

COMPLIANCE REPORT

OCTOBER 2022 - MARCH 2023

M /S PLANTERS AGGREGATES

(Quarry Project)
ERNAKULAM DISTRICT
Kerala



Dt. 17-07-2023

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. 58/SEIAA/KL/7586/2012

Sub :- Environment Clearance – Quarry project at Karukutty Village & Panchayath, Alwaye, Ernakulam District, Kerala– Compliance Report – Second Half - Reg.

Respected Sir,

The Quarry (Building stone) project was accorded Environmental Clearance for **4.8033 Ha.** by order No. **58/SEIAA/KL/7586/2012** dated 15-03-2013 by State Environmental Impact Assessment Authority, Kerala. The compliance report of **Second half** (October 2022 – March 2023) to the specific and general conditions of the Environment Clearance order is enclosed.

Thanking you,

Yours respectfully,
For M/s Planters Aggregates

Saji Vadakkekara
For Mr. Saji Vadakkekara

(Proprietor)



Copy to:-

The Member Secretary
State Environment Impact Assessment Authority (SEIAA),
Thiruvananthapuram, Kerala.

Encl: - As Above

Planters Aggregates

Palissery, Angamaly, Ezhattumugham P.O., Ernakulam, Kerala - 683 577. Phone: 0484 2439166, 2439167, Mob: 9562141400, E-mail: plantersgroup@yahoo.com

COMPLIANCE REPORT

TO

THE CONDITIONS

OF

ENVIRONMENTAL CLEARANCE ORDER

NO: 58/SEIAA/KL/7586/2012

DATED ON: 15.03.2013

BY

**STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY
(SEIAA)**

FOR

**BUILDING STONE QUARRY
(MINOR MINERAL MINING) PROJECT**

AT

SURVEY NO. 168

**KARUKUTTY VILLAGE & PANCHAYATH, ALWAYS,
ERNAKULAM DISTRICT, KERALA**

BY

**M/S PLANTERS AGGREGATES,
ERNAKULAM DISTRICT
KERALA**

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INTRODUCTION

The quarry project of M/s Planters Aggregates is situated at Survey No. 168 at Karukutty Village & Panchayath, Alwaye, Ernakulam District, Kerala.

The quarry project was accorded with the Environmental Clearance (EC) by State Environmental Impact Assessment Authority on 15.03.2013. As part of general condition No.25 of Environmental Clearance order, half yearly compliance report needs to be submitted by the project proponent. The compliance report of First half to the specific conditions and general conditions of the Environmental Clearance order for the period of **October 2022 – March 2023** is being submitted.

The quarry project is not in operation due to the expiry of the lease.

Brief of the project

Type of Project	Quarry project (Building stone)
Name of the project	M/s Planters Aggregates
Category of the project	B2
GPS Locations	Latitude (N) 10° 16' 31.28" N Longitude (E) 76° 25' 07.37" E
Address for correspondence	Palissery, Ezhattumugham P.O., Ernakulam District, Kerala – 683 577 Tel. No. 0484-2439166, 2439167
Website and E mail ID of company	www.plantergroup.com. plantergroup@yahoo.com
Name, Phone Number & e - mail id of responsible persons	1. Saji Vadakkekara Managing Director 0484-2439166 plantergroup@yahoo.com 2. Davis George General Manager 9605040050 davisgeorgekinattingal@gmail.com
Main Features	
Total area under Environment Clearance	4.8033 hectare
Mineable reserves	45,90,000
Production	2,88,000 TPA
Life of Mine	16 Years
Highest and lowest elevation	145 m MSL and lowest elevation is 95 m MSL.
Crusher unit	Yes within the project site
Environmental Settings	
Nearest house	nearest habitation is at 50 m towards N.
Nearest Water Body	Chalakudi River, 1.5km, N
Nearest town	Palissery, 0.74km, SW
Nearest hospital	Palissery Govt. Dispensary (1.5 km) SW
Nearest School	Palissery Govt. LP School (1.5 km) SW
Seismic zone	Zone-III, Moderate damage risk zone as per BMTPC, Vulnerability atlas Seismic zone of India IS: 1893-2002.
Air quality	PM ₁₀ , PM _{2.5} , SO ₂ , NO ₂ are under NAAQ standard
Water quality	Under acceptable limit (Bore well)
Ambient noise	Well within the limit

SALIENT FEATURES OF THE PROJECT

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) dt.24.12.2013 of Ministry of Environment and Forests, since the area of the project is below 25 hectares.

Geographical location of the project site is in 9⁰59'21.50 to 9⁰59' 12.22" Latitude (N) and 76⁰37'20.43" to 76⁰37'06.07"(E). The quarry is interlinked with a Crusher / M sand unit located within the complex. The Capacity is 2, 70,000 MTA. There are no litigations against the lease area or applicant in any court of law. Topography is hilly. Highest elevation is 88m MSL and lowest 38m MSL. The approximate daily water demand is 5 KLD and total power requirement is 75 kw. The nearest house is located at 50m North of the proposed quarry.

COMPLIANCE REPORT

(SPECIFIC CONDITIONS)

PART A

PART - A – SPECIFIC CONDITIONS

01	The storm water drainage channels and drainage line to the existing pond in the site and its exit from the site should be made fully functional.	Complied
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Compliance:

As part of storm water management and prevent pollution, the project proponent has constructed storm water drainage channels and drainage lines to the existing pond in the site in order to manage storm water at project site. One of the expected adverse impacts to the community from the quarrying area is contamination of streams through storm water runoff. The project proponent has constructed various pits as de – siltation trap at the last point of drainage to settle down sediments at the bottom of the pits. The storm water drainage and its exit from the site are fully functional at all the time. The photograph showing the exit of drainage form the site is provided at **Plate No.1**.

02	The depth of the mining should be restricted to the 30m level as agreed in the proposal.	Complied
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Compliance:

As per the direction, Mining depth does not exceed beyond 30 meters as agreed in the proposal. The mining activity was done with the approved mining plan. The project proponent has scrupulously followed the condition regarding the depth of mine stipulated in the Environmental clearance Order. As plan submitted before EAC (Expert Appraisal Committee), in the conceptual phase of quarry project, the exploration of mineral is from 145 to 30m MSL. The life of mine is yet to reach in this quarry project. Due to the expiry of mining lease the project proponent does not operate the quarry project.

COMPLIANCE REPORT

(GENERAL CONDITIONS)

PART B

PART – B – GENERAL CONDITIONS

01	Rain water harvesting to collect and utilize the entire water falling in land area should be provided.	Complied
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Compliance:

As part of rain water harvesting, the proponent has developed rain water harvesting structure in the quarrying area. It is situated in the lowest level of quarry area. The surface runoff is channelized to the pond through garland drains. The water from pond is mainly used for crusher work, watering of plants, wetting of roads and sprinkler system for contain dust emission. The photograph of RWH is provided in **Plate No.2.**

02	Environment monitoring cell as agreed under the affidavit filed by the proponent should be formed and made functional.	complied
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Compliance:

The project proponent has constituted an Environment Monitoring Cell (EMC) with Mr. Saji Vadakkekara as head of the cell. The meetings of the cell convened periodically and evaluate the activities towards the stipulations of Environmental Clearance order. The details of the monitoring cell are given in the **Table No.1.** The NABET accredited consultant helps the company to upkeep the environment friendly mining. As part of monitoring, the sound levels, ambient air and water are monitored through a NABL accredited laboratory. The details of monitoring cell are given below. The committee is looking after all parameters of environment.

TABLE 1 ENVIRONMENTAL MONITORING CELL (EMC)

Sl. No.	Post	Name
1.	Head of monitoring cell (proprietor)	Saji Vadakkekara
2.	Head in charge (Environmental)	Davis George
3.	Senior Environmental Officer	Reji K. Paul

4.	Asst. officer of Environment, Health and safety at site	Vishavash sivaji
5.	Environmental consultant	M/s Environmental Engineers & Consultants Pvt. Ltd. A1-198, Janak Puri, New Delhi
6.	Address of Environmental Laboratory	Standards Environmental & Analytical Laboratories, KJ Tower, Udyogamandal, EKM

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 suitable avenue trees along either side of the roads, parking area and other areas in the project land. There are natural vegetations including trees, shrubs, herbs and climbers also present. The name and family of flora is given below in **Table Number 2**. The photograph of trees is attached as **Plate No.3**.

TABLE 2 - Details of the natural vegetation existing along the road side is as follows

Sl. No.	Scientific Name	Common Name	Family	Habit
1.	<i>Tectona grandis</i>	Thekku	Verbenaceae	Tree
2.	<i>Tabernaemontana alternifolia</i>	Kunnanpala	Apocynaceae	Tree
3.	<i>Chromolaena odorata</i>	Communist-pacha	Compositae	Shrub
4.	<i>Mangifera indica</i>	Mavu	Anacardiaceae	Tree
5.	<i>Ziziphus oenopolia</i>	Thodalli	Rhamnaceae	Climber

04	The project shall incorporate devices for solar energy generation and utilization wherever possible.	Complied
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Compliance:

The project proponent has installed solar street lights in the project site 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. The photograph of Solar Panels is given in **Plate No.4**.

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

To prevent dust emission, sprinklers installed in and around the crusher unit and access road. To arrest the dust emission from the approach road and the haulage road, the project proponent has deployed a tanker vehicle to splash water. The photograph of the vehicle used for splashing of water is attached as **Plate No.5**.

06	The eco-restoration plan submitted with the proposal should be fully implemented.	Being complied
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Compliance:

The eco restoration and the mine closure plan will be done at the own cost of the project proponent as per the approved mining area. The project proponent started to plant various saplings in and around the project site. The project proponent converted a sloppy land into benches by systematically dumping the overburden and top soil. To prevent soil erosion, the benches have been covered with a *geotex* coir mat and planted grass. The photograph of benches covered by coir mat is attached as **Plate No. 6**.

07	Corporate social responsibility agreed upon by the proponent should be implemented	Complied
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Compliance:

At present there is no quarrying activity in the project site. The project proponent has carried out many activities under Corporate Social Responsibility (CSR)/ Corporate Environmental Responsibility (CER) in the banner of working quarry project.

08	Barbed metal wire fencing around the mining area shall be provided with a height of not less than 5 ft so that the falling of animals/human/belongings/dumping of garbage's etc. does not happen.	Complied
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Compliance

To prevent falling of animals/human being/dumping of garbage etc, the project has erected barbed metal wire fencing around the mining area with height of 5 ft. The photograph of the fencing is provided at **Plate No.7**.

09	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:

To give warning to the labours and community people prior to the blasting in quarry, the project has installed warning alarms as per the stipulation of Explosive department in the quarry site. The timing of blasting in the quarry was in between 11.00am to 11.30am and 3.30pm to 4:00 pm. A danger board is also installed which gives information about the blasting time to the general public. The photograph showing the danger area, sign board etc, is provided at **Plate No. 8**.

10	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 contain dust emissions and for the trouble free transportation of materials, the project proponent has tarred 2.5 kilometers of access road and maintaining the

access road to the quarry site. The project proponent splashes water on the road to arrest the dust production during summer season. The project proponent is regularly maintaining the access road in a good manner. The photograph is showing the paved access road to the site which is attached as **Plate No.9**. The avenue trees also help to prevent the emission of dust from roads.

11	Overburden material should be managed within the site and the old quarries, if any, should be reclaimed and restored	complied
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Compliance:

The overburden and topsoil extract during the time of mining, these natural resources is staked in the project site. This is being used for plantation, haulage roads and land filling in the mining area. The overburden excavated from the quarry is dumping in to three abandoned quarries near to the project site. The project proponent converted a slope area in to benches by systematically dumping the overburden. To prevent soil erosion this has covered with a *geotex* coir mat and planted grass. The photograph of the overburden is attached as **Plate No. 10**.

12	Height of benches should not exceed 5m and width should not be less than 5m.	Complied
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Compliance:

To enhance safety and conserve environment, the project proponent extracted the minerals by creating benches. The benches does not exceed 5 meters of height and the width of the bench will have minimum of 5 meters. The photograph of the benches created in the mining area is provided in **Plate No. 11**. The copy of certificates of second class manager and mines mate are attached at **Annexure No 7 & 8**.

13	Mats to reduce fly rock blast to a maximum of 15 PPV should be provided.	Noted
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Compliance:

The project proponent was used blasting mat to reduce fly rocks during blasting. NONEL were used for blasting operation therefore there is no issue with fly rock in the community and the project proponent also assure the maximum PPV is under 10. The purchasing bill copies of blasting mat is provided in **Annexure No. 1**.

14	Mining depth should not exceed beyond 40m, unless otherwise specifies or not below the level of nearest stream bed whichever is less.	Noted
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Compliance:

The mining depth doesnot exceed beyond 40 meter or not below the level of the nearest stream bed, whichever is less. The project proponent has appointed second class manager, foreman and mining mate in the industry to extract the minerals as per mining plan in an eco friendly way. The all activities of these qualified persons are under the supervision and monitoring of Environment Monitoring Cell.

15	Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of greenbelt and hollow brick envelope 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 unit, the project proponent has provided ear plugs. The machines of crusher unit are housed with hollow bricks. Vegetation around the mining area was helped to reduce noise and air pollution. This helps the noise level kept within prescribed standards. The project proponent is trying to enhance the vegetative cover by planting more tree saplings. The project proponent is regularly monitoring the ambient noise level at the project site. The result of NABEL accredited laboratory of ambient sound level is attached at **Annexure No. 11**. The photograph showing the crusher unit is attached at **Plate No. 12**.

16	Assurance in the form of affidavit should be given to SEIAA	Complied
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	that eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.	
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Compliance:

Assurance in the form of affidavit was already submitted to SEIAA Kerala. Eco – restoration and mine closure plan will be done by the project proponent at own cost. As part of this, the project proponent has planted various species in the project site. The copy of the affidavit is attached at **Annexure No. 10.**

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

To catch the storm water, the proponent has constructed garland drain around the project site. This drain leads to the rain water collection pond, which is situated at the lowest portion of the project site.

18	Debris/ silt traps to be provided to prevent entry of dust and quarry wastes entering the main streams.	Complied
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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 will be directed to the rain water collection pond. All sediments and silts were being settled at the bottom of the pond and only cleared water let out. The deposited silt at the bottom of pond can collect in summer season by using excavator. The over flow water from the pond is released only through the top area and the outlet of the outward channel is protecting with steel mesh to trap the floating debris. This arrangement prevents the quarry waste from the site to the mainstreams. The photograph showing the silt trap arrangement is attached at **Plate No. 13.**

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

All statutory clearances, approvals, licenses are obtained from concerned authorities. All conditions stipulated in such approvals are strictly followed. The obtained approvals are mentioned in **Table No.4**. The certificates obtained from concerned statutory authorities are enclosed in **Annexure No. 2, 3, 4, 5 & 6**

Table 3 - The details of statutory approvals

Name of the Statutory approval	Name of the Statutory authority	Approval Number & Date
“Consent to Operate” - Renewal	Kerala State Pollution Control Board	File No. PCB/EKM/DO-1/OA-404/15 Dated : 07/03/2019
Environmental Clearance order	State Environmental Impact Assessment Authority, Kerala	58/SEIAA/KL/7586/2012 Dated: 15/03/2013
Explosive License	Ministry of Commerce & Industry – Petroleum & Explosives Safety Organization (PESO)	E/SC/KL/22/751(E33224) Dated : 14/3/2016
License for quarry operations	Karukutty Gram Panchayat	2/2019-2020/B3/B3-695/19 Dated:1/04/2019
Lease order	Directorate of Mining and Geology	660/2010-11/9439/M3/2010 Dated : 3/1/2011
Quarrying Lease	Government of Kerala	2945/19 Dt. 25/11/2019

20	In case of any change(s) in the scope of the project, the project would require a fresh appraisal by this authority.	Noted
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Compliance:

In case of any change(s) in the scope of the project, the proponent will apply for fresh appraisal to get the Environmental Clearance.

21	The authority reserved 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.	Noted
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Compliance:

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

22	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 were scrupulously followed. A brief list of various Acts and notifications which were 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

23	The project proponent should advertise in at least two local newspapers widely circulated in the region. One of which 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 a copy of the same should be forwarded to the office of this authority as confirmation.	Complied
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Compliance:

An advertisement in two newspaper regarding the accordance of environmental clearance to the quarrying activity was given within stipulated period and the copy of the same was submitted to SEIAA. The copy of newspaper advertisement is provided at **Annexure No. 9**.

24	A copy of the clearance letter shall be sent by the proponent to concerned Gram 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 clearance letter shall also be put on the website of the company by the proponent.	Complied
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Compliance:

A copy of the environmental clearance letter was submitted to Karukutty Grama Panchayat office on 26/11/2013. Its inward no. is 7405/13. There were no suggestions/representations received while processing the proposal. The environmental clearance order is uploaded in the website of the company and it can be seen in the website www.plantergroup.com.

25	The proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hand 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 the Directorate of Environment and Climate Change, Govt. of Kerala.	complied
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Compliance:

The compliance report is being regularly submitted to the Regional Office of MoEF&CC, Govt. of India and State environment Impact Assessment Authority, (SEIAA) Kerala as mail. The result of monitored data is provided in compliance report. The monitored results are attached a **Annexure No. 11, 12 & 13.**

26	The conditions of the 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 fond size of not less than 40.	Complied
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Compliance:

The details of the Environmental Clearance are displayed on metallic board in the project site. The metallic board as specified in the conditions of Environmental Clearance order of 3 ft x 3 ft with green background and yellow letters of Times New Roman font. Same is attached as **Plate No. 14.**

27	The proponent shall provide affidavit that all the conditions stipulated in the EC shall be scrupulously followed.	Complied
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Compliance:

An affidavit stating that all the conditions stipulated in the Environmental clearance will be scrupulously followed was submitted to State Environmental Impact Assessment Authority. The copy of affidavit submitted at SEIAA is attached at **Annexure No. 10.**

PLATES

PLATE No. 1



Drainage in the project site

Plate No.2



Rain water collection pond exist in the project site



Rain water collection tank

PLATE No. 3



The natural vegetation maintained along the roadside

PLATE No. 4



Solar street lights installed near to the magazine

PLATE No. 5



Sprinklers Installed in the project area

PLATE No. 6



Benches made by over burden and covered by coir mat

PLATE No. 7



Barbed metal wire fencing with a height of 5 meter

PLATE No. 8



Device for alarm prior to the blasting



Sign board mentioned danger and time of blasting

PLATE No. 9



Tarred road to the crusher unit

PLATE No. 10



Over burden managed within the site

PLATE No. 11



Minerals explored with bench system of 5 m width and height

PLATE No.12




Crusher unit existing in the project site

PLATE No. 13**Slit trap to prevent quarry wastes entering in to the main stream****PLATE No. 14****Metallic board described the details of EC**

ANNEXURE

ANNEXURE No. 1

Tax Invoice		(ORIGINAL FOR RECIPIENT)				
 Global Mineral Works S.NO: 210 & 211 IDA BOLLARAM SANGAREDDY Mobile No: 9705009875 GSTIN/UIN: 36APHPT3972L1Z5 State Name : Telangana, Code : 36 E-Mail : accounts@globalmineral.in		Invoice No. e-Way Bill No. GMW/19-20/0114 181124529755 Dated 10-Apr-2019	Delivery Note 116 Supplier's Ref. 116			
Consignee PLANTERS AGGREGATES PALISERRY EZHATTUMUGHAM PO, ERNAKULAM GSTIN/UIN : 32AEGPV9147K1ZY PAN/IT No : AEGPV9147K State Name : Kerala, Code : 32		Buyer's Order No. 116 Despatch Document No. 116 Despatched through By Road	Mode/Terms of Payment Other Reference(s) Dated Delivery Note Date 10-Apr-2019 Destination Ernakulam			
Buyer (if other than consignee) PLANTERS AGGREGATES PALISERRY EZHATTUMUGHAM PO, ERNAKULAM GSTIN/UIN : 32AEGPV9147K1ZY PAN/IT No : AEGPV9147K State Name : Kerala, Code : 32 Place of Supply : Kerala Contact person : Saji Vadakkekara Contact : 9605040020		Bill of Lading/LR-RR No. TN33AR5808 Terms of Delivery	Motor Vehicle No. TN33AR5808			
Sl No.	Description of Goods	HSN/SAC	Quantity	Rate	per	Amount
1	B.Mats	40040000	10 Nos	37,000.00	Nos	3,70,000.00
	IGST @ 18% Output					66,600.00
Total			10 Nos			₹ 4,36,600.00
Amount Chargeable (in words) INR Four Lakh Thirty Six Thousand Six Hundred Only E. & O.E						
		Taxable Value	Integrated Tax Rate	Amount	Total Tax Amount	
		3,70,000.00	18%	66,600.00	66,600.00	
		Total: 3,70,000.00		66,600.00	66,600.00	
Tax Amount (in words) : INR Sixty Six Thousand Six Hundred Only						
Company's PAN : APHPT3972L		Company's Bank Details				
Declaration		Bank Name : Axis Bank Ltd - CA				
We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.		A/c No. : 912020017515207				
Customer's Seal and Signature		Branch & IFS Code : Nizampet & UTIB0002960				
		for Global Mineral Works				
		Prepared by	Verified by	Authorised Signatory		
SUBJECT TO SANGAREDDY JURISDICTION						
This is a Computer Generated Invoice						
Recd on 04/05/2019 / Quantity - 100						

Bill copy of blasting mat

ANNEXURE No. 2

सत्यमेव जयते

Proceedings of the State Environment Impact Assessment Authority Kerala*Present: Dr. A.E. Muthunayagam, Chairman; Prof. (Dr.) K.P. Joy, Member; Sri. James Varghese IAS, Member Secretary*

Sub: SEIAA Kerala - Proposed quarry project in Survey No. 168 at Karukutty Village, Karukutty Panchayath, Alwaye Taluk, Ernakulam District, Kerala by M/s Planters Aggregates – Environmental Clearance under EIA Notification 2006 accorded – Orders issued

Environmental Clearance*No. 58/SEIAA/KL/7586/2012**dated, Thiruvananthapuram 15-03-2013***ORDER**

The Proprietor of M/s Planters Aggregates, vide their application received on 14-11-2012, has sought environmental clearance under the EIA Notification, 2006 for the quarry project at Karukutty Village, Karukutty Panchayath, Alwaye Taluk, Ernakulam District, Kerala. The proposal has been appraised by the State Level Expert Appraisal Committee Kerala constituted by the competent authority, as per prescribed procedure in the lights of provisions under the EIA Notification 2006 and subsequent amendments, in its 10th meeting held on 26th and 27th November 2012 and also in the 12th meeting held on 2nd February, 2013 AND on the basis of the supporting documents enclosed with the application viz., the Form – 1, questionnaire for mining projects, pre-feasibility report, Environment Management Plan and the additional clarifications furnished in response to the observations, the SEAC Kerala recommended environmental clearance to the project.

It is interalia, noted that the project comes under the Category B, Activity 1(a) of Schedule of EIA Notification 2006. The proposed project site falls within 10°16'N and 76°25' E. The proposed project is for quarrying of 2,88,000 TPA of building granite stone from an area of 4.8033 hectare of land. The expected life of mine will be 16 years. The proposed activity involves about 75 % of the pit area for exploring granite building stone. At the end of life of mine, the reclaimed area will be suitably planted and the remaining void at lower levels of excavated pit will be utilized as water storage/ground water recharge and will be utilized for domestic/agricultural purposes. The proposed project does not involve any underground mining activities. The mining will be done by open cast semi mechanised method of mining. The bench height and width proposed is 5 m. The exploitation of mineral is being done from 145-30 m RL in conceptual phase. A total quantity of 24,000 m³ of top soil from two pits will be removed during the mining operations. The top soil excavated from the quarry shall be dumped separately at predetermined place and subsequently will be utilized in spreading over reclaimed areas for plantation. The top soil will be utilized for green belt development/plantation and will also be utilized for filling the low lying areas or adjacent quarry site. The sewage of 0.8 KLD generated from the mine office will be diverted to the septic tank followed by soak pit. The daily water requirement of 5 KLD will be met from storm water / bore well. There will be fugitive emissions generated during material handling, transportation, loading, unloading, etc. that are proposed to be managed by regular water sprinkling on haul road, green belt development, avoiding overloading of vehicles and limiting the speed of the vehicles. Excavated material is transported to the crusher located at a distance of 0.15 km from the quarry site for further processing.

The SEIAA considered the proposal in its 13th meeting held on 13th December 2012 and 15th meeting held on 22nd February 2013. The SEIAA, after due consideration of the relevant documents and additional clarifications submitted by the project proponent, and in view of the recommendations of SEAC, approved for issuance of Environmental Clearance for the project mentioned above at its 15th meeting held on 22nd February 2013. Accordingly, the State Level Environment Impact Assessment Authority (SEIAA) Kerala constituted by Govt. of India vide Notification No. S.O. 2484(E) dt.3-11-

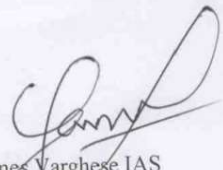
2011 of Ministry of Environment and Forests, Govt. of India, published as Gazette extraordinary No. 2074 on 3-11-2011, hereby accord necessary Environmental Clearance for the above project as per powers vested with it under the provisions of Environment Impact Assessment Notification – 2006 and subsequent amendments and also under the provisions made in the O.M. No. L-11011/47/2011-IA.II(M) dated 18th May 2012 of the Ministry of Environment and Forests, Government of India, and further subject to strict compliance of the following specific conditions, and the general conditions contained in the Annexure, which shall also form a part of this document.

1. Storm water drainage channels and drainage line to the existing pond in the site and its exit from the site should be made fully functional.
2. The depth of mining should be restricted to the 30 m level as agreed in the proposal.

Compliance of the above conditions will be monitored by the Directorate of the Department of Environment and Climate Change, Government of Kerala or its agencies and also by the Regional Office of the Ministry of Environment and Forests, Government of India located at Bangalore. Necessary support for entry and inspection should be provided by the project proponent to the staff of the Directorate and Ministry for monitoring purposes.

The given address of correspondence of the Authorized Signatory of the project is:- Mr. Saji Vadakkekara, Proprietor, M/s Planters Aggregates, Palissery, Ezhattumugham P.O., Ernakulam, Kerala – 683577; Telephone No: 0484-2439166, 2439167; E-mail: plantersgroup@yahoo.com

Agency with NABET accreditation for EIA is:- M/s Enkay Enviro Services, 24-B, Basement, Dadu Marg, Gopal Bari, Jaipur-302001; Tel. No. 0141-2363996/4023996; Fax No: 0141-5118996; E-mail: info@enkayenviro.com


 10/10 James Varghese IAS
 Member Secretary, SEIAA
 and Principal Secretary to Government
 Environment Department

To

Mr. Saji Vadakkekara
 Proprietor
 M/s Planters Aggregates
 Palissery, Ezhattumugham P.O.
 Ernakulam, Kerala – 683577.

Copy to :

1. The Principal Secretary, Environment Dept., Government of Kerala, Secretariat
2. The Director, Dept. of Environment and Climate Change, Govt. of Kerala, Tvm – 24.
3. IA-Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi - 110003
4. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034
5. Chairman and Members of SEIAA Kerala
6. Chairman, SEAC Kerala
- ✓ 7. Website uploading
8. Stock file

EC order

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 I of Schedule IV of Explosives Rules, 2008)

(ग) उपयोग के लिए एक समय पर वर्ग 1, 2, 3, 4, 5 या वर्ग 7 के विस्फोटक या किसी मैगजीन में वर्ग 6 के विस्फोटक रखें।
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/22/751(E33224)
वार्षिक फीस रुपए (Annual Fee Rs): 2400/-

1. Licence is hereby granted to
Saji Vadakkakara (अधिभोगी / Occupier : Saji Vadakkakara), Vadakkakara House, Mangattoor, Kolcherry, Ernakulam, Town/Village -, District -, State -, Pincode - 682311

को अनुज्ञप्ति अनुदत्त की जाती है।

2. अनुज्ञप्तिधारी की पंथिति | Status of licensee : Individual

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

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

Sr. No.	Name and Description	वर्ग और प्रभाग	उप-प्रभाग	मात्रा किसी एक समय में
1.	Nitrate Mixture	2, 0	0	150 Kg
2.	Electric Detonators	6, 3	0	2500 Nos
3.	Safety Fuse	6, 1	0	2500 Mtrs
4.	Ordinary Detonator	6, 3	0	2500 Nos

(ख) किसी एक कलेंडर मास में खरीदे जाने वाले विस्फोटक की मात्रा [अनुच्छेद 3(ख) और (ग) के अधीन अनुज्ञप्ति के लिए] 20 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।
The licensed premises shall conform to the following drawing(s): रेखाचित्र क्र. (Drawing No.) E/SC/KL/22/751(E33224)
दिनांक (Dated) 27/12/2005

6. अनुज्ञप्ति परिसर निम्नलिखित पते पर स्थित हैं। The licensed premises are situated at following address:
Survey No(s), 168, ग्राम (Town/Village) : Karukutty
जिला (District) : ERNAKULAM राज्य (State) : Kerala पुलिस थाना (Police Station) : Karukutty
दूरभाष (Phone) : ई.मेल (E-Mail) : पिनकोड (Pincode) : फैक्स (Fax) :

7. अनुज्ञप्ति परिसर में निम्नलिखित सुविधाएं अंतर्विष्ट हैं।
The licensed premises consist of following facilities: T and G type portable magazine and D type portable magazine

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.

1. उपर्युक्त क्रम सं. 5 में यथा कथित रेखाचित्र (स्थान, सन्निर्माण संबंधी और अन्य विवरण दर्शित करते हुए)।
Drawings (showing site, constructional and other details) as stated in serial No. 5 above.

2. अनुज्ञप्ति प्राधिकारी द्वारा हस्ताक्षरित इस अनुज्ञप्ति की शर्तों और अतिरिक्त शर्तों।
Conditions and Additional Conditions of this licence signed by the licensing authority.

3. दूरी प्ररूप DE-2 | Distance Form DE-2.

9. यह अनुज्ञप्ति तारीख 31 मार्च 2007 तक विधिमन्य 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 निदिष्ट सेट-VII के अधीन तथा उपबर्णित इस अनुज्ञप्ति की शर्तों का अधिकमण करने या यदि अनुज्ञप्ति परिसर योजना या उससे संलग्न उपबंध में दर्शित विवरण के अनुरूप नहीं पाए जाने पर निलंबित या प्रतिस्हृत की जा सकती है, जहां वह लागू हो।
This licence is liable to be suspended or revoked for any violation of the Act or Rules framed there under or the conditions of this licence as set forth under Set VIII, wherever applicable, referred to in Part 4 of Schedule V or if the licensed premises are not found conforming to the description shown in the plans and Annexure attached hereto.

तारीख | The Date - 27/12/2005 संयुक्त मुख्य विस्फोटक नियंत्रक | Joint Chief Controller of Explosives
South Circle, Chennai

Amendments :
Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 20/01/2011
Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 30/06/2011
Amendment of Quantity of Explosives/Monthly Purchase Limit dated : 19/02/2013

नवीनीकरण के पृष्ठोक्तन के लिए स्थान
Space for Endorsement of Renewal

नवीकरण की तारीख
Date of Renewal 14/03/2016


समाप्ति की तारीख
Date of Expiry 31/03/2021

अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प
Signature of licensing authority and stamp
Dy. Chief Controller of Explosives, Ernakulam
कृते तप मुख्या विस्फोटक नियंत्रक
For Deputy Chief Controller of Explosives
Ernakulam

License to possess and use of Explosives

ANNEXURE No. 4

5.883614



KERALA STATE POLLUTION CONTROL BOARD

FILE NO. : PCB/EKM/DO-1/OA-404/15
Date of issue :07/03/2019

INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No : R15ERRCTOR964788

Ref : 1. R15ERRCTOA964872, DATED :10.04.2015
2. Consent No : R15ERRCTO964788 Dated: 08.03.2016

The 'Integrated Consent to Operate' issued as per reference above to M/s PLANTERS AGGREGATES OWNED BY SAJI VADAKKEKARA, PALISSERY, EZHATTUMUGHAM P.O - 683577 is hereby renewed up to 31/03/2024 and issued to M/s PLANTERS AGGREGATES OWNED BY SAJI VADAKKEKARA, PALISSERY, EZHATTUMUGHAM P.O - 683577 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	Survey No.	168
2	Category	RED
3	Validity	31.03.2024
4	Capital investment	Rs.92 Lakhs
5	Annual Fee	Rs.22,000/-
6	Fee Remitted	Rs.131,874/-

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

Page I

- 3.1 The consent issued will be valid only for a period, during the period when all other statutory or necessary clearances from other concerned authorities valid.
- 3.2 The consent issued from the board is only with respect to the powers vested under the water Act 1974 Air Act 1981 and The Rules there under. The operation of the quarry shall be commenced only after obtaining clearances from all concerned Authorities.
- 3.3 There shall not be any quarrying activity between 6 pm to 6 am
- 3.4 Mining activities shall be done only in the area marked by Mining & Geology.
- 3.5 The PM10 in ambient air at the boundary shall not exceed 100 microgram/m³
- 3.6 The PM 2.5 in ambient air at the boundary shall not exceed 60 microgram/m³
- 3.7 The sound level (Leq) at 1 m outside the boundary of the site should not exceed the ambient noise Standard applicable to the adjoining areas.
- 3.8 Conditions given in the Environmental clearance shall be strictly complied with.
- 3.9 Mining shall be done only in the marked area in the mining plan attached with EC

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

MINI MARY SAM

Digitally signed by MINI MARY
SAM
Date: 2019.03.07 16:53:26
+05'30'

DATE :07/03/2019

SIGNATURE & SEAL OF ISSUING AUTHORITY
ENVIRONMENTAL ENGINEER



To
SAJI VADAKKEKARA,
VADAKKEKARA HOUSE,



MANGATTOOR,
KOLENCHERY.P.O - 682311

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.

Page3

Concent to Operate from Kerala Pollution Control Board

ANNEXURE NO. 5

							
നമ്പർ: 2/2019-2020/B3/B3-695/19	തീയതി: 01-04-19						
കറുകുറ്റി ഗ്രാമപഞ്ചായത്ത് കറുകുറ്റി പി.ഒ., എറണാകുളം (ജില്ല) പിൻ: 683576, ഫോൺ: 0484-2612231, ഇ-മെയിൽ: karukuttygp@gmail.com							
<p>വ്യവസായം, വാണിജ്യം, സംരക്ഷകത്വം, മറ്റ് സേവനങ്ങൾക്കുള്ള ലൈസൻസ്</p> <p>(കെ.പി.ആർ ആക്ട് സെക്ഷൻ 232, FACTEOS ലൈസൻസ് ചട്ടങ്ങൾ 1996)</p>							
ലൈസൻസിയുടെപേര്	സജി വടക്കേക്കര						
ലൈസൻസിയുടെ മേൽവിലാസം	വടക്കേക്കര വീട്, മങ്ങാട്ടൂർ-കോലഞ്ചാരി പി ഒ, പാലിശ്ശേരി.						
സ്ഥാപനത്തിന്റെ പേരും, സ്ഥലനാമവും	പ്ലാന്റേഴ്സ് അഗ്രിഗേറ്റ്സ്						
ലൈസൻസ് നൽകിയിട്ടുള്ള പ്രവർത്തനങ്ങൾ	ഗ്രാനേറ്റ്സ്, ബിൽഡിങ്ങ് സ്റ്റോൺ എന്നിവ ഖനനം ചെയ്യുന്നതിന്.						
വാർഡ് നമ്പർ/കെട്ടിട നമ്പർ	VIII/SRY.NO-168						
ലൈസൻസ് കാലാവധി	01-04-19 30-06-23						
ലൈസൻസ് ഫീസ്	<table border="1"> <tr> <th>തുക</th> <th>രസീത് നമ്പർ</th> <th>തീയതി</th> </tr> <tr> <td>4000*5= 20000/-</td> <td>104696</td> <td>07-02-19</td> </tr> </table>	തുക	രസീത് നമ്പർ	തീയതി	4000*5= 20000/-	104696	07-02-19
തുക	രസീത് നമ്പർ	തീയതി					
4000*5= 20000/-	104696	07-02-19					
മോട്ടോർ ഫീസ്	<table border="1"> <tr> <td>104696</td> <td>07-02-19</td> </tr> </table>	104696	07-02-19				
104696	07-02-19						
തൊഴിൽ നികുതി	<table border="1"> <tr> <td>2500</td> <td>104697</td> <td>07-02-19</td> </tr> </table>	2500	104697	07-02-19			
2500	104697	07-02-19					
ലൈസൻസ് അനുവദിക്കുന്നതിന് ഹാജരാക്കിയ നിരാക്ഷേപ പത്രങ്ങളുടെ വിശദാംശങ്ങൾ (നമ്പർ, തീയതി, കാലയളവ്, നൽകിയ അധികാര സ്ഥാപനം)	<ol style="list-style-type: none"> 1. സാന്നിറ്ററി സർട്ടിഫിക്കറ്റ് 2. പാരിസ്ഥിതി, പി സി ബി സാക്ഷ്യപത്രം, ക്വാറിയിൽ ലിസ്റ്റ്, ബ്ലാസ്റ്റ് മാൻ, എക്സ്പ്ലോസ്വ്. 3. 2023 - 2024 വരെയുള്ള 5 വർഷത്തെ ലൈസൻസ് ഫീസ് ഒറ്റ തവണയായി ഒടുക്കിയിരിക്കുന്നു. ലൈസൻസ് കാലാവധി എൻ ഒ സി കളിൽ പരാമർശിക്കുന്ന തയ്യിൽ റിപ്പോയ്മായി അവസാനിക്കുന്നതാണ്. 						
	സെക്രട്ടറി കറുകുറ്റി ഗ്രാമപഞ്ചായത്ത് KARUKUTTY GRAMA PANCHAYAT PH: 0484-2612231 (O)						

License from Gram Panchayat

ANNEXURE No. 6

PROCEEDINGS OF THE DIRECTOR OF MINING AND GEOLOGY

Sub: Mines and Minerals - Minor Minerals - Granite Building Stone Quarrying lease to Shri. Saji Vadakkekara, Vadakkekara House, Mangattoor, Kolenchery P.O., Ernakulam-682 311 - sanction orders issued.

Ref: 1. Application dated 27/9/2010 from Shri. Saji Vadakkekara, Vadakkekara House, Mangattoor, Kolenchery P.O., Ernakulam-682 311
 2. Letter No. DOE/4555/E2/2010 dated 29/11/2010 from the Geologist, District Office, Ernakulam
 3. Kerala Minor Mineral Concession Rules, 1967

No. 660/2010-11/9439/M3/2010 Dated, Thiruvananthapuram, 3/1/2011

ORDER

A quarrying lease is Granted to Shri. Saji Vadakkekara, Vadakkekara House, Mangattoor, Kolenchery P.O., Ernakulam-682 311 to quarry Granite Building Stone over an area of 5.8736 hectares of patta land comprised in Survey No. 168 of Block No. 1 of Karukutty Village, Aluva Taluk, Ernakulam District for 10 (Ten) years from the date of execution of the quarrying lease deed under the Kerala Minor Mineral Concession Rules, 1967 and as per the Survey map issued by the Tahsildar Aluva and submitted by the applicant subject to the under mentioned conditions.

1. Royalty is payable to Government as per Rule 29(1)(c) of the Kerala Minor Mineral Concession Rules, 1967 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 realisable 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 realisable 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 three months from the date of this order in form 'H' as per Rule 32 of the Kerala Minor Mineral Concession Rules, 1967.
5. The lessee shall also deposit an amount of Rs. 1000/- (Rupees One Thousand only) as security deposit for the observance of the terms and conditions of the lease before the deed is executed as per rule 31 of the said rules. The lessee shall commence quarrying operation only after the deed is executed.
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 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 restricted to 50,000 M.T (Fifty thousand only) per year during the tenure of this quarrying lease.

9. The lessee should exhibit a signboard and a notice board for the intimation of the public at the entrance of the quarry. The following information should be inscribed on the notice board both in English & Malayalam

For information:

Licence No	Validity period of the permit	Name of permit/ lease holder	Quantity permitted to be extracted

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 beings animals and materials 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 7.5 m from the adjacent boundary lands 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

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

Sd/-
T. RAJENDRAN
DIRECTOR OF MINING AND GEOLOGY

To
Shri. Saji Vadakkekara, Vadakkekara House,
Mangattoor, Kolenchery P.O., Ernakulam-682 311

Copy to :

1. The Director of Mines Safety, Bangaluru Region, No. 27, 24th Main, Next to IDBI Bank, V Phase, J.P. Nagar, Bangaluru- 560 078
2. The District Collector, Ernakulam
3. The Geologist, District Office : Ernakulam
4. The Tahsildar Aluva
5. Stock File (2)
6. File Copy

(By Order)
Arulakutivans
3.1.2
Senior Superintendent

Vk-3-1-11

Lease order from Directorate of Mining and Geology

2945/19 94

भारतीय गैर न्यायिक

I here by certify to pay stamp Duty of Rs. 4,550/-


(Rupees) Four lakh fifty five thousand

₹. 500 FIVE HUNDRED RUPEES


INDIA NON JUDICIAL


K. V. ANAND
SUB REGISTRAR

കേരളം KERALA G 674489


 FORM II
 (See Rule 43)
 QUARRYING LEASE

This deed of lease made on this the Twenty Fifth day of November 2019 between the Governor of Kerala (hereinafter referred to

Lessor 
A.K. MANOJ
 Geologist
 Dept. of Mining and Geology
 District Office, Ernakulam-682 030
 29567 12.11.2019 500/-

Lessee 
SAGI YADAKEREEDU
 25/11/2019

സജി സാ.ഭാരാണ
 സാ.ഭാരാണ ഭാരാണ
 BINDHU DEVI

11 NOV 2019

as the "State Government" which expression shall, where the context so admits be deemed to include his successors and assigns) of the one part and Shri. Saji Vadakkekara, aged 51 years, S/o. V. P. Varghese, residing at Vadakkekara House, Mangattoor, Kolenchery P. O, Aikaranad North Village, Kunnathunadu Taluk, Ernakulam District - 682 311 (Aadhaar No. 2820 1755 7933) (hereinafter called the "lessee/lessees" which expression shall where the context so admits, include his/their heirs, executors, administrators, representatives and permitted assigns) of the other part.

Witnesseth that in consideration of the rents and royalties and lessee's/Lessee's covenants, hereinafter reserved and contained the State Government hereby give on lease to the lessee/lessees the land measuring **4.1885 hectares** described in the schedule hereunder and delineated on the plan hereto annexed and therein coloured red (hereinafter called the "said lands") to hold the same for a period of **12 (Twelve) years** commencing from the ~~25.11.2019~~ and ending on the ~~24.11.2031~~ for the purposes of extracting minor mineral/minerals and subject to the terms and conditions contained in the Kerala Minor Mineral Concession Rules, 2015 (hereinafter referred to as "the Rules") and to the terms and conditions hereinafter appearing

1. The lessee/lessees shall have the right in and upon the said lands to extract Granite Building Stone (here in after called the said mineral/minerals) and to do all acts necessary for the extraction of the said mineral/minerals including the erection on the said lands, buildings and plant required for the purposes and also to take lead and carry away over the said lands and to dispose of the said minerals extracted as aforesaid.
2. The lessee/lessees shall during the subsistence of this lease have the liberty to work the said mineral/minerals and remove the same from the leasehold on permits issued by the State Government/competent authority or any other officer authorized by him in this regard. The permits shall be issued only on the basis of pre-paid royalty at the rates specified in Schedule I to these Rules. The royalty rates shall be subject to revision from time to time as the State Government may order.
3. The lessee/lessees shall pay to the State Government a yearly surface rent equal to the land revenue if any, assessable under the rules for the time being in force, or if the land be the property of Government or in reserve forest then equal to the land revenue plus cess, if any, per hectare of the land the surface whereof shall be occupied or used by the lessee/lessees for any of the purposes of this deed and so in proportion for any area less than one hectare. The said surface rent shall be paid by yearly payments; the first of such payments to be made on or before the last day of the first year of occupation provided always that no such rent shall be paid or demanded in respect of any roads or ways now in existence.
4. The lessee/lessees shall at all times during the currency of this lease keep correct and intelligible books of account showing accurately the quantity of the said minerals extracted and the weight and value of the said mineral sold

Lessor
25/11/19
A.K. MANOJ
Geologist
Dept. of Mining and Geology

Lessee
SAJI VADAKKEKARA
25/11/2019

or exported together with the names of the purchasers or consignees. The lessee shall also maintain a register of employees showing therein separately men, women employed daily and shall at reasonable times allow the competent authority appointed under the rules (hereinafter referred to as "competent authority") or the officer authorised by him to examine the said books of account and the register of employees and to take copies and extracts there from. The lessee/lessees shall submit reports in Forms F and G on the specified dates.

5. All sums found due under or by virtue of this deed from the lessee/lessees may be recovered from him jointly and severally from them and his/their properties movable and immovable under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of land revenue or in any other manner as the State Government may deem fit.
6. The lessee/lessees shall at the lessee's/lessees' own expense erect and at all times maintain and keep in repair boundary marks and pillars along the boundaries of the said lands according to the demarcation shown in the plan here to annexed.
7. The lessee shall not carry on or allow to be carried on any quarrying operations at or to any points within a distance of 100 metres from any railway line except with the previous written permission of the railway administration concerned and any bridge on National Highway or 50 metres from any reservoir, tanks, canals, rivers, bridges, public roads, other public works, residential buildings, the boundary walls of places of worship, burial grounds or burning ghats except with the previous permission of the authorities concerned or the Government or competent authority.
8. The sides of open workings shall be sloped, stepped or secured by the lessee in such a manner as to prevent slope failure, when an open working is worked in steps, steps shall be of sufficient breadth in relation to their height to secure safety. In open workings trees liable to fall and all loose ground and material shall be removed by the lessee sufficiently far from the edge or otherwise made source in order to prevent danger to persons employed in the quarry.
9. If a working place is found to be unsafe all persons shall be withdrawn by the lessee/lessees immediately from the dangerous area and all access to such working place except for the purpose of removing the danger of saving life shall be prevented by securely fencing the full width of all entrances to the place.
10. The lessee/lessees shall at all reasonable times allow any officer authorised by the Central Government or by the State Government in that behalf to inspect the said lands and the buildings and plants erected thereon and the lessee/lessees shall assist such persons in conducting the inspection and afford them all information they may reasonably require, and shall conform to and observe all orders which the Central and State Governments as the result of such inspection or otherwise, may from time to time pass.
11. The lessee shall be responsible for implementing the provisions of the

Lessor
S. S. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 030

Lessee
SADI YAKKUPPIL
25/11/2019

Various labour laws applicable, from time to time, to the quarry.

12. The lessee/lessees shall not assign or underlet the said lands or any part thereof or the rights or privileges, therein hereby granted or any of them without the previous permission in writing of the State Government / competent authority.

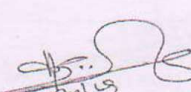
13. Where the lease or any right, title or interest therein has been assigned, sublet or transferred as provided in rule 45 read with condition 12, then the person in whose favour such assignment, sublease or transfer has been made shall be responsible for implementing the provisions of the various labour laws applicable, from time to time, to the quarry.


14. The lease may be surrendered by the lessee/lessees at any time after 3 months notice in writing to the State Government/competent authority provided the lessee/lessees has/have paid all sums due on account of the lease: Provided that if the lessee/lessees elects/elect to determine this lease before the expiry of the term of the lease, shall pay in addition to other dues a sum equal to the dead rent payable for the remaining part of the term of the lease deed.

15. If the lessee/lessees shall be desirous of taking a further lease of the said lands he/they shall give three months' previous notice in writing of such desire to the State Government/competent authority and if the lessee/lessees has/have duly observed all the conditions of this lease, the State Government/competent authority may agree to renew the lease for such further term and on such terms and conditions as the State Government/competent authority may determine which shall be in accordance with the provisions of these rules.

16. If the lessee/lessees shall at any time during the said term use the said lands or any part thereof in any manner other than as authorised by this lease or fail to carry on quarrying operations continuously without sufficient cause of which the State Government/competent authority shall be the judge or shall commit a breach of any of the conditions of this lease it shall be lawful for the State Government/competent authority to cancel this lease and take possession of the said lands or the alternative to receive from the lessee/lessees such penalty not exceeding Rs. 25,000/- (Rupees twenty five thousand only) for the breach as the State Government/competent authority may fix.

17. If at the expiration of three calendar months after the expiry of the lease or its sooner determination, there shall remain in or the said lands, any engines, machinery, plant buildings, structures and other works, erections and conveniences, the said minerals or other property which the lessee is/lessees are entitled to remove from the said lands, the same shall, if not removed by the lessee/lessees within one calendar month after notice in writing requiring their removal be given to the lessee/lessees by the State Government/competent authority be deemed to become the property of the State Government in such manner as they may deem fit without liability to pay any compensation or to account to the lessee/lessees in respect thereof.

Lessor 
25/11/19
A.K. MANOJ
Geologist
Dept. of Mining and Geology
District Office, Ernakulam-682 022

Lessee 
25/11/2019
SAJI VADAKKETHAND
25/11/2019

Quarrying Lease

ANNEXURE No. 7

Cert No. FMR/2223

भारत सरकार / Government of India
खान अधिनियम, 1952 / Mines Act, 1952
खनन परीक्षा बोर्ड / Board of Mining Examinations
प्रथम श्रेणी प्रबंधक सक्षमता प्रमाण-पत्र
FIRST CLASS MANAGER'S CERTIFICATE OF COMPETENCY
(केवल ओपेनकास्ट खानों तक सीमित)
(Restricted to mines having opencast workings only)
(घात्विकीय खान विनियम, 1961 के अन्तर्गत)
(Under the Metalliferous Mines Regulations, 1961)

श्री सावंत देसाई विशावास शिवाजी सुपुत्र सावंत देसाई शिवाजी
जिनकी जन्म तिथि 15.05.1979 है, को विहित अर्हताएं एवं अनुभव प्राप्त करने का सन्तोषजनक प्रमाण प्रस्तुत करने एवं अक्टूबर, 2009 में आयोजित विहित परीक्षा में उत्तीर्ण होने पर एतद्वारा ओपेनकास्ट घात्विकीय खानों के प्रबंध हेतु प्रथम श्रेणी प्रबंधक सक्षमता प्रमाण-पत्र प्रदान किया जाता है। यह प्रमाण-पत्र 05.04.2010 से प्रभावी है।

Shri Sawant Dessai Vishavash Shivaji son of Sawant Dessai Shivaji
born on 15th May, 1979 having given satisfactory evidence of possessing the prescribed qualifications and experience and having passed the examination held in October, 2009 is hereby granted FIRST CLASS MANAGER'S CERTIFICATE OF COMPETENCY to manage the metalliferous mines having opencast workings only. This certificate is effective from 05.04.2010

सचिव
खनन परीक्षा बोर्ड
Secretary
Board of Mining
Examinations

अध्यक्ष
खनन परीक्षा बोर्ड
Chairman
Board of Mining
Examinations

Signed and Sealed
Date 08.04.11.

Certificate of First class manager

ANNEXURE No. 8

Cert No. MR/SZ/599

भारत सरकार/Government of India
खान अधिनियम, 1952/Mines Act, 1952
खनन परीक्षा बोर्ड/Board of Mining Examinations
खनन मेट सक्षमता प्रमाण-पत्र
MINING MATE'S CERTIFICATE OF COMPETENCY
(केवल ओपेनकास्ट खानों तक सीमित)
(Restricted to mines having opencast workings only)
(धात्विकीय खान विनियम, 1961 के अन्तर्गत)
(Under the Metalliferous Mines Regulations, 1961)

श्री जिनकी जन्म तिथि सुपुत्र है, को अपनी आयु, स्वस्थता, सदाचार, साक्षरता और धात्विकीय खानों में काम करने के विहित अनुभव का सन्तोषजनक प्रमाण प्रस्तुत करने एवं दिनांक को केन्द्र पर आयोजित विहित परीक्षा में उत्तीर्ण होने पर एतद्वारा केवल ओपेनकास्ट खानों तक सीमित मेट सक्षमता प्रमाण-पत्र प्रदान किया जाता है।

Shri DAVIS GEORGE son of GEORGE D.
born on 31st MAY, 1969 (SIXTY NINE) having given satisfactory evidence of his age, medical fitness, good character, literacy and prescribed experience of working in metalliferous mines and having passed the prescribed examination held at GVTC, C.N.HALLI, TUMKUR centre on 23.03.2015 is hereby granted MINING MATE'S CERTIFICATE OF COMPETENCY restricted to mines having opencast workings only.

बाएं हाथ का निशान
Left hand thumb impression

अंचल सचिव
खनन परीक्षा बोर्ड
Zonal Secretary
Board of Mining Examinations

अंचल सचिव
खनन परीक्षा बोर्ड
दक्षिणी अंचल बंगलूर
Zonal Secretary
Board of Mining Examinations
Southern Zone, Bangalore.

अध्यक्ष
खनन परीक्षा बोर्ड
Chairman
Board of Mining Examinations

Signed and Sealed

Certificate of Mining mate

ANNEXURE No. 9

[illegible][illegible]

ANNEXURE No. 10



കേരളം KERALA

AFFIDAVIT

X 340969

I, Saji Vadakkera authorised signature of Planters Aggregates having its correspondence office at Palissery, Ezhattumugham, Ankamaly, Ernakulam, Kerala, 683577 Pin- Do hereby affirm and confirm as follows.

- 1). That The Planters Aggregates, Proposed quarry project in Survey No 168 at Karukutty Village & Panchayath and Alwaye Taluk, Ernakulam District, Kerala.
- 2). That the EC proceedings number and date are 58/SEIAA/KL/7586/2012 dt.15-03-2013
- 3). That all conditions stipulated in the environment Clearance would be scrupulously followed.



DEPONENT

I hereby affirm that the above statements are true to the best of my knowledge and belief and nothing material has been cancelled therein.

901

100

1st 14/13 day 9 April 2013

Saji Vadakkera

Vadakkera house

Kolenchery

KUMARI JAYA N.
ADVOCATE & NOTARY
Public No. 106 / 97 / EKM.
KOLENCHERY - 682 311
KERALA - INDIA

Affidavit

ANNEXURE No.11

Standard^S
Environmental Monitoring

TEST REPORT



ULR No:TC540220000003485F

Date: 28.11.2020

Page 1 of 1

CUSTOMER DETAILS

Customer Name & Address	M/s Planters Aggregates Karukutty, Aluva, Ernakulam District
Customer Reference	Test Request dt 23.11.2020

DETAILS OF MONITORING

Product Category	Atmospheric Pollution	Sample Code	EN20110222
Sample Name	Ambient Noise	Monitoring Commenced on	02.12.2020 / 06:00
Monitoring Location	South side boundary	Monitoring Completed on	03.12.2020 / 06:00
Test Method	IS 9989:1981 RA:2008	Latitude	---
Monitored by	Mr. Rahul E J Lab Authorized Sampler	Longitude	---

SAMPLING SITE DETAILS

Re-Survey No.	168, Block - 1		
Village	Karukutty	Taluk	Aluva
District	Ernakulam	State	Kerala

MONITORING RESULTS - Leq

TIME	RESULTS dB(A)	TIME	RESULTS dB(A)	TIME	RESULTS dB(A)
06:00	37.9	14:00	50.8	22:00	36.8
07:00	40.7	15:00	51.2	23:00	34.8
08:00	45.0	16:00	52.4	24:00	37.3
09:00	48.5	17:00	52.8	01:00	38.1
10:00	50.8	18:00	47.3	02:00	37.7
11:00	54.0	19:00	43.8	03:00	38.4
12:00	51.2	20:00	39.9	04:00	37.3
13:00	50.4	21:00	39.4	05:00	39.1

Sl. No.	PARAMETERS	UNIT	RESULT
1	Ambient Sound Level (Leq) Day Time (06:00 to 22:00)	dB(A)	49.3
2	Ambient Sound Level (Leq) Night Time (23:00 to 05:00)	dB(A)	37.6

Remarks:

End of Report

Shency Joy

Dy. TM Chemical

Checked by:

The results are related to the sample submitted for analysis and this report shall not be reproduced except in full without the written approval of the laboratory.

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Standard^S Environmental & Analytical Laboratories

Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB


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

Web: www.sealabs.in, E-mail: seaalab@gmail.com

(Signature)
Lalju P. N.
Laboratory Head
Authorized Signatory


Result of ambient sound level

ANNEXURE No.12



Standard^S
Environmental Monitoring

TEST REPORT



NABL(TC-5402)

ULR No:TC540220000003484F	Date: 28.11.2020	Page 1 of 1
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CUSTOMER DETAILS			
Customer Name & Address	M/s Planters Aggregates Karukutty, Aluva, Ernakulam District		
Customer Reference	Test Request dt 23.11.2020		

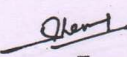
SAMPLE DETAILS			
Product Category	Atmospheric Pollution	Sample Code	EN20110221
Sample Name	Ambient Air	Sample Received on	24.11.2020
Sample Conditions at Receipt	Fit for Analysis	Test Commenced on	24.12.2020
Sampled by	Mr. Rahul E J Lab Authorized Sampler	Test Completed on	28.11.2020

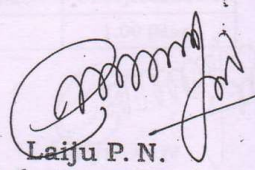
DETAILS OF SAMPLING			
Sampling Location	East Side Boundary	Date of Sampling	23.11.2020
Sampling Procedure	SEAAL/ENL/GEN/SOP/02	Humidity	69%
Location Coordinates	---	Temperature	31°C

SAMPLING SITE DETAILS			
Survey No.	168, Block - 1		
Village	Karukutty	Taluk	Aluva
District	Ernakulam	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 RA 2017	µg/m ³	69.7	100 (Max)
2	Particulate matter (PM _{2.5})	EPA 40 CFR Part 50 Appendix - L	µg/m ³	32.4	60.0 (Max)
3	Sulphur dioxide (SO ₂)	IS 5182 Part 2: 2001 RA 2017	µg/m ³	< 2.00	80.0 (Max)
4	Nitrogen dioxide (NO ₂)	IS 5182 Part 6: 2006 RA 2017	µg/m ³	< 2.00	80.0 (Max)

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


Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB

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

Web: www.sealabs.in, E-mail: seaalab@gmail.com


Result of ambient air

ANNEXURE No.13



Standard^S
Environmental Monitoring

TEST REPORT



NABL(TC-5402)

ULR No: TC540220000003487F	Date: 28.11.2020	Page 1 of 2
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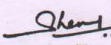
CUSTOMER DETAILS			
Customer Name & Address	M/s Planters Aggregates Karukutty, Aluva, Ernakulam District		
Customer Reference	Test Request dt 23.11.2020		


SAMPLE DETAILS			
Product Category	Water	Sample Code	WT20110070
Sample Name	Quarry Water	Sample Received on	24.11.2020
Sample Conditions at Receipt	Fit for Analysis	Temperature @ Receipt	30 °C
Sample Quantity & Packing	2 litre & Plastic Bottle	Test Commenced on	24.11.2020
Sampled by	Mr. Rahul E J Lab Authorized Sampler	Test Completed on	28.11.2020
Information Provided by Customer	---		

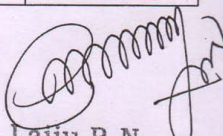
DETAILS OF SAMPLING			
Sample Source/Location	Inside the quarry	Date of Sampling	23.11.2020
Sampling Procedure	SEAAL/ENL/GEN/SOP/01 & SEAAL/MBL/SOP/06	Sample Temperature	32 °C
Latitude	---	Longitude	---

SAMPLING SITE DETAILS			
Re-Survey No.	168, Block - 1		
Village	Karukutty	Taluk	Aluva
District	Ernakulam	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	5.00 (Max)
2	Odour	IS 3025 Part 5: 2018	---	Unobjectionable	Unobjectionable
3	Turbidity	IS 3025 Part 10:1984 RA 2017	NTU	0.40	1.00 (Max)


Shency Joy
Dy. TM Chemical
Checked by:


Salini T. S.
Microbiologist
Authorized Signatory


Laju P N
Authorized Signatory

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

Standard^S Environmental & Analytical Laboratories

Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB

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

Web: www.sealabs.in, E-mail: sealab@gmail.com

Standard^S

Environmental Monitoring



TEST REPORT

ULR No: TC540220000003487F

Date: 28.11.2020

Page 2 of 2

TEST RESULTS- CHEMICAL PARAMETERS

Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	REQUIREMENT AS PER ACCEPTABLE LIMIT OF IS 10500 : 2012
04	pH	IS 3025 Part 11:1983 RA 2017	---	6.88	6.50 - 8.50
05	Conductivity	IS 3025 Part 14:1984 RA 2019	µS/cm	172	---
06	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	111	500 (Max)
07	Total Hardness (as CaCO ₃)	IS 3025 Part 21:2009 RA 2019	mg/L	58.0	200 (Max)
08	Calcium (as Ca)	IS 3025 Part 40:1991 RA 2019	mg/L	14.4	75.0 (Max)
09	Magnesium (as Mg)	IS 3025 Part 46:1994 RA 2019	mg/L	5.36	30.0 (Max)
10	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2019	mg/L	13.7	250 (Max)
11	Total Alkalinity (as CaCO ₃)	IS 3025 Part 23:1986 RA 2019	mg/L	38.8	200 (Max)
12	Iron (as Fe)	IS 3025 Part 53:2003 RA 2019	mg/L	0.21	1.00 (Max)
13	Sulphate (SO ₄)	IS 3025 Part 24:1986 RA 2019	mg/L	5.82	200 (Max)
14	Fluoride as F	IS 3025 Part 60: 2008 RA 2019	mg/L	< 0.10	Max 1.0
15	Arsenic as As	APHA 23 rd Edition 3111C:2017	mg/L	BDL (LOD-0.001)	Max 0.01
16	Copper as Cu	IS 3025 Part 42: 1992 RA 2019	mg/L	BDL (LOD-0.016)	Max 0.05
17	Manganese as Mn	IS 3025 Part 59: 2006 RA 2017	mg/L	BDL (LOD-0.016)	Max 0.1
18	Cadmium as Cd	IS 3025 Part 41: 1992 RA 2019	mg/L	BDL (LOD-0.003)	Max 0.003
19	Chromium as Cr	IS 3025 Part 52: 2003 RA 2019	mg/L	BDL (LOD-0.05)	Max 0.05
20	Zinc as Zn	APHA 23 rd Edition 3111B:2017	mg/L	BDL (LOD-0.008)	Max 5.0
21	Mercury as Hg	IS 3025 Part 48: 1994 RA 2019	mg/L	BDL (LOD-0.001)	Max 0.001
22	Lead as Pb	IS 3025 Part 47: 1994 RA 2019	mg/L	BDL (LOD-0.01)	Max 0.01
23	Aluminium as Al	APHA 23 rd Edition 3111D:2017	mg/L	BDL (LOD-0.03)	Max 0.03

TEST RESULTS - BIOLOGICAL

Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	REQUIREMENT AS PER ACCEPTABLE LIMIT OF IS 10500 : 2012
24	Total Coliform Bacteria	IS 15185 : 2016	---	Absent/100 ml	Absent/100 ml
25	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.

Authorized Signatory

Lalju P. N.

Authorized Signatory

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Accreditation and Approval: NABL as per ISO 17025: 2017 & "A" Grade Laboratory of KSPCB

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

Web: www.sealabs.in, E-mail: seaalab@gmail.com

Result of Quarry water

**TEST REPORT**

ULR No: TC540220000003486F	Date: 28.11.2020	Page 1 of 2
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CUSTOMER DETAILS	
Customer Name & Address	M/s Planters Aggregates Karukutty, Aluva, Ernakulam District
Customer Reference	Test Request dt 23.11.2020

SAMPLE DETAILS			
Product Category	Water	Sample Code	WT20110069
Sample Name	Bore Well	Sample Received on	24.11.2020
Sample Conditions at Receipt	Fit for Analysis	Temperature @ Receipt	30 °C
Sample Quantity & Packing	2 litre & Plastic Bottle	Test Commenced on	24.11.2020
Sampled by	Mr. Rahul E J Lab Authorized Sampler	Test Completed on	28.11.2020
Information Provided by Customer	---		

DETAILS OF SAMPLING			
Sample Source/Location	Bore Well	Date of Sampling	23.11.2020
Sampling Procedure	SEAAL/ENL/GEN/SOP/01& SEAAL/MBL/SOP/06	Sample Temperature	32 °C
Latitude	---	Longitude	---

SAMPLING SITE DETAILS			
Re-Survey No.	168, Block - 1		
Village	Karukutty	Taluk	Aluva
District	Ernakulam	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	5.00 (Max)
2	Odour	IS 3025 Part 5: 2018	---	Unobjectionable	Unobjectionable.
3	Turbidity	IS 3025 Part 10:1984 RA 2017	NTU	0.80	1.00 (Max)

Shency Joy
Dy. TM Chemical
Checked by:

Salini T. S.
Microbiologist
Authorized Signatory

Laju P. N.
Laboratory Head
Authorized Signatory

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Web: www.sealabs.in, E-mail: seaalab@gmail.com

Standard^S

Environmental Monitoring



TEST REPORT

ULR No: TC540220000003486F

Date: 28.11.2020

Page 2 of 2

TEST RESULTS- CHEMICAL PARAMETERS

Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	REQUIREMENT AS PER ACCEPTABLE LIMIT OF IS 10500 : 2012
04	pH	IS 3025 Part 11:1983 RA 2017	---	6.75	6.50 - 8.50
05	Conductivity	IS 3025 Part 14:1984 RA 2019	µS/cm	235	---
06	Total Dissolved Solids	IS 3025 Part 16:1984 RA 2017	mg/L	152	500 (Max)
07	Total Hardness (as CaCO ₃)	IS 3025 Part 21:2009 RA 2019	mg/L	64.0	200 (Max)
08	Calcium (as Ca)	IS 3025 Part 40:1991 RA 2019	mg/L	16.0	75.0 (Max)
09	Magnesium (as Mg)	IS 3025 Part 46:1994 RA 2019	mg/L	5.84	30.0 (Max)
10	Chloride (as Cl)	IS 3025 Part 32:1988 RA 2019	mg/L	41.1	250 (Max)
11	Total Alkalinity (as CaCO ₃)	IS 3025 Part 23:1986 RA 2019	mg/L	38.8	200 (Max)
12	Iron (as Fe)	IS 3025 Part 53:2003 RA 2019	mg/L	0.38	1.00 (Max)
13	Sulphate (SO ₄)	IS 3025 Part 24:1986 RA 2019	mg/L	10.2	200 (Max)
14	Fluoride as F	IS 3025 Part 60: 2008 RA 2019	mg/L	< 0.10	Max 1.0
15	Arsenic as As	APHA 23 rd Edition 3111C:2017	mg/L	BDL (LOD-0.001)	Max 0.01
16	Copper as Cu	IS 3025 Part 42: 1992 RA 2019	mg/L	BDL (LOD-0.016)	Max 0.05
17	Manganese as Mn	IS 3025 Part 59: 2006 RA 2017	mg/L	BDL (LOD-0.016)	Max 0.1
18	Cadmium as Cd	IS 3025 Part 41: 1992 RA 2019	mg/L	BDL (LOD-0.003)	Max 0.003
19	Chromium as Cr	IS 3025 Part 52: 2003 RA 2019	mg/L	BDL (LOD-0.05)	Max 0.05
20	Zinc as Zn	APHA 23 rd Edition 3111B:2017	mg/L	BDL (LOD-0.008)	Max 5.0
21	Mercury as Hg	IS 3025 Part 48: 1994 RA 2019	mg/L	BDL (LOD-0.001)	Max 0.001
22	Lead as Pb	IS 3025 Part 47: 1994 RA 2019	mg/L	BDL (LOD-0.01)	Max 0.01
23	Aluminium as Al	APHA 23 rd Edition 3111D:2017	mg/L	BDL (LOD-0.03)	Max 0.03

TEST RESULTS - BIOLOGICAL

Sl. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	REQUIREMENT AS PER ACCEPTABLE LIMIT OF IS 10500 : 2012
24	Total Coliform Bacteria	IS 15185 : 2016	---	Absent/100 ml	Absent/100 ml
25	E coli	IS 15185 : 2016	---	Absent/100 ml	Absent/100 ml

Remarks:

End of Report

Shency Joy
Shency Joy
 Dy. TM Chemical
 Checked by:

Salini T. S.
Salini T. S.
 Microbiologist
 Authorized Signatory

Laiju P. N.
Laiju P. N.
 Authorized Signatory

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Result of Bore well