

COMPLIANCE REPORT

October 2021 – March 2022

Quarry project of C G George
Kannur District
Kerala

Dt.10-06-2022

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

Ref :- File No. 623/SEIAA/EC4/4806/2014

Sub :- Environment Clearance – Quarry project Kolavallur Village,
Kunnothuparamba Panchayat –, Thalassery Taluk - Kannur District –, Kerala. –
Compliance Report – Second half - Reg.

Respected Sir,

The Quarry (Building stone) project was accorded Environmental Clearance for 4.0 Ha. by order No. 623/SEIAA/EC4/4806/2014 dated 01-06-2016 by State Environmental Impact Assessment Authority, Kerala. The compliance report of Second half (October 2021 – March 2022) to the specific and general conditions of the Environment Clearance order is enclosed.

Thanking you,
Yours respectfully,

For, 
Quarry project of C G George

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

Encl: - As Above

COMPLIANCE REPORT

TO

THE CONDITIONS

OF

ENVIRONMENTAL CLEARANCE ORDER

NO: 623/SEIAA/EC4/4806/2014

DATED: 01-06-2016

BY

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA)

FOR

BUILDING STONE QUARRY

(MINOR MINERAL MINING) PROJECT

AT

**SURVEY NOS. 86/2, 87, 88/2, 88/1, 89/2B, 147/2 AND OTHERS
KOLAVALLUR VILLAGE, KUNNOTHUPARAMBA PANCHAYAT ,
THALASSERY TALUK,
KANNUR DISTRICT
KERALA**

BY

M/s QUARRY PROJECT OF C G GEORGE

KANNUR DISTRICT

KERALA

INDEX

Sl. No.	Particulars	Page No.
1.	Introduction	05
2.	Compliance Report – Specific conditions – Part A	06
3.	Compliance Report – General conditions – Part B	08

LIST OF ANNEXURE

Annexure No.	Particulars	Page No.
1	Copy of the “ <i>Consent to Operate</i> ” from Kerala State Pollution Control Board (Renewal)	31
2	Copy of E C order	33
3	Copy of Explosive License issued by the Ministry of Commerce & Industry – Petroleum & Explosives Safety Organization (PESO)	41
4	Copy of License for quarry operations from <i>Gram</i> Panchayath	43
5	Copy of Lease from mining and Geology Dept.	44
6	news paper where advertisement published	46
7	Copy of result of ambient air	47
8	Copy of results of Noise	48
9	Copy of result of Water	49

INTRODUCTION

The quarry project of C G George is situated at Survey Nos. 86/2, 87, 88/2, 88/1, 89/2B, 147/2 and others Kolavallur Village, Kunnothuparamba Panchayat –, Thalassery Taluk - Kannur District –, Kerala.

The quarry project was accorded with the Environmental Clearance (EC) by State Environmental Impact Assessment Authority on 01-06-2016. As part of general condition No.37 of Environmental Clearance order, half yearly compliance report needs to be submitted by the project proponent. The compliance report of Second half to the specific conditions and general conditions of the Environmental Clearance order for the period **October 2021 – March 2022** is being submitted.

COMPLIANCE REPORT

(SPECIFIC CONDITIONS)

PART A

PART - A – SPECIFIC CONDITIONS

01	The drainage water should be collected after providing proper silt trap in pits	complied
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Compliance:

The project proponent has constructed adequate silt traps to clarify storm water. The storm water is channelized to a pond situated in the lower side of the mine lease area. All sediments have been settling down at the bottom of the pond. The excess water is pumped out which is going out site after clarification of water through silt traps.

02	To the extent possible local Bio Diversity Management Committee shall be Involved in the environmental management/ restoration activities	complied
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Compliance:

The project proponent approached the local self government to invite the local Bio Diversity Management Committee, The project proponent could engage them in the restoration activities in the quarry project.

03	Reclamation and eco-restoration should be done by planting native species	Complied
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Compliance:

As part of concurrent reclamation and eco – restoration is being done by planting native species. The project proponent has started planting of various saplings with native species. Final reclamation and eco restoration will be done after post closure time.

COMPLIANCE REPORT

(GENERAL CONDITIONS)

PART B

PART – B – GENERAL CONDITIONS

01	Rain Water Harvesting capacity should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.	Complied
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Compliance:

To conserve the natural resource (Rain Water), the project proponent collects storm water in a pond located in the lowest area. The stored rain water is using for irrigation purposes, watering of plants, wetting of roads.

02	Environment Monitoring Cell (EMC) as agreed under the affidavit filed by the proponent should be formed and made functional.	Complied
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Compliance:

As part of stipulated condition in Environmental Clearance order, the Environmental Monitoring Cell (EMC) was formed. The EMC meeting arranges regularly to evaluate and monitor quarrying work in connection with the specific and general conditions stipulated in the Environmental Clearance (EC) order.

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

The project proponent has planted more tree saplings as avenue trees and as green belt in the project area. There are natural trees and shrubs are present either side of the road and parking area. This helps to reduce air and noise pollution during the time of transportation of vehicle. The details of vegetation along the road side are given below in **table No.1**.

Table 1 - Details of the natural vegetation existing along the road side

Sl. No.	Scientific Name	Common Name	Family	Type
1.	Artocarpus heterophyllus	Plavu	Moraceae	Tree
2.	Nerium oleander	Arali	Apocynaceae	Small tree
3.	Tectona grandis	Thekku	Verbenaceae	Tree
4.	Chromolaena odorata	Communist-pacha	Compositae	Shrub
5.	Mangifera indica	Mavu	Anacardiaceae	Tree
6.	Ziziphus oenopolia	Thodalli	Rhamnaceae	Climber
7.	Swietenia macrophylla	Mahagany	Meliaceae	Tree

04	Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.	Complied
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Compliance:

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

05	Sprinklers shall be installed and used in the project site to contain dust emissions.	Complied
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Compliance:

To prevent dust emissions from the road while transportation of materials, the project is spraying water on roads by a vehicle. Water is splashing on site before blasting operation. The project proponent has installed permanent sprinklers to reduce air pollution.

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

The eco restoration plan prepared by the project proponent is being executed in a good manner. The project started to plant various saplings in and around the project site. The mine closure plan will be done at the own cost of project proponent as agreed in the proposal.

07	At least 10 percent out of the total excavated pit area should be retained as water storage areas and the remaining area should be reclaimed with stacked dumping and overburden and planted with indigenous plant species that are eco-friendly, if no other specific condition on reclamation of pit is stipulated in the EC.	Will be complied
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Compliance:

The project proponent will retain at least 10 percent of total excavated pit as rain water storage area after closure of the mine. The remaining area will be reclaimed with stacked dumping of overburden and top soil. As part of its eco – restoration plan, the project will plant indigenous plant species that are eco – friendly on the reclaimed area.

08	Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented.	Complied
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Compliance:

Since the mining activity is operating in a community, Corporate Social Responsibility has a major role to play. AS part of CSR (Corporate Social Responsibility), the project proponent spent amount in the areas of education, cultural festivals and infrastructural development. The project proponent is intending to execute more activities under CSR in a systematic way.

Table No.2 – Detail of performed activities under CSR

Sectors	Activities	Beneficiaries	Amount spent in Rs.
Medical Aid	Donation	Lucy palamoottil	25,000
		preman s/o bharathan	25,000

		kuzhikkal	
Social & Culture	Donation	kolavallur sri adungudi sri muthappan madappura	25,000
	Donation	valiyavelicham kappanayullaparambath gulikan devasthaanam thira	5,000
	Donation	chamathakkad library and reading room	10,000
Housing	Donation	ems construction aid	50,000
	Donation	santhosh pv	14,130
Security	Donation	pinarayi police station cctv	25,000
	Donation	CCTV fitting	50,000
		Total	2,29,130

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

The project has erected barbed metal wire fencing around the mining area with height of 5 ft. This can prevent falling of animals/human being/dumping of garbage etc. in to the mine lease area. This fencing can help to demarcate the lease area.

10	Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.	Complied
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Compliance:

As per the stipulation of Explosive department, the project proponent has installed warning alarms in the quarry site. At present it is working properly.

11	Control measures on noise and vibration prescribed by KSPCB should be implemented.	Complied
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Compliance:

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

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

Blast vibrations and control measures

- ❖ Controlled blasting technique is adopted in this project in order to reduce blast vibrations.
- ❖ Ordinary delayed detonators are using for the blasting
- ❖ The maximum charge per delay is not more than 10kg to limit the PPV values to 10mm/sec.
- ❖ Optimum delay sequence and stem to column ratio is maintaining to minimize the ground vibration intensity.
- ❖

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

To reduce the inconvenience of nearby houses and community Quarrying activities are limited to day time only as per KSPCB guidelines. The working time of the quarry is from 6.30am to 5.30 pm.

13	Blasting should be done in a controlled manner as specified by the regulations of explosives department or any other concerned agency.	Complied
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Compliance:

The blasting is the crucial part of quarrying industry to explore the minor minerals. The blasting is done in controlled manner by using NONEL. All blasting activities are carrying out with the specified regulations of explosive department.

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

The project has appointed mines manager, who supervise/control the blasting operations for the exploitation of minor minerals from the project site.

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

To reduce emission of dust through the vehicle movement, the access road from the entrance of project site to quarry is tarred. The project proponent is wetting the approach road to arrest the dust during summer season.

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

The overburden is using to construct haulage roads when it is needed. There is old quarry in the site for restoration with overburden. So the overburden materials are stored within the project site.

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

As part of safety and eco friendly mining, the quarrying activity in the project is progressing by creating benches of 5m width and 5m height.

18	Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.	Complied
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Compliance:

The project proponent using Mats to reduce fly rock during the time of blasting. There is no fly rock in the new method of blasting. At present NONEL is using for the blasting.

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

The depth of mining does not exceed beyond 10 meter from general; ground level. The exploration is being done as per the plan submitted before State Environment Impact Assessment Authority (SEIAA), Kerala.

20	No mining operations should be carried out at places having a slope greater than 45°.	Complied
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Compliance:

In the project site there is no area with slope greater than 45°. No mining operation is carried out with a slope greater than 45°.

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

To reduce the impact of sound to the labours in the mine, the project proponent has provided ear plugs. All machines are new and doing periodical maintenance. Vegetation around the mining area helps to reduce noise and air pollution. This helps the noise level kept within prescribed standards. At present, there is no crusher unit associated with the quarry.

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

To ensure the safety of labours in working site, the project proponent has provided adequate Personnel Protective Equipments (PPE) such as helmets, ear plugs, safety belts, gloves, etc.

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

The project proponent ensured that all storm water from the mining area is flowing in to the pond created at mining area. The project proponent has created garland drains where it is necessary in the lower slopes of the project area for storm water management.

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

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

25	The proponent should plant trees at least 5 times of the loss that has occurred while clearing the land for the project.	complied
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Compliance:

The project proponent has planted various saplings in the project area as a compensation of loss of trees while the project is clearing the land for mining. The project proponent is intending to plant more number of saplings in the project site.

26	Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations.	complied
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Compliance:

The spent oil is being sold only to the approved recyclers. An amount of oil is using as lubricant at the project site.

27	Explosives should be stored in magazines in isolated place specified and approved by the explosives department.	complied
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Compliance:

As part of guidelines of competent authority and safety concern, the explosives are stored in magazine. The magazine situated in an isolated place specified and approved by the explosives department.

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

The norms of Kerala State Pollution Control Board regarding the distance criteria of residences, roads, rivers and worship places is adhered by the project. The distance of the nearest house is above 143 meter form the quarry.

29	100 m buffer distance should be maintained from forest boundaries.	Complied
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Compliance:

The project has left more than 100 meters as buffer distance from the project site.

30	Consent from Kerala Pollution Control Board under Water and Air Act(s) should have been obtained before initiating activity.	Complied
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Compliance:

The project has obtained consent from KSPCB under Water and Air Act(s). The copy of certificate of “*Consent to Operate*” (Renewal) from Kerala State Pollution Control Board is provided.

31	All other statutory clearances should have been obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.	Complied
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Compliance:

The certificates obtained from other concerned statutory authorities are mentioned below:-

Table No.3 List of necessary Approvals

Name of the Statutory approval	Name of the Statutory authority
Environmental Clearance order	State Environmental Impact Assessment Authority, Kerala
“Consent to Operate” (Renewal)	Kerala State Pollution Control Board
Explosive License	Ministry of Commerce & Industry – Petroleum & Explosives Safety Organization (PESO)
License for quarry operations	Gram Panchayath
Permit	Department of Mining and Geology, Ernakulam

32	In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based	Noted to be complied
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	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.	
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Compliance:

There is no plan for the expansion of project. In case of any change(s) in the scope of the project, the proponent will apply for fresh appraisal to get the Environmental Clearance.

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

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

34	The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, The Environment (Protection) Act, 1986 the public liability (Insurance) Act, 1991 and EIA notification, 2006.	Complied
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Compliance:

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

- Kerala Minor Mineral Concession Rules, 2015.
- Mines Act, 1952
- Explosive Rules, 2008

- Kerala Panchayat Raj Act, 1994
- Water Pollution (Prevention & Control) Act, 1974
- Air Pollution (Prevention & Control) Act, 1981
- Environment Protection Act, 1986
- EIA Notification, 2006 / 2009
- The Kerala Promotion of Tree Growth in Non-Forest Areas (Amendment) Act, 2007.

35	The project proponent should advertise in at least two local news papers widely circulated in the region, one which (both advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at www.seiaakerala.org . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and the copy of the same signed in all pages should be forwarded to the office of this authority as confirmation.	Complied
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Compliance:

An advertisement in two local daily newspapers (English and Malayalam) regarding Environmental Clearance accorded to the quarry project was given within the stipulated period and the copy of the same was submitted at SEIAA Kerala. The copy of the advertisement given in two local newspapers is provided at **Annexure No.6**. The details are given below in the table.

Table No. 4 Details of advertisement in news paper

Sl. No	News paper	Language	Date of edition
01	Deepika	Malayalam	26-June-2016
02	The Hindu	English	26-June-2016

36	A copy of the clearance letter shall be sent by the proponent to concerned Grama/District Panchayath / Municipality / Corporation /	Complied
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	Urban Local Body and also to the Local NGO, if any from whom suggestions / representations, if any were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.	
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Compliance:

A copy of the Environment Clearance letter was submitted to the Panchayat Office. The project proponent did not receive any suggestions / representation from anywhere while the processing the proposal therefore did not give the copy of clearance letter to anyone. The EC order uploaded in the website of the company.

37	The proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) and upload the status of compliance of the stipulated EC conditions including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the State Environment Impact Assessment Authority (SEIAA) office.	Complied
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Compliance:

The compliance report is being submitted along with the results of monitored data to the State Environmental Impact assessment Authority, Kerala and the Regional Office of MoEF&CC, Bangalore both in hard copy as well as mail. The compliance report and the EC order is uploaded in the website of the company.

38	The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3ft with green background and yellow letters of Times New Roman font of size of not less than 40. Sign board with extent of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public.	complied
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Compliance:

The details of the Environmental Clearance are displayed in the project site. The project proponent has placed the metallic board as specified in the conditions of Environmental Clearance order.

39	The proponent should provide notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously followed.	Complied
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Compliance:

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

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

At present, the project proponent is not intending to expand the area of mine, technology and scope of working. The project proponent will appear SEIAA for Environment Clearance if the project wants to expand its scope. The mining is progressing as per submitted plan.

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.	Complied
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Compliance:

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

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

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

43	The top soil, if any, shall be temporarily stored at earmarked site(s) only for the topsoil shall be used for land reclamation and plantation. The Over Burden (OB) generated during the mining operations shall be 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. 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 of rehabilitated areas should continue until the vegetation becomes self-sustaining.	complied
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Compliance:

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

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

The project proponent has constructed effective garland drains to catch all the storm water during the time of monsoon season. These channels are directed to the rain water collection pond. All sediments and silts will be settled at the bottom of the pond and only cleared water let out. The water from the pond is being used for splashing of water on roads to arrest the dust.

45	Effective safeguard measures such as regular water sprinkling shall be carries out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5}, such as haul road, loading an un loading points and transfer points – it shall be ensured that the Ambient Air Quality Parameters confirm to the norm prescribed by the Central Pollution Control Board in this regard.	complied
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Compliance:

To prevent dust emissions, the project proponent installed sprinklers in critical areas to reduce the dust emission such as loading and unloading points, haul roads and transfer points. The water spraying has been carried out regularly to arrest the dust emission. The mobile sprinkler unit is properly marinated.

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

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

47	Measures should be taken for control of noise levels below 85 dBA in the work environment.	Complied
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Compliance:

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

48	A separate Environmental Management Cell with suitable qualified personal should be set up under the control of a senior executive, who will report directly to the Head of the Organization.	Complied
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Compliance:

To monitor all conditions stipulated in the Environment Clearance and environment Management Plan, the project will constitute an Environment Monitoring Cell This cell will concurrently monitor and evaluate the safeguard measures implemented in the project site.

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

The project proponent has been keeping funds earmarked for environmental protection and CSR in a separate account. This helps to execute more activities under Corporate Social Responsibility (CSR) for community development.

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.	complied
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Compliance:

The project proponent scrupulously follows the condition stipulated in the EC order and keeping all records with a good documentation system. The project proponent has extended all possible cooperation to the officers from regional office of MoEF & CC and can produce all data/information/reports when they are asking for the same.

51	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under section 16 of the National Green tribunal Act, 2010.	No appeal against EC order at NGT within 30 days.
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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.	All factual data submitted
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The project proponent has produced all factual data and no data concealed during the time of appraisal.

53	The SEIAA may revoke or suspend the order, for non implementation of any of the specific or this implementation of	Noted
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	any of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.	
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Compliance:

The project proponent has been implementing conditions stipulated in this Environment Clearance order. The project can execute all possible measures in the project site for the conservation of environment.

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.	complied
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Compliance:

The project proponent gives priority to the conditions stipulated in the Environment clearance Order.

55	This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Govt. of Kerala, whichever is earlier.	Noted
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The project proponent has applied for revalidation of EC at SEIAA.

56	The environmental clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.	Noted
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57	The mining operation shall be restricted to above ground water table and is should not intersect ground water table.	complied
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Compliance:

The project proponent is following approved mining plan for the extraction of building stones. The project proponent restricts its mining operations above the ground water table. The same instruction has been given to the mines manager.

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

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

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

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

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

There is no stream or springs flowing in and around to the mine lease area.

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

The project proponent has conducted an occupational health surveillance programme in association with Primary Health Center (PHC) of Kerala government for the labours working in mining area.

ANNEXURE

Annexure No.1



KERALA STATE POLLUTION CONTROL BOARD

FILE NO. :PCB/DO-KNR/ICO/R16KAN3193160/2019

Date of issue :03/06/2021

INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No : PCB/KNR/ICO-R1/1015/2019

Ref : CONSENT NO- 1 PCB/KNR/ICO-R/1015/2019

2. PCB/KNR/ICO/948/2016 DATED 23/11/2016

The 'Integrated Consent to Operate' issued as per reference above to M/s HOLY FAMILY STONE CRUSHER & HOLLOWBRICKS
 CHERIKAL, CHERUPARAMBA.P.O. PANOORKANNUR DT - 670693 is hereby renewed up to 03/06/2026 and issued to M/s HOLY FAMILY STONE CRUSHER & HOLLOW BRICKS CHERIKAL, CHERUPARAMBA.P.O. PANOOR KANNUR DT - 670693 The consent(s)/ variation order(s) cited under reference are integral part of this renewal order and this order is subject to the conditions stipulated therein and the following modifications/ additions.

I. GENERAL

S.No.	Items	Description
1	TOTAL FEE REMITTED	110000/-
2	ACTIVITY	Granite quarrying in 4 Hectare area of survey no-88/1,89/2B,139/1,147/2
3	CAPITAL INVESTMENT	85 lakhs
4	VALIDITY	03/06/2026

II. Stack Details

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

III. CONDITIONS

5.2 Application for the renewal shall be submitted before 31/4/2022 with a valid EC.

5.22 This consent is issued subjected to NOTIFICATION vide No.S.O. 4254(E) dated 27th November, 2020

from MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE and Environmental Clearance 14/2017 by District Environmental Impact Assessment Authority, Kannur letter No.09/KNR/2017/DEIAA Dated 01-07-2017

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

DATE :03/06/2021

SIGNATURE & SEAL OF ISSUING AUTHORITY
ENVIRONMENTAL ENGINEER



To

C.G. GEORGE,
CHITTETH HOUSE,
KOOHUPARAMBA.P.O,
KANNUR DT - 670643
HOLY FAMILY STONE CRUSHER & HOLLOW BRICKS CHERIKAL, CHERUPARAMBA.P.O.
PANOOR
KANNUR DT - 670693

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.

Page2

Copy of Consent form PCB

Annexure No.2

Validity expires on 31-05-2021



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

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

Sub: Environmental clearance for the building stone quarry project in Sy. No. 86/2,87, 88/2, 88/3, 88/1, 89/2B, 147/2, 139/1 at Kolavallur Village, Kunnothparamba Grama Panchayat, Thalassery Taluk, Kannur District, Kerala by Sri. C.G. George- E.C Granted- Orders issued

State Environment Impact Assessment Authority, Kerala

No. 623/SEIAA/EC4/4806/2014

Dated: 01-06-2016

- Ref:
1. Application dated 29-9-2014 from Sri. C.G. George, Chittethu House, Kuthuparamba, Kannur, Kerala. 670643.
 2. Minutes of the 46th meeting of SEAC held on 29/30-9-2015.
 3. Minutes of the 52nd meeting of SEAC held on 8/9-2-2016.
 4. Minutes of the 51st meeting of SEIAA held on 29-3-2016.

ENVIRONMENTAL CLEARANCE NO. 75 / 2016

Sri. C.G. George, Co-Owner, Chittethu House, Kuthuparamba, Kannur District-670643 vide his application received on 10-10-2014 has sought Environmental Clearance under EIA Notification, 2006 for the quarry project Sy. No. 86/2,87, 88/2, 88/3, 88/1, 89/2B, 147/2, 139/1 at Kolavallur Village, Kunnothparamba Grama Panchayat, Thalassery Taluk, Kannur District for an area of 4.0 hectares. The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares) and as per O.M. No. L-11011/47/2011-IA.II(M) dated 18th May 2012 of Ministry of Environment and Forests. It is further categorized as Category B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dated 24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

The proposed project site falls within Latitude 11°46'48.36" to 11°46'37.93" N and Longitude 75°37'25.27" to 75°37'15.50" E. The land use classification as per revenue records is rocky area with private land. The current proposal is new and existing quarry with an area of 0.9186 ha and mineral specific hence no alternate site was examined. The total production will be 1,60,000 MTA. The topography of the lease area is hilly. Forest land is not

Page 1 of 6

involved in the project site. There are no underground mining activities. The mining will be done by open cast semi mechanized method.

BASIC INFORMATION OF THE PROJECT

<i>Extent of area (in hectares)</i>	4.0 ha.
<i>Minimum and maximum height of excavation (MSL)</i>	115 m MSL and 75 m. MSL
<i>Life of mine proposed</i>	13 Years
<i>Ultimate depth of mining (in MSL)</i>	70 m. MSL
<i>Distance from the adjacent quarry</i>	There are four quarries with short term permit for total an area of 0.194 ha. operating within 500 m. radius.
<i>Capacity of production</i>	1,60,000 MTA
<i>Details of Project Cost</i>	Rs. 4 Crores.
ABOUT THE PROJECT	
<i>Environmental Parameters Considered</i>	
WATER	
Water requirement & sources	The total water requirement is about 17 KLD in which 2 KLD is for domestic which would be sourced from open well, 12 KLD for dust suppression system in mine as well as ancillary unit and 3 KLD for plantation purposes and will be sourced from storm water pond.
RWH units proposed	Rain water collection pond.
Facilities for liquid waste treatment	Not applicable
Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No impoundment, damming, culverting, realignment or other changes to the hydrology of surface water courses.
Water quality meeting requirements	Water quality to meet requirements after treatment of water (filtration, disinfection & sedimentation).
LAND	
Proximity to forest lands	Kannavam Reserve Forest, 5 km.
Is the land assigned for any other special purpose; Give details	No
Access road to the site –Width & Condition	7 m. wide, tarred road, NW
Storage of explosives /hazardous substances	Explosives will be stored as per Explosive Act / Rules.
Facility for solid waste management.	The municipal solid waste will be suitably disposed.
Topographic features/ slope	The topography of the lease area is hilly area covered with native tree, climbers, grass, shrubs, herbs etc. Slope = towards north west side.
Proneness of the area for landslides	No
Significant land disturbance resulting in erosion, subsidence & instability	No
Top soil, overburden etc.	Top soil = 14,000 cu.m. Overburden = 6,000 cu.m.
AIR	
Air quality meeting requirements	To meet requirements as per rules
Noise level meeting requirements	To meet requirements as per rules
Likely emissions affecting environment	Diesel engine emissions & emissions from movement of vehicles like dumpers, trucks, tankers etc. will also generate.

ENERGY			
Energy requirement		The total power requirement will be 75 kW for compressions, which will be drawn from diesel engine.	
Energy Sources		From diesel engine.	
Extent of usage of alternative energy resources		No	
BIODIVERSITY			
Presence of any endangered species or red listed category		No	
Loss of native species and genetic diversity		For the quarrying activity all of native tree species all of native tree species, shrubs, herbs, climbers etc. existing at project site will be cleared.	
Likely displacement of fauna		No	
Any introduction of alien / invasive species		No	
SOCIAL ASPECTS			
Proximity to nearest habitation		158 m. , NW	
CSR components suggested			
Sr. No	Description	Approx. Amount proposed	Remarks
1.	Education	Recurring = Rs. 11.66 lakhs Non-recurring = Rs. 9.10 lakhs	A detailed study on social status of the project site surroundings & need base study on proposed CSR activities were carried out.
2.	Health		
3.	Community development		
	Total		
GENERAL			
Eco restoration programmes		The year wise programme of afforestation for the life of mine, about 4,000 trees will be planted. The main aim of the green belt development is to restore the eco-system to its original form to a maximum extent by designing the green cover with the same native species.	
Sufficiency of parking spaces/ traffic management		Yes	
Litigation/court cases, if any, against the project (provide details)		Nil as declared	
Details of Authorised Signatory		Sri. C.G. George, Co-Owner, Chitteth House, Kuthuparamba, Kannur District-670643	
Details of NABET approved EIA consultant organization		M/s Environmental Engineers & Consultants Pvt. Ltd. (at Sr. No. 54 as per MoEF & CC list of Accredited Consultant Organization) Head Office :- A1-198, Janak Puri, New Delhi. Branch Office:- C-306, Kanchanjunga Apartments, Palarivattom P.O., Kochi, Kerala.	

2. Since the tenure of the SEIAA, Kerala had expired, the proponent submitted another application to MoEF directly for getting EC. On constitution of the Authority, MoEF referred it to SEIAA as per letter No. Z-11013/24/2015-IA-II (M) dated 01-04-2015 without the corresponding physical files. The application received by SEIAA was placed before 46th meeting of SEAC held 29/09/2015. The Committee decided to defer the item for field visit by subcommittee concerned and for submission of mining plan by the proponent in accordance with the KMMC Rule 2015. The proponent has submitted revised Mining Plan as per KMMC Rule 2015. Field visit was conducted on 22/10/15. The site inspection details are given below:

"It is an existing stone quarry. There are 4 small quarries operating in the neighbouring area of different owners. The proposal is for an area of 4 ha out of the total area of 9.3212 ha. There is an active existing quarry within the area. Open cast semi mechanized method is practised. Benching is started. Fencing and warning boards are found. Vegetation is seen around the quarry which is having some endemic species which they agree to protect. No houses or settlements are noticed in the nearby area. In addition to the general conditions, the following specific condition should be applied. The drainage water should be collected after providing proper silt trap in pits."

3. Sri. Dineshan and Sri. P.K. Chathu filed a complaint against the functioning of quarry illegally in the land comprises Re.Sy.No.156 and 151/1 respectively of Puthur Village by Sri. C.G. George. The proposal was again placed in the 52nd meeting of SEAC held on 8th and 9th February 2016. The Committee observed that since the quarrying is still taking place there is a case of violation for which necessary proceedings shall be initiated. The subcommittee visited the site had recommended to provide suitable clarification pond before water is let out from quarry premises. After examining the Mining Plan, Prefeasibility Report, Field Inspection Report and all other documents submitted, the Committee decided to recommend issuance of EC on completion of action against violation subject to the following specific conditions in addition to general conditions for mining.

1. The drainage water should be collected after providing proper silt trap in pits.
2. To the extent possible local Biodiversity Management Committee shall be involved in the environmental management/restoration activities.
3. Reclamation and eco-restoration should be done by planting native species.

As regards the complaints referred by Sri. Dineshan and P.K. Chathu against functioning of the quarry, the Committee found that the allegations are related the land survey number 151/1 and 156 of Puthur village and hence the committee was of the opinion that the complaint is not relevant and deserves no considerations.

4. The Authority considered the recommendations of SEAC in the 51st meeting held on 29-3-2016. Violation proceedings is recommended because 'quarrying is still taking place'. As regards the question of violation, quarries were brought under E.C regime only after 27.02.2012, consequent on order of Supreme Court in Deepak Kumar's case. Even therefore

iii) The given address for correspondence with the authorized signatory of the project Sri. C.G. George, Co-Owner, Chitteth House, Kuthuparamba, Kannur District-670643.

Sd/-
P.MARA PANDIYAN.I.A.S,
Member Secretary (SEIAA)
&
Additional Chief Secretary
Environment & Forests Department.
Government of Kerala.

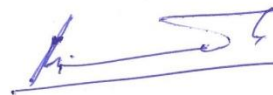
To,

✓ Sri. C.G. George,
Co-Owner, Chitteth House,
Kuthuparamba,
Kannur District-670643

Copy to,

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala.
3. Director, Mining & Geology, Thiruvananthapuram -4.
4. District Collector, Kannur
5. Secretary, Kunnothparamaba Grama Panchayat, Porat P.O., Kannur-670693.
6. Chairman, SEIAA.
7. Website.
8. S/f
9. O/c

Forwarded/ By Order



Administrator,
SEIAA



STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

GENERAL CONDITIONS (for mining projects)

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.
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 indicating 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 guidelines/specific conditions.
13. Blasting should be done in a controlled manner as specified by the 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 5 m, and width should not be less than 5 m, if there is no mention is the mining plan/specific condition.
18. Mats to reduce fly rock blast to a maximum of 10 PPV 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 as specified under relevant Rules/ Regulations.
27. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
28. A minimum buffer distance of 100m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.
29. 100 m buffer distance should be maintained from forest boundaries.

30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.
31. 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.
32. In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponent shall apply and get the approval of this Authority.
33. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
34. The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
35. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same 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 concerned Grama Panchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.
37. 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 copies as well as by e-mail) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the State Environment Impact Assessment Authority (SEIAA) office.
38. The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40. 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 SEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the SEIAA, 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 topsoil 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 8m and width 20m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.
44. Catch drains and siltation ponds of appropriate size shall be constructed around the mine

- working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted 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 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 Central Pollution 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 environmental 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 activities should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.
 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 Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
 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 SEIAA 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 SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
 54. The above conditions shall prevail notwithstanding anything to the contrary, in consistent, or simplified, contained in any other permit, license or consent given by any other authority for the same project.
 55. This order is valid for a period of 5 years or the expiry date 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 intersect 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 up stream and down stream 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 SEIAA.
 61. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.



[Signature]
for Member Secretary, SEIAA Kerala

G. RAJEEV
Administrator
State Environment Impact Assessment Authority
Pallimukku, Pettah
Thiruvananthapuram-695024
Phone: 0471-2742264

Copy of Environmental Clearance

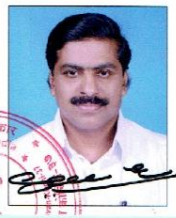
Annexure No.3

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/22/746(E32353)
वार्षिक फीस रूप (Annual Fee Rs): 2400/-



1. Licence is hereby granted to
Shri C.G. George (अधिभोगी / Occupier : C G George), Chittath House, Kuthuparamba post, Town/Village - Kuthuparambu, District-KANNUR, State-Kerala, Pincode - 670643

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, Electric Detonators, Ordinary Detonator,** 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	2000 Mtrs
3.	Electric Detonators	6,3	0	2500 Nos.
4.	Ordinary Detonator	6,3	0	5000 Nos.

(ख) किसी एक कलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा [अनुच्छेद 3(ख) और (ग) के अधीन अनुज्ञप्ति के लिए] : **26 times as above.**

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

5. निम्नलिखित रेखाचित्र (रेखाचित्रों) से अनुज्ञप्ति परिसर की पुष्टि होती है। रेखाचित्र क्र. (Drawing No.) E/SC/KL/22/746(E32353)
The licensed premises shall conform to the following drawing(s): . दिनांक (Dated) 16/12/2005

6. अनुज्ञप्ति परिसर निम्नलिखित पते पर स्थित हैं। The licensed premises are situated at following address:
Survey No(s). 88/1 , ग्राम (Town/Village) : **Kolavallur, Thalassery Tk.**
जिला (District) : **KANNUR** राज्य (State) : **Kerala** पुलिस थाना (Police Station) : **Kolavallur**
दूरभाष (Phone) : ई. मेल (E-Mail) : पिनकोड (Pincode) :
फैक्स (Fax) :

7. अनुज्ञप्ति परिसर में निम्नलिखित सुविधाएं अंतर्निहित हैं। : **One Mini Explosives Magazine & Detonator Room**
The licensed premises consist of following facilities.

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

- उपर्युक्त क्रम सं. 5 में यथा कथित रेखाचित्र (स्थान, सन्निर्माण संबंधी और अन्य विवरण दर्शित करते हुए)।
Drawings (showing site, constructional and other details) as stated in serial No. 5 above.
- अनुज्ञप्ति प्राधिकारी द्वारा हस्ताक्षरित इस अनुज्ञप्ति की शर्तें और अतिरिक्त शर्तें।
Conditions and Additional Conditions of this licence signed by the licensing authority.
- दूरी प्ररूप DE-2 | Distance Form DE-2.

9. यह अनुज्ञप्ति तारीख 31 मार्च 2007 तक विधिमान्य रहेगी। This licence shall remain valid till 31st day of March 2007.

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 अनुज्ञप्ति परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिसंहत की जा सकती है, जहां यह लागू हो।
This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not

found conforming to the description shown in the plans and Annexure attached hereto.

Sd/-

तारीख | The Date - 16/12/2005

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

Amendments :

- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 23/08/2012
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 22/07/2014
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 13/01/2015
- Amendment in Drawings/Facilities/Premises dated : 23/08/2016
- Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 22/12/2017



नवीनीकरण के पृष्ठांकन के लिए स्थान
Space for Endorsement of Renewal

नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry	अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature of licensing authority and stamp
07/02/2019	31/03/2024	Dy. Chief Controller of Explosives, Ernakulam उप मुख्य विस्फोटक नियंत्रक Deputy Chief Controller of Explosives एरणाकुलम 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.

Copy of Explosives

Annexure No.4

							
നമ്പർ: 4/2020-2021/A-5/1864/2020 തീയതി: 01/04/2020							
കുന്നോത്ത്പറമ്പ് ഗ്രാമപഞ്ചായത്ത് ഗ്രാമപഞ്ചായത്ത് തുവക്കുന്ന് പി.ഒ., കണ്ണൂർ (ജില്ല) പിൻ: 670693, ഫോൺ: 4902391430, ഇ-മെയിൽ: secretaryknp@gmail.com							
വ്യവസായം, വാണിജ്യം, സംരക്ഷണം, മറ്റ് സേവനങ്ങൾക്കുള്ള ലൈസൻസ് (കെ.പി.ആർ ആക്ട് സെക്ഷൻ 232, FTE & OS ലൈസൻസ് ചട്ടങ്ങൾ 1996)							
ലൈസൻസിയുടെപേര്	സി ജി ജോർജ്ജ്						
ലൈസൻസിയുടെ മേൽവിലാസം	ചിറ്റേത്ത് ഹൗസ്, കുന്നോത്ത്പറമ്പ് പി ഒ						
സ്ഥാപനത്തിന്റെ പേരും, സ്ഥലനാമവും	M/s QUARRY OWNED BY GEORGE, CHENDAYAD, PANOOR, KANNUR DIST						
ലൈസൻസ് നൽകിയിട്ടുള്ള പ്രവർത്തനങ്ങൾ	കരിങ്കൽ ഖനനം നടത്തുന്നതിന്						
വാർഡ് നമ്പർ/കെട്ടിട നമ്പർ	III/RS NO 88/1,89/2 B,139/1,147/2						
ലൈസൻസ് കാലാവധി	01/04/2020 മുതൽ 31/03/2024 വരെ						
ലൈസൻസ് ഫീസ്	<table border="1"> <tr> <th>തുക</th> <th>രസീത് നമ്പർ</th> <th>തീയതി</th> </tr> <tr> <td>5000/- രൂപ</td> <td>118040110154</td> <td>18/03/2019</td> </tr> </table>	തുക	രസീത് നമ്പർ	തീയതി	5000/- രൂപ	118040110154	18/03/2019
തുക	രസീത് നമ്പർ	തീയതി					
5000/- രൂപ	118040110154	18/03/2019					
മോട്ടോർ ഫീസ്							
തൊഴിൽ നികുതി							
ലൈസൻസ് അനുവദിക്കുന്നതിന് ഹാജരാക്കിയ നിരീക്ഷണ പത്രങ്ങളുടെ വിശദാംശങ്ങൾ (നമ്പർ, തീയതി, കാലയളവ്, നൽകിയ അധികാര സ്ഥാപനം)	1. പൊലുഷൻ കൺട്രോൾ ബോർഡിന്റെ 08/09/2019 ലെ PCB/DO-/KNR/ICO-R/R16KAN3193160/2019 നമ്പർ നിരീക്ഷണ പത്രം, (VALIDITY 31/05/2021) കാലാവധി അവസാനിക്കുന്നതിനനുസരിച്ച് പുതുക്കത്തപക്ഷം 2. എക്സ്പ്ലോസീവ് ലൈസൻസ് Peroleum and explosive safety organisation No.E/SC/KL/22/746(E32353), Dated:07.02.2019, Validity 31.03.2024, കാലാവധി അവസാനിക്കുന്നതിനനുസരിച്ച് പുതുക്കത്തപക്ഷം ലൈസൻസ് റദ്ദാവുന്നതാണ്. 3. Quarrying Lease Validity -27/12/2028, കാലാവധി അവസാനിക്കുന്നതിനനുസരിച്ച് പുതുക്കത്തപക്ഷം ലൈസൻസ് റദ്ദാവുന്നതാണ്.						
	സെക്രട്ടറി PRASAD. V. V. Secretary Panchayath P. O. Thuvakkunnu Kannur Dt. Pin: 670693 Ph 9496049130						

Panchayath License

Annexure No.5

PROCEEDINGS OF THE DIRECTOR OF MINING & GEOLOGY

Sub: Mining & Geology-Mines & Minerals - Minor Minerals – Granite Building Stone – Quarrying lease to, Sri. C.G.George, Chitteth House, Koothuparamba. P.O, Kannur, sanctioned– orders - issued.

Ref: 1. Application dated 17/10/2015 from Sri.C.G.George, Chitteth House, Koothuparamba. P.O, Kannur,
2. Letter No. DOC/M-5069/2015 dtd 19/10/15 from the Geologist, District Office Kannur
4. Pro.Order.No.623/SEIAA/EC4/4806/2014 dtd 01/06/2016 of State Environment Impact Assessment Authority, Thiruvananthapuram, Kerala
3. Kerala Minor Mineral Concession Rules, 2015.

No.609/2016-17/10762/M3/2015

Dated, Thiruvananthapuram, 21/12/2016

ORDER

A quarrying lease is granted to Sri. C.G.George, Chitteth House, Koothuparamba. P.O, Kannur, to quarry Granite (Building Stone) over an area of 3.4081 hectares of private land comprised in Re.Survey Nos 88/1, 89/2B, 147/2, 139/1 of Kolavallur Village Thalassery Taluk, Kannur District for 12 (Twelve) years from the date of execution of the quarrying lease deed under the Kerala Minor Mineral Concession Rules, 2015 and as per the survey map issued by the Tahsildar Thalassery and the approved Mining Plan and environmental clearance submitted by the applicant subject to the under mentioned conditions.

1. Royalty is payable to Government as per Rule 32 of the Kerala Minor Mineral Concession Rules, 2015 in respect of minor mineral quarried and moved out of the quarry subject to revision from time to time on the basis of amendments to the schedule I of the said Rules.
2. Dead rent is realizable under 29(1)(d) of the said rules subject to revision from time to time on the basis of amendments to the schedule II of the said rules.
3. Surface rent realizable under 29(1)(e) of the said rules will be equal to the land revenue assessed by the Revenue Department subject to revision from time to time on the basis of the land revenue.
4. The lessee shall execute a quarrying lease deed within a period of six months from the date of this order in form 'H' as per Rule 43 of the Kerala Minor Mineral Concession Rules, 2015.
5. The lessee shall also deposit an amount of Rs 10,000/- (Rupees Ten Thousand only) per hectare as security deposit for the observance of the terms and conditions of the lease before the deed is executed as per rule 42 of the said rules. The lessee shall commence quarrying operation only after the deed is executed and registered.
6. The quarrying area shall be demarcated and boundary stones fixed at the lessee's expenses before execution of the quarrying lease deed.
7. The lessee shall not win and dispose of any type of dimension and decorative stones from the area over which the quarrying lease has been sanctioned on the strength of this order.
8. The production of Granite (Building Stone) from the area covered under this grant shall be subject to the quantity specified in the Mining Plan submitted by the lessee. But the quantity of extraction is restricted to 160000 Metric Tons per year as applied.
9. (i) The lessee shall erect a notice board in Malayalam at a prominent place with a minimum size of 1 metre X 1.5 metres in a metallic board near to the entrance of the quarry to the effect that it shall contain the name and address of the permit holder, mineral concession number and date, the mineral to be extracted, permit number and date and its date of expiry, quantity of extraction permitted (if applicable). Area of extraction permitted, explosives used (if any), etc.



- (ii) The lessee shall erect a warning board with danger sign regarding operation of the quarry, 100 metres away by the side of the road leading to it.
10. The lessee should provide retention wall/barricade/fencing compound wall surrounding the quarry before the commencement of the quarrying operation for preventing accidents by falling of human being animals, vehicles and material into the quarry. The lessee should take effective preventive measures for the safety of labourers as well as the general public.
 11. The lessee should leave a distance of 7.5m from the adjacent boundary lands including government puramboke land while carrying out quarrying operations.
 12. The lessee should not assign, sublet or transfer his lease or any right or interest therein to any person without previous permission of the Director of Mining & Geology.
 13. The lessee shall pay tax related to Revenue Department, if any, as directed by them and the details should be furnished to the Geologist periodically.
 14. The lessee shall operate the quarry in accordance with the condition stipulated in the environmental clearance and mining plan submitted by him.
 15. The lessee shall obtain all other statutory licences/clearances/No Objection Certificates from other authorities concerned including Explosive licence, consent from Pollution Control Board and D & O licence from the Local Self Government Department concerned.
 16. The lessee shall produce modified mining plan before three years from the date of execution of lease and progressive quarry Closure Plan before completion of five years of operation of the quarry.
 17. The lessee shall produce a financial guarantee of **Rs 1,00,000 (Rupees one lakh only)** as stipulated in rule 62 of KMMC Rules 2015, before execution of lease deed.
 18. The lessee shall pay 10% of the amount of royalty/consolidated royalty as the case may be paid by him, being the quarry safety fund in addition to the royalty/consolidated royalty, as per rule 63 of KMMC rules, 2015.
 19. The lessee shall carryout mining operations as per the approved mining plan.
 20. The lessee shall renew Environmental Clearance on or before 31.05.2021 for the operation of the quarry for the remaining period.
 21. The quarrying permit granted from the district office, if any, in the area of this quarrying lease is hereby stands cancelled from the date of this order.

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

sd/-
T.K. Ramakrishnan
DIRECTOR OF MINING & GEOLOGY (I/c)

To ✓
Sri. C.G.George,
Chitteth House,
Koothuparamba. P.O, Kannur

Copy to:

1. The Director of Mines Safety,
No.5, 100FT,Road,17th Main, Koramangala 4th Block
Bengaluru, Karataka - 560034
2. The District Collector, Kannur
3. The Geologist, District Office, Kannur
4. The Tahsildar, Talassery
5. Stock File (2), File Copy

(BY ORDER)

sd/-
21/12/2016

SENIOR SUPERINTENDENT



Copy of lease

Annexure No. 6

കണ്ണൂർ കേരള പ്രദേശ സ്കൂൾ കമ്മിറ്റി
 കണ്ണൂർ കേരള പ്രദേശ സ്കൂൾ കമ്മിറ്റി (കെപിഎസ്കിഎ) ജില്ലാ വർഗ്ഗ നേതൃ ക്യാമ്പ് കണ്ണൂർ ശിക്ഷക സദസിൽ ആഘോഷിച്ചു. സണ്ണി ജോസഫ് എംഎൽഎ ഉദ്ഘാടനം ചെയ്തു. ജില്ലാ പ്രസിഡന്റ് കെ. മേഴ്സസ് അധ്യക്ഷത വഹിച്ചു. കെപിഎസ്കിഎ സംസ്ഥാന പ്രസിഡന്റ് പി. ഹരിഗോവിന്ദൻ, ജനറൽ സെക്രട്ടറി എം. സലാംപുറ്റിൻ, എൻ. തമ്പാൻ, ആർ.കെ. സരാനന്ദൻ, കെ.സി. രാജൻ, ഗീത കൊമ്മേൽ, ഇ.കെ. അശോകൻ, സാ. ശശിധരൻ കുന്നിയിൽ, ഇ. വർജ്ജസ്, എം. പങ്കജാക്ഷൻ, വി.പി. സത്യവതി, വി.പി. അജിത് കുമാർ എന്നിവർ പ്രസംഗിച്ചു.

നോട്ടീസ്
 പൊതുജന ശ്രദ്ധയിൽക്കൊണ്ട്, കേരള സംസ്ഥാനം, കണ്ണൂർ ജില്ല, തലശ്ശേരി താലൂക്ക്, കൊളവല്ലൂർ വില്ലേജിലും, കുത്തുപറമ്പ് പഞ്ചായത്തിലുംപ്പെട്ട സർവ്വേ നമ്പർ 86/2, 87, 88/2, 88/3, 88/1, 89/2ബി, 147/2, 139/1-ൽ ചാറ ഖനനം ചെയ്യുന്നതിനുവേണ്ട പരിസ്ഥിതികാനൂണ്ടി ശ്രീ. സി.ജി. ജോർജ്ജ്-ന് കേരള സംസ്ഥാന പരിസ്ഥിതി ഇംപാക്ട് അസ്സസ്സ്മെന്റ് അതോറിയിൽ നിന്നും 623/SEIAA/EC4/4806/2014 തീയതി 01-6-2016 ഓർഡർ പ്രകാരം ലഭിച്ചിരിക്കുന്നു. ഈ ഓർഡറിന്റെ പകർപ്പ് കേരള സംസ്ഥാന പരിസ്ഥിതി കാലാവസ്ഥ വ്യതിയാന വകുപ്പിൽ ലഭ്യമാണ്. www.seiaakerala.org എന്ന വെബ് സൈറ്റിൽ കൂടിയും പകർപ്പ് കാണാവുന്നതാണ്.

C1605-316407

26/6/16 RD

tasks were in demand among children. — PHOTO: K. K. MUSTAFAH

NOTICE

This is to inform to the General Public that the proposed quarry project in Survey Nos. 86/2, 87, 88/2, 88/3, 88/1, 89/2B, 147/2, 139/1 at Kolavallur Village, Kuthuparamba Grama Panchayat, Thalassery Taluk, Kannur District, Kerala being developed by Mr. C.G. GEORGE is accorded with ENVIRONMENTAL CLEARANCE by State Environment Impact Assessment Authority, Kerala vide Order No. 623/SEIAA/EC4/4806/2014 Dt. 01-06-2016 and the copy of the Environmental Clearance is available with the office of Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at www.seiaakerala.org

കനാരാ ബാങ്ക്
CANARA BANK
 East Fort Branch

Advertisement in Newspaper

Annexure No. 7

**TEST REPORT**

Test Report No: 20211225/R001	Date: 29-12-2021	Page 1 of 1
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CUSTOMER DETAILS	
Customer Name & Address	Mr. C G George Chitteth House Koothuparamba, Kannur District
Customer Reference	Test Request dt : 25-12-2021

SAMPLE DETAILS			
Product Category	Atmospheric Pollution	Sample Code	20211225/S001
Sample Name	Ambient Air	Sample Received on	27-12-2021
Sample Conditions at Receipt	Fit for Analysis	Test Commenced on	27-12-2021
Sampled by	Lab Authorized Sampler	Test Completed on	29-12-2021

DETAILS OF SAMPLING			
Sampling Location	South side	Date of Sampling	25-12-2021
Sampling Procedure	SEAAL/ENL/GEN/SOP/02	Humidity	73 %

SAMPLING SITE DETAILS			
Survey No	151/1		
Village	Puthur	Taluk	Thalassery
District	Kannur	State	Kerala

TEST RESULTS- CHEMICAL PARAMETERS					
Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	NAAQ Standards
1	Particulate Matter, PM ₁₀	IS 5182 (Part 23):2006	µg/m ³	45.6	Max 100
2	Particulate Matter, PM _{2.5}	EPA 40 CFR (Part 50) Appendix - L	µg/m ³	21.4	Max 60
3	Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2001 RA 2017	µg/m ³	<2.00	Max 80
4	Oxides of Nitrogen as NO ₂	IS 5182 (Part 6): 2006 RA 2017	µg/m ³	<2.00	Max 80

Remarks:

End of Report

Shency Joy
Dy.TM-Chemical
Checked by:



Laiju P.N.
Laboratory Head
Authorized Signatory

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Standard^S Environmental & Analytical Laboratories

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

K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43
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Result of Air

Annexure No. 8

**TEST REPORT**

Test Report No: 20211225/R001	Date: 29-12-2021	Page 1 of 1
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CUSTOMER DETAILS	
Customer Name & Address	Mr. C G George Chitteth House Koothuparamba, Kannur District
Customer Reference	Test Request dt : 25-12-2021

SAMPLE DETAILS			
Product Category	Atmospheric Pollution	Sample Code	20211225/S001
Sample Name	Ambient Air	Sample Received on	27-12-2021
Sample Conditions at Receipt	Fit for Analysis	Test Commenced on	27-12-2021
Sampled by	Lab Authorized Sampler	Test Completed on	29-12-2021

DETAILS OF SAMPLING			
Sampling Location	South side	Date of Sampling	25-12-2021
Sampling Procedure	SEAAL/ENL/GEN/SOP/02	Humidity	73 %

SAMPLING SITE DETAILS			
Survey No	151/1		
Village	Puthur	Taluk	Thalassery
District	Kannur	State	Kerala

TEST RESULTS- CHEMICAL PARAMETERS					
Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	NAAQ Standards
1	Particulate Matter, PM ₁₀	IS 5182 (Part 23):2006	µg/m ³	45.6	Max 100
2	Particulate Matter, PM _{2.5}	EPA 40 CFR (Part 50) Appendix - L	µg/m ³	21.4	Max 60
3	Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2001 RA 2017	µg/m ³	<2.00	Max 80
4	Oxides of Nitrogen as NO ₂	IS 5182 (Part 6): 2006 RA 2017	µg/m ³	<2.00	Max 80

Remarks:

End of Report

Shency Joy
Dy.TM-Chemical
Checked by:



Laiju P.N.
Laboratory Head
Authorized Signatory

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Result of Noise

Annexure No. 9

**TEST REPORT**

Test Report No: 20211225/R003	Date: 29-12-2021	Page 1 of 2
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CUSTOMER DETAILS	
Customer Name & Address	Mr. C G George Chitteth House Koothuparamba, Kannur District
Customer Reference	Test Request dt : 25-12-2021

SAMPLE DETAILS			
Product Category	Water	Sample Code	20211225/S003
Sample Name	Ground Water	Sample Received on	27-12-2021
Sample Conditions at Receipt	Fit for Analysis	Temperature @ Receipt	4°C
Sample Quantity& Packing	2L & 250ml Plastic Bottles	Test Commenced on	27-12-2021
Sampled by	Lab Authorized Sampler	Test Completed on	29-12-2021

DETAILS OF SAMPLING			
Sample Source	Openwell – 200m away from south side boundary	Date of Sampling	25-12-2021
Sampling Procedure	SEAAL/ENL/GEN/SOP/01& SEAAL/MBL/SOP/06	Sample Temperature	31 °C

SAMPLING SITE DETAILS			
Re Survey No	151/1		
Village	Puthur	Taluk	Thalassery
District	Kannur	State	Kerala

TEST RESULTS- CHEMICAL PARAMETERS					
Sl.No.	PARAMETERS	TEST METHOD	UNIT	RESULT	Requirement as per Acceptable Limit of IS 10500 : 2012
1	Colour	IS 3025 (Part 4):1983 RA 2017	Hazen	1.00	Max 5
2	Odour	IS 3025 (Part 5):2018	---	Agreeable	Agreeable
3	Turbidity	IS 3025 (Part 10):1984 RA 2017	NTU	0.2	Max 1
4	pH	IS 3025 (Part 11):1983 RA 2017	---	6.90	6.50 – 8.50
5	Conductivity	IS 3025 (Part 14):1984 RA 2019	µS/cm	167	---

Shency Joy
Dy.TM-Chemical
Checked by



Salini T.S.
Microbiologist
Authorized Signatory

Laiju P.N.
Laboratory Head
Authorized Signatory

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**TEST REPORT**

Test Report No: 20211225/R003	Date: 29-12-2021	Page 2 of 2
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TEST RESULTS- CHEMICAL PARAMETERS					
Sl.No.	PARAMETERS	TEST METHOD	UNIT	RESULT	Requirement as per Acceptable Limit of IS 10500 : 2012
6	Total Dissolved Solids	IS 3025 (Part 16):1984 RA 2017	mg/L	108	Max 500
7	Total Hardness as CaCO ₃	IS 3025 (Part 21):2009 RA 2019	mg/L	54.0	Max 200
8	Calcium as Ca	IS 3025 (Part 40):1991 RA 2019	mg/L	12.0	Max 75
9	Magnesium as Mg	IS 3025 (Part 46):1994 RA 2019	mg/L	5.84	Max 30
10	Chloride as Cl	IS 3025 (Part 32):1988 RA 2019	mg/L	7.99	Max 250
11	Total Alkalinity as CaCO ₃	IS 3025 (Part 23):1986 RA 2019	mg/L	32.2	Max 200
12	Iron as Fe	IS 3025 (Part 53):2003 RA 2019	mg/L	0.21	Max 1
13	Sulphate as SO ₄	IS 3025 (Part 24):1986 RA 2019	mg/L	16.0	Max 200

TEST RESULTS - BIOLOGICAL PARAMETERS					
Sl.No.	PARAMETERS	TEST METHOD	UNIT	RESULT	Requirement as per Acceptable Limit of IS 10500 : 2012
1	Total Coliform Bacteria	IS 15185 : 2016	----	Absent/100 ml	Absent/ 100 ml
2	E coli	IS 15185 : 2016	----	Absent/100 ml	Absent/ 100 ml

Remarks:

End of Report

Shency Joy
Dy.TM-Chemical
Checked by



Salini T.S.
Microbiologist
Authorized Signatory

Laiju P.N.
Laboratory Head
Authorized Signatory

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Result of Water