims which may be made by any person or persons in respect of any such damage, injury or disturbance and all costs and expenses in connection therewith.
22. Any condition prescribed in the Kerala Minor Mineral Concession Rules, 2015 but left out in this lease which may be found applicable to the lessee / lessees shall be treated as binding on the lessee/lessees.
23. In this case, the anticipated royalty to be remitted for the mineral extracted per year at the present rate of royalty of Rs. 24/- per tonne with proposed average annual production of 1,71,411 tonne is **Rs. 41,13,864/- (Rupees forty one lakhs thirteen thousand eight hundred and sixty four only)** and

Lessor


22/2/19
A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030

For S.S. GRANITES


Lessee PARTNER

- may enhance the quantity of production with the prior permission of the lessor and registration of the lease deed amended accordingly.
24. In this case, the surface rent to be remitted per year at the present rate of Rs. 5/- per Are per year is **Rs. 2,152/- (Rupees two thousand one hundred and fifty two only)** and the refundable Security Deposit is **Rs. 43,046/- (Rupees forty three thousand and forty six only).**

SCHEDULE OF DESCRIPTION OF LAND

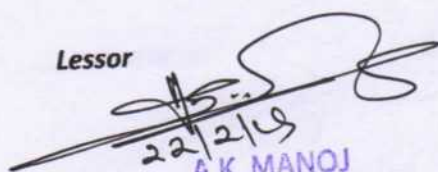
District : Ernakulam
Taluk : Muvattupuzha

| Village | Re - Survey No. | Lease Area in Hectares |
|-------------------------------|-----------------|------------------------|
| Palakkuzha | 441/4-1 | 0.0577 |
| - DO - | 441/5 | 0.0567 |
| - DO - | 455/6A | 0.2833 |
| - DO - | 455/6A | 0.2954 |
| - DO - | 457/3-1 | 0.2469 |
| - DO - | 457/3-1 | 0.4346 |
| - DO - | 457/4-2 | 0.6919 |
| - DO - | 457/4-3 | 0.2914 |
| - DO - | 457/4-3 | 0.2833 |
| - DO - | 457/5 | 0.8337 |
| - DO - | 459/2A3 | 0.6273 |
| - DO - | 459/2B2 | 0.2024 |
| Total Area in Hectares | | 4.3046 |

Bounded by Survey No:

On the North by : Survey Nos. 457/3pt, 457/2, 457/6, 457/7, 457/8, 459/2pt

Lessor


22/2/19
A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030

For S.S. GRANITES

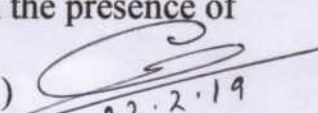
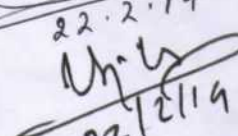

Lessee PARTNER

On the East by : Survey Nos. 459/3, 441/4-1
On the South by : Survey Nos. 441/6, 457/4-1, 443/6
On the West by : Survey Nos. 455/6A, 455/6B, 455/7, 457/3pt

In witness whereof the parties hereto have set their hands here unto on the day and year first above written.

Signed by.....
for and on behalf of the Governor of Kerala
A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030

In the presence of

- (1)  22.2.19 Dr. Manju C.S., Asst. Geologist
- (2)  22/2/19 Dr. V. S. M. K. Kumar, Asst. Geologist





For S.S. GRANITES

Signed by.....
MG. PARTNER Adhar No. 969317240523

for and on behalf of the lessee/lessees

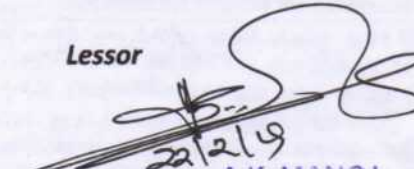
In the presence of

- (1) Cibil Peter (Adhar no: 3164 7784 8507
Pulavar parayil 43 Karimpara Po 1800thattulalam 

- (2) Anoo Abraham, Thomichavattile (or) Maringana (or) 
Adhar No: 7664 7130 0678

Corrections and Interlineations Nil.

For S.S. GRANITES
Lessor Lessee
MG. PARTNER

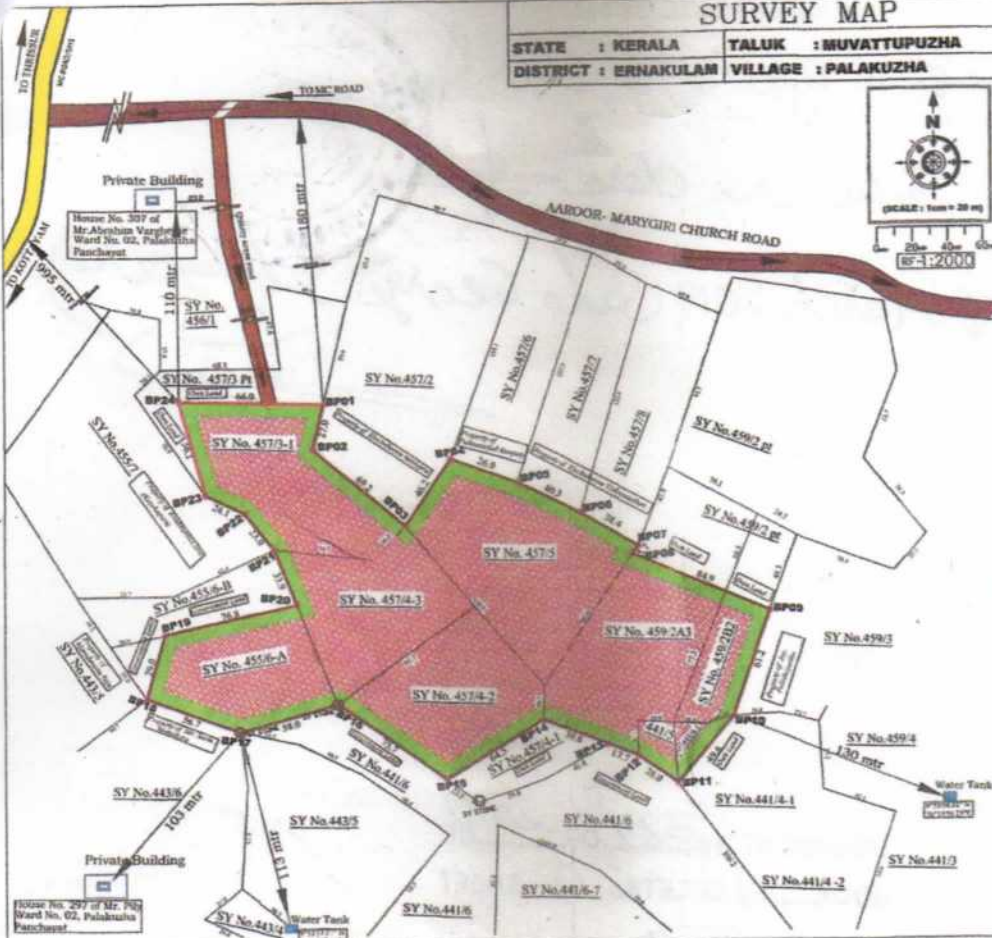

22/2/19
A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030



SURVEY MAP

STATE : KERALA TALUK : MUVATTUPUZHA
 DISTRICT : ERNAKULAM VILLAGE : PALAKUZHA

M/s. SS GRANITES Proposed area for applying quarry lease in patta land having extent 4.3046 Ha. (10.6324 acre) in Survey No. 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3, 459/2B2 of Palakuzha Village, Muvattupuzha Taluk Ernakulam District, Kerala - 686662



| AREA IN POSSESSION WITH APPLICANT | | |
|-----------------------------------|---------|-----------------|
| SI NO. | SY NO. | AREA IN HECTARE |
| 1 | 441/4-1 | 0.1225 |
| 2 | 441/4-1 | 0.1214 |
| 3 | 441/4-1 | 0.1862 |
| 4 | 441/4-2 | 0.1700 |
| 5 | 441/5 | 0.0567 |
| 6 | 455/6A | 0.5787 |
| 7 | 457/3-1 | 0.7089 |
| 8 | 457/3-1 | 0.2469 |
| 9 | 457/4-2 | 0.0919 |
| 10 | 457/4-3 | 0.5747 |
| 11 | 457/5 | 0.8836 |
| 12 | 459/2A3 | 0.0274 |
| 13 | 459/2B2 | 0.2024 |
| TOTAL | | 5.1843 |

- INDEX**
- PROPOSED QUARRY LEASE BOUNDARY
 - 7.5 mt BUFFER ZONE LIMIT
 - QUARRY WORKING AREA
 - 7.5 mt BUFFER ZONE AREA
 - BP11 BOUNDARY CORNER PILLAR
 - SURVEY NO. DEMARCATION
 - SURVEY STONES



(Handwritten signature and text)
 Geology
 Department of Mining and Geology
 Palakuzha, Muvattupuzha - 686662

| Sl No. | Document No. | SY No. | TOTAL AREA (As per Possession Certificate) in Ha | MINING AREA in Ha | BUFFER AREA in Ha | TOTAL APPLIED LEASE AREA in Ha | BALANCE OVER LAND in Ha | SP NO. | NAME & ADDRESS |
|-------------------|--------------|---------|--|-------------------|-------------------|--------------------------------|-------------------------|--------|---|
| 1 | 621/1/2016 | 441/4-1 | 0.1251 | 0.05 | 0.087 | 0.0577 | 0.0677 | 1389 | SHRINO PILLAI MANGALAM DIRECTOR M/s. New Rock Crusher Private Limited 3833, Kumbalangi, Maradu - 686672 |
| 2 | 1379/1/2014 | 441/5 | 0.0567 | 0.0366 | 0.0201 | 0.0067 | NIL | 13113 | SHRINO PILLAI MANGALAM DIRECTOR M/s. New Rock Crusher Private Limited 3833, Kumbalangi, Maradu - 686672 |
| 3 | 1802/1/2015 | 455/6A | 0.2883 | 0.1817 | 0.1066 | 0.2883 | NIL | 12662 | MANGALAM DIRECTOR M/s. Grandland Granites Private Limited 3833 Maradu - 686672 |
| 4 | 1841/1/2015 | 455/6A | 0.2064 | 0.1263 | 0.1001 | 0.2064 | NIL | 12662 | MANGALAM DIRECTOR M/s. Grandland Granites Private Limited 3833 Maradu - 686672 |
| 5 | 1508/1/2016 | 457/3-1 | 0.2469 | 0.1521 | 0.0948 | 0.2469 | NIL | 12910 | SHRINO PILLAI MANGALAM DIRECTOR M/s. Grandland Granites Private Limited 3833 Maradu - 686672 |
| 6 | 306/1/2016 | 457/3-1 | 0.7089 | 0.342 | 0.3669 | 0.4946 | 0.2143 | 12917 | SHRINO PILLAI MANGALAM DIRECTOR M/s. Grandland Granites Private Limited 3833 Maradu - 686672 |
| 7 | 136/1/2016 | 457/4-2 | 0.0919 | 0.0379 | 0.054 | 0.0919 | NIL | 12918 | SHRINO PILLAI MANGALAM DIRECTOR M/s. New Rock Crusher Private Limited 3833, Kumbalangi, Maradu - 686672 |
| 8 | 1842/1/2015 | 457/4-3 | 0.2914 | 0.2971 | 0.0043 | 0.2914 | NIL | 12662 | MANGALAM DIRECTOR M/s. Grandland Granites Private Limited 3833 Maradu - 686672 |
| 9 | 1843/1/2015 | 457/4-3 | 0.2883 | 0.2883 | 0 | 0.2883 | NIL | 12662 | MANGALAM DIRECTOR M/s. Grandland Granites Private Limited 3833 Maradu - 686672 |
| 10 | 654/1/2016 | 457/5 | 0.8837 | 0.3062 | 0.5775 | 0.8837 | NIL | 12916 | SHRINO PILLAI MANGALAM DIRECTOR M/s. New Rock Crusher Private Limited 3833, Kumbalangi, Maradu - 686672 |
| 11 | 1343/2/2016 | 459/2A3 | 0.0273 | 0.0833 | 0.044 | 0.0273 | NIL | 12917 | SHRINO PILLAI MANGALAM DIRECTOR M/s. New Rock Crusher Private Limited 3833 Maradu - 686672 |
| 13 | 1314/1/2016 | 459/2B2 | 0.2024 | 0.118 | 0.0844 | 0.2024 | NIL | 12917 | SHRINO PILLAI MANGALAM DIRECTOR M/s. New Rock Crusher Private Limited 3833 Maradu - 686672 |
| TOTAL AREA | | | 4.7026 | 3.4155 | 0.8891 | 4.3046 | 0.398 | | |

| COORDINATES | | M/s. SS GRANITES | |
|-------------|------|------------------|-------------------|
| 1 | BP1 | 9°54'6.85"N | 76°35'47.83"E |
| 2 | BP2 | 9°54'5.97"N | 76°35'47.60"E |
| 3 | BP3 | 9°54'4.53"N | 76°35'49.33"E |
| 4 | BP4 | 9°54'5.76"N | 76°35'50.62"E |
| 5 | BP5 | 9°54'5.33"N | 76°35'51.43"E |
| 6 | BP6 | 9°54'4.74"N | 76°35'52.61"E |
| 7 | BP7 | 9°54'4.12"N | 76°35'53.69"E |
| 8 | BP8 | 9°54'3.96"N | 76°35'53.56"E |
| 9 | BP9 | 9°54'2.87"N | 76°35'56.15"E |
| 10 | BP10 | 9°54'0.89"N | 76°35'55.45"E |
| 11 | BP11 | 9°53'59.66"N | 76°35'54.39"E |
| 12 | BP12 | 9°54'0.18"N | 76°35'53.64"E |
| 13 | BP13 | 9°54'0.41"N | 76°35'53.12"E |
| 14 | BP14 | 9°54'0.87"N | 76°35'51.87"E |
| 15 | BP15 | 9°53'59.81"N | 76°35'50.06"E |
| 16 | BP16 | 9°54'1.25"N | 76°35'48.07"E |
| 17 | BP17 | 9°54'0.74"N | 76°35'46.22"E |
| 18 | BP18 | 9°54'1.43"N | 76°35'44.49"E |
| 19 | BP19 | 9°54'2.60"N | 76°35'45.10"E |
| 20 | BP20 | 9°54'3.14"N | 76°35'47.35"E |
| 21 | BP21 | 9°54'4.15"N | 76°35'46.93"E |
| 22 | BP22 | 9°54'4.80"N | 76°35'46.38"E |
| 23 | BP23 | 9°54'5.17"N | 76°35'45.66"E |
| 24 | BP24 | 9°54'6.93"N | 76°35'45.11"E |
| | | MAP DATUM | WGS 84 |
| | | VARIATION | + 3 METERS |

മുഖ്യ മന്ത്രിയുടെ അനുമതി നമ്പർ 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3, 459/2B2 ന്റെ 4.3046 ഹെക്ടർ (10.6324 ഏക്കർ) വിസ്തൃതിയിൽ പാലാകുഴ വാർഡ് നമ്പർ 02, പാലാകുഴ പഞ്ചായത്ത് പ്രദേശത്ത് കല്ലെടുക്കാനുള്ള അനുമതി നൽകുന്നതിനായി സർവ്വേ നടത്തിയതിന്റെ വിവരങ്ങൾ താഴെ നൽകുന്നു. **VILLAGE OFFICER**

CONSENT TO OPERATE

FILE NO : 9664489

Date of issue : 06/01/2019



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. :9664489

Dated:29-12-2018

TO

**M/s S. S. GRANITES
Kurangolithadathil,
Palakuzha P.O. Muvattupuzha**

Consent No. :R18 ERNA CTO 942019

Valid Upto :09/12/2023

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 | 09/12/2023 |
| 2 | Name and Address of the establishment | S. S. GRANITES KURANGOLITHADATHIL, PALAKUZHA P.O. MUVATTUPUZHA 686662 |
| 3 | Communication | Telephone :91-9142092111 Fax :- E-mail:petrosaggregates@gmail.com |
| 4 | Occupier Details | SABU VARGHESE (Managing Partner), 322/12, Kurangolithadathil House, Karimpana P.O., Koothattukulam, Ernakulam. |
| 5 | Local Body | PALAKUZHA Grama Panchayath |
| 6 | Survey Number | 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3, 459/2B2 |
| 7 | Village | PALAKUZHA |
| 8 | Taluk | MUVATTUPUZHA |
| 9 | District | ERNAKULAM II |
| 10 | Capital Investment(Rs in Lakhs) | Rs 150 lakhs |
| 11 | Scale | Small |
| 12 | Category | RED |
| 13 | Annual fee(Rs) | Rs 25,000/- |
| | Total Fee remitted(Rs) | Rs 1,37,500/- |
| 14 | RAW MATERIAL | PRODUCTS |
| | | AGGREGATES PER ANNUM @203750 Metric Tonnes QUARRYING AREA - 4.3046 Hectares |
| 15 | Total Power Required (HP) | 60 HP |

2. CONDITIONS AS PER

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

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: 500 Litres/ Day

2.3 Effluent generation:

2.4 The characteristics of effluent after treatment shall confirm 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(Nm ³ /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/Nm ³) |
|--------|-----------|--|
| | | |

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 and Other Wastes (Management and Transboundary Movement) Rules, 2016.

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:

| | | | |
|-----|-----------------|-------------------|---------------------|
| 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) Rules, 2016.

5. SPECIFIC CONDITIONS

- 5.1 For renewal of the consent in case of continuance of operation of the quarry, application in the prescribed form shall be submitted through the web portal of the Board for Online Consent Management & Monitoring System 2 months prior to the date of expiry. Late application will be accepted only with fine.
- 5.2 The consent issued from the board is only with respect to the powers vested under the water Act 1974 Air Act 1981 and The Rules there under. The operation of the quarry shall be commenced only after obtaining clearances from all concerned Authorities.
- 5.3 There shall not be any quarrying activity between 6 pm to 6 am
- 5.4 Mining activities shall be done only in the area marked by Mining & Geology.
- 5.5 The PM10 in ambient air at the boundary shall not exceed 100 microgram/m³
- 5.6 The PM 2.5 in ambient air at the boundary shall not exceed 60 microgram/m³
- 5.7 The sound level (Leq) at 1 m outside the boundary of the site should not exceed the ambient noise Standard applicable to the adjoining areas.
- 5.8 Conditions given in the Environmental clearance shall be strictly complied with.
- 5.9 Mining shall be only done as per the mining plan attached with EC
- 5.10 Annual environmental statement shall be submitted on or before 31 st March every year.

DINESH K S Digitally signed by DINESH K S
 Date: 2019.01.07 14:26:41
 +05'30'

SIGNATURE & SEAL OF ISSUING AUTHORITY
 ENVIRONMENTAL ENGINEER- DO2- EKM

DATE :07/01/2019



To

SRI. SABU VARGHESE
(Managing Partner),
322/12, Kurangolithadathil House,
Karimpana P.O., Koothattukulam,
Ernakulam.

- 1. This digitally signed document is legally valid as per the Information Technology Act 2000**
2. For verifying this document please go to krocmms.nic.in and search using date of issue/name of the unit/Application Number in "Consent Granted Applications" link in the home page of the Board's Online Consent Management and Monitoring System.

EXPLOSIVE LICENCE

ANNEXURE-4



भारत सरकार | Government of India

वाणिज्य और उद्योग मंत्रालय | Ministry of Commerce & Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो) | Petroleum & Explosives Safety Organisation (PESO)

पूर्व नाम- विस्फोटक विभाग | Formerly- Department of Explosives

केन्द्रीय भवन, ब्लाक सी-2, तीसरी मंजिल | Kendriya Bhavan, Block C-2, 3rd Floor
CSEZ पी.ओ.कक्कानाड कोच्ची | CSEZ PO Kakkanaad Dist. Ernakulam Ernakulam 682037

फोन (Phone):- 2427286 | फैक्स (Fax):- 2427276

संख्या (No.): E/SC/KL/22/1145(E55019)

दिनांक (Date): 11/01/2019

सेवा में | To,

Shri Sabu Varghese,
Korunoolathadathil House, Karimbana P.O.Koothattukulam, Town/Village - Karimbana
District-ERNAKULAM, State-Kerala, Pincode - 686622

विषय : Survey No.282/4A, 282/4B, 282/2-1, 282/3B, 282/3A,, ग्राम Palakuzha, Muvattupuzha taluk, जिला ERNAKULAM, राज्य Kerala में मेसर्स Shri Sabu Varghese द्वारा विस्फोटक के मैगजीन में उपयोग के लिए कब्जा हेतु विस्फोटक नियम, 2008 के अंतर्गत LE-3 में जारी अनुज्ञप्ति सं E/SC/KL/22/1145(E55019) के संशोधन संदर्भ में।
(विस्फोटक की मात्रा / मासिक खरीद सीमा में परिवर्तन)

Subject: Possession for Use of of Explosives from magazine situated at Survey No.:282/4A, 282/4B, 282/2-1, 282/3B, 282/3A,, Palakuzha, Muvattupuzha taluk, Dist. ERNAKULAM, Kerala -Licence No.: E/SC/KL/22/1145(E55019) granted in Form LE-3 of Explosives Rules, 2008 - (Amendment of Quantity of Explosives/Monthly Purchase Limit).

महोदय | Sir,

आपका उपर्युक्त विषय पर पत्र संख्या Nil दिनांक 09/01/2019 का संदर्भ ग्रहण करें।
Please refer to your letter no. Nil dated 09/01/2019.

अनुज्ञप्ति संख्या E/SC/KL/22/1145(E55019) INTIMATION REGARDING QUARRYING OPERATIONS AS PER THE LETTER OF INTENT FROM THE DIRECTOR, DIRECTORATE OF MINING & GEOLOGY, THIRUVANANTHAPURAM VIDE LOI NO.8253/M3/2017 DATED 15/09/2017 AND EC NO: 60/2018 DATED 10/12/2018 ISSUED BY THE DISTRICT ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (DEIAA), ERNAKULAM AT SURVEY NOS. 441/4-1,441/5,455/6A,457/3-1,457/4-2,457/4-3,457/5,459/2A3 AND 459/2B2 PALAKKUZHA VILLAGE ,MUVATTUPUZHA TALUK, ERNAKULAM DISTRICT, KERALA IS ACKNOWLEDGED HERE WITH THE FOLLOWING CONDITIONS 1. NO USE OF EXPLOSIVES IS PERMITTED UNLESS VALID QUARRY PERMIT IS OBTAINED AND COPY SUBMITTED TO THIS OFFICE. LOCAL STATE GOVERNMENT AUTHORITIES APPROVAL/ENVIRONMENTAL CLEARANCE AS APPLICABLE AND RENEWED FROM TIME TO TIME SHALL BE IN POSSESSION.2. LICENSED EXPLOSIVES VAN SHALL BE USED FOR TRANSPORTATION OF EXPLOSIVES FROM MAGAZINE TO BLASTING SITE.3. IF ANY CHANGE OF QUARRY OR ADDITIONAL QUARRY IS INVOLVED, NECESSARY PRIOR APPROVAL/ENDORSEMENT SHALL BE OBTAINED FROM THE LICENSING AUTHORITY.4. OPENING OF QUARRY SHALL BE INFORMED TO THE DGMS AND BLASTING OPERATIONS SHALL BE CONDUCTED AS PER MINES ACT.5. APPROVED BLASTER SHALL BE APPOINTED IN THE QUARRY FOR BLASTING. 6. ALL RECORDS OF USE OF EXPLOSIVES IN RE-3, RE-5, RE-7 RE-13 SHALL BE MAINTAINED.6.DAILY PASS FOR USE OF EXPLOSIVES (RE-13) SHALL BE GENERATED ONLINE. 7. EXPLOSIVES AND DETONATORS SHALL NOT BE TRANSPORTED IN SAME VAN AND TO BE TRANSPORTED SEPARATELY FROM MAGAZINE TO BLASTING SITE.8. VAN SHALL NOT BE USED FOR STORAGE OF EXPLOSIVES AT SITE. 9. EXPLOSIVE VAN IS PERMITTED FOR OWN USE ONLY.10 .NECESSARY APPROVALS/LICENCES FROM OTHER DEPARTMENTS SHALL BE TAKEN AS PER THE RULES. के संदर्भ में यथा संशोधित कर भेजी जा रही है।

The Licence No.: E/SC/KL/22/1145(E55019) is forwarded herewith duly amended in respect of followings ;

INTIMATION REGARDING QUARRYING OPERATIONS AS PER THE LETTER OF INTENT FROM THE DIRECTOR, DIRECTORATE OF MINING & GEOLOGY, THIRUVANANTHAPURAM VIDE LOI NO.8253/M3/2017 DATED 15/09/2017 AND EC NO: 60/2018 DATED 10/12/2018 ISSUED BY THE DISTRICT ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (DEIAA), ERNAKULAM AT SURVEY NOS. 441/4-1,441/5,455/6A,457/3-1,457/4-2,457/4-3,457/5,459/2A3 AND 459/2B2 PALAKKUZHA VILLAGE ,MUVATTUPUZHA TALUK, ERNAKULAM DISTRICT, KERALA IS ACKNOWLEDGED

HERE WITH THE FOLLOWING CONDITIONS 1. NO USE OF EXPLOSIVES IS PERMITTED UNLESS VALID QUARRY PERMIT IS OBTAINED AND COPY SUBMITTED TO THIS OFFICE. LOCAL STATE GOVERNMENT AUTHORITIES APPROVAL/ENVIRONMENTAL CLEARANCE AS APPLICABLE AND RENEWED FROM TIME TO TIME SHALL BE IN POSSESSION.2. LICENSED EXPLOSIVES VAN SHALL BE USED FOR TRANSPORTATION OF EXPLOSIVES FROM MAGAZINE TO BLASTING SITE.3. IF ANY CHANGE OF QUARRY OR ADDITIONAL QUARRY IS INVOLVED, NECESSARY PRIOR APPROVAL/ENDORSEMENT SHALL BE OBTAINED FROM THE LICENSING AUTHORITY.4. OPENING OF QUARRY SHALL BE INFORMED TO THE DGMS AND BLASTING OPERATIONS SHALL BE CONDUCTED AS PER MINES ACT.5. APPROVED BLASTER SHALL BE APPOINTED IN THE QUARRY FOR BLASTING. 6. ALL RECORDS OF USE OF EXPLOSIVES IN RE-3, RE-5, RE-7 RE-13 SHALL BE MAINTAINED.6.DAILY PASS FOR USE OF EXPLOSIVES (RE-13) SHALL BE GENERATED ONLINE. 7. EXPLOSIVES AND DETONATORS SHALL NOT BE TRANSPORTED IN SAME VAN AND TO BE TRANSPORTED SEPARATELY FROM MAGAZINE TO BLASTING SITE.8. VAN SHALL NOT BE USED FOR STORAGE OF EXPLOSIVES AT SITE. 9. EXPLOSIVE VAN IS PERMITTED FOR OWN USE ONLY.10 .NECESSARY APPROVALS/LICENCES FROM OTHER DEPARTMENTS SHALL BE TAKEN AS PER THE RULES..

किसी भी एक समय में लाइसेंस क्षमता निम्नलिखित वर्ग तथा मात्रा से अधिक नहीं होगी।

The licence capacity at any one time shall not exceed the kinds and quantities mentioned below ;

| संख्या No | विस्फोटक Explosive(s) | वर्ग Class | प्रभाग Div | उप-प्रभाग Sub Div | क्षमता Capacity | इकाई Unit |
|--------------|--------------------------|---------------|---------------|----------------------|--------------------|--------------|
| 1 | Nitrate Mixture | 2 | 0 | 0 | 150 | Kg. |
| 2 | Safety Fuse | 6 | 1 | 0 | 2500 | Mtrs |
| 3 | Detonators | 6 | 3 | 0 | 3000 | Nos. |

किसी एक कलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा (अनुच्छेद 3 (ख) और (ग) के अधीन अनुज्ञप्ति के लिए लागू) : 25 गुना

Quantity of explosives to be purchased in a calendar month[applicable for licence under article 3(b) and (c)] : 25 times as above.

यह अनुज्ञप्ति दिनांक 31 मार्च 2020 तक प्रवृत्त रहेगी।

This Licence shall remain valid till 31st day of March 2020.

अनुज्ञप्ति के आगामी नवीकरण हेतु कृपया विस्फोटक नियम, 2008 के नियम 112 के अंतर्गत प्रक्रिया का पालन करें। कृपया पावती दें।

For further revalidation(if required), please follow the procedure under Rule 112 of Explosives Rules, 2008. Receipt of this letter may please be acknowledged.

भवदीय | Your's faithfully

(आर.वेणुगोपाल | Dr. R.Venugopal)

उप मुख्य विस्फोटक नियंत्रक | Deputy Chief Controller of Explosives

उप मुख्य विस्फोटक नियंत्रक
कोच्ची | Ernakulam Chief Controller of Explosives
एरणाकुलम Ernakulam

प्रतिलिपि प्रेषित | Copy Forwarded to:

1. District Magistrate, ERNAKULAM, Kerala with reference to his Noc No: D.Dis/58827/2008/M4(1) NOC No.46/2010 Dated: 18/11/2010
2. Superintendent of Police, ERNAKULAM, Kerala.

उप मुख्य विस्फोटक नियंत्रक | Deputy Chief Controller of Explosives
कोच्ची | Ernakulam

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क आदि के लिए हमारी वेबसाइट <http://peso.gov.in> देखें.)
(For more information regarding status, fees and other details please visit our website <http://peso.gov.in>)

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

(विस्फोटक नियम, 2008 की अनुसूची 4 के भाग 1 के अनुच्छेद 3(क) से (घ) देखिए।)

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

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

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

अनुज्ञप्ति सं. (Licence No.) : E/SC/KL/22/1145(E55019)

वार्षिक फीस रुपए (Annual Fee Rs): 2400/-



1. Licence is hereby granted to

Shri Sabu Varghese (अधिभोगी / Occupier : Shri Sabu Varghese), Korunoolathadathil House, Karimbana P.O.Koothattukulam, Town/Village - Karimbana, District-ERNAKULAM, State-Kerala, Pincode - 686622

को अनुज्ञप्ति अनुदत्त की जाती है।

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

3. अनुज्ञप्ति निम्नलिखित प्रयोजनों के लिए विधिमान्य है।

possess for use of **Nitrate Mixture, Safety Fuse, Detonators, -** के उपयोग के लिए

Licence is valid only for the following purpose.

4. अनुज्ञप्ति विस्फोटकों के निम्नलिखित किस्मों, प्रकार और मात्रा के लिए विधिमान्य है।

Licence is valid for the following kinds and quantity of explosives: -- (क) (a)

| क्र Sr. No. | नाम और विवरण Name and Description | वर्ग और प्रभाग Class & Division | उप-प्रभाग Sub-division | मात्रा किसी एक समय में Quantity at any one time |
|----------------|--------------------------------------|------------------------------------|---------------------------|--|
| 1. | Nitrate Mixture | 2,0 | 0 | 150 Kg. |
| 2. | Safety Fuse | 6,1 | 0 | 2500 Mtrs |
| 3. | Detonators | 6,3 | 0 | 3000 Nos. |

(ख) किसी एक कलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा [अनुच्छेद 3(ख) और (ग) के अधीन अनुज्ञप्ति के लिए]

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

25 times
as above.

5. निम्नलिखित रेखाचित्र (रेखाचित्रों) से अनुज्ञप्त परिसर की पूर्ण होती है।

The licensed premises shall conform to the following drawing(s) :

रेखाचित्र क्र. (Drawing No.) E/SC/KL/22/1145
: (E55019)

दिनांक (Dated) 11/01/2019

6. अनुज्ञप्ति परिसर निम्नलिखित पते पर स्थित हैं। The licensed premises are situated at following address:

Survey No. 282/4A, 282/4B, 282/2-1, 282/3B, 282/3A, , ग्राम (Town/Village) : Palakuzha, Muvatupuzha taluk

जिला (District)
दूरभाष (Phone)

ERNAKULAM

राज्य (State)

ई. मेल (E-Mail)

पुलिस थाना (Police Station) : Aluva

Kerala पिनकोड (Pincode) 0

फैक्स (Fax)

7. अनुज्ञप्ति परिसर में निम्नलिखित सुविधाएं अंतर्विष्ट हैं।

The licensed premises consist of following facilities.

D and E type portable explosives magazines & D.828
: type portable magazine manufactured by thekkans
engineering and fabrication unit

8.

अनुज्ञप्ति समय - समय पर यथासंशोधित विस्फोटक अधिनियम, 1884 और उनके अधीन विरचित विस्फोटक नियम, 2004 के उपबंधो, 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, 2004 framed there under and the conditions, additional conditions and the following Annexures.

1. उपर्युक्त क्रम सं. 5 में यथा कथित रेखाचित्र (स्थान, सन्निर्माण संबंधी और अन्य विवरण दर्शित करते हुए)।

Drawings (showing site, constructional and other details) as stated in serial No. 5 above.

2. अनुज्ञप्ति प्राधिकारी द्वारा हस्ताक्षरित इस अनुज्ञप्ति की शर्तें और अतिरिक्त शर्तें।
Conditions and Additional Conditions of this licence signed by the licensing authority.
 3. दूरी प्ररूप DE-2 | Distance Form DE-2.
9. यह अनुज्ञप्ति तारीख 31 मार्च 2015 तक विधिमान्य रहेगी। This licence shall remain valid till 31st day of March 2015.

यह अनुज्ञप्ति, अधिनियम या उसके अधीन विरचित नियमों या अनुसूची V के भाग 4 के प्रति निर्दिष्ट सेट-VII के अधीन तथा उपवर्णित इस अनुज्ञप्ति की शर्तों का अधिक्रमण करने या यदि अनुज्ञप्त परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिसंहत की जा सकती है, जहां वह लागू हो।

This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto.

तारीख | The Date - 06/01/2011

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

Amendments :

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 28/06/2011
- Amendment in Drawings/Facilities/Premises dated : 07/02/2013
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 04/11/2015
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 07/11/2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 11/01/2019

नवीनीकरण के पृष्ठानकन के लिए स्थान
Space for Endorsement of Renewal


उप मुख्य विस्फोटक नियंत्रक
Deputy Chief Controller of Explosives
एरणाकुलम Ernakulam

| नवीकरण की तारीख Date of Renewal | समाप्ति की तारीख Date of Expiry | अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature of licensing authority and stamp |
|------------------------------------|------------------------------------|--|
| 27/04/2015 | 31/03/2020 | Sd/- Dy. Chief Controller of Explosives, Ernakulam |

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

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

(सेट VIII | Set VIII)

मैगजीन में वर्ग 1,2,3,4,5,6, और 7 के विस्फोटकों को बिक्री या प्रयोग हेतु रखने के लिए प्ररूप एल.ई. 3 [अनुच्छेद 3 (ख) से (ग)] में मुख्य विस्फोटक नियंत्रक या विस्फोटक नियंत्रक द्वारा प्रदान किए जाने वाले अनुज्ञप्ति सं. E/SC/KL/22/1145 (E55019) की शर्तें निम्नलिखित हैं।

The following are the conditions of licence number E/SC/KL/22/1145(E55019) to possess for sale or use, explosives of Class 1,2,3, 4, 5, 6 and 7 in a magazine in Form LE-3 (articles 3(b) to (c)) granted by Chief controller of Explosives or Controller of Explosives.

1. परिसर में किसी भी समय विस्फोटकों की मात्रा अनुज्ञापन योग्य सामर्थ्य से अधिक नहीं होगी।
The quantity of explosives on the premises at any one time shall not exceed the licensable capacity.
2. विस्फोटकों के भंडारण के लिए प्रयुक्तर होने वाली मैगजीन अनुसूची III और अनुज्ञप्ति के उपाबंध में विनिर्दिष्ट सुरक्षा दूरी बनाए रखना होगा।
The magazine used for storage of explosives shall maintain safety distance specified in Schedule III and annexure to the licence.
3. मैगजीन का प्रयोग उन सभी विस्फोटकों के, जो इस अनुज्ञप्ति में विनिर्दिष्ट हैं, रखे जाने के लिए और ऐसे रखे जाने से संबद्ध आधान या औजार या उपकरणों के रखे जाने के लिए ही किया जाएगा; अन्यथा नहीं।
The magazine shall be used only for keeping all explosives specified in this licence and of receptacles for, or tools or implements for work connected with the keeping of such explosives.
4. पैकजों को खोलने का कार्य और विस्फोटकों को तौलने तथा पैक करने का कार्य मैगजीन में नहीं किया जाएगा।
The opening of packages and the weighing and packing of explosives shall not be carried on in the magazine.
5. दो या दो से अधिक वर्णन के विस्फोटकों को, जिन्हें मैगजीन में रखे जाने की अनुज्ञा दी जा सकती है, मैगजीन में तभी रखे जाएंगे जब उनमें से प्रत्येक को, ऐसे पदार्थ या स्वरूप का कोई मध्यवर्ती विभाजक लगाकर या उनके बीच ऐसा मध्यवर्ती स्थान छोड़कर, परस्पर पृथक कर दिया जाए कि किसी वजह से विस्फोटक में लगने वाली आग या होने वाला विस्फोट किसी अन्य वर्णन के विस्फोटक तक न पहुंच सके : परंतु -
(घ) 2 (नाइट्रेट मिश्रण), वर्ग 3 (नाइट्रो योगिक) के विभिन्न विस्फोटक, वर्ग 6 प्रथम प्रभाग के अंतर्गत आने वाले सुरक्षा पलीते और वर्ग 6 प्रभाग 2 के अंतर्गत आनेवाले विस्फोटक प्रेरक पलीते, जिनमें कोई खुला लोहा या इस्पात नहीं है, एक दूसरे के साथ बिना किसी मध्यवर्ती विभाजक या स्थायन के रखे जा सकते हैं।
(ङ) वर्ग 6 प्रभाग 3 के अंतर्गत आनेवाले विस्फोटक प्रेरक अलग रखे जाएंगे।
(च) वर्ग 1 के अंतर्गत आने वाले बारूद को अलग रखा जाएगा।
Two or more description or explosives which may be permitted to be kept in the magazine shall be kept only if they are separated from each other by an intervening partition of such substance or character, or by such intervening space, as will effectually prevent explosion or fire in the one communicating with the other; Provided that—
(d) the various explosives of Class 2 (nitrate-mixture), Class 3 (nitro-compound), safety fuses belonging to Class 6 Division 1 and detonating fuses belonging to Class 6 Division 2 as do not contain any exposed iron or steel, may be kept with each other without any intervening partition or space ;
(e) Detonators belonging to Class 6 Division 3 shall be kept separately.
(f) Gun powder belonging to Class 1 shall be kept separately.
6. वर्ग 3 (नाइट्रो योगिक) के विस्फोटकों को, उनके विनिर्माण की तारीख से एक वर्ष बीत जाने के पश्चात सिवाय अनुज्ञापन प्राधिकारी की विशेष मंजूरी के मैगजीन में नहीं रखा जाएगा।
Explosives of Class 3 (nitro compound) shall not be kept in the magazine after the expiration of one year from the date of their manufacture except with the special sanction of licensing authority.
7. वर्ग 3 (नाइट्रो योगिक) के विस्फोटकों को, उनके विनिर्माण की तारीख से एक वर्ष बीत जाने के पश्चात मैगजीन में तभी रखा जाएगा जब कि किसी विस्फोटक नियंत्रक ने इसके लिए विशेष मंजूरी दे दी हो।
(i) जब ऐसी मंजूरी दे दी गई हो तो प्रत्येक निरीक्षण पर किसी विस्फोटक नियंत्रक से ऐसा लिखित प्रमाणपत्र अभिप्राप्त कर लिया जाए जिसमें दी गई मंजूरी के अंतर्गत आनेवाली अवधि दर्शित की गई हो और ऐसे प्रमाणपत्र के अनुज्ञप्तिधारी अपने पास रखेगा और मांग की जाने पर प्रस्तुत करेगा।
(ii) जब कोई विस्फोटक मानक शुद्धता का न रह जाने के कारण या द्रवणीकरण या नाइट्रो ग्लीसरीन या द्रव नाइट्रो योगिक के निकल जाने के चिन्ह प्रकट होने के कारण मैगजीन में भण्डारित किए जाने के उपयुक्त नहीं रह जाता है तो अनुज्ञप्तिधारी अपने ही व्यय पर ऐसे विस्फोटक के निपटारे के लिए ऐसे निदेशों का अनुपालन करेगा जो मुख्य नियंत्रक या विस्फोटक नियंत्रक जारी करें।
Explosives of Class 3 (nitro compound) shall not be kept in the magazine after the expiration of one year from the date of their manufacture except with the special sanction of the Controller of Explosives.
(i) When such sanction has been given, a written certificate showing the period covered by the sanction shall be obtained from the Controller of Explosives at each inspection, and shall be kept by the licensee and produced on demand.
(ii) When an explosive owing to its being no longer of standard purity or owing to signs of liquefaction or of exuded nitro-glycerin or liquid nitro-glycerin or liquid nitrocompound is no longer fit for storage in the magazine or store house the licensee shall comply, at his own expense, with such directions as to its disposal as the Chief Controller or Controller of Explosives may issue.

8. मैगजीन के भीतरी भाग या उसमें लगी बेंचो, शैल्फों और उसकी फिटिंग का इस प्रकार सन्निर्माण किया जाएगा या उन्हें इस प्रकार अंतरित या अवतरित किया जाएगा कि विस्फोटक का किसी लोहे या इस्पात के साथ संपर्क रोका जा सके। भीतरी भाग में लगी बेंचो, शैल्फें और फिटिंग यथासाध्य ग्रिट से मुक्त एवं साफ रखे जाएंगे तथा ऐसे विस्फोटक, जो जल से खतरनाक रूप में प्रभावित हो सकते हैं, इस बाबत सम्यक सावधानी बरती जाएगी कि वहां कोई जल मौजूद न रहे : परंतु किसी लोहे या इस्पात के खुले होने के विरुद्ध सावधानी से संबंधित इस शर्त का वह भाग ऐसे किसी भवन में बाध्यकर नहीं होगा जिसमें वर्ग 6 (गोला बारूद) के प्रथम के विस्फोटक से भिन्न कोई विस्फोटक रखा गया है।
- The interior of the magazine and the benches, shelves and fittings therein shall be so constructed or so lined or covered as to prevent the exposure of any iron or steel contact with the explosives. Such interior, benches, shelves and fittings shall so far as is reasonably practicable, be kept free from grit and shall otherwise be clean; and in the case of any explosives liable to be dangerously affected by water, due precautions shall be taken to exclude water there from; Provided that so much of this condition as relates to precautions against the exposure of any iron or steel shall not be obligatory in a building in which no explosive other than explosive of the 1st Division 6th (Ammunition) Class is kept.
9. यदि तडित चालक का परीक्षण विस्फोटक नियंत्रक करता है तो अनुज्ञापितधारी ऐसे परीक्षण के लिए विहित फीस का संदाय करेगा यदि परीक्षण असमाधानकारी साबित होता है तो उतनी ही फीस अनुज्ञापितधारी द्वारा पश्चात्वर्ती प्रत्येक परीक्षण के लिए तब तक दी जाती रहेगी जब तक कि परीक्षण अधिकारी तडित चालक को समाधानप्रद घोषित नहीं कर देता : परंतु किसी एक परीक्षण के लिए देय फीस किसी एक दिन के दौरान किसी चालक के किए गए सभी परीक्षणों के लिए प्रभार्य होगा : परंतु यह और कि यदि दो या अधिक तडित चालक एक ही मैगजीन से संबद्ध हैं तो ऐसे सभी चालकों के परीक्षण के लिए फीस ऐसी किसी फीस से अधिक नहीं होगी जो किसी एक तडित चालक के परीक्षण के लिए हर स्थिति में विहित की गई है।
- If the lighting conductor is tested by the Controller of Explosives, the licensee shall pay the fees prescribed for test. In the even of the test proving unsatisfactory, the same fees shall be payable by the licensee for each subsequent test until the lighting conductor is passed by the testing officer as satisfactory: Provided that the fees payable for a single test shall be charged for all tests made on a conductor during any one day :
- Provided further that where two or more lighting conductors are attached to one and the same magazine, the fee for the testing of all such conductors shall not exceed the fee prescribed in this condition for testing a single lighting conductor.
10. उपयुक्त तथा जेब रहित कार्यकरण वस्त्रों, उपयुक्त जूतों के प्रयोग द्वारा तथा तलाशी लेकर या अन्यथा अथवा ऐसे किन्हीं साधनों द्वारा इस बाबत सम्यक उपबंध किया जाएगा कि फैक्ट्री परिसर में अग्नि, दियासलाई अथवा ऐसी कोई वस्तुएं या पदार्थ, जिससे विस्फोट हो सकता है या आग लग सकती हो, किन्तु इस शर्त के कारण ऐसी संरचना, स्थिति या स्वरूप में किसी कृत्रिम बत्ती का प्रवेश वर्जित नहीं है जिससे आग लगने या विस्फोट होने का खतरा न हो : परंतु इस शर्त का वह भाग, जो लोहे या इस्पात के अपवर्जन को लागू होता है, ऐसे किसी भवन के संबंध में बाध्य कर नहीं होगा जिससे भिन्न कोई विस्फोटक नहीं रखा गया है।
- Due provisions shall be made, by the use of suitable working clothes without pockets, suitable shoes and by searching or otherwise or by such means, for preventing the introduction into danger area of the factory premises of fire, Lucifer matches or any substance or article likely to cause explosion or fire, but this condition shall not prevent the introduction of an artificial light of such construction, position or character as not to cause any danger of fire or explosion:
- Provided that so much of this condition as applies to the exclusion of iron or steel, shall not be obligatory in a building in which no explosive other than an explosive of the 1st Division of the 6th (Ammunition) Class is kept.
11. अनुज्ञापितधारी प्ररूप आर.ई.-3 और आर.ई.-4 या आर.ई.-5, जैसी स्थिति हो, में सभी विस्फोटकों का अभिलेख और लेखा रखेगा और विस्फोटक नियम, 2008 के अधीन प्राधिकृत किसी भी अधिकारी के संमक्ष उसके द्वारा ऐसा करने की मांग की जाने पर स्टाक पुस्तक और अभिलेख प्रस्तुत करेगा। स्टाक पुस्तक विहित प्रोफार्मा में पृष्ठ संख्यांकित होगी।
- The licensee shall keep records and accounts of all explosives in Forms RE-3 and RE-4 or RE-5, as the case may be, and exhibit the stock books and records to any of the officers authorised under the Explosives Rules, 2008 whenever such officer may call upon him to do so. The stock books in the prescribed proforma shall be page numbered.
12. परिसरों में कोई परिवर्तन या तबदीली अनुज्ञापन प्राधिकारी के पूर्वानुमोदन बिना नहीं की जाएगी और अनुज्ञापितधारी ऐसी किसी शर्त का अनुपालन करेगा जो इस निमित्त अनुज्ञापन प्राधिकारी विनिर्दिष्ट करें।
- No changes or alterations shall be carried out to the premises without prior approval of the licensing authority and the licensee shall comply with any condition that may be specified by the licensing authority in this behalf.
13. मैगजीन सभी समयों पर अच्छी मरम्मत की स्थिति में बनाई रखी जाएगी (या अच्छी हालत में बनाई रखी जाएगी)। यदि किसी कारणवश किसी विस्फोटक के भण्डारण के लिए मैगजीन अनुपयुक्त हो जाती है तो अनुज्ञापितधारी इस बात की सूचना अनुज्ञापन प्राधिकारी को तुरंत देगा।
- Magazine shall at all times be kept in state of good repair (or maintained in good condition). The licensee shall report to licensing authority forthwith, if the magazine becomes unfit for storage of any explosives for any reason

whatsoever.

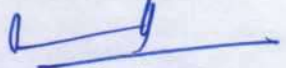
मैगजीन का अनुज्ञप्तिधारी इन नियमों के नियम 24 के उप-नियम 3 के अनुसार त्रैमासिक विवरणी प्रस्तुत करेगा ।
The licensee of the magazine shall submit quarterly return as per sub-rules (3) and (4) of rule 24 of these rules.

14. यदि सुरक्षा दूरी का कोई अधिक्रमण होता है तो उसकी सूचना अनुज्ञापन प्राधिकारी को आवश्यक सलाह और कार्यवाही के लिए तुरंत दी जाएगी ।
Any encroachment of the safety distance shall be immediately communicated to the licensing authority for necessary advice and action.
15. यदि कोई विस्फोटक विनष्ट हुआ अथवा अनुपयोगी जाया जाता है तो उसकी सूचना अनुज्ञापन प्राधिकारी को, सलाह प्राप्त करने के लिए, तुरंत दी जाएगी ।
The licensing authority shall be immediately informed for advice if any explosive is found deteriorated or unserviceable.
16. विस्फोटकों के पैकेटों के चट्टे इस प्रकार लगाए जाएंगे कि कम से कम एक व्यक्ति भण्डार किए गए सभी पैकेजों की हालत की जांच करने और प्रत्येक पैकेज की विनिर्माण विशिष्टियों को पढ़ने के लिए उनके बीच से होकर आ जा सके ।
The explosive packages shall be stocked in such a way so as to allow movement of at least one person to check the condition of all packages stored and to read the manufacture particulars of each package.
तड़ित चालकों की भूमि के लिए प्रतिरोध यथासंभव न्यूनतम होगा और किसी भी दशा में 10 ओहम से अधिक नहीं होगा ।
The resistance of the lightning conductor to earth shall be as low as possible and in no case be more than 10 ohms.
17. मैगजीन के चारों ओर 15 मीटर की दूरी के अंतर्गत कोई शुल्क घास या झाड़ी या ज्वलनशील सामग्री नहीं रहने दी जाएगी ।
A distance of 15 meters surrounding the magazine or store house shall be kept clear of dried grass or bush or flammable materials.
18. विस्फोटकों के प्रत्येक पैकेट की, जब उसे मैगजीन के भीतर लिया जा रहा हो, ठीक दशा जानने के लिए परीक्षा की जाएगी ।
Every package of explosive at the time of bringing inside the magazine shall be examined for its sound condition.
19. किसी मैगजीन / भंडारगृह में किसी एक समय में चार व्यक्तियों से अधिक को नहीं रहने दिया जाएगा ।
Not more than 4 persons shall be allowed inside the magazine or store house at any one time.
20. विस्फोटकों के खाली पैकेजों को शीघ्रतिशीघ्र वहां से हटा दिया जाएगा और नष्ट कर दिया जाएगा ।
Empty packages of the explosives shall be removed at the earliest and destroyed.
21. अनुज्ञप्तिधारी और कर्मचारियों को परिसर के भीतर आपातकाल के दौरान की जाने वाली प्रक्रियाओं से अवगत होना चाहिए ।
The licensee and the employee shall be conversant with procedure to be taken during the emergency within the premises.
22. निरीक्षण या नमूना अधिकारी को सभी युक्तियुक्त समयों पर अनुज्ञत परिसर में अबाध रूप से पहुंचने दिया जाएगा और यह सुनिश्चित करने के लिए कि अधिनियम और इन नियमों के उपबंधों और सुरक्षा स्थितियों को सम्यकतः अनुपालन किया जा रहा है, अधिकारी को प्रत्येक सुविधा प्रदान की जाएगी ।
Free access to the licensed premises shall be given at all reasonable times to any inspecting or sampling officer and every facility shall be afforded to the officer for ascertaining that the provisions of the Act and these rules and the safety conditions are duly observed.
23. यदि अनुज्ञापन प्राधिकारी या विस्फोटक नियंत्रक अनुज्ञप्तिधारक को अनुज्ञात परिसरों या मशीनरी, टूल या उपकरण में ऐसी कोई मरम्मत या परिवर्धन या परिवर्तन करने या सिफारिशों को लागू करने को लिखित रूप में सूचित करता है जो परिसर के अंदर या बाहर या व्यक्तियों की सुरक्षा के लिए आवश्यक है, अनुज्ञापितधारक सिफारिशों को निष्पादित करेगा और विनिर्दिष्ट अवधि के भीतर अनुपालन रिपोर्ट ऐसे प्राधिकारी को देगा ।
If the licensing authority or a Controller of Explosives informs in writing, the holder of the licence to execute any repairs or to make any additions or alterations to the licensed premises or machinery, tools or apparatus or carry out recommendations, which are in the opinion of such authority may pose unacceptable risk and so necessary for the safety of either on-site or off-site of the premises or persons, the holder of the license shall execute the recommendations and report compliance within the period specified by such authority.
24. अनुज्ञप्तिधारी मैगजीन में रखने और बिक्री के लिए प्राधिकृत विस्फोटक सूची में उल्लिखित अनुज्ञत फैक्टरी या कंपनी से प्राधिकृत विस्फोटक / आतिशबाजी या सुरक्षा पलीते खरीदेगा ।
The licensee shall purchase authorised explosives/ fireworks or safety fuse as mentioned in the list authorised explosives from a licensed factory or company for possession and sale from the magazine.
25. निम्न से अधिक ध्वनि स्तर उत्पादित करने वाले आतिशबाजियों पटाखों की बिक्री और रखने के लिए –
(क) जो फटने की जगह से चार मीटर की दूरी पर है, 125 डी.बी.(ए1) या 145 डी.बी.(सी)पी.के. प्रतिबंधित होंगे;
(ख) श्रृंखला (जुड़े हुए पटाख) को गठन करने वाले व्यक्तिगत पटाखों के लिए उपर्युक्त उल्लिखित सीमा 5 लॉग.10(एन) डी.बी. (सी) पी.के. प्रतिबंधित होंगे ;
The possession and sale of fire-crackers generating noise level exceeding;
a) 125 dB(A) or 145 dB(C)pk at 4 meters distance from the point of bursting shall be prohibited;
b) For individual fire-cracker constituting the series (joined fire-crackers), the above mentioned limit be reduced by 5 log₁₀ (N) dB, where N = number of crackers joined together.

26. आग या विस्फोट द्वारा दुर्घटना या नुकसान पटाखों की कमी या चोरी, तुरंत पास के पुलिस थाने और अनुज्ञापन प्राधिकारी और अनुज्ञापन प्राधिकारी के स्थानीय कार्यालय को रिपोर्ट की जाएगी।
Accidents by fire or explosion and losses, shortage or theft of explosives shall be immediately reported to the nearest police station and the licensing authority and local office of the licensing authority.

अतिरिक्त शर्तें / Additional Conditions :

1. अनुज्ञप्तीधारी विदेशी मूल के आतिशबाजी को ना प्रदर्शित करेगा, ना रखेगा और ना ही उसकी बिक्री करेगा। The licensee shall not exhibit, possess and sell fireworks of foreign origin.


कृते संयुक्त मुख्य विस्फोटक नियंत्रक
For Joint Chief Controller of Explosives
दक्षिणांचल, चेन्नै | South Circle, Chennai

उप मुख्य विस्फोटक नियंत्रक
Deputy Chief Controller of Explosives
एरणाकुलम Ernakulam

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/SC/KL/22/1145(E55019) in form LE-3 granted to Shri Sabu Varghese, Korunoolathadathil House, Karimbana P.O.Koothattukulam, Kerala-0 .

| Type of Structure(s) | Safety distances meters | |
|---|-------------------------|----|
| | M | UM |
| Inside Safety Distances(ISD) | | |
| 1 Room or Workshop used in Connection with the Magazine | 13 | 19 |
| 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 | | 40 |
| 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 : 06/01/2011


For Joint Chief Controller of Explosives
South Circle, Chennai

Amendments :

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 28/06/2011
- Amendment in Drawings/Facilities/Premises dated : 07/02/2013
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 04/11/2015
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 07/11/2017
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 11/01/2019

उप मुख्य विस्फोटक नियंत्रक
Deputy Chief Controller of Explosives
एरणाकुलम Ernakulam

MINING PLAN APPROVAL LETTER

ANNEXURE-5

No. DOE/2491/E2/2017

Department of Mining & Geology
Government of Kerala
District Office, Ernakulam,
Civil Station, Kakkanad, Kochi-682030,
Phone -0484-2422354
geo.ern.dmg@kerala.gov.in

Dated 22/01/2018

MEMO

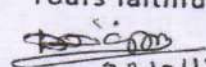
Sub:- Mines and Minerals-Minor Minerals Granite building stone-
Mining plan approval- reg.

- Ref: 1. Kerala Minor Mineral Concession Rules 2015
2. Application dated 27/10/17 of Sri.Sabu Varghese, M/s.S.S.Granites,
Korangolithadathil House, Karimpana P.O, Koothattukulam, Ernakulam District.
3. Site inspection dated 17.11.2017.

The mining plan for the building stone quarry of the Sri.Sabu Varghese, M/s.S.S.Granites, Korangolithadathil House, Karimpana P.O, Koothattukulam, Ernakulam District in Survey No.s 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 of Palakkuzha Village, Muvattupuzha Taluk, Ernakulam District, Kerala for an extent of 4.3046 Hectares is hereby approved vide the powers delegated to the District geologist for the approval of mining plan for the minor minerals issued under Rule 66 of Kerala Minor Mineral Concession Rules 2015, with the following conditions:

1. That you will follow the prescribed Rules & Regulations of Central Government and State Government issued from time to time in regard to mining.
2. That you will follow the Mines Safety Rules & Regulations.
3. That you will store the mining waste in the earmarked location/ dumping yard only as specified in the plan.
4. That you will carry out the plantation as committed in the plan.
5. That provision shall be made for the housing facility for the labour with all basic infrastructure facilities including safe drinking water, toilets etc., within the site.
6. That the yearly production (1st year 1,80,678, 2nd year 1,93,562, 3rd year 1,83,231, 4th year 1,91,188, 5th year 1,81,747 metric tonnes) approved in the plan shall be strictly adhered to and if any deviation is required the same shall be intimated in advance.



Yours faithfully,

22/01/18
District Sr.Geologist

To

Sri.Sabu Varghese,
M/s.S.S.Granites,
Korangolithadathil House,
Karimpana P.O,
Koothattukulam,
Ernakulam District.

PANCHAYATH LICENCE

ANNEXURE-6



നമ്പർ: 28/2019-2020/A-3/669/19

തീയതി: 01/04/2019

പാലക്കുഴ ഗ്രാമപഞ്ചായത്ത്

പാലക്കുഴ പി.ഒ., എറണാകുളം (ജില്ല)

പിൻ: 686662, ഫോൺ: 4852252334, ഇ-മെയിൽ: mail.palakuzhapp@gmail.com

വ്യവസായം, വാണിജ്യം, സംരഭകത്വം, മറ്റ് സേവനങ്ങൾക്കുള്ള ലൈസൻസ്

(കെ.പി.ആർ ആക്ട് സെക്ഷൻ 232, FACTEOS ലൈസൻസ് ചട്ടങ്ങൾ 1996)

| | | | |
|--|---|--------------|----------------|
| ലൈസൻസിയുടെപേര് | സാബു വർഗീസ് | | |
| ലൈസൻസിയുടെ മേൽവിലാസം | കൊരങ്ങോലിത്തടത്തിൽ, കരിമ്പന. പി.ഒ | | |
| സ്ഥാപനത്തിന്റെ പേരും, സ്ഥലനാമവും | എസ്. എസ്. ഗ്രാനൈറ്റ്സ്, കരിമ്പന | | |
| ലൈസൻസ് നൽകിയിട്ടുള്ള പ്രവർത്തനങ്ങൾ | പാറഖനനം | | |
| വാർഡ് നമ്പർ/കെട്ടിട നമ്പർ | II/441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3, 459/2B2 | | |
| ലൈസൻസ് കാലാവധി | 01/04/2019 | മുതൽ | 31/03/2020 വരെ |
| ലൈസൻസ് ഫീസ് മോട്ടോർ ഫീസ് തൊഴിൽ നികുതി | തുക | രസീത് നമ്പർ | തീയതി |
| | 10000 /- രൂപ | 118030103115 | 05/03/2019 |
| | 2000 /- രൂപ | 118030103115 | 05/03/2019 |
| 2500 /- രൂപ | 118030103118 | 05/03/2019 | |
| ലൈസൻസ് അനുവദിക്കുന്നതിന് ഹാജരാക്കിയ നിരാക്ഷേപ പത്രങ്ങളുടെ വിശദാംശങ്ങൾ (നമ്പർ, തീയതി, കാലയളവ്, നൽകിയ അധികാര സ്ഥാപനം) | <ol style="list-style-type: none"> KSPCB Consent to Operate R18 ERNA CTO 942019 Validity 09/12//2023 Environmental Clearance No.60/2018 & Explosive License upto 31.03.2020 Mining & Geology Approval Memo.No.DOE/2491/E2/2017 & Blastman Cert. Of Sri. Subhani. H | | |

ഓഫീസ് മുദ്ര



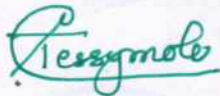
Signature

സെക്രട്ടറി
സെക്രട്ടറി

ലൈസൻസി താഴെ പറയുന്ന വ്യവസ്ഥകൾ അനുസരിക്കേണ്ടതാകുന്നു.

- 1 കേരള പഞ്ചായത്ത് രാജ് ആക്ടും അതേ തുടർന്നുള്ള ചട്ടങ്ങളും ബൈലകളും അനുസരിച്ചു പ്രവർത്തിക്കേണ്ടതാകുന്നു.
- 2 തൊഴിൽ സ്ഥലവും അതിലുള്ള സാധനസാമഗ്രികളും പഞ്ചായത്തധികാരികൾക്കോ/സെക്രട്ടറി അധികാരപ്പെടുത്തുന്ന മറ്റ് ഉദ്യോഗസ്ഥർക്കോ പരിശോധിക്കുന്നതിന് ലൈസൻസി വേണ്ട സൈകര്യം നൽകേണ്ടതും അവർ ആവശ്യപ്പെട്ടാൽ ഈ ലൈസൻസ് കാണിക്കേണ്ടതുമാണ്.
- 3 ഏത് സ്ഥലത്തിന്റെ കാര്യത്തിൽ ലൈസൻസ് നൽകിയിരിക്കുന്നവോ ആ സ്ഥലത്ത് എല്ലാവരും കാണത്തക്ക വിധത്തിലുള്ള ഒരു ഭാഗത്ത് ലൈസൻസി തന്റെ പേരും, ലൈസൻസിന്റെ നമ്പരും ഉദ്ദേശവും കാണിക്കുന്ന ഒരു അടയാളപ്പലക വച്ചിരിക്കേണ്ടതാണ്.
- 4 പഞ്ചായത്തിൽ നിന്നും അനുവാദം ലഭിച്ചശേഷമല്ലാതെ തൊഴിൽ സ്ഥലം മാറ്റാൻ പാടില്ലാത്തതും തൊഴിൽ നിർത്തുന്ന പക്ഷം വിവരം മുൻകൂട്ടി പഞ്ചായത്തിൽ അറിയിക്കേണ്ടതാകുന്നു.
- 5 തൊഴിൽ സ്ഥലവും പരിസരങ്ങളും വൃത്തിയായും സാംക്രമികരോഗാണുക്കൾ ഉണ്ടാക്കാത്ത വിധത്തിലും പൊതുജനോപദ്രവമാക്കാത്ത വിധത്തിലും വ്യപാരത്തിനു വച്ചിട്ടുള്ള ഭക്ഷണപദാർത്ഥങ്ങൾ ഈച്ച, അണുക്കൾ, പൊടി മുതലായവയുടെ ശല്യം ഉണ്ടാക്കാത്ത വിധത്തിലും സൂക്ഷിക്കേണ്ടതാണ്.
- 6 ഒരോ പ്രവർത്തിദിവസത്തിന്റെയും ഒടുവിൽ സ്ഥലം വൃത്തിയാക്കേണ്ടതാണ്.
- 7 ആ സ്ഥലത്തിന്റെയോ പരിസരത്തിന്റെയോ, ഏതെങ്കിലും ഭാഗത്ത് വിഴുക്യോ നിക്ഷേപിക്കുകയോ ചെയ്യുന്ന ചപ്പുചവറോ, മൃഗങ്ങളുടെ അവശിഷ്ടങ്ങളോ മറ്റ് പദാർത്ഥമോ ശേഖരിച്ച്, സെക്രട്ടറിക്ക് തൃപ്തികരമായ രീതിയിൽ നീക്കം ചെയ്യിക്കേണ്ടതാണ്.
- 8 ലൈസൻസി ഏതൊരു കെട്ടിടത്തിന്റെയും ചുവരുകളുടെ അകവശത്തിന്റെ ഏതൊരു ഭാഗവും മേൽപറഞ്ഞ പരിസരത്തിലുള്ള തറയും നടപ്പാതയും അവിടെ തെറിച്ചുവീഴാനിടയുള്ള ഏതെങ്കിലും ഭാവകമോ, മാലിന്യമോ, ചപ്പുചവറോ, അസഹ്യവും, ഉപദ്രവകരവുമായ ഏതെങ്കിലും പദാർത്ഥമോ അവിടെ ലയിക്കുന്നത് തടയത്തക്കവിധം എപ്പോഴും നന്നായി കേടുപാട് തീർത്ത നിലനിർത്തേണ്ടതാണ്.
- 9 ലൈസൻസി മേൽപറഞ്ഞ സ്ഥലത്തോ, പരിസരത്തോ അതോടു ചേർന്നോ ഉള്ള ഏതൊരു ഓവുചാലും, അഴുക്കുജലം കളയുന്നതിനുള്ള ഉപകരണവും എപ്പോഴും നന്നായി കേടുപാട് തീർത്ത വയ്പിക്കേണ്ടതാണ്.
- 10 അധിതം ആചരിക്കുന്ന കടകളുടെ ലൈസൻസ് റദ്ധ്യചെയ്യുന്നതാണ്.
- 11 ഏതെങ്കിലും തരത്തിലുള്ള തപക്ക് രോഗമോ കുഷ്ഠ രോഗമോ വ്രണമോ പകർച്ച വ്യാധികളോ ഉള്ള യാതൊരാളും കച്ചവടം നടത്തുന്നതിന് ഉപയോഗിക്കുന്ന സ്ഥലത്തും പരിസരത്തും പ്രവർത്തിക്കുവാൻ പാടില്ലാത്തതാകുന്നു.
- 12 50 മൈക്രോണിൽ കുറവുള്ള പ്ലാസ്റ്റിക്കുകളും മറ്റ് നിരോധിത പ്ലാസ്റ്റിക് ഇനങ്ങളും ഉൽപ്പാദിപ്പിക്കുകയോ ശേഖരിക്കുകയോ വിൽക്കുകയോ കൈകാര്യം ചെയ്യുകയോ ചെയ്യാൻ പാടില്ല.
- 13 സ്ഥാപനത്തിന്റെ ബോർഡിൽ സ്ഥലനാമം മലയാളത്തിലും ഇംഗ്ലീഷിലും രേഖപ്പെടുത്തേണ്ടതാണ്.
- 14 20 സീറ്റിൽ കൂടുതലുള്ള എല്ലാ ഹോട്ടലുകൾക്കും റെസ്റ്റോറന്റുകൾക്കും ടോയ്ലറ്റ് സൗകര്യം ഏർപ്പെടുത്തേണ്ടതാണ്.
- 15 നിരോധിത ഉൽപ്പന്നങ്ങളായ പാൻമസാല, ഗുഡ്ബ തുടങ്ങിയവ സംഭരിച്ചുവയ്ക്കുവാനോ വിൽക്കുവാനോ പാടില്ല.
- 16 ബാലവേല അനുവദിക്കാൻ പാടില്ല.
- 17 മുകളിൽ കാണിച്ചിരിക്കുന്ന വ്യവസ്ഥകളുടെ ലംഘനം ഈ ലൈസൻസ് റദ്ദ് ചെയ്യപ്പെടുന്നതിന് കാരണമാകാവുന്നതാണ്.



 സെക്രട്ടറി
 പാലക്കുഴ ഗ്രാമപഞ്ചായത്ത്

N.B:- ഈ ലൈസൻസ് അവസാനിക്കുന്ന തീയതിക്ക് 30 ദിവസം മുമ്പ് ലൈസൻസ് പുതുക്കുന്നതിനുള്ള അപേക്ഷ സമർപ്പിക്കേണ്ടതാണ്.

EC UNDERTAKING LETTER

ANNEXURE-7



കേരളം കേരള KERALA

BL 765291

AFFIDAVIT

I, Sabu Varghese, Managing Partner, S S Granites, S/o Vaghese Chandy, aged 44 years, residing at House No 322/12, Kurangolithadathil, Karimpana P.O, Koothattukulam, Ernakulam District. 686662 do hereby solemnly affirm before the Director of Mining and Geology, Thiruvananthapuram that I will take proper care in the management of the environment, ecology and waste disposal as required by the concerned authorities while carrying out the quarrying operation (Granite building stone) from the land in survey Nos. 441/04-1, 441/05, 455/6A, 457/03-1, 457/04-2, 457/04-3, 457/05, 459/2A3, 459/2B2 (Total: 4.3046 Hectare) Pallakuzha Vilage, Pallakuzha Panchayath, Muvattupuzha Taluk, Ernakulam District

Date: 06.06.2017
Place: Muvattupuzha

For S.S. GRANITES

Deponent



Solemnly affirmed and signed before me by the deponent who is known to me at my office at Muvattupuzha on this the 6th day of June 2017



2017
26-6-17

P.R. RAJU
Advocate & Notary Public
Muvattupuzha P.O., Kerala, India
Ph: 0495-2832075, Res: 0495-2812450
Mob: 9447018661

6829 100 29/5/17
Sabu Varghese
Managing Partner
S.S. Granites
Koothattukulam

(Signature)



കേരളം KERALA

BL 765294

AFFIDAVIT

I, Sabu Varghese, Managing Partner, S S Granites, S/o Vaghese Chandy, aged 44 years, residing at House No 322/12, Kurangolihadathil, Karimpana P.O, Koothattukulam, Ernakulam District, 686662 do hereby solemnly affirms and state as follows:-

I hereby swear that retention wall/barricade/Fencing /compound wall will be provided surrounding the quarry in my private land in survey Nos. 441/04-1, 441/05, 455/6A, 457/03-1, 457/04-2, 457/04-3, 457/05, 459/2A3, 459/2B2 (Total: 4.3046 Hectare) Pallakuzha Village, Pallakuzha Panchayath, Muvattupuzha Taluk, Ernakulam District before the commencement of the quarrying operation for preventing accidents by falling of human beings, animals and materials in the quarry. I also swear that all effective preventive measures will be taken by me/us for the safety of laborers as well as the general public.

For S.S. GRANITES

Sabu Varghese
Managing Partner
S S Granites



Solemnly affirm and signed before me by the deponent on the 6th day of June 2017 in my office at Muvattupuzha.



29/06/2017

P.R. RAJU
Advocate & Notary Public
Muvattupuzha P.O., Kerala, India
Ph: 0485-2072275, Fax: 0485-2072450
Mob: 9447087908

6832 100 29/5/17
Sabu Varghese, Managing Partner
S.S. Granites
Koothattukulam



BLASTING FORE MAN CERTIFICATE ANNEXURE-8

सं.प्रा.नि. १२२४
C.L.M. 1224-N

(भारतीय) खनन परीक्षा बोर्ड
Board of (Metalliferous) Mines Examination
दस्तावेज सं.
No of Document

779



खान अधिनियम, १९५२
THE MINES ACT, 1952
खान फोरमैन समर्थता प्रमाणपत्र
MINE FOREMAN'S CERTIFICATE OF COMPETENCY
(धातवीय खान विनियम, १९६१ के अधीन)
(Under the Metalliferous Mines Regulations, 1961)
(केवल धातवीय खानों के खुले कार्यस्थलों तक सीमित)
(Restricted to metalliferous mines having open-cast workings only)

नाम पुत्र
निवासी गांव थाना
जिला राज्य
जन्म तिथि
उपरोक्त धातवीय खान विनियम, १९६१ के अधीन आयु, स्वस्थता, सदाचार
साक्षरता और अनुभव के संबंध में संतोषजनक प्रमाण प्रस्तुत कर दिए हैं और तारीख की (स्वामि)
पर हुई परीक्षा पास कर ली है। इसे धातवीय खान विनियम, १९६१ के अधीन खान
फोरमैन प्रमाणपत्र दिया जाता है। यह प्रमाणपत्र केवल धातवीय खानों के खुले कार्यस्थलों तक सीमित है।

श्री Rajaraman, L/o Hassan Pillai (Name)
of Village Cheruvallur Thana Cheruvallur
District Alleppey State Kerala
Born on Fifth July One Thousand Nine Hundred and Fifty
having given satisfactory evidence of his age, medical fitness, good conduct, literacy and experience, and having
passed the examination held at Orpuzha on 7.8.1973, it
hereby granted a **MINE FOREMAN'S CERTIFICATE** under the Metalliferous Mines Regulations, 1961, restricted to
mines having open-cast workings only.

सचिव,
खनन परीक्षा बोर्ड।
Secretary,
Board of Mining Examinations.

सचिव,
खनन परीक्षा बोर्ड।
Chairman,
Board of Mining Examinations.

तारीख
Dated: 24th May, 1974

प्रमाणित किया जाता है कि जो की
परीक्षा की गई और उसे नहरेपन, कर्बोय दृष्टि या अन्य किसी ऐसी आंगिक या मानसिक अक्षमता से रहित पाया गया, जिसका उसके
व्यवसायपूर्वक कार्य निष्पादन पर प्रभाव पड़ने की संभावना हो।
Certified that he was examined and found free from deafness, defective vision or any other infirmity, mental
or physical, likely to interfere with the efficient discharge of his duties.

1. On 12/5/79 ता. को
2. On 26/5/84 ता. को
3. On 11/2/85 ता. को
4. On 24/5/90 ता. को

Certified that he was medically examined on 18.06.2013 and found to be fit to carry out the prescribed duties upto 17.06.2014

[Signature]
Director of Mines Safety, Chennai Region.

Certified that he was medically examined on 24.06.2014 and found to be fit to carry out the prescribed duties upto 23.06.2015

[Signature]
Director of Mines Safety, Chennai Region.

Certified that he was medically examined on 24.07.2015 and found to be fit to carry out the prescribed duties upto 23.07.2016

[Signature]
Director of Mines Safety, Chennai Region.

Medical Officer
on 25.10.2011 and declared fit for employment in mine. This Certificate is valid upto 24.10.2017.

[Signature]
Director of Mines Safety, Bhubary

[Handwritten note:] "Certificate" has been medically examined by *[Signature]* Medical Officer on 21/07/2017 declared "FIT" for employment in mine.

[Signature]
Director of Mines Safety, Chennai Region

15/02/2011
Certified that he was medically examined on 16/02/2011 and found to be fit to carry out the prescribed duties upto 15/02/2012

[Signature]
Director of Mines Safety, Chennai Region.

Certified that he was medically examined on 14/05/2012 and found to be fit to carry out the prescribed duties upto 13/05/2013

[Signature]
Director of Mines Safety, Chennai Region.

Certified that he was medically examined on 02/08/2018 and found to be fit to carry out the prescribed duties upto 01/08/2019

[Signature]
Director of Mines Safety, Chennai Region.

Certified that he was medically examined on 18/7/2019 and found to be fit to carry out the prescribed duties upto 17/7/2020

[Signature]
Director of Mines Safety, Chennai Region.

NABL CERTIFICATE

ANNEXURE-10



National Accreditation Board for Testing and Calibration Laboratories
(A Constituent Board of Quality Council of India)



CERTIFICATE OF ACCREDITATION

POLUCHEM LABORATORIES (P) LTD.

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

Pallath Building, North Kalamassery, Dist. Ernakulam, Kerala

in the field of

TESTING

Certificate Number TC-6589 (in lieu of T-1658 & T-2938)

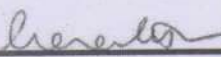
Issue Date 25/08/2017

Valid Until 24/08/2019

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL


N. Venkateswaran
Program Director




Anil Relia
Chief Executive Officer



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory Poluchem Laboratories (P) Ltd., Pallath Building, North Kalamassery, Dist. Ernakulam, Kerala

Accreditation Standard ISO/IEC 17025: 2005

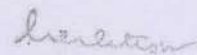
Certificate Number TC-6589 (In lieu of T-2938 & T-1658) **Page 4 of 9**

Validity 25.08.2017 to 24.08.2019 **Last Amended on** 29.11.2017

| Sl. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-----|--|-------------------------|---|--|
| 7. | Other Specified Food Items | | | |
| a. | Cooked Ready to Serve / Eat Food (Curries/ Chappathis / Boiled Rice) & Raw Food (Fruits and Vegetable Salad) | Total Plate Count | USFDA:BAM:EDITION8: JAN2001: CHAP-3 | ≥10 CFU /g |
| | | Coliforms | USFDA:BAM:EDITION8: SEP 2002: CHAP-4 Revision July 2017 | <3MPN to ≥ 1100MPN/g |
| | | E coli | USFDA:BAM:EDITION8: SEP 2002: CHAP-4 Revision July 2017 | ≥10 CFU /g |
| | | Staphylococcus aureus | USFDA:BAM:EDITION8: JAN 2001: CHAP-12 Revision March 2016 | <3MPN to ≥1100MPN/g |
| | | Salmonella | USFDA:BAM:EDITION8: NOV 2011: CHAP-5 Revision Aug 2016 | Present/Absent/25g |
| II. | WATER | | | |
| 1. | Drinking Water | Coliforms | IS 1622:1981 (RA 2009) | <2MPN to ≥ 1600MPN/ 100 ml |
| | | E coli | IS 1622:1981 (RA 2009) | <2MPN to ≥ 1600MPN/ 100 ml |
| 2. | Water for Swimming Pool and Spa | Standard Plate Count | IS 3328:1993 (RA 2003) | ≥10 CFU /ml |
| | | Coliforms | IS 1622:1981 (RA 2009) | <2MPN to ≥ 1600MPN/ 100 ml |
| | | Feacal coliforms | IS 1622:1981 (RA 2009) | <2MPN to ≥ 1600MPN/ 100 ml |
| | | E coli | IS 1622:1981 (RA 2009) | <2MPN to ≥ 1600MPN/ 100 ml |


Ashok Kumar
Convenor





N. Venkateswaran
Program Director



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory Poluchem Laboratories (P) Ltd., Pallath Building, North Kalamassery, Dist. Ernakulam, Kerala

Accreditation Standard ISO/IEC 17025: 2005

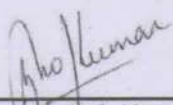
Certificate Number TC-6589 (in lieu of T-2938 & T-1658) **Page 5 of 9**

Validity 25.08.2017 to 24.08.2019 **Last Amended on** 29.11.2017

| Sl. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-----|----------------------------|-------------------------|---|--|
|-----|----------------------------|-------------------------|---|--|

CHEMICAL TESTING

| I. ATMOSPHERIC POLLUTION | | | | |
|--------------------------|----------------|---|--|---|
| 1. | Stack Emission | Temperature | Indicative method IS 11255 (Part 3): 2008 | Ambient -500 °C |
| | | Velocity | Pitot Tube method IS 11255 (Part 3): 2008 | 1 to 60 m/sec |
| | | Volume of Emission | IS 11255 (Part 3): 2008 By Calculation | 100 Nm ₃ /hr to 1000000 Nm ₃ /hr |
| | | Particulate Matter | IS 11255 (Part 1): 1985 (RA 2014) | 1 mg/m ³ to 5000 mg/m ³ |
| | | Sulphur Dioxide | IS 11255 (Part 2): 1985 (RA 2014) | 3 mg/m ³ to 5000 mg/m ³ |
| | | Oxides of Nitrogen | IS 11255 (Part 7): 2005 (RA 2017) | 2 mg/m ³ to 4000 mg/m ³ |
| | | Ammonia | IS 11255 (Part 6): 1999 (RA 2014) | 5 mg/m ³ to 5000 mg/m ³ |
| 2. | Ambient Air | Particulate Matter (Particle Size less than 10µm) or PM ₁₀ | IS 5182 (Part 23): 2006 (RA 2012) CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, May 2011 | 1 µg/m ³ to 1000 µg/m ³ |
| | | Particulate Matter (Size less than 2.5µm) or PM _{2.5} | USEPA Quality Assurance Handbook, Vol. II, Part II; Quality Assurance Guidance Document 2.12; CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, May 2011 | 1 µg/m ³ to 1000 µg/m ³ |


Ashok Kumar
Convenor





N. Venkateswaran
Program Director



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory Poluchem Laboratories (P) Ltd., Pallath Building, North Kalamassery, Dist. Ernakulam, Kerala

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6589 (in lieu of T-2938 & T-1658) **Page 6 of 9**

Validity 25.08.2017 to 24.08.2019 **Last Amended on** 29.11.2017

| Sl. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|------------|--|---|---|---|
| | | Sulphur dioxide (SO ₂) | IS 5182 (Part 2): 2001 (RA 2017) | 4 µg/m ³ to 1050 µg/m ³ |
| | | Nitrogen dioxide (NO ₂) | IS 5182 (Part 6): 2006 (RA 2017) | 6 µg/m ³ to 750 µg/m ³ |
| | | Carbon monoxide (CO) | SOP/PCL/COA/17 | 1 ppm to 100 ppm |
| | | Hydrogen Sulphide (H ₂ S) | IS 5182 (Part 7): 1973 (RA 2014) | 6 µg/m ³ to 600 µg/m ³ |
| | | Equivalent Noise Level (L _{eq}) | SOP/PCL/SL/17 | 30 dB(A) to 130 dB(A) |
| II. | WATER | | | |
| 1. | Surface Water, Ground Water, Drinking Water, Packaged Drinking Water, Construction Water, Swimming Pool Water, Industrial Water, Irrigation Water & Purifier Water | pH at 25° c | IS 3025 (Part 11): 1983 (RA 2017) | 2to12 |
| | | Conductivity at 25° C | IS 3025 (Part 14): 1984 (RA 2013) | 1 µmhos/cm to 20000 µmhos/cm |
| | | Colour | IS 3025 (Part 4): 1983 (RA 2017) | 1 Hazen colour unit to 50 Hazen colour unit |
| | | Odour | IS 3025 (Part 5): 1983 (RA 2017) | Qualitative |
| | | Turbidity | IS 3025 (Part 10): 1984 (RA 2017) | 1 NTU to 500 NTU |
| | | Total Dissolved Solids | IS 3025 (Part 16): 1984 (RA 2017) | 1 mg/l to 500 mg/l |
| | | Total Hardness as CaCO ₃ | IS 3025 (Part 21): 1983 (RA 2014) | 1 mg/l to 500 mg/l |
| | | Calcium as Ca | IS 3025 (Part 40): 1991 (RA 2014) | 1 mg/l to 500 mg/l |
| | Magnesium as Mg | IS 3025 (Part 46): 1994 (RA 2014) | 1 mg/l to 500 mg/l | |
| | Chloride as Cl | IS 3025 (Part 32): 1988 (RA 2014) | 1 mg/l to 500 mg/l | |
| | Alkalinity as CaCO ₃ | IS 3025 (Part 23): 1986 (RA 2014) | 1 mg/l to 500 mg/l | |

Ashok Kumar
Ashok Kumar
Convenor



N. Venkateswaran

N. Venkateswaran
Program Director



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

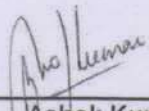
Laboratory Poluchem Laboratories (P) Ltd., Pallath Building, North Kalamassery, Dist. Ernakulam, Kerala

Accreditation Standard ISO/IEC 17025: 2005


Certificate Number TC-6589 (in lieu of T-2938 & T-1658) Page 7 of 9

Validity 25.08.2017 to 24.08.2019 Last Amended on 29.11.2017

| Sl. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-----|----------------------------|--|--|--|
| | | Acidity as CaCO ₃ | IS 3025 (Part 22): 1986 (RA 2014) | 1 mg/l to 500 mg/l |
| | | Iron as Fe | IS 3025 (Part 53): 2003 (RA 2014) Spectrophotometric Method | 0.05 mg/l to 5 mg/l |
| | | Silica as SiO ₂ (Reactive) | IS 3025 (Part 35): 1988 (RA 2014) Ammonium Molybdate method | 0.05 mg/l to 200 mg/l |
| | | Phosphate as PO ₄ | IS 3025 (Part 31): 1988 (RA 2014) Spectrophotometric Method | 1 mg/l to 500 mg/l |
| | | Sulphate as SO ₄ | IS 3025 (Part 24): 1986 (RA 2009) Spectrophotometric Method | 1 mg/l to 500 mg/l |
| | | Residual Chlorine as Cl | IS 3025 (Part 26): 1986 (RA 2014) Spectrophotometric Method | 0.1 mg/l to 10 mg/l |
| | | Chromium(Cr ⁶⁺) | IS 3025 (Part 52): 2003 (RA 2014) Spectrophotometric Method | 0.05 mg/l to 10 mg/l |
| | | Fluoride as F | IS 3025 (Part 60): 2008 (RA 2013) Spectrophotometric Method | 0.10 mg/l to 10 mg/l |
| | | Phenolic Compounds As C ₆ H ₅ OH | IS 3025 (Part 43): 1992 (RA 2014) | 0.05 mg/l to 10 mg/l |
| | | Nitrate as NO ₃ | IS 3025 (Part 34): 1988 (RA 2014) Spectrophotometric Method | 1 mg/l to 5 mg/l |


Ashok Kumar
Convenor




N. Venkateswaran
Program Director



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

Phone : 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

TEST REPORT

| | | |
|---|------------------------|--|
| Client Name & Address | Certificate No: | PL//RT/AMB/7622/2019 |
| M/s. S.S.GRANITES (Granite Building Stone Quarry) Sy. No : 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 Village : Palakkuzha Taluk : Muvattupuzha District : Ernakulam State : Kerala | Date of issue: | 28-06-2019 |
| | Monitoring Period | 1st HALF YEAR MONITORING Mar 2019 & Jun 2019 (24 hrs Monitoring) |
| | Monitoring Location | Ambient Air Quality Monitoring –CORE ZONE Near NW side Mine Boundary Gps Reading : N 09° 54' 5.65", E 76° 35 ' 47.42" |
| | Sample description | Ambient Air Quality Monitoring at Core Zone |


Ambient Air Quality Monitoring Analysis Result- Core Zone- Near NW side Mine Boundary.

| SL NO | Monitoring Date | Particulate Matter P.M10 $\mu\text{g}/\text{m}^3$ | Particulate Matter P.M2.5 $\mu\text{g}/\text{m}^3$ | Sulphur dioxide SO ₂ $\mu\text{g}/\text{m}^3$ | Nitrogen dioxide NO ₂ $\mu\text{g}/\text{m}^3$ |
|-------|-----------------|---|--|--|---|
| | | Test Method IS 5182 Part 23 2006 RA 2012 | Test Method CPCB | Test Method IS 5182 Part 2 2001 RA 2017 | Test Method IS 5182 Part 06 2006 RA 2017 |
| | | Limit as per NAAQS 100 $\mu\text{g}/\text{m}^3$ | Limit as per NAAQS 60 $\mu\text{g}/\text{m}^3$ | Limit as per NAAQS 80 $\mu\text{g}/\text{m}^3$ | Limit as per NAAQS 80 $\mu\text{g}/\text{m}^3$ |
| 01 | 18-03-2019 | 62.6 $\mu\text{g}/\text{m}^3$ | 36.4 $\mu\text{g}/\text{m}^3$ | 7.1 $\mu\text{g}/\text{m}^3$ | 7.1 $\mu\text{g}/\text{m}^3$ |
| 02 | 24-06-2019 | 60.5 $\mu\text{g}/\text{m}^3$ | 34.3 $\mu\text{g}/\text{m}^3$ | 8.2 $\mu\text{g}/\text{m}^3$ | 6.8 $\mu\text{g}/\text{m}^3$ |

Note : * NAAQS-National Ambient Air Quality Standards

- Gps reading recorded by RQP – WGS 84 system Followed
- Weather Conditions : Ambient Temperature : Max - 33 ° & Min- 26 ° on 18-03-2019
Ambient Temperature : Max :-32 ° & Min- 26 ° on 24-06-2019

* End of the Report*

| | |
|---|---|
| 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 |
|---|---|

POLUCHEM LABORATORIES (P) LTD.
 QUALITY CONTROL
 ERNAKULAM



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

Phone : 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

TEST REPORT

| | | | |
|---|---|----------------------------|--|
| Client Name & Address | | Certificate No: | PL//RT/SD/7624/2019 |
| M/s. S.S.GRANITES (Granite Building Stone Quarry) Sy. No : 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 Village : Palakkuzha Taluk : Muvattupuzha District : Ernakulam State : Kerala | | Date of issue: | 28-06-2019 |
| | | Monitoring Period | Ist HALF YEAR MONITORING Mar 2019 & Jun 2019 (24 hrs Monitoring) |
| | | Monitoring Location | Ambient Air Quality Monitoring –CORE ZONE Near NW side Mine Boundary Gps Reading : N 09° 54' 5.65", E 76° 35 ' 47.42" |
| | | Sample description | Ambient Sound Level (Leq) at Core Zone |
| TIME | AMBIENT SOUND LEVEL (Leq) – Core Zone - RESULT | | |
| | DATE | | |
| | 18-03-2019 | 24-06-2019 | |
| 10.00 Hrs | 59.6 dB (A) | 59.4 dB (A) | |
| 11.00 Hrs | 60.2 dB (A) | 58.4 dB (A) | |
| 12.00 Hrs | 58.7 dB (A) | 57.4 dB (A) | |
| 13.00 Hrs | 58.6 dB (A) | 56.2 dB (A) | |
| 14.00 Hrs | 57.6 dB (A) | 57.4 dB (A) | |
| 15.00 Hrs | 56.3 dB (A) | 58.4 dB (A) | |
| 16.00 Hrs | 56.2 dB (A) | 57.4 dB (A) | |
| 17.00 Hrs | 54.2 dB (A) | 56.3 dB (A) | |
| 18.00 Hrs | 51.2 dB (A) | 51.2 dB (A) | |
| 19.00 Hrs | 50.2 dB (A) | 52.3 dB (A) | |
| 20.00 Hrs | 49.8 dB (A) | 44.6 dB (A) | |
| 21.00 Hrs | 40.1 dB (A) | 39.2 dB (A) | |
| 22.00 Hrs | 40.2 dB (A) | 38.1 dB (A) | |
| 23.00 Hrs | 40.1 dB (A) | 39.8 dB (A) | |
| 00.00 Hrs | 39.8 dB (A) | 39.5 dB (A) | |
| 01.00 Hrs | 35.6 dB (A) | 38.4 dB (A) | |
| 02.00 Hrs | 37.6 dB (A) | 37.5 dB (A) | |
| 03.00 Hrs | 38.4 dB (A) | 40.1 dB (A) | |
| 04.00 Hrs | 39.5 dB (A) | 42.4 dB (A) | |
| 05.00 Hrs | 40.1 dB (A) | 44.5 dB (A) | |
| 06.00 Hrs | 42.6 dB (A) | 49.3 dB (A) | |
| 07.00 Hrs | 44.2 dB (A) | 51.4 dB (A) | |
| 08.00 Hrs | 54.3 dB (A) | 53.6 dB (A) | |
| 09.00 Hrs | 55.2 dB (A) | 58.7 dB (A) | |
| Leq (Day time) | 59.2 dB (A) | 58.6 dB (A) | |
| Leq(Night time) | 39.8dB (A) | 38.4 dB (A) | |

*End of the Report *

For PoluChem Laboratories (P) Ltd.
 AUTHORIZED SIGNATORY
 POLUCHEM LABORATORIES

Authorized Signatory

ANALYSIS OF AMBIENT AIR, STACK EMISSION, SOUND, LIGHT, WATER, EFFLUENT, SOIL, SPICES, FOOD TEA, OIL, FERTILISERS, BASIC CHEMICALS, PESTICIDE RESIDUES, HEAVY METALS AND MICROBIOLOGY



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

Phone : 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

TEST REPORT

Page 01 of 02

Ref.No. PL/RT/OW/1145/2019

Date of Issue: 27/03/2019

Name & address of customer

: **M/s. S.S.GRANITES**

(Granite Building Stone Quarry)

Sy. No : 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2,
457/4-3, 457/5, 459/2A3 & 459/2B2

Village : Palakkuzha

Taluk : Muvattupuzha

District : Ernakulam

State : Kerala

Sample drawn by
Sample description
Location of sampling

: PoluChem Laboratory Sample Collector

: **WELL Water - Ist HALF YEAR MONITORING**

: Open Well Water near Canteen

(Gps Reading : N 09° 54' 11.54 " , E 76° 35 ' 48.29")

Date of sample collected

: 18-03-2019 - MAR 2019 Quarter

Date of analysis started

: 19/03/2019

Date of completion of analysis

: 25/03/2019

| Parameters tested | Test method | Results | Acceptable Limit As Per IS 10500-2012 |
|---|-------------------------------|--------------|---------------------------------------|
| Color | IS 3025 (P) 04 – 1983 RA2017 | 5 Hazen Unit | 5 Hazen Unit |
| Odour | IS 3025 (P) 05 – 1983 RA2017 | Agreeable | Agreeable |
| Taste | IS 3025(P) 07– 1983RA2014 | Agreeable | Agreeable |
| Turbidity | IS 3025 (P) 10 – 1984 RA2017 | BDL | 1 NTU |
| pH | IS 3025 (P) 11 – 1983 RA 2017 | 6.12 | 6.5 – 8.5 |
| Total Dissolved Solids | IS 3025 (P) 16 – 1984 RA2017 | 39mg/l | 500 mg/l |
| Total Hardness as CaCO ₃ | IS 3025 (P) 21 – 1983 RA2014 | 14.6 mg/l | 200 mg/l |
| Total Alkalinity as CaCO ₃ | IS 3025 (P) 23 – 1986 RA2014 | 8.4 mg/l | 200 mg/l |
| Residual Chlorine | IS 3025 (P) 26 – 1986 RA2014 | BDL | 0.2 mg/l |
| Chloride as Cl ⁻ | IS 3025 (P) 32 – 1988 RA2014 | 14.3 mg/l | 250 mg/l |
| Calcium as Ca | IS 3025 (P) 40 – 1991 RA2014 | 4.123 mg/l | 75 mg/l |
| Magnesium as Mg | IS 3025 (P) 46 – 1994 RA2014 | 2.13mg/l | 30 mg/l |
| Total Iron as Fe | IS 3025 (P) 53 – 2003 RA2014 | 0.17 mg/l | 0.3 mg/l |
| Sulphate as SO ₄ | IS 3025 (P) 24 – 1986 RA2009 | 3.6 mg/l | 200 mg/l |
| Fluoride as F | IS 3025 (P) 60 -2008 RA 2013 | BDL | 1.0 mg/l |
| Nitrate as NO ₃ | IS 3025 (P)34 – 1988RA2014 | BDL | 45 mg/l |
| Phenolic Compound as C ₆ H ₅ OH | IS 3025 (P) 43-1992RA2014 | BDL | 0.001 mg/l |

Note : BDL – Below Detection Level

For PoluChem Laboratories (P) Ltd.

QUALITY
POLUCHEM LABORATORIES

Authorized signatory



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

Phone : 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

Page 02 of 02

Continuation of Test Certificate No: 1145/2019

| Parameters tested | Test method | Results | Acceptable Limits As per IS-10500-2012 |
|----------------------------|-----------------------------|---------|---|
| Selenium as Se | IS 3025 (P)56 -2003 RA2014 | BDL | 0.01 mg/l |
| Arsenic as As | IS 3025(P) 37- 1988 RA2014 | BDL | 0.01 mg/l |
| Copper as Cu | IS 3025(P) 42- 1992 RA2014 | BDL | 0.05 mg/l |
| Manganese as Mn | IS 3025(P) 59- 2006 RA2017 | BDL | 0.1 mg/l |
| Cadmium as Cd | IS 3025(P) 41- 1992 RA2014 | BDL | 0.003 mg/l |
| Chromium as Cr | IS 3025 (P)52 - 2003 RA2014 | BDL | 0.05 mg/l |
| Zinc as Zn | IS 3025 (P)49 - 1994 RA2014 | BDL | 5 mg/l |
| Mercury as Hg | IS 3025(P) 48 - 1994 RA2014 | BDL | 0.001 mg/l |
| Cyanide as CN | IS 3025(P)27-1986 RA2014 | BDL | 0.05 mg/l |
| Lead as Pb | IS 3025(P) 47- 1994 RA2014 | BDL | 0.01 mg/l |
| Aluminum as Al | IS 3025(P) 55- 2003 RA2014 | BDL | 0.03 mg/l |
| Boron as B | IS 3025(P) 57- 2005 RA2017 | BDL | 0.5 mg/l |
| Anionic detergents as MBAS | IS 13428:2005 | BDL | 0.2 mg/l |
| Mineral Oil | IS 3025(P)39-1991RA 2014 | BDL | 0.5 mg/l |

Note : BDL - Below Detection Level

MICROBIOLOGY ANALYSIS

| Parameters tested | Unit | Test method | Results | Acceptable Limit As per IS - 10500-2012 |
|-------------------|-------------------------|--------------------------|---------|--|
| Coliforms | MPN/100ml | IS 1622: 1981 RA 2009 | Absent | Absent |
| E coli | Present or Absent/100ml | IS 1622: 1981 RA 2009 | Absent | Absent |

For PoluChem Laboratories (P) Ltd.

Authorized signatory

* End of the report*

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.



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

Phone : 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

TEST REPORT


| | | |
|---|------------------------|---|
| Client Name & Address | Certificate No: | PL//RT/AMB/7623/2019 |
| M/s. S.S.GRANITES (Granite Building Stone Quarry) Sy. No : 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 Village : Palakkuzha Taluk : Muvattupuzha District : Ernakulam State : Kerala | Date of issue: | 28-06-2019 |
| | Monitoring Period | 1st HALF YEAR MONITORING Mar 2019 & Jun 2019 (24 hrs Monitoring) |
| | Monitoring Location | Ambient Air Quality Monitoring –BUFFER ZONE Near Main Office –NW side from Mine Boundary Gps Reading : N 09° 54' 10.80", E 76° 35 ' 48.16" |
| | Sample description | Ambient Air Quality Monitoring at Buffer Zone |

Ambient Air Quality Monitoring Analysis Result- Buffer Zone - Near Main Office

| SL NO | Monitoring Date | Particulate Matter P.M10 $\mu\text{g}/\text{m}^3$ | Particulate Matter P.M2.5 $\mu\text{g}/\text{m}^3$ | Sulphur dioxide SO ₂ $\mu\text{g}/\text{m}^3$ | Nitrogen dioxide NO ₂ $\mu\text{g}/\text{m}^3$ |
|-------|-----------------|---|--|--|---|
| | | Test Method IS 5182 Part 23 2006 RA 2012 | Test Method CPCB | Test Method IS 5182 Part 2 2001 RA 2017 | Test Method IS 5182 Part 06 2006 RA 2017 |
| | | Limit as per NAAQS 100 $\mu\text{g}/\text{m}^3$ | Limit as per NAAQS 60 $\mu\text{g}/\text{m}^3$ | Limit as per NAAQS 80 $\mu\text{g}/\text{m}^3$ | Limit as per NAAQS 80 $\mu\text{g}/\text{m}^3$ |
| 01 | 18-03-2019 | 48.3 $\mu\text{g}/\text{m}^3$ | 25.1 $\mu\text{g}/\text{m}^3$ | 6.8 $\mu\text{g}/\text{m}^3$ | 4.6 $\mu\text{g}/\text{m}^3$ |
| 02 | 24-06-2019 | 46.2 $\mu\text{g}/\text{m}^3$ | 20.1 $\mu\text{g}/\text{m}^3$ | 5.6 $\mu\text{g}/\text{m}^3$ | 4.0 $\mu\text{g}/\text{m}^3$ |

- Note :**
- * NAAQS-National Ambient Air Quality Standards
 - Gps reading recorded by RQP – WGS 84 system Followed
 - Weather Conditions : Ambient Temperature : Max - 33 ° & Min- 26 ° on 18-03-2019
Ambient Temperature: Max:-32 ° &Min- 26 ° on 24-06-2019

* End of the Report*

| | |
|---|---|
| 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 |

QUALITY MANAGEMENT SYSTEM
POLUCHEM LABORATORIES (P) LTD.



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

Phone : 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

TEST REPORT

| | | | |
|---|---|------------------------|---|
| Client Name & Address | | Certificate No: | PL//RT/SD/7625/2019 |
| M/s. S.S.GRANITES (Granite Building Stone Quarry) Sy. No : 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2, 457/4-3, 457/5, 459/2A3 & 459/2B2 Village : Palakkuzha Taluk : Muvattupuzha District : Ernakulam State : Kerala | | Date of issue: | 28-06-2019 |
| | | Monitoring Period | Ist HALF YEAR MONITORING Mar 2019 & Jun 2019 (24 hrs Monitoring) |
| | | Monitoring Location | Ambient Air Quality Monitoring –BUFFER ZONE Near Main Office –NW side from Mine Boundary Gps Reading : N 09° 54' 10.80", E 76° 35 ' 48.16" |
| | | Sample description | Ambient Sound Level (Leq) at Buffer Zone |
| TIME | AMBIENT SOUND LEVEL (Leq) – Buffers Zone - RESULT | | |
| | DATE | | |
| | 18-03-2019 | 24-06-2019 | |
| 10.00 Hrs | 48.1 dB (A) | 49.8 dB (A) | |
| 11.00 Hrs | 49.8 dB (A) | 48.5 dB (A) | |
| 12.00 Hrs | 48.6 dB (A) | 47.6 dB (A) | |
| 13.00 Hrs | 49.6 dB (A) | 46.2 dB (A) | |
| 14.00 Hrs | 48.6 dB (A) | 45.2 dB (A) | |
| 15.00 Hrs | 47.2 dB (A) | 46.3 dB (A) | |
| 16.00 Hrs | 46.3 dB (A) | 44.3 dB (A) | |
| 17.00 Hrs | 44.2 dB (A) | 42.3 dB (A) | |
| 18.00 Hrs | 43.3 dB (A) | 40.2 dB (A) | |
| 19.00 Hrs | 38.2 dB (A) | 36.8 dB (A) | |
| 20.00 Hrs | 39.2 dB (A) | 35.5 dB (A) | |
| 21.00 Hrs | 39.8 dB (A) | 36.4 dB (A) | |
| 22.00 Hrs | 37.4 dB (A) | 35.5 dB (A) | |
| 23.00 Hrs | 36.3 dB (A) | 35.4 dB (A) | |
| 00.00 Hrs | 36.5 dB (A) | 36.2 dB (A) | |
| 01.00 Hrs | 36.4 dB (A) | 37.4 dB (A) | |
| 02.00 Hrs | 39.5 dB (A) | 39.8 dB (A) | |
| 03.00 Hrs | 40.1 dB (A) | 39.8 dB (A) | |
| 04.00 Hrs | 41.2 dB (A) | 40.1 dB (A) | |
| 05.00 Hrs | 42.3 dB (A) | 41.3 dB (A) | |
| 06.00 Hrs | 43.2 dB (A) | 42.1 dB (A) | |
| 07.00 Hrs | 42.1 dB (A) | 44.3 dB (A) | |
| 08.00 Hrs | 45.8 dB (A) | 46.3 dB (A) | |
| 09.00 Hrs | 47.5 dB (A) | 45.2 dB (A) | |
| Leq (Day time) | 49.6 dB (A) | 48.9 dB (A) | |
| Leq(Night time) | 36.2 dB (A) | 35.4 dB (A) | |

*End of the Report *

QUALITY For Poluchem Laboratories (P) Ltd.
 POLUCHEM LABORATORIES
 Authorized Signatory

ANALYSIS OF AMBIENT AIR, STACK EMISSION, SOUND, LIGHT, WATER, EFFLUENT, SOIL, SPICES, FOOD TEA, OIL, FERTILISERS, BASIC CHEMICALS, PESTICIDE RESIDUES, HEAVY METALS AND MICROBIOLOGY



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

Phone : 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

TEST REPORT

Page 01 of 02

Ref.No. PL/RT/OW/7626/2019

Date of Issue: 28/06/2019

Name & address of customer

: **M/s. S.S.GRANITES**

(Granite Building Stone Quarry)

Sy. No : 441/4-1, 441/5, 455/6A, 457/3-1, 457/4-2,
457/4-3, 457/5, 459/2A3 & 459/2B2

Village : Palakkuzha

Taluk : Muvattupuzha

District : Ernakulam

State : Kerala

Sample drawn by

: PoluChem Laboratory Sample Collector

Sample description

: **WELL Water - 1st HALF YEAR MONITORING**

Location of sampling

: Open Well Water near Canteen

(Gps Reading : N 09° 54' 11.54 " , E 76° 35 ' 48.29")

Date of sample collected

: 24-06-2019 - JUN 2019 Quarter

Date of analysis started

: 25/06/2019

Date of completion of analysis

: 28/06/2019

| Parameters tested | Test method | Results | Acceptable Limit As Per IS 10500-2012 |
|---|-------------------------------|--------------|---------------------------------------|
| Color | IS 3025 (P) 04 – 1983 RA2017 | 4 Hazen Unit | 5 Hazen Unit |
| Odour | IS 3025 (P) 05 – 1983 RA2017 | Agreeable | Agreeable |
| Taste | IS 3025(P) 07– 1983RA2014 | Agreeable | Agreeable |
| Turbidity | IS 3025 (P) 10 – 1984 RA2017 | BDL | 1 NTU |
| pH | IS 3025 (P) 11 – 1983 RA 2017 | 5.57 | 6.5 – 8.5 |
| Total Dissolved Solids | IS 3025 (P) 16 – 1984 RA2017 | 45 mg/l | 500 mg/l |
| Total Hardness as CaCO ₃ | IS 3025 (P) 21 – 1983 RA2014 | 10.6 mg/l | 200 mg/l |
| Total Alkalinity as CaCO ₃ | IS 3025 (P) 23 – 1986 RA2014 | 5.6 mg/l | 200 mg/l |
| Residual Chlorine | IS 3025 (P) 26 – 1986 RA2014 | BDL | 0.2 mg/l |
| Chloride as Cl ⁻ | IS 3025 (P) 32 – 1988 RA2014 | 6.2 mg/l | 250 mg/l |
| Calcium as Ca | IS 3025 (P) 40 – 1991 RA2014 | 3.64 mg/l | 75 mg/l |
| Magnesium as Mg | IS 3025 (P) 46 – 1994 RA2014 | 1.24 mg/l | 30 mg/l |
| Total Iron as Fe | IS 3025 (P) 53 – 2003 RA2014 | 0.17 mg/l | 0.3 mg/l |
| Sulphate as SO ₄ | IS 3025 (P) 24 – 1986 RA2009 | 4.12 mg/l | 200 mg/l |
| Fluoride as F | IS 3025 (P) 60 -2008 RA 2013 | BDL | 1.0 mg/l |
| Nitrate as NO ₃ | IS 3025 (P)34 – 1988RA2014 | BDL | 45 mg/l |
| Phenolic Compound as C ₆ H ₅ OH | IS 3025 (P) 43-1992RA2014 | BDL | 0.001 mg/l |

Note : BDL – Below Detection Level

For PoluChem Laboratories (P) Ltd.

QUALITY ASSURED
POLUCHEM LABORATORIES (P) LTD.
Authorized signatory



POLUCHEM LABORATORIES (P) LTD.

CHEMICAL, ENVIRONMENTAL AND MICROBIOLOGY LABORATORY

PALLATH BUILDING, N. KALAMASSERY P. O., ERNAKULAM - 683104

Phone : 0484-2544030, 8281982322, 9747400085, 9747400089, www.poluchem.com, poluchem@gmail.com

ACCREDITED BY KSPCB AS "A" GRADE LABORATORY

Page 02 of 02

Continuation of Test Certificate No: 7626/2019

| Parameters tested | Test method | Results | Acceptable Limits As per IS-10500-2012 |
|----------------------------|-----------------------------|---------|---|
| Selenium as Se | IS 3025 (P)56 -2003 RA2014 | BDL | 0.01 mg/l |
| Arsenic as As | IS 3025(P) 37- 1988 RA2014 | BDL | 0.01 mg/l |
| Copper as Cu | IS 3025(P) 42- 1992 RA2014 | BDL | 0.05 mg/l |
| Manganese as Mn | IS 3025(P) 59- 2006 RA2017 | BDL | 0.1 mg/l |
| Cadmium as Cd | IS 3025(P) 41- 1992 RA2014 | BDL | 0.003 mg/l |
| Chromium as Cr | IS 3025 (P)52 - 2003 RA2014 | BDL | 0.05 mg/l |
| Zinc as Zn | IS 3025 (P)49 - 1994 RA2014 | BDL | 5 mg/l |
| Mercury as Hg | IS 3025(P) 48 - 1994 RA2014 | BDL | 0.001 mg/l |
| Cyanide as CN | IS 3025(P)27-1986 RA2014 | BDL | 0.05 mg/l |
| Lead as Pb | IS 3025(P) 47- 1994 RA2014 | BDL | 0.01 mg/l |
| Aluminum as Al | IS 3025(P) 55- 2003 RA2014 | BDL | 0.03 mg/l |
| Boron as B | IS 3025(P) 57- 2005 RA2017 | BDL | 0.5 mg/l |
| Anionic detergents as MBAS | IS 13428:2005 | BDL | 0.2 mg/l |
| Mineral Oil | IS 3025(P)39-1991RA 2014 | BDL | 0.5 mg/l |

Note : BDL – Below Detection Level

MICROBIOLOGY ANALYSIS

| Parameters tested | Unit | Test method | Results | Acceptable Limit As per IS - 10500-2012 |
|-------------------|-------------------------|--------------------------|---------|--|
| Coliforms | MPN/100ml | IS 1622: 1981 RA 2009 | Absent | Absent |
| E coli | Present or Absent/100ml | IS 1622: 1981 RA 2009 | Absent | Absent |

For PoluChem Laboratories (P) Ltd.

Authorized signatory

* End of the report*

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.