Date: 05-03-2022

From,

R. KRISHNAMOORTHY Anju Nivas, Manakkara, Sasthamkotta, Kollam, Kerala.

To,

MoEF Regional Office, Sothern Zone, Kendriya Sadan, 4th Floor, E & F Wing, II Block, Koramangala, Bangalore – 560 034

#### Respected Sir/Madam,

**Sub:** Submission of Half yearly compliance report in respect of R. KRISHNAMOORTHY Quarry project in re-survey nos. 166/2, 166/3, 166/4, 166/6 at Pattazhy Village, Pathanapuram Taluk, Kollam District, Kerala State- regarding

**Ref:** Environmental Clearance issued vide letter No. B/DEIAA/23743/17, DATED: 20-02-2018

With respect to above subject, I am herewith submitting the detailed half yearly Compliance Report for the period from **April 2021 to September 2021** to all the conditions stipulated in the Environmental Clearance (EC) issued vide reference cited above.

Thanking you

Yours faithfully

CSB CHOON

R. KRISHNAMOORTHY

Copy to: The Member Secretary, State Level Environment Impact Assessment Authority, 4th floor, KSRTC terminal complex, Thiruvananthapuram – 695 014

# COMPLIANCE REPORT FOR QUARRY PROJECT OF KRISHNAMOORTHY

SURVEY NOS : 166/2,166/3,166/4,166/6

EXTENT : 3.9342 HECTARES

VILLAGE : PATTAZHY

TALUK : PATHANAPURAM

DISTRICT : KOLLAM

STATE : KERALA

# ENVIRONMENTAL CLEARANCE NO. B/DEIAA/23743/17 DATED 20-02-2018

FOR THE PERIOD FROM APRIL 2021 TO SEPTEMBER 2021

## **TABLE OF CONTENTS**

ITEM	DESCRIPTION	PAGE
NUMBER		NUMBER
I	About The Proponent	3
II	About The Project	
	Project Category	3
	Project Location	3
	Project Extent And Activity	3
	Project Description	3
III	Report Of Compliance	
	Compliance Of General Condition	4
IV	Annexures	
	Annexure 1 – EC Order	13
	Annexure 2- Corporate Environment Responsibility CER Details of	19
	Annexure 3 - Pollution certificate	24
	Annexure 4 – Explosive License	26
	Annexure 5 – Lab Report	32
	Annexure 6 - Environment Monitoring cell members	36
V	Plates	
	Plate 1 - Boundary Pillars	37
	Plate 2 – Access Road	38
	Plate 3 – Boundary Indicators (boards, stores,	39
	markings, etc)	
	Plate 4 – Blasting Time	40
	Plate 5 - Top Soil & Overburden	41
	Plate 6 - Bench development / Mining face	42
	development	
	Plate 7 - covered truck with rock materials	42
	Plate 8 - Environmental clearance prominently	43
	displayed in a metallic board	

#### I. ABOUT THE PROPONENT

Mr.R.Krishnamoorthy residing at Anju Nivas, Manakkara, Sasthamkotta, Kollam, Kerala operating a Granite (Building Stone) Quarry.

District Environment Impact Assessment authority (DEIAA) Kollam accorded Environmental Clearance No B/DEIAA/23743/17 dated 20-02-2018 to the guarry project in Pattazhy Village, Pathanapuram Taluk, Kollam District, Kerala State.

#### II. ABOUT THE PROJECT

#### a. Project Category:

The project comes under the Category B, Activity 1(a), (i) of Schedule of EIA Notification 2006 and subsequent amendments.

#### **b.** Project Location:

Survey Nos: 166/2, 166/3, 166/4, 166/6 of Pattazhy Village, Pathanapuram Taluk, Kollam District, Kerala

The proposed project site falls within latitude and longitude value:

Latitude (N)	N 09º04'07.92"	to N 09º04'16.69
Longitude (E)	E 76º48' 31.36"	to E 76º48' 39.60

#### c. Project Extent And Activity:

According to the mining plan the total mineable reserves of Granite Building Stone available in the proposed area for first five years is 10,25,000MT. Quarrying can be continued for another 10 years in the extent area of 3.9342 hectares

#### d. Project Description:

The proposed Granite (Building Stone) quarry over an area of 3.9342 hectares is located in Pattazhy Village, Pathanapuram Taluk, Kollam District, Kerala. The proponent has obtained approval for mining plan to produce 10,25,000 MT of building stone for first five years.

## **III. REPORT OF COMPLIANCE**

## **GENERAL CONDITIONS**

ITEM NO	STIPULATIONS IN EC	STATUS OF COMPLIANCE	REMARKS
G-1	Mining operations should be carried out strictly as per the approved mining plan.	Mining operation is carried out as per the approved mining plan	
G-2	The project proponent should provide proper fencing around the quarry thought the life of the mine.	Scrupulously follows the directions contained.	
G-3	The project proponent should clearly demarcate the Government land adjacent to the proposed area.	Scrupulously follows the directions contained.	PLATE 1
G-4	While issuing permit on the basis of this environmental clearance, the Geologist should ensure that no LC arrears/LC cases are pending against the project proponent	Scrupulously follows the directions contained.	
G-5	The ultimate depth of quarrying should be limited to 80m above mean sea level.	Scrupulously follows the directions contained.	
G-6	The proponent shall undertake maintenance of roads damaged by heavy loaded trucks.	Roads are maintained properly due to the damaged caused by heavy loaded trucks.	PLATE 2
G-7	Rain water harvesting facility should be installed as per the prevailing provisions of KMBR/KPBR, unless otherwise specified.	Provision is made for storage of rain water.	
G-8	Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.	Would be provided.	
G-9	Sprinklers shall be installed and used in the project site to contain dust emissions.	Sprinklers are used in the project site to contain dust emissions.	

G-10	Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.	It is assured that ecorestoration including the mine closure plan will be done at the own cost of the project proponent.	
G-11	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	At the time of the closure of the mine, it shall be ensured that the directions contained are scrupulously followed.	
G-12	Corporate Social Responsibility (CSR) agreed upon by the proponent shall be complied with.	Activities towards Corporate Environmental Responsibility are being implemented.	ANNEXURE 2
G-13	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.	Scrupulously follows the directions contained.	PLATE 3
G-14	Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per Stipulations of Explosive Department.	Warning alarms is installed in the project site.	
G-15	Control measures on noise and vibration prescribed by KSPCB should be implemented.	Control measures on noise and vibration is as per KPSCB	
G-16	Quarrying activities should be limited to day time as per KSPCB should be guidelines.	Quarrying activities is limited as per KPSCB guidelines.	
G-17	Blasting should be done in a controlled manner as specified by the regulation of explosives Department or any other concerned agency.	Scrupulously follows the directions contained.	PLATE 4
G-18	A licensed person should supervise/control the blasting operations.	Scrupulously follows the directions contained.	
G-19	Access roads to quarry shall be tarred to contain dust emissions that may arise during transportation of materials.	Scrupulously follows the directions contained.	

G-20	Overburden materials 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 specified for the purpose.	PLATE 5
G-21	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 conditions.	Height of the benches is maintained at 5 x 5 m.	PLATE 6
G-22	Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.	Would be provided.	
G-23	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.	Scrupulously follows	
G-24	The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.	The workers on the site is provided with the required protective equipment such as ear muffs, helmet, etc	
G-25	Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.	Scrupulously follows the directions contained.	
G-26	The transportation of minerals should be done in covered trucks to contain dust emissions.	Scrupulously follows the directions contained.	PLATE 7
G-27	The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.	Would be complained.	
G-28	Disposal of spent oil from diesel engines should be as specified under relevant Rules/Regulations.	Scrupulously follows the directions contained.	
G-29	Explosives should be stored in magazines in isolated place specified and approved by Explosive Department.	Scrupulously follows the directions contained.	
G-30	A Minimum buffer distance of 50m from the boundary of the quarry to the nearest dwelling unit or other structure not being any facility for mining shall be provided.	Scrupulously follows the directions contained	

G-31	100m buffer distance should be maintained from forest boundaries.	Scrupulously follows the directions contained.	
G-32	Consent from Kerala State Pollution, Control Board under Water and Air (Acts) should have been obtained before initiating mining activity.	Scrupulously follows the directions contained.	ANNEXURE 3
G-33	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.	Scrupulously follows the directions contained.	ANNEXURE 4
G-34	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.	All the safeguard measures are done as per Environment (Protection) Act, 1986.	
C-35	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.	Scrupulously follows the directions contained.	
C-36	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 bein 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 <a href="https://www.seiaakerala.org">www.seiaakerala.org</a> . The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded	Advertised in local newspaper and submitted a copy of it as a proof in the first compliance report.	

	to the office of this Authority as confirmation.		
C-37	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.	Scrupulously follows the directions contained.	
C-38	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 email) and upload the Status of compliance of the stipulated EC conditions, including results of monitored data on their website. It shall simultaneously be sent to the respective Regional office of MoEI, Govt of India and also to the State Environment Impact Assessment Authority (SEIAA) Office	Conditions are being complied with.	
C-39	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.	are prominently displayed	PLATE 8
C-40	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.	The proponent has provided notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC have been scrupulously followed.	
C-41	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.	Since DEIAA committee is dismissed, further expansion or modifications in the mine will be done by consulting with SEIAA.	

C-42	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.	Ensured that no natural water course and/or water resources were obstructed due to any mining operations.	
C-43	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 dust emissions.	Scrupulously follows the directions contained as per the conditions.	ANNEXURE 5
C-44	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 dumpsite(s) only. The maximum height of the dumps shall not exceed 8m and width 20m and Over all slope of dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface runoff. 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.	Scrupulously follows the directions contained as per the conditions.	
C-45	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 in to the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.	Scrupulously follows the directions contained.	

C-46	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	Scrupulously follows the directions contained.	
C-47	Measures should be taken for control of noise levels below 87dBA in the work environment.	Measures have been taken for the control of noise levels below 87DbA in the work environment.	
C-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.	A separate environmental management cell with suitable qualified personnel has been set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	ANNEXURE 6
C-49	The funds earmarked for environmental protection measures and CSR activities should be kept in separate account and should not be diverted for other purposes. Year wise expenditure should be reported to the District Environment Impact Assessment Authority (DEIAA) office.	The funds earmarked for environmental protection measures and CSR activities are being kept in separate account and have not been diverted for other purposes. Year wise expenditure will be reported to the State Environment Impact Assessment Authority (SEIAA) office, since DEIAA is dismissed.	
C-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.	The Regional office of MOEF&CC located at Bangalore will monitor compliance of the stipulated conditions. The project authorities will extend full cooperation to the officer(S) of the Regional Office by furnishing the Requisite data/information/monitoring reports.	

C-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.	Strictly follow the rules and Scrupulously follows the directions contained.	
C-52	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.	Since DEIAA committee is dismissed, SEIAA can revoke any order if any of the specific or this implementation of any of the above conditions is not satisfactory.	
C-53	The above conditions shall prevail not withstanding 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.	Yes, all the above conditions shall prevail not withstanding 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.	
C-54	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.	Yes, 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.	
C-55	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.	The Environmental Clearance is issued by DEIAA, Kollam.	ANNEXURE 1
C-56	The mining operation shall be restricted to above ground water table and it should not intersect ground water table.	The mining operation has been restricted to above ground water table and it will not intersect ground water table.	

C-57	All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking center. Washing of all vehicles shall be inside the lease area.	Scrupulously follows the directions contained.	
C-58	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.	Scrupulously follows the directions contained.	
C-59	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.	Occupational health surveillance program of the workers will be done periodically to observe any contractions due to exposure to dust and corrective measures will be taken, if needed.	

Annexure 1
EC Order

## Proceedings of the District Environment Impact Assessment Authority (DEIAA) KOLLAM,

(Present: Dr.Chithra.S IAS, Member Secretary, DEIAA & Sub Collector, Kollam.)

Environmental Clearance.

B/DEIAA/ 23743/17

Date: 20.02.2018

Sub: DEIAA - Kollam - Environmental Clearance for Granite building stone quarry orders issued.

Ref: (1) Minutes of the Meetings of DEIAA held on 29.01.2018 in the chamber of the District Collector, Kollam.

(2) Minutes of the Meeting of DEAC held on 19.12.2017

(3) Application submitted by Shri.R.Krishnamoorthy, Anju Nivas, Manakkara, Sasthamkotta

Shri.R.Krishnamoorthy, Anju Nivas, Manakkara, Sasthamkotta filed, an application for an environmental clearance quarrying for granite building stone in Block No. 4, Re. survey No. 166/2, 166/3, 166/4, 166/6 in Pattazhy Village, Pathanapuram taluk. Kollam District. The total extent of the land is 3.9342 hectares that includes buffer zone 0.6599 hectares and the extent of minable area is 3.2743 hectares. The extent arrives from each survey Nos. are as follows 166/2-0.4041 hectares, 166/3 - 0.5098 hectares, 166/4 - 1.9149 hectares, and 166/6 pt -1.1054 hectares

The land in Re survey no. 166/6 is owned by Smt.Beena Paul, Manalil Bunglaw, Manchallur, Pathanapuram, and in Re survey no. 166/4 is owned by Sri. Pramod and Smt.Parvathy, Kuttur Kizhakkathil, Kannimel, Pattazhy, Pathanapurtam and the rest of the proposed site belongs to the proponent himself. The project proponent had submitted consents from the land owners.

After preliminary verification, the application was forwarded to DEAC. The DEAC members inspected proposed site on 28.01.2017 and reported that the area falls within latitudes 9<sup>0</sup>4'7.92" N and 9<sup>0</sup>4'16.69" N and longitudes 76<sup>0</sup> 48'31.36"E and 76<sup>0</sup> 48' 39.60" E.

DEAC has reported that a part of the proposed area has been under quarrying activities for several years. The flanks are vertical as quarrying was not done with benches. The rock is mainly charnockite. Deep water logged pits can be seen in the already mined areas of the quarry. Rubber is the prominent land use. There is a farm house at a distance of 124 m from the proposed area.

As per the mining plan submitted by the proponent life of the mine is 10 years and the total production of Granite Building Stone for the first five year is 10,25,000MT. The average thickness of the overburden in the area is 1.5 - 2 m. The

overburden generated for the first five years shall be 80,000MT. The amount provided by the proponent for Corporate Social Responsibility Rs.4,00,000/- per annum.

The District Expert Appraisal Committee has reported that the area towards the the south of the proposed site is well elevated and thickly vegetated, where the thickness of overburden is around 3 m. This area falls within the Bench points P 8 and P 18. This particular area should not be mined. The greenery in this particular area should be preserved. This entire area should be treated as an extended buffer zone and clearly demarcated. The project proponent has submitted a revised mining plan. As per the revised mining plan the area of the extended buffer zone lies between the bench points is 0.7192 hectares and the mineable area is 2.5551 hectares.

The meeting of DEAC held on 19.12.2017 had recommended the issuance of environmental clearance for the proposed quarry project.

The meeting of DEIAA held on 29.01.2018 in the chamber of the District Collector decided to issue environmental clearance for granite building stone quarry in the 3.9342 hectares of land, that includes mineable area 2.5551 hectares, buffer zone 0.6599 hectares and an extended buffer zone of 0.7192 hectares between the bench points P8 and P18, comprised in Block No.4 Re. survey nos. 166/2, 166/3, 166/4 and 166/6 in Pattazhy village, Pathanapuram Taluk, Kollam district. subject to the following conditions.

## **CONDITIONS**

on mondere a contract of the contract of the

- 1. Mining operations should be carried out strictly as per the approved mining plan.
- 2. The project proponent should provide proper fencing around the quarry throughout the life of the mine.
- 3. The project proponent should clearly demarcate the Government land adjacent to the proposed area.
- 4. While issuing permit on the basis of this environmental clearance, the Geologist should ensure that no LC arrears/ LC cases are pending against the project proponent.
- 5. The ultimate depth of quarrying should be limited to 80 m above mean sea level.
- 6. The proponent shall undertake maintenance of roads damaged by heavy loaded trucks.
- 7. Rain water harvesting facility should be installed as per the prevailing provisions of KMBR/KPBR, unless otherwise specified.
- 8. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.

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

10. Eco-restoration including the mine closure plan shall be done at the own cost

of the project proponent.

11.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.

12. Corporate Social Responsibility (CSR) agreed upon by the proponent shall be

complied with.

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13. The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before staring of mining. All the boundary indicators (boards, stones, markings etc) shall be provided at all times and shall be conspicuous.

14. Warning alarms including the time of blasting (to be done at specific timings)

has to be arranged as per stipulations of Explosive Department.

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

16. Quarrying activities should be limited to day time as per KSPCB guidelines

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

18.A licensed person should supervise/control the blasting operations.

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

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

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

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

23. 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.

24. The workers on the site should be provided with the required protective

equipment such as ear muffs, helmet, etc.

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

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

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

28.Disposal of spent oil from diesel engines should be as specified under

relevant rules/regulations.

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

30.A minimum buffer distance of 50 m form the boundary of the quarry to the nearest dwelling unit or other structures not being any facility for mining shall be provided.

31.100m buffer distance should be maintained from forest boundaries.

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

33.All other statutory clearance should be obtained, as applicable, by project proponent from the respective competent authorities including that for blasting and storage of Explosive.

34. 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 provisions of the environment (protection Act) 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

35. 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 and the test of th

Control of Pollution) Act 1991 and EIA notification, 2006.

- 36. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and newspapers) 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 pages should be forwarded to the office of this Authority as confirmation.
- 37.A copy of the clearance letter shall be sent by the proponent in the concerned Grama Panchayat/District Panchayat/Municipality/Corporation/Urban Local Body also to the NGO, if any from whom suggestions/representations, if any, where received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.
- 38. The proponent shall submit half yearly reports complaints 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. Each shall simultaneously be sent to the respective Regional Office of MoEI. Government of India also of the State Environment Impact Assessment Authority (SEIAA) office.

39. 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 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.

40. 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.

41. 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.

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

43. 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 of loading and unloading

points & transfer point to reduce fugitive dust emissions.

44. The top soil, if any, shall temporarily be stored at the places 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 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.

45. 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 desalted particularly after

monsoon and maintained properly.

46. 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 87dB 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 activate should be 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 mention 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 be with the National Green Tribunal, if preferred with a period of 30 days are prescribed under section 16 of the National Green Tribunal Act, 2010. 52. The DEIAA may revoke or suspend the order, for non-implementation of any of the specific conditions or the implementation of any of the above conditions is not satisfactory. The DEIAA reserves the right to after/modify the above conditions of stipulate any further conditions in the interest of

environment protection. 53. The above conditions shall prevail not withstanding 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.

54. This order is valid for a period of 5 years or the expiry of mine lease period issued by the Government of Kerala, whichever is earlier.

55. 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.

56. The mining operation shall be restricted to above ground water table and it

should not interest ground water table.

57.All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution monitoring centre. Washing of all vehicles shall be inside the lease area.

58. 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.

59. 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.

(Sd/-)

Member Secretary DEIAA & Sub Collector, Kollam

To

Shri.R.Krishnamoorthy, Anju Nivas, Manakkara, Sasthamkotta.

Copy to

1. Chairman, DEIAA & District Collector, Kollam.

2.DFO, Punalur & Member DEIAA

3.Dr. Sainudeen Pattazhy, Member DEIA:A

4.All members of DEAC

5. Tahsildar, Pathanapuram

6. Secretary, Pollaghy Grama Panchayath.

7.SHO, Pathanapura.
8. Village Officer, Patrazha.

Forwarded by order

Superintendent

ANNEXURE 2 \$ . 000 F 2 Dammalido 1000 000 3 appropriately 2 pour minus 2000 -08 4 online Belownstat 100000 5 Siminger 20/BI BODON ALBORAT 2000 63 6 Formagono 8 7.6 & Good probable = 25 20006 P. 67 Mily Porcession Subre 3000.00 210 posses . of mountain I while perso 1000 13 led U Bainlmm & 3000000. 20 Mmmns 28/11/0 8102 899 600 Sel210 Jely. 1000 -0 32 h1 V wrond . mrs & Band processed 2000 - 00 5) and soluting (bung who - Jup 3 182 milled 29111/1.

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## ANNEXURE 3 POLLUTION CERTIFICATE



### KERALA STATE POLLUTION CONTROL BOARD

FILE NO. :PCB/KO/ICO/G/781/2016

Date of issue :28/02/2018

## INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No: PCB/KO/ICO/R1/460/2018

Ref: 1) Consent No.PCB/KO/ICO/F/460/2016 dated 20.08.2016.

2) Affidavit dated 19.12.2017.

3) Environmental Clearance Certificate no.B/DEIAA/23743/17 dated 20.02.2018

The 'Integrated Consent to Operate' issued as per reference above to M/s QUARRY OWNED BY KRISHNAMOORTHY, SURVEY NO: 166/4, PANTHAPLAVIL, PATTAZHY P.O, KOLLAM is hereby renewed up to 19/02/2023 and issued to M/s QUARRY OWNED BY KRISHNAMOORTHY, SURVEY NO: 166/4, 166/3.166/2.166/6, PANTHAPLAVIL, PATTAZHY P.O, KOLLAM 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.

#### L GENERAL

S.No.	Items	Description
1	Annual fee(Rs)	4050/-
2	Category	Red
3	Capital Investment(In Lakhs)	-13
4	Fee Remitted(Rs)	26425/-
5	Validity	19.02.2023
6	Activity	Quarrying of granite building stone from 2.5551 Hectares of land in survey no.166/4, 166/3,166/2,166/6

#### II. Stack Details

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

#### III. CONDITIONS

DATE: 28/02/2018

- 1. This consent is valid up to 19.02.2023. For continuing to operate beyond the validity date application for the renewal has to be submitted through online (website:krocmms.nic.in) before 19.11.2022.
- 2) This consent is issued based on the Environmental Clearance Certificate no.B/DEIAA/23743/17 dated 20.02,2018 and is valid only when all other statutory/necessary clearances from other concerned authorities are valid. The Quarrying shall be done after obtaining clearance from all concerned authorities.

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

SIMI P

Digitally signed by SIMI P Date: 2018.02.28 19:07:25 +05'30'

SIGNATURE & SEAL OF ISSUING AUTHORITY ENVIRONMENTAL ENGINEER, KOLLAM



To R.KRISHNAMOORTHY, ANJU NIVAS, MANAKKARA, SASTHAMKOTTA P.O, KOLLAM

- 1. This digitally signed document is legally valid as per the Information Technology Act 2000
- 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 LICENSE

भारत सरकार | Government of India

वाणिज्य और उद्योग मंत्रालय | Ministry of Commerce & Industry पंट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसी) | Petroleum & Explosives Safety Organisation (PESO) पूर्व नाम-विस्फोटक विभाग | Formerly-Department of Explosives

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

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

(No.): E/SC/KL/22/H158(E58211)

दिनांक (Date): 30/03/20

Shri R. Krishnamoorthy,

Sasthacota P.O., Bharanikavu, Kollam District, Kerala-690520, Town/Village - Bharanikavu

District-KOLLAM. State-Kerala, Pincode - 690520

Survey No.173/4,, ग्राम Pattazhi village,pathanapuram taluk, Kollam Distri, जिला KOLLAM, राज्य Kerala में मेसर्स Shri R. Krishnamoorthy द्वारा विस्फोटक के मैगजीन में उपयोग के लिए कब्जा हेत् विस्फोटक नियम, 2008 के अंतर्गत LE-3 में जारी अनुज्ञित सं E/SC/KI/22/I158(E58211) के संशोधन संदर्भ में। (आरेखणें / सुविधाएं / परिसर में परिवर्तन )

Possession for Use of of Explosives from magazine situated at Survey No.: 173/4,, Pattazhi village,pathanapuram taluk, Kollam Distri, Dist. KOLLAM, Kerala -Licence No.: E/SC/KL/22/1158(E58211) granted in Form LE-3 of Explosives Rules, 2008 -

( Amendment in Drawings/Facilities/Premises).

ा उपर्युक्त विषय पर पत्र सख्या Nil दिनांक 10/03/2016 का संदर्भ ग्रहण करें। Pease refer to your letter no. Nil dated 10/03/2016.

अन्य दिन संख्या E/SC/K1/22/1158(E58211) LINTIMATION REGARDING QUARRY PERMIT IN THE NAME OF THE LICENSE OR BLASTING OPERATIONS AT SY.NO. 243/3,232/2-6 \* OF ERATHU VILLAGE, ADOOR TALUK, PATHANAMTHITTA DE ACKNOWLEDGED.NO USE OF EXPLOSIVES IS PERMITTED UNLESS VALID QUARRY PERMIT IS OBTAINED AND

DAY TO BE SUBMITTED TO THIS OFFICE.2. LOCAL STATE GOVERNMENT AUTHORITIES APPROVAL/ENVIRONMENTAL CLEARANCE AS APPLICABLE AND RENEWED FROM TIME TO TIME SHALL BE IN

DISSESSION. 2. IF ANY CHANGE OF QUARRY OR ADDITIONAL QUARRY IS INVOLVED, NECESSARY PRIOR APPROVAL/ENDORSEMENT SHALL BE OBTAINED FROM THE LICENSING AUTHORITY.3. OPENING OF QUARRY TALL BE INFORMED TO THE DGMS AND BLASTING OPERATIONS SHALL BE CONDUCTED AS PER MINES ACT.4.

APPROVED BLASTER SHALL BE APPOINTED IN THE QUARRY FOR BLASTING. 5. ALL RECORDS OF USE OF LOSIVES IN RE-3, RE-5, RE-7 RE-13 SHALL BE MAINTAINED.6.DAILY PASS FOR USE OF EXPLOSIVES (RE-13)SHALL

RELIENERATED ONLINE. 7. TRANSPORTATION OF EXPLOSIVES FROM MAGAZINE TO THE QUARRY SITE SHALL BE E FROM LICENCED EXPLOSIVES VAN. EXPLOSIVES AND DETONATORS SHALL BE TRANSPORTED SEPARATELY NO NOT TO BE TRANSPORTED IN SAME VAN. के संदर्भ में यथा संशोधित कर भेजी जा रही है।

Licence No.: E/SC/KL/22/1158(E58211) is forwarded herewith duly amended in respect of followings

LINTIMATION REGARDING QUARRY PERMIT IN THE NAME OF THE LICENSEE FOR BLASTING OPERATIONS AT SY, NO. 243/3,232/2-6 OF ERAT OF ADDOR TALUK, PATHANAMTHITTA DIST IS ACKNOWLEDGED NO USE OF EXPLOSIVES IS PERMITTED UNLESS VALID QUARRY PERMIT TAINED AND COPY TO BE SUBMITTED TO THIS OFFICE.2. LOCAL STATE GOVERNMENT AUTHORITIES APPROVAL/ENVIRONMENTAL CLEARAN INNED AND COPY TO BE SUBMITTED TO THIS OFFICE.2. LOCAL STATE GOVERNMENT AUTHORITIES APPROVAL/ENVIRONMENTAL CLEARAN SAPPLICABLE AND RENEWED FROM TIME TO TIME SHALL BE IN POSSESSION. 2. IF ANY CHANGE OF QUARRY OR ADDITIONAL QUARRY SHAPPLICABLE AND RENEWED FROM TIME TO TIME SHALL BE OBTAINED FROM THE LICENSING AUTHORITY.3. OPENING OF QUARRY SHAPPLICABLE TO THE DOMESTING OPERATIONS SHALL BE CONDUCTED AS PER MINES ACT.4. APPROVED BLASTER SHALL BE APPOINT TO THE DOMESTING OPERATIONS SHALL BE CONDUCTED AS PER MINES ACT.4. APPROVED BLASTER SHALL BE APPOINTED TO THE DOMESTING OPERATIONS OF USE OF THE APPLICABLE PROPERTY OF THE DESCRIPTION OF USE OF THE APPLICABLE PROPERTY OF THE DESCRIPTION OF USE OF THE APPLICABLE PROPERTY OF THE DESCRIPTION OF USE OF THE APPLICABLE PROPERTY OF THE DESCRIPTION OF USE OF THE APPLICABLE PROPERTY OF THE APPLICABLE P QUARRY FOR BLASTING. 5. ALL RECORDS OF USE OF EXPLOSIVES IN RE-3, RE-5, RE-7 RE-13 SHALL BE MAINTAINED.6. DAILY PASS FOR USE LOSIVES (RE-13)SHALL BE GENERATED ONLINE. 7. TRANSPORTATION OF EXPLOSIVES FROM MAGAZINE TO THE QUARRY SITE SHALL BE DO THE DESCRIPTION OF EXPLOSIVES OF THE PROPERTY OF TRANSPORTED OF TRANSPORTED. LICENCED EXPLOSIVES VAN. EXPLOSIVES AND DETONATORS SHALL BE TRANSPORTED SEPARATELY AND NOT TO BE TRANSPORTED VIE VAN.

ा भी एक समय में लाइसेंस क्षमता निम्नलिखित वर्ग तथा मात्रा से अधिक नहीं होगी। cence capacity at any one time shall not exceed the kinds and quantities mentioned below;

संख्या	विस्फोटक Explosive(s)	वर्ग A Class	प्रभाग Div	उप-प्रभाग Sub Div	क्षमता Capacity	इकाई Unit
No	Expressive(s)		0	- 0	100	Kg.
1	Nitrate Mixture	_ 2	1	0	2000	Mtrs
2	Safety Fuse	0	3	0	2000	Nos.

the second of purchased in a calendar month applicable for licence under article 3(b) and (c)]: 20 to यह अन्त्रप्ति दिनाक 31 मार्च 2020 तक प्रवृत्त रहेगी। This Licence shall remain valid till 31st day of March 2020. अनुजप्ति के आगामी नवीकरण हेतु कृपया विस्फोयटक नियम, 2008 के नियम 112 के अंतर्गत प्रक्रिया का पालन करें। कृपया प For further revalidation(if required), please follow the procedure under Rule 112 of Explosives Rules, 2008. Receipt of this letter in भवदीय | Your's faithfully (एस.एम.क्लकणी | S M Kulkarni) विस्फोटक नियंत्रक | Controller of Explosives कृते उप मुख्य विस्फोटक नियंत्रक | For Dy. Chief Controller of Explosives कृतेकोडची मुख्याबस्वाबासीटक नियन्त्रक For Deputy Chief Controller of Explosives प्रतिलिपि प्रेषित | Copy Forwarded to: एरनाक्लम Ernakulam 1. District Magistrate, KOLLAM, Kerala with reference to his Noc No: D.Dis.7754/09/M7 Dated: 02/12/2010 Superintendent of Police, KOLLAM, Kerala. कृते उप मुख्य विस्फोटक नियंत्रक | For The Dy. Chief Controller of Explosive कोच्ची | Ernaku (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) (a c) compared at his life year of an ac progr taken section cults to absorbe any destructions due to the take the THE THE TO HAVE TO HAVE TO THE TO THE TOTAL THE TOTAL OF THE TOTAL RATIONS AND SOLISATIONS OF BUSTON VOTAGES RECEIVED AND A LOS STANKING OF THE SOLISATION OF THE SOLISAT OF EASTERD STATES IN THE WITTER CONTRACT STATES OF THE STATES AND INCOME STATES AND PRINCIPAL PRINCIPAL COVERNMENT AUTHORITIES - NO PROPERTY OF THE PRINCIPAL PR NEW TOTAL STATE OF THE STATE AS A PRINCIPAL OF A STATE OF THE STATE OF AND CHARACTOR OF AREA OR ABBITHOWAL OUARRE IS INVOLVED, ARCESSARY FRIGHT. THE LIKE HER COMESCION OF THE LAND AND TAKEN AND TAKEN AND THE RESIDENCE OF THE LAND AND THE LAN

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as above.

पुलिस बाना (Police Station) : Kunnikadu

बन्ना वा उससे मंस्तन उपवार में दर्शित विवास के अनुक्य नहीं पाए बाने पर निम्मवित

atroller

uth Circly, Chennai

(0)

## अनुज्ञति प्ररूप एल. ई.-3 | LICENCE FORM LE-3

(विस्कोटक नियम, 2008 की अमुसूची 4 के भाग 1 के अनुचंद 3(क) से (प) 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 विस्कोटक या किसी नैगावीन में वर्ग 6 के विस्कोटक रखने के लिए अनुक्रिन Licence to possess: (e) for use; explosives of class 1.2,3,4,5,6 or 7 in a magazine

अनुवर्ति में, (Licence No.) : E/SC/KL/22/1158(E58211) and with wor (Annual Fee Rs): 2400/-

1 Licence is hereby granted to

Shri R. Krishnamoorthy (Marint/ Occupier: Shri R. Krishnamoorthy). Sashacota P.O., Bharanikava, Kollam District, Kerala-690520, Town/Village - Bharanikava, District KOLLAM, State-Kerala, Pincode - 690520

क्यं अनुशीर अनुवत की आती है।

2 अनुवास्तारी के मानिकार | Status of licensee : Individual

् अनुसंध विम्यत्तिस्तित प्रयोजनी के लिए विधिमान्य है। Licence is valid only for the following purpose.

अनुहार्य विभागतिकों के विभागतिका किस्माँ, प्रकार और मात्रा के लिए विधिमान्य है।

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

Name and Description

Nitrate Mixture

Safety Puse

Ordinary Detonator

possess for use of Nitrate Mixture, Savety Fuse, Ordinary

CHERNA Sub-division Class & Division 100 Kg. 2000 Mins 2000 Nos.

चिनकोड (Pincode)

day (Fax)

Electric Detonators 6.3 (छ) किसी एक करीबर मास में खरीदे आने बाले विस्फोटक की मात्रा [अनुकोद 3(ख) और (ग) के अभीन अनुविधि के शिए]

(b) Quantity of explosives to be purchased in a calendar month[applicable for licence under article 3(b) and (c)]: Laffer F. (Drawing No.) E/SC/KL/22/1158(E58211) from (Dated) 18/12/2017

🥱 विव्यक्तिकित रेजानिक (रेखाविज्ञां) से अनुवार परिसर की पृष्टि होती है।

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

अनुशांत वीत्रक निम्मतिनिकत वंत पर स्थित में The licensed premises are situated at following address अनुसी बीता निवासिक के परिस्त में The licensed premises are situated at following audies. Survey No. 173/4, . जल (Town/Village): Pattazhi village, pathanapuram taluk, Kolfam Distri-KOLLAM

राज्य (Starc) ई. तेल (E-Mail)-Mer (District) 9447030513 (Phone)

D and E type portable magazine (Mfd by Thelikans Engg and Fabrication Works, Cochin) अपूर्ण प्रतिस्य में मिलालिकत सुविधाएं अवविष्ट के The licensed premises consist of following facilities.

8. अनुवान साम्य - साम्य पर मयास्त्राणियत विस्फोटक अधिनियम, 1884 और उनके अधान निर्माल विस्फोटक निर्मा २००५ के उपक्री, सर्वी और आहेतीहरू मार्गी और निर्मालखित आकर्षी के अपने रहते हैं। 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.

रायर्थक कम स. 5 में यथा कवित रेखाबित (स्थान, सन्मिर्गण संख्या और अन्य विधरण दक्षित करते रूप)

Drawings (showing site, constructional and other defails) as stated in senal No. 5 above. अनुश्रंत प्राप्तिकारी व्याप्त स्था। अधित इस अनुवादि की बातें और अति।एक बातें

अनुश्रीम प्राधिकारी व्यास्त हसा. अस्ति स्व अनुश्री की तारे और क्षेत्रिपिक अर्थे। Conditions and Additional Conditions of this licence signed by the licensing authority

9. बार अनुप्रति तारीख 31 मार्च 2015 तक विरोधान्य रहेगी. This licence shall romain valid tilt 31 steday of March 2015. थर अनुवति , अधिनियम था उसक अचीन किरोधत नियाने या अनुसूत्री V के मागू A के प्रांक निर्देश सेट-VII के अधीन तथा उपवर्णित हम अनुवति की शती का अधिकमण करने था

conditions of this licence as set forth under Set VIII, wherever 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 for applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shows in the plans and Anne.

m/les | The Date - 01/02/2011

#### Amendments:

Amendment of Quantity of Explosives/Monthly Purchase Limit dated: 03/03/2014
Amendment in Drawings/Facilities/Premises dated: 25/09/2014

Amendment of Quantity of Explosives/Monthly Purchase Limit dated (25/09/2014 Amendment in Drawings/Facilities/Premises dated: 30/03/2016

Amendment of Quantity of Explosives/Monthly Purchase Limit dated/8/12/2017

नधीनीकरण के पृष्ठाफन के लिए स्थान Space for Endorsement of Renewal

नवीकाण की तारीख Date of Renewal	धनाति की तार्यक Date of Expiry	Signature of licensing authority and stamp	***
	MANUFACTURE THE RESIDENCE OF THE PARTY OF TH	Sd/-	
09/03/2015	31/03/2020	Dy. Chief Controller of Explosives, Emakulam	

कानूनी चेतावनीर: बिस्फोटकों को गलत देग से चलाने या उनका दुक्रपथोग विधि के अधीन गंगीर रांडिक अपराध होगा। Statutory Warning: Mishandling and misuse of explosives shall constitute serious criminal offence under the law.

#### (Az VIII | Set VIII)

र्षे वर्ग 1,2,3,4,5,6, और 7 के थिस्फोटकों को बिक्री या प्रयोग हेतु राखने के लिए प्रक्रप एल.ई. 3 [अनुच्छेद 3 (ख) से (ग)] में मुख्य विस्फोटक नियंत्रक या विस्फोटक नियंत्रक व्यारा प्रदान किए जाने वाले अनुग्रप्ति स. E/SC/KL/22/1158(E58211) की शर्ते निम्नलिखित हैं।

following are the conditions of licence number E/SC/KL/22/1158(E58211) 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.

परिसर में किसी भी समय विस्फोटकों की मात्रा अनुसामन योग्य सामर्थ्य से अधिक नहीं होगी।

アクラカカカカ

The quantity of explosives on the premises at any one time shall not exceed the licensable capacity. विस्कोटकों के भदारण के लिए प्रयुक्तर होने वाली मेंगजीन अनुसूची III और अनुस्ति के उपात्रप में विनिर्दिष्ट सुरक्षा सूरी बनाएं रखना होगा।

The magazine used for storage of explosives shall maintain safety distance specified in Schedule III and annexure to the licence. माजीन का प्रयोग उन सभी विस्फीटकों के, जो इम अनुसारि में विनिर्देष्ट है, एवं आने के लिए और ऐसे एवं जाने से संबंध आधान या ओजार या उपकर्णा के एवं जाने के लिए भी किया जाएगा; अन्यया 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.

पंकजो को खोलने का कार्य और विस्फोटकों को तीलने तथा पेक 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.

वो या दो से अधिक वर्णन के बिस्कीटकों को, जिन्हें मैगजीन में रखें जाने की अनुद्वा दी जा सकती है, मैगजीन में तभी रखें जाएं। जब उनमें से प्रत्येक को, ऐसे पदार्थ या स्वरूप का कोई मध्यवती विभाजक लगाकर या उनके बीच ऐसा मध्यवती 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 म पहुंच सके : परंतु -

(घ) 2 (नाइट्रेट मिश्रण), वर्ग 3 (नाइट्रो योगिक) के विभिन्न विस्फोटक, वर्ग 6 प्रथम प्रभाग के अंतर्गत अने वाले सुरक्षा पत्तीते और वर्ग 6 प्रभाग 2 के अंतर्गत आनेवाले विस्फोटक प्रेरक पत्तीते, जिनमें कोई खुला लोग्न या इस्मात नहीं है, एक दूसरे के साथ विना किसी भध्यवर्ती विभावक या स्थायन के राखे जा सकते हैं।

(4) वर्ग 6 प्रभाग 3 के अंतर्गत आनेवाले विश्कीटक प्रेरक अलग रखे आएंगे!

(च) वर्ग । के अंतर्गत आमे वाले बारूद को अलग रखा आएगा।

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 Land 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

(c) Detonators belonging to Class 6 Division 3 shall be kept separately
(f) Gun powder belonging to Class 1 shall be kept separately.
वर्ष 3 (अब्दू) योगिक) के विकासिकों की, उनके विभिन्निक की तारीक से एक वर्ष बीत आने के पश्चा सिवाय अनुवापन प्राधिकारी की विवोध मंजूरी के मैगजीन में नहीं एका आएगा।

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

वर्ग 3 (भाइट्रा योगिका) के विस्फोटको की, उनके विनिर्माण की तारीख से एक वर्ष बीत जाने के पश्चात मैगबीत में तभा रखा आएमा अब कि किसी विस्फोटक नियनक ने इसके लिए विशेष मंजूरी के ती की।

(1) जब ऐसा मनूरी व वी गई हो तो प्रत्येक निरक्षण पर किसी-विस्फोटक नियञक से ऐसा लिखित प्रमाणपत्र अभिप्राप्त कर लिया जाए जिसमें वी गई मंजूरी के अंतर्गन आनेवाली अवधि वशिन की गई हो और ऐसे प्रमाणपत्र के

अनुभविष्यां। अपने पास रखेगा और माग की आने पर प्रस्तुना करेगा।

(ii) उब कोई विस्फोटक मानक शुष्टता का न रह जाने के कारण या अबझे म्लीअसरीन या द्रव नाइड्डो योगिक के निकल जाने के चिन्ह प्रकट होने के कारण मैगओन में भण्डारित किए जाने के उपयुक्त पहें रह आना है ना अनुप्रक्षिधारी अपने ही व्यथ पर ऐसे विस्फोटक के निपटारे के लिए ऐसे निवेशों 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-compound 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.

मैंगजीन के भीतरी भाग या उसमें लगी बैंचों, शेल्फी और उसकी फिटिंग का इस प्रकार सन्तिर्माण किया जाएगा या उन्हें इस प्रकार अंतरित या अवतरित किया जाएगा कि विरुप्तेटक का किसी लोहे था इस्पात के साथ संपक्त रोका जा सके। भीतरी भाग में लगी बेंचे. शैल्फें और फिटिंग यथासाध्य ग्रिट से मुक्त एवं साफ रखें जाएंगे तथा ऐसे विस्फोटक, जो जल से खतरानक रूप में प्रभावित हो सकते हैं, इस बाबत सम्यक सावधानी घरती जाएगी कि यहां कोई जल मोजूद न गते पन्तु किसी लोड़े या इस्पात के खुले होने के विरूप्त सावधानी से संबंधित इस शर्त का वह भाग ऐसे किसी भवन में बाध्येकर नहीं होगा विसमें वर्ग 6 (गोला बारूद) के प्रथम के विरूप्त के सिम्न 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

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.

यदि तिंडत चालक का पेरीदाण विस्फोटक नियत्रक करता है तो अनुवाधिधारी ऐसे परीक्षण के लिए थिहित फीस का सदाय करेगा यदि परीक्षण असमाधानकारी साबित होता है तो अतनी ही फीस अनुवाधिधारी ब्दार, पश्चात्वनी प्रत्येक परिक्षण के लिए तब तक वी जानी रहेगी जब तक कि परीक्षण अधिकारी तडित चलक की समाधानप्रद पोषित नहीं कर देता

पांतु किसी एक पर्राक्षण के लिए देव फीस किसी एक दिन के दौरान किसी चालक के किए गए सभी परीक्षणों के लिए प्रभार्थ होता

पत्नु यह और कि बंदि के वा अधिक तदित वालक एक ही मैंगवीन से सबका है तो ऐसे सभी चालकों कु परीक्षण के लिए फीस ऐसी किसी फीस में अधिक नहीं होगा वो किसी एक तदिव वालक के परीक्षण के लिए भा स्थित में विकित 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 moving unsatisfactory, the same fees shall be payable by the licensee for each subsequent test until the lighting conductor is passed by the testing officer

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.

अन्युक्त तथा जेब गरित कार्यकरण यहाँ , अम्युक्त जूरों के प्रयोग क्यार तथा तथा तथा तथा वालाणी लेकर या अन्यथा अथथा ऐसे किन्हीं ग्राधनों व्यार इस आयत मन्यक अथथि किया आएगा कि फैक्ट्री परिसर में अन्ति , दियासलाई अथथा ऐसे किन्हीं ग्राधनों व्यार इस आयत मन्यक अथथि किया आएगा कि फैक्ट्री परिसर में अन्ति , दियासलाई अथथा ऐसे किन्हीं ग्राधनों व्यार इस आयत मन्यक अथथि किया आएगा कि फैक्ट्री परिसर में अन्ति , वस्तुए या पदार्थ, जिससे विस्फोट हो सकता है या आग लग सकती हो, किन्तु इस रात के कारण ऐसी संस्वना, स्थिति या स्वरूप में किसी कृषिम बती का प्रदेश वर्जित नहीं है जिससे आग लगने या विस्फोट होने का सत्तरा न हो परंतु इस शर्त का वह भाग, जो लोड़े या इस्पात के अपवर्जन को लागू होता है, ऐसे किसी भवन के संबुध में बाध्य कर नहीं होगा जिससे फिल कोई विस्फोटक नहीं ग्ला 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 fie, Luciter 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



भारत सरकार | Government of India वाणिच्य और उद्योग भानव ! Ministry of Commerce & Industry पेट्रोलियम तथा थिएकोटक-सुरात संगठन (पेस) | Petroleum & Explosives Safety Organisation (PESO) वर्ष नाम- विस्कोरक विभाग | Formerly- Department of Explosives A और D - विष, अलोक I-8, द्वारा सब, शाली मध्य | A & D - Wing, Block I-8, IInd Floor, Shastri Bhavan 26 अञ्चलेकम ऐक, नुमन्यकम केने | 26 Haddous Road, Nungambakkam Chennai 600006 wir (Phone) .- 28281023 | tur (Fax) .- 28284848

(No.1 E/SC/KL/22/1158(E58211)

दिनाम (Date): 18/12/2017

natú To,

Shri R. Krishnamoorthy, Sasthacota P.O., Bharanikavu, Kollam District, Keralu-690520, Town Village - Bharanikavu District-KOLLAM, State-Kerala, Pincode - 690520

Survey No. 173/4,, ग्राम Pattazhi village,pathanapuram taluk, Kollam Distri, जिला KOLLAM, एडच Kerala में नेवर्ष Shri R. Krishnamoorthy क्या विरुद्धिक के नेवर्षक के विवस् क्रमा हेतु विक्टीट्स नियम, 2008 के अंतर्गत LE-3 में बात अनुवासि से E/SC/KL/22/1158(E58211) के मशोधन सको है।

Subject

Possession for Use of of Explosives from magazine situated at Survey No.:173/4,, Patrazhi village, pathanapuram taluk, Kollam Distri, Dist. KOLLAM, Kerala - Licence No.: E/SC/KL/22/1158(E58211) granted in Form LE-3 of Explosives Rules, 2008 -(Amendment of Quantity of Explusives/Monthly-Purchase Limit)...

-- "Aprilana er va weger NII - Berta 18/12/2017 ini ered egen uch Please refer to your letter no. NII dated 18/12/2017

- 26 22 A L-22/1158(F58211) ADDL QUARRY AT S.NO.166/2.166/3,166/4,166/6pt, PATTAZIIY VILLAGE, PATHANAPURAM TALUK vide letter no.6477/M3/2017 dated 21.08.2017(DMG, Thiruvananthapurain) के सब्दे में पान महोदित जा भेशा आरक्षी के he fricence No. E/SC/KL/22/1158(E58211) is forwarded herewith duly amended in respect of followings;
ADDL QUARRY AT S.NO.166/2,166/3,166/4,166/6pt, PATTAZHY VILLAGE, PATHANAPURAM TALUK vide

letter no.6477/M3/2017 dated 21.08.2017(DMG, Thiruvananthapuram).

िक्षा है 🐤 🗝 है । लहमम क्रमत विम्नितिश्वित भगै तथा माथा से अधिक नहीं होगा

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

संख्या	विस्कोटक		वर्ष	प्रभाग	1d-Antil	arun	प्रकार्य
No	Explosive(s)	FILESCO FILES	Class	Div -	Sub Div	Capacity	Unit
1	Nitrate Mixture		2	0	0	100	Kg.
2 -	Safety Fuse	SO III CHEAL	6	1	U.	2000	Mitrs
3	Ordinary Detonator		6	E	- 0	2000	Nos
4	Electric Detonators		6	3	0	1500	Nos.

किमी एक कर्नेतर माम में खरीद बाने माने विस्फोटक की माना (अनुक्केंद 3 (ख) और (म) के जागीन अनुवाधि के लिए लागू) : 20 मुना

Quantity of explosives to be purchased in a calendar month[applicable for licence under article 3(b) and (c)] · 20 times as above.

माः अनुअपि विभाव 31 मार्च 2020 तक प्रवृत्त रहेगी।

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

अनुभनि के आगानी नवीकाल हेतु कृषया विस्कोयटक नियम, 2008 के नियम 112 के अतर्गत प्रक्रिया का पालन को। कृषया पायती वे

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

(जा. अशोक कुमार यादव | Dr समुख मुक्त विन्दरिक नियंत्रक | Joint Chief Controller of

विक्रणांसल, केने । South Circle, Chennat

esselfe the Copy Forwarded to:

उप गुख्य विस्फोदक नियत्रक कोच्छी

The Dy. Chiof Controller of Explosives, Kochi
District Magistrate, KOLLAM, Kerala with reference to his Noe No. D.Dis.7754/09/M7 Dated: 02/12/2010

Superintendent of Police, KOLLAM, Kerala



## Annexure 5 **Lab Report**

#### **TEST REPORT**

Test Report No: 20220214/R030	Date: 19-02-2022	Page 1 of 1
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CUSTOMER DETAILS				
	Mr. Krishnamoorthy			
Customer Name & Address	Anju Nivas, Mankara,			
nduress	Sasthamcotta, Kollam District			
Customer Reference	Test Request dt: 14-02-2022			

SAMPLE DETAILS						
Product Category	Atmospheric Pollution	Sample Code	20220214/S030			
Sample Name	Ambient Air	Sample Received on	15-02-2022			
Sample Conditions at Receipt	Fit for Analysis	Test Commenced on	15-02-2022			
Sampled by	Lab Authorized Sampler	Test Completed on	17-02-2022			
DETAILS OF SAMPLING						
Sampling Location	Near South Side Boundary	Date of Sampling	14-02-2022			
Sampling Procedure	SEAAL/ENL/GEN/SOP/02	Humidity	68 %			

SAMPLING SITE DETAILS					
Survey No.	166/2,166/3,166/4,166/6				
Village	Pattazhi	Taluk	Pathanapuram		
District	Kollam	State	Kerala		

	TEST RESULTS - CHEMICAL PARAMETERS							
S1. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	NAAQ Standards			
1	Particulate Matter, PM <sub>10</sub>	IS 5182 (Part 23):2006	μg/m³	52.2	Max 100			
2	Particulate Matter, PM <sub>2.5</sub>	IS 5182 (Part 24):2019	μg/m³	22.5	Max 60			
3	Sulphur Dioxide as SO <sub>2</sub>	IS 5182 (Part 2): 2001	μg/m³	< 2.00	Max 80			
4	Oxides of Nitrogen as NO <sub>2</sub>	IS 5182 (Part 6): 2006	μg/m³	< 2.00	Max 80			

Remarks:

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

**Shency Joy** Dy.TM-Chemical

Checked by:

Laiju P.N. Laboratory Head

Authorized Signatory



#### **TEST REPORT**

Test Report No: 20220214/R031	Date: 19-02-2022	Doge 1 of 1
1 lest Report No. 20220214/ R031	Date. 19-02-2022	Page 1 of 1

CUSTOMER DETAILS			
	Mr. Krishnamoorthy		
Customer Name & Address	Anju Nivas, Mankara, Sasthamcotta, Kollam District		
Customer Reference	Test Request dt: 14-02-2022		

DETAILS OF MONITORING					
Product Category	Atmospheric Pollution	Sample Code	20220214/S031		
Sample Name	Ambient Noise	Monitoring Commenced on	14-02-2022/ 06:00		
Monitoring Location	Near South Side Boundary	Monitoring Completed on	15-02-2022/ 06:00		
Test Method	IS 9989:1981 RA:2008	Monitored by	Lab Authorized Sampler		

MONITORING SITE DETAILS				
Survey No.	166/2,166/3,166/4,166/6			
Village	Pattazhi	Taluk	Pathanapuram	
District	Kollam	State	Kerala	

MONITORING RESULTS - Leq					
TIME	RESULTS dB(A)	TIME	RESULTS dB(A)	TIME	RESULTS dB(A)
06:00	38.6	14:00	51.7	22:00	37.4
07:00	41.4	15:00	52.1	23:00	33.5
08:00	45.8	16:00	53.3	24:00	35.9
09:00	49.4	17:00	53.7	01:00	36.6
10:00	51.7	18:00	48.2	02:00	36.2
11:00	54.9	19:00	44.6	03:00	36.9
12:00	52.1	20:00	40.6	04:00	35.9
13:00	51.3	21:00	40.1	05:00	37.6

	TEST RESULTS				
S1. No.	PARAMETERS   UNIT   RESULT				
1	Ambient Sound Level (Leq) Day Time (06:00 to 22:00)	dB(A)	50.2		
2	Ambient Sound Level (Leq) Night Time (22:00 to 06:00)	dB(A)	36.2		

Remarks:

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

**Shency Joy** Dy.TM-Chemical

Checked by:

Laiju P.N. Laboratory Head

Authorized Signatory



#### **TEST REPORT**

Test Report No: 20220214/R032	Date: 19-02-2022	Page 1 of 2
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CUSTOMER DETAILS			
	Mr. Krishnamoorthy		
Customer Name & Address	Anju Nivas, Mankara,		
	Sasthamcotta, Kollam District		
Customer Reference	Test Request dt : 14-02-2022		

SAMPLE DETAILS					
Product Category	Water	Sample Code	20220214/S032		
Sample Name	Ground Water	Sample Received on	15-02-2022		
Sample Conditions at Receipt	Fit for Analysis	Temperature @ Receipt	4 °C		
Sample Quantity& Packing	2L & 100ml Plastic Bottle	Test Commenced on	15-02-2022		
Sampled by	Lab Authorized Sampler	Test Completed on	18-02-2022		
DETAILS OF SAMPLING					
Sample Source	Open Well	Date of Sampling	14-02-2022		
Sampling Procedure	SEAAL/ENL/GEN/SOP/01& SEAAL/MBL/SOP/06	Sample Temperature	31 °C		

SAMPLING SITE DETAILS				
Survey No.	166/2,166/3,166/4,166/6			
Village	Pattazhi	Taluk	Pathanapuram	
District	Kollam	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	Max 5	
2	Odour	IS 3025 (Part 5):2018		Agreeable	Agreeable	
3	Turbidity	IS 3025 (Part 10):1984 RA 2017	NTU	0.1	Max 1	

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#### **TEST REPORT**

Test Report No: 20220214/R032 Date: 19-02-2022 Page 2 of 2

	TEST RESULTS- CHEMICAL PARAMETERS				
Sl.No.	PARAMETERS	TEST METHOD	UNIT	RESULT	Requirement as per Acceptable Limit of IS 10500 : 2012
4	рН	IS 3025 (Part 11):1983 RA 2017		7.01	6.50 – 8.50
5	Conductivity	IS 3025 (Part 14):1984 RA 2019	μS/cm	77.0	
6	Total Dissolved Solids	IS 3025 (Part 16):1984 RA 2017	mg/L	50.0	Max 500
7	Total Hardness as CaCO <sub>3</sub>	IS 3025 (Part 21):2009 RA 2019	mg/L	20.0	Max 200
8	Calcium as Ca	IS 3025 (Part 40):1991 RA 2019	mg/L	6.40	Max 75
9	Magnesium as Mg	IS 3025 (Part 46):1994 RA 2019	mg/L	<1.00	Max 30
10	Chloride as Cl	IS 3025 (Part 32):1988 RA 2019	mg/L	10.9	Max 250
11	Total Alkalinity as CaCO <sub>3</sub>	IS 3025 (Part 23):1986 RA 2019	mg/L	11.9	Max 200
12	Iron as Fe	IS 3025 (Part 53):2003 RA 2019	mg/L	0.10	Max 1
13	Sulphate as SO <sub>4</sub>	IS 3025 (Part 24):1986 RA 2019	mg/L	1.10	Max 200

	TEST RESULTS- BIOLOGICAL PARAMETERS				
Sl.No. PARAMETERS TEST METHOD UNIT RESULT per Accept Limit of				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

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Salini T.S.
Microbiologist

Authorized Signatory

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Laiju P.N.
Laboratory Head
Authorized Signatory

## **ANNEXURE 7 - ENVIRONMENTAL MONITORING CELL**

An environmental monitoring cell was formed with Mr Krishnamoorthy head of the monitoring cell and made functional. Meeting of monitoring cell is arranged monthly and discuss the status of the compliance of the specific and general conditions contained in the Environmental clearance order. The details of the monitoring cell members are given below:

Sl. No.	Post	Name
1	Head of the monitoring cell	Mr.R. Krishnamoorthy (Proprietor)
2	Head in charge (Environment)	Mr. Unni Krishnapilla, General manager
3	Senior Environmental Officer	Mr. Vijayanpilla, Manager
4	Environmental Officer	Mr. Faisal, Crusher Manager
5	Name of the environmental officer in charge	Mr. Thinad, Quarry manager
6	Name of the officer Environment, Health and safety	Mr. Thinad, Quarry manager
7	Name of the Assistant Officer of Environment, Health and safety	Mr. Vishnu, Assistant Mines Manager
8	Name of the environment laboratory	M/s Poluchem Laboratories Pvt Ltd
9	Address of Environmental laboratory	Pallath Building North Kalamasseri, Ernakulam Dt

## **V. PLATE**

PLATE 1 Photographs showing boundary pillar in the project area







PLATE 2 Photograph showing access road to the project area





Photograph showing details of boundary indicators (boards, stores, markings, etc)







**PLATE 5**Photograph showing top soil and overburden in the project site





Photograph showing bench development / Mining face development



## PLATE 7

Photographs showing covered truck with rock materials





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

