COMPLIANCE REPORT



April 2017 – September 2017

Planters Aggregates Ernakulam District, Kerala



Dt. 23-03-2018

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 of M/s Planters aggregates Quarry project is situated at Karukutty Village & Panchayath, Alwaye, Ernakulam District, Kerala. – Compliance Report – First 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 **first half** (April 2017 – September 2017) to the specific and general conditions of the Environment Clearance order and monitoring reports are enclosed.

Thanking you,

Yours respectfully,

For M/s Planters aggregates

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

BY

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (SEIAA) FOR

BUILDING STONE QUARRY
(MINOR MINERAL MINING) PROJECT

ΑT

SURVEY NO. 168

Karukutty VILLAGE & PANCHAYATH, ALWAYE, ERNAKULAM DISTRICT, KERALA.

BY

M/S PLANTERS AGGREGATES, ERNAKULAM DISTRICT, KERALA.

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INTRODUCTION

M/s Planters aggregates Quarry project 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 15.13.2013.

The half yearly compliance report needs to be submitted as part of general condition No.25 of Environmental Clearance order by the project proponent. The compliance report to the specific conditions and general conditions of the Environmental Clearance for the period of April 2017 – September 2017 is being submitted.

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 ⁰ 16' 31.28" N
	Longitude (E) 76 ⁰ 25' 07.37" E
Address for	Palissery, Ezhattumugham P.O.,
correspondence	Ernakulam District,
	Kerala – 683 577
	Tel. No. 0484-2439166, 2439167
Website and E mail ID of	www.plantersgroup.com.
Name, Phone Number &	plantersgroup@yahoo.com 1. Saji Vadakkekara
e - mail id of responsible	Managing Director
persons	0484-2439166
	plantersgroup@yahoo.com
	2. Davia Caarna
	Davis George General Manager
	9605040050
	davisgeorgekinattingal@gmail.com
N	Aain Features
Total area under Environment Clearance	4.8033 hectare
Minable 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
Enviro	onmental 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
	par BMTPC, Vulnerability atlas Seismic
17 – September 2017	· · · · · · · · · · · · · · · · · · ·

	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	Day time :- 48.8 dB(A) Night time :- 35.0 dB(A)	



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

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

One of the expected adverse impacts to the community from the quarrying area is contamination of streams through storm water runoff. As part of storm water management, constructed well drain at entire mining area to channelize the storm water in to the existing pond in the site. The project has constructed various pits 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

Compliance:

The mining activity is progressing in tune with the approved mining plan. The project proponent has been scrupulously following 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. Therefore the mining depth will maintain as 30 m as agreed in the proposal.

COMPLIANCE REPORT

(GENERAL CONDITIONS)

PART B



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

As per the requirement to conserve water, the project proponent has maintained drainage around the project area which helps to collect the rain water to the collection pond. Rain water from entire project area has been collecting in the existing pond which is situated in the lowest level of project area through channels and drainages. Two concrete tanks are also used for collecting rain water and its efficient utilization. The photograph showing the rain water collection pond and tank in the project area is attached at **Plate No. 2.** The project is collecting rain water than it is used in the industry

0	2	Environment monitoring cell as agreed under the affidavit filed	complied
		by the proponent should be formed and made functional.	

Compliance:

To ensure the environment safety measures, an Environmental Monitoring Cell (EMC) was formed with Mr. Saji Vadakkekara (proprietor of Planters Aggregates) as head and made functional. Meeting of monitoring cell is arranged once in two months and discussed the status of the compliance of the specific and general conditions contained in the Environmental Clearance (EC) order. As part of monitoring, sound levels, ambient air and water were monitored through a NABL accredited laboratory. The monitored results are well within the permissible limits. The details of monitoring cell are given below.

TABLE 1 ENVIRONMENTAL MONITORING CELL (EMC)

SI. No.	Post	Name
1.	Head of monitoring cell (proprietor)	Saji Vadakkekara
2.	Head in charge (Environmental)	Davis George

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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	r,

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

One of the dust emitting sources in the mining industry is haulage road due to transportation of vehicles. Avenue trees can perform as dust regulation mechanism therefore the project proponent is intending to plant more saplings along the road side and parking area, where the vegetation is less. There are natural vegetation including trees, shrubs and climbers growing in the sides of the tarred road and open parking areas. The name and family of flora is given below in **Table Number 2**. The photographs showing the natural vegetation is attached at **Plate No. 3**. The project is intending to plant native species in the project site.

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

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

04	The	project	shall	incorporate	devices	for	solar	energy	Complied
	gene	ration an	d utiliz	ation whereve	r possible) .			

As part of reduce the consumption of energy from conventional sources, energy conservation and to use renewable energy, the project proponent has installed solar street lights in the project site near to the office and magazine area. The photograph of the solar street lights is attached at **Plate No. 4.**

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

Compliance:

Since the haulage roads are one of the main sources of air pollution by emitting PM¹⁰ and PM^{2.5} installed sprinklers along the roads side and on the top and nearby areas of crusher unit. The sprinklers are water efficient and the same is using effectively. The photograph of the sprinklers is attached at **Plate No. 5.** The project is intending to invent wet drilling in the project site to arrest the dust emission.

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

Compliance:

The eco- restoration is an integral part of the mining industry and it will be carried out as per the proposal submitted. The project converted a sloppy land in to benches by systematically dumping the overburden and top soil. To prevent soil erosion, the benches has covered with a *geotex* coir mat and planted grass. As part of eco - restoration, the project is intending to plant various saplings including herbs on the prepared benches. The photograph of benches covered by coir mat is attached at **Plate No. 6.** The eco restoration will be done by the project proponent.

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

The project has carried out many activities under Corporate Social Responsibility (CSR); the main activities are in the sectors like Health care, Promotion of education, infrastructure Development etc. The project is providing food provisions to Emmanuel orphanage in every month. The details of activities under CSR are given below in the table. The bills and receipts of the same are attached at **Annexure No. 1**.

Table 3 The details of performed activities under CSR

Sectors	Activities	Partners	Beneficiaries	Amount spent in Rs.
Education	Donation		Bibina Prakash	5,000
	Donation	Dalith Vimochana Munnani, Ernakulam	Students	500
Arts, Sports & Festival	Donation For Festival	Onanilav-2017	Public	25,000
	Donation For Sports	Camora Arts & Sports Club, Palissery	Public	9,000
	Donation For Festival	Sasthampara Ayyappa Brdakalishetram	Public	3,500
	Donation For Festival	Srenarayana Gurudeva Bagavadishetram	Public	5,000
	Donation For Festival	Dashavalsaragosham	Public	7,500
	Donation For Festival	St. George Kappela	Public	3,000
	Donation For Festival	Niracharthuu	Public	5,000
	Donation For Arts	Nattoruma	Public	4,000
	Donation	Panthakkal Arts&Sports Club	Public	200
	Donation	Kudumbasree	Public	5,000

		Aniverary		
	Donation	Edakunnu Social Friends	Public	580
	Donation	S.N. Arts&Sports Club, Paduvapuram	Public	2,000
	Donation For Festival	Onolasavam, Karamattam	Public	3,000
Health	Donation for Treatment		Ammini, Thrissur	2,000
	Donation for Treatment		Sajesh Madassery	2,000
	Donation for Treatment		CK Raju,kodamangalam	500
Environmental	Donation	Paristhidi Bodavalkarana Chritable Samidi	Public	750
Infrastructure Development	Donation For House Construction		Leela, Paliseery	7,500
	Donation For House Construction		Shaji Tv, palisery	6,300
	Donation For Road Construction	Kp Aneesh, Karukutty	Public	21,750
	Donation For building Construction	Sunday School Kettida Nirmana Fund	St.Marys Yakobaya Suriyani Palli, poodamkutti	25,000
	Donation For House Construction		Jobi Chennathuparambil	3,500
	Donation For building Construction		Sivarajan, Nalukettu	1,140
	Donation For House Construction		Krishnan,Elanjeri	2,000
	Donation For House Construction		Chandran CK, Karamattam	4,000
	Donation For House Construction		Shaji MS, Palissery	1,900
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	Donation For House Construction		Ani Mathews, Munoorpilly	6,300
	Donation For building Construction	Bavana Nirmana Fund, eloor	Public	1,000
Social	Donation for Funeral		Karthyani Ambalaserry	5,000
	Donation for Charitable Society	Educational service Society Of india	Public	1,800
	Donation for Charitable Society	Nethaji Subash Chandra Bose Charitable trust&Foundation	Public	500
	Donation for Charitable Society	Janasakthy Charitable Society, Manalur	Public	500
		Total		1,71,720

80	Barbed metal wire fencing around the mining area shall be	Complied
	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.	

As part of demarcation of lease area and to ensure safety, barbed metal wire fencing was installed around the mining area at 5ft height. This prevents the falling of animals/ human/dumping of garbage's etc, in to the mining area. The photograph of the barbed metal wire fencing is attached at **Plate No.7.**

09	Warning alarms indicating the time of blasting (to be done at	Complied
	specific timings) has to be arranged as per stipulations of	
	explosive department.	

Compliance:

Installation of warning alarm is mandatory as per the explosive department to provide warning regarding blasting to the nearby community and labours. A warning

alarm has installed in the project area to attain this object. It is working properly prior to the blasting. The blasting time is fixed between 11.00am to 11.30am to 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.**

1	0	Access roads to the quarry shall be tarred to contain dust	Complied
		emissions that may arise during transportation of materials	

Compliance:

The project proponent has a crusher unit near to the quarry site in the project land. A well tarred road is maintaining up to crusher unit (2.5 Km) for contain dust emission that may arise during transportation of materials. The access road to the quarry is maintained under sprinkler system to control the dust emission during transportation. This access road is maintaining with granite metals for traveling Hitachi like excavation machines. The photograph is showing the tarred access road, provided at **Plate No. 9**.

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

Compliance:

The overburden is an inevitable natural resource, which need to be removed during the time of extraction of building stone. At present the overburden excavated from the quarry is dumping in to three abandoned quarries near to the project site. The project 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. As part of eco - restoration, the project is intending to plant various saplings and medicinal plant on the prepared benches. The photograph of the overburden is attached as **Plate No. 10.**

12	Height of benches should not exceed 5m and width should not		Being
	be less than 5m	١.	Complied

To ensure safety of labours and living creatures, the project is maintaining the height of the bench not exceed 5 meters and width not less than 5 meter. The minor minerals are exploring under the supervision of qualified persons so that the project can form the benches systematically. The copy of certificates of second class manager and mines mate are attached at **Annexure No 7 & 8.** The photograph showing the height and width of benches is attached at **Plate No. 11.**

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

Compliance:

The project is yet to use mats to reduce fly rocks during the time of blasting. The project is using electric delayed detonator for blasting therefore the problem with fly rock in the community is nil. The project can also assure the maximum PPV is under 10 with the controlled blasting operations under the supervision of qualified persons. At present the mat is irrelevant due to the advent of new blasting technology. The project has taken steps to but the mats to comply the condition.

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

Compliance:

The exploration of building stone will be maintained as 30 m MSL in the mining area as agreed in the proposal. To ensure this, the project appointed second class manager and mining mate. The all activities of these qualified persons will be under the supervision and monitoring of Environment Monitoring Cell.

15	Acoustic enclosures should have been provided to reduce	Complied
	sound amplifications in addition to the provisions of greenbelt	
	and hollow brick envelope for crushers so that the noise level	



The quarry project is associated with a crusher unit. The crusher unit is encircled by green belt. The solid brick housing of crusher and green belt is maintaining the noise level as per CPCB standards. The project is regularly monitors 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
	that eco-restoration including the mine closure plan shall be	
	done at the own cost of the project proponent.	

Compliance:

Assurance in the form of affidavit was already submitted to SEIAA Kerala after getting the Environmental Clearance. The copy of the affidavit is attached at **Annexure No. 10.** Eco restoration in the mining plan and mine closure plan will be done the own cost of the project proponent.

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

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.

Ī	18	Debris/ silt traps to be provided to prevent entry of dust and	Complied
		quarry wastes entering the main streams.	

Compliance:

De- siltation of surface runoff is an important mitigate measure to prevent contamination of public stream. Storm water from entire project area is collected through channels and directed to the existing pond in the site. 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	complied
	applicable, by the project proponents from the respective	
	competent authorities that for blasting and storage of	
	explosives.	

Compliance:

All statutory approvals required for the quarrying activity is obtained. The copy of the approvals obtained is provided at **Annexure No. 2, 3, 4, 5 & 6**

Table 4 The details of statutory approvals

Name of the Statutory approval	Name of the Statutory authority	Approval Number & Date
Environmental Clearance order	State Environmental Impact Assessment Authority, Kerala	58/SEIAA/KL/7586/2012 Dated: 15/03/2013
"Consent to Operate"	Kerala State Pollution Control Board	File No. PCB/EKM/DO- 1/OA-404/15 Dated : 08/03/2016
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	38/16-17 Dated:1/04/2016

Lease order	Directorate of Mining and	660/2010-
	Geology	11/9439/M3/2010
		Dated : 3/1/2011

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

At present the project is running as per plan submitted in Environmental Impact Assessment Authority, Govt. of India. The project will seek for a new Environmental clearance In the case of any change(s) in the scope of the project.

21	The authority reserved the right to add additional safeguard	Will	be
	measures subsequently, if found necessary, and to take action	complied	
	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.		

Compliance:

If the authority instructs to add additional safeguard measures subsequently, the project will be complied with. The project is scrupulously following the suggested safeguard measures in the Environmental clearance order and EIA report for an environment friendly mining.

22	The stipulations by Statutory Authorities under different Acts	complied
	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.	

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

- > Kerala Minor Mineral Concession Rules, 2015.
- ➤ Mines Act, 1952
- > Explosive Rules, 2008
- > Kerala Panchayat Raj Act, 1994
- > Water Pollution (Prevention & Control) Act, 1974
- > Air Pollution (Prevention & Control) Act, 1981
- > Environment Protection Act, 1986
- > EIA Notification, 2006 / 2009
- > The Kerala Promotion of Tree Growth in Non-Forest Areas (Amendment) Act, 2007.

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 area 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	Complied
	, , , , , , , , , , , , , , , , , , ,	
	date of receipt of the clearance letter and a copy of the same	
	should be forwarded to the office of this authority as confirmation.	

Compliance:

An advertisement in two news paper 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. 09.**

24	A copy of the clearance letter shall be sent by the proponent to	Complied
	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.	

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.plantersgroup.com**.

25	The proponent shall submit six monthly reports on the status of	complied
	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.	
	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	

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, both in hard copy as well as mail. The result of monitored data is provided in compliance report. The monitored results are attached as **Annexure No. 11, 12 &13.**

26	The conditions of the environmental clearance should be	Complied
	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.	

The specific conditions of the environmental clearance prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman fond was installed. The photograph showing the sign board containing specific conditions is provided at **Plate No. 14.**

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

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





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



	യാക്കോബായ സുറിയാനി താബോർ പി.ഒ 683 577 സണ്ടേസ്കൂൾ കെട്ടിട ന	റിർമ്മാണ ഫണ്ട് 🚆
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POOTHAMKUTTI	₹25,000/2	St. Mary's Jacobite Syrian Chair h Poothamkutty, Thabare ? വികാരി / ട്രസ്സി

CAMORRA ARTS & SPORTS CLUB - NORTH PALISSERY
നമ്പർ:305 (സംഭാവന രസീത്) തീയതി 08 റെട്ടി വ
സംഭാവനയായി സ്വീകരിച്ചിരിക്കുന്നു.
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Receipts of activates under CSR

ANNEXURE No. 2



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-

Page 1 of 4

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.

- 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

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.

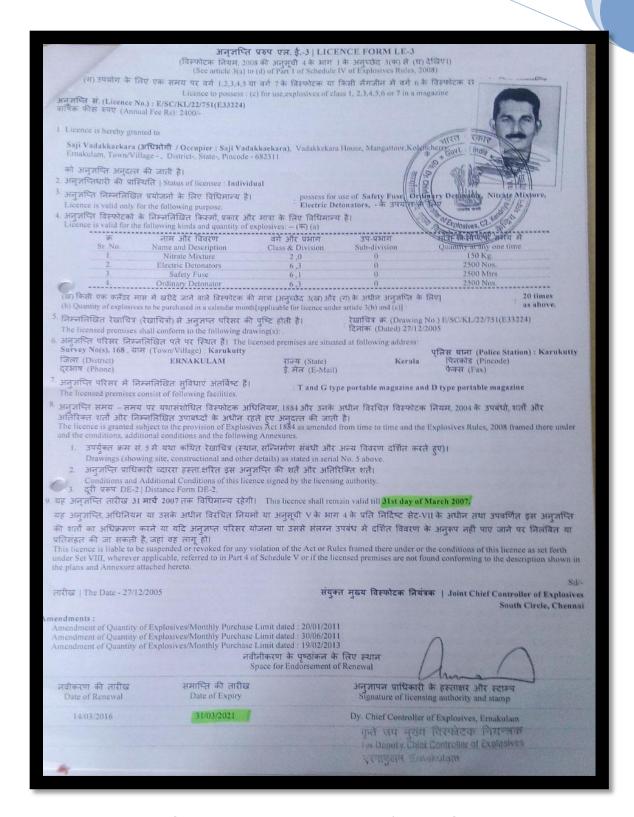
Copy to:

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

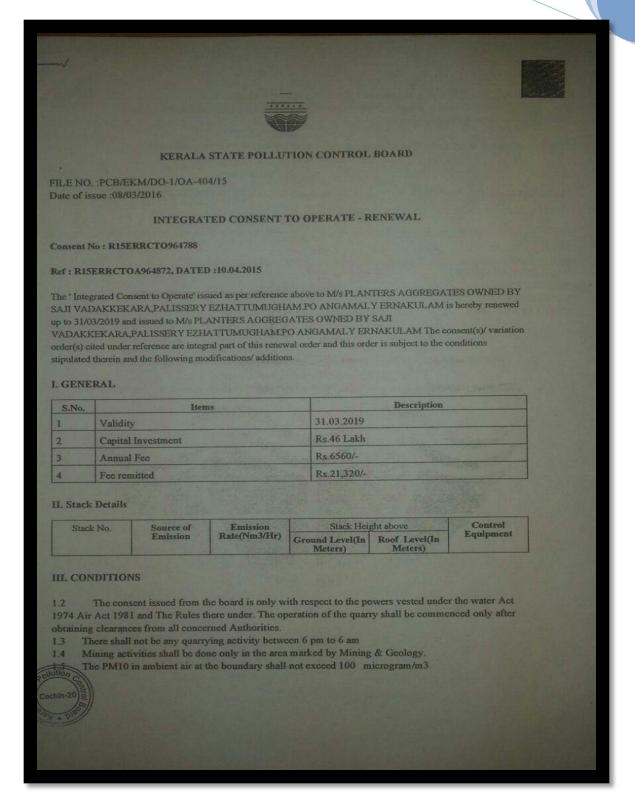
Page 2 of 4

EC order

Annexure No.3



License to possess and use of Explosives ANNEXURE No. 4



Concent to Operate from Kerala Pollution Control Board ANNEXURE NO. 5

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	1984 ലെ കേരളാ പഞ്ചായത്ത് മാജ് ആക്ട് (1994 ലെ 13) 232, 233, 234, 254 എന്നീ വകുപ്പുകളും അതേ തൂടർന്നുള്ള പട്ടങ്ങളും അനുസരിച്ചു നൽകുന്ന				
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ലൈസൻസ് നൽകിയിട്ടുളള പ്രവർത്തനങ്ങൾ	Quarrying of Gra Building Stone	milē,			
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വിശദാംശങ്ങൾ (നമ്പർ, തീയതി, കാലയളവ്, നൽ	IV. Five NOC				
കിയ അധികാരസ്ഥാനം)	9. Shot fives Certific	ale			
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License from Gram Panchayat

ANNEXURE No. 6



PROCEEDINGS OF THE DIRECTOR OF MINING AND GROUPS

Mines and Minesale - Minor Minesale - Granite Building Stone-Quarrying lease to Shri, Saji Vadakkekara, Vadarkekara House, Mangattoor, Kolenchery P.G., 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

 Letter No. DOE/4555/E2/2010 dated 29/11/2010 from the Geologist, District Office, Ernakulam

Kerala Minor Mineral Concession Rules, 1957

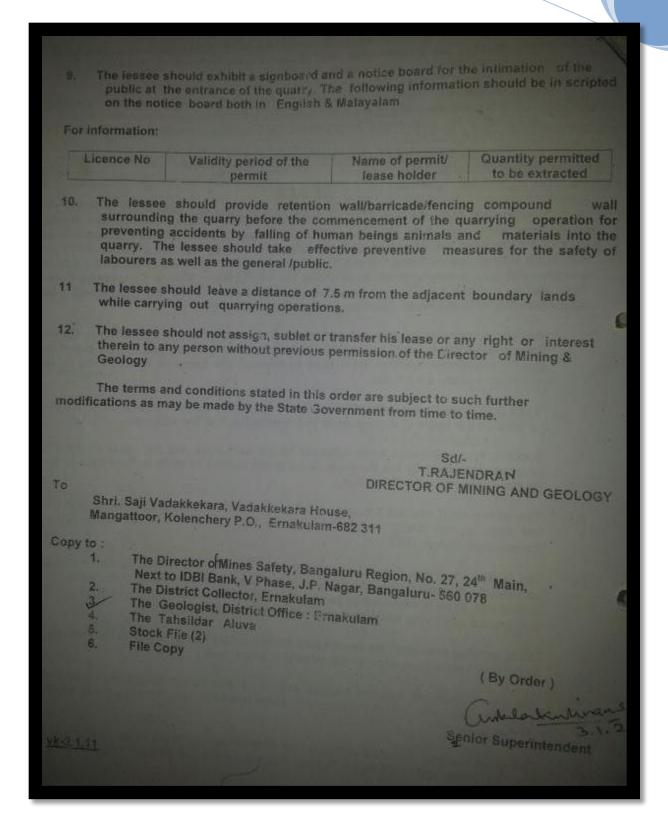
No. 660/2010-11/9439/M3/2010

Dated, Thiruvananthapuram, 3/1/2011

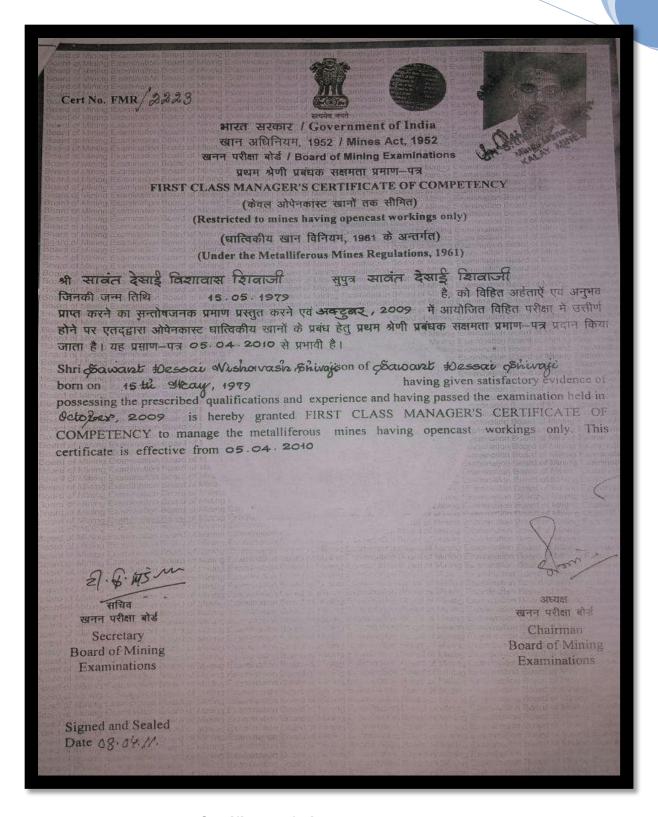
DRDER

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.

- 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.
- 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.
- 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
- 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 lesse commence quarrying operation only after the deed is executed.
- The quarrying area shall be demarcated and boundary stones fixed at the leases's expenses before execution of the quarrying lease deed.
- The leases 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
- 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 tenum of this guarrying lease.

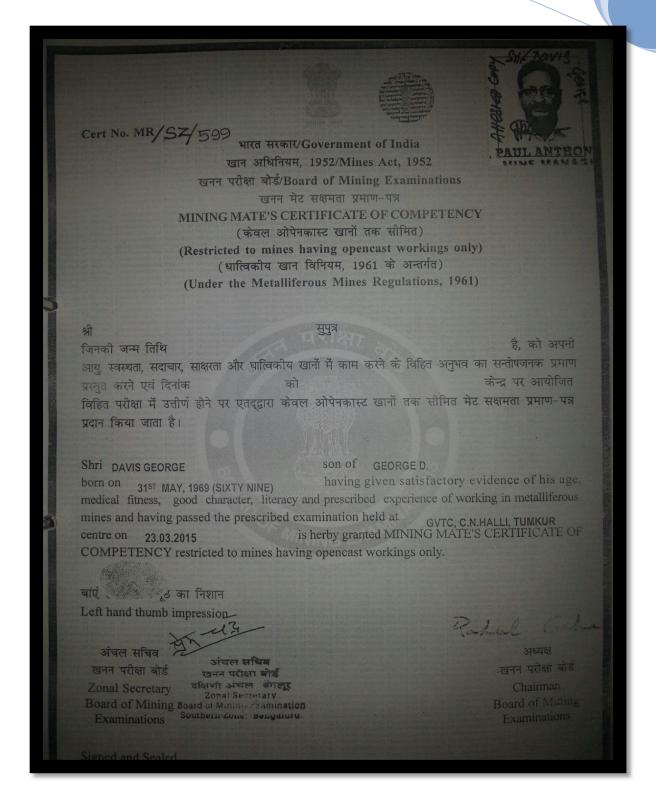


Lease order from Directrotre of Mining and Geology



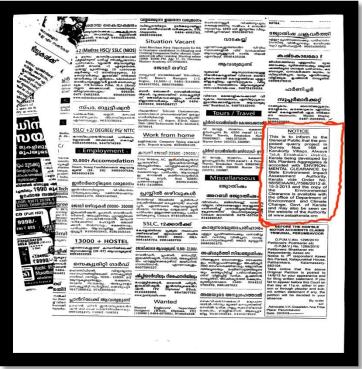
Certificate of First class manager

ANNEXURE No. 8

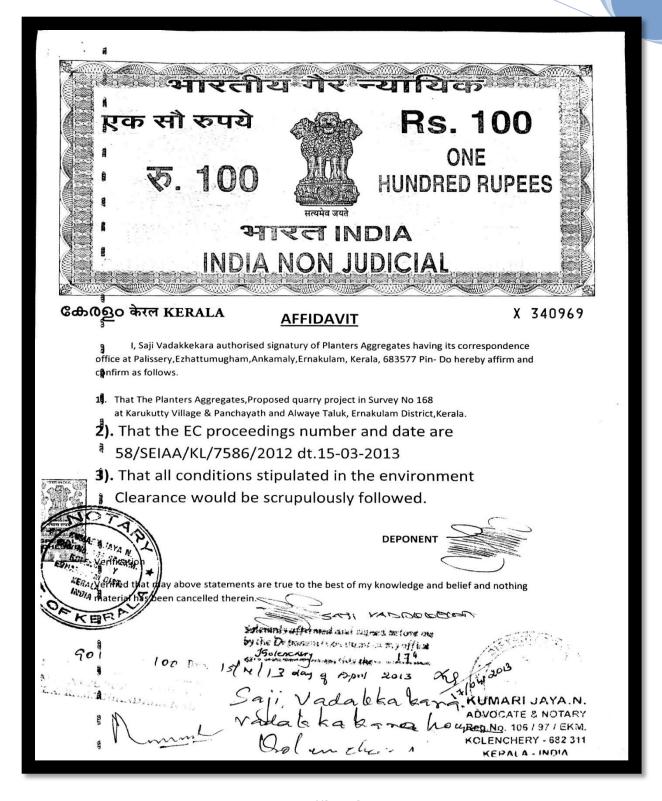


Certificate of Mining mate





Advertisement in two news paper



Affidavit

Test Report No: SEAN	NN/1704/R284	Date: 26.04.2017		D
		20.01.201,		Page 1 of
	CUST	TOMER DETAILS		
		M/s Planters Aggregates	-	
	Name & Address	Karukutty, Aluva,		
	The Control of the Co			
	Survey No			
Customer Details	Village	168, Block – 1		
	Panchayath	Karukutty		
		Karukutty		
	Taluk	Aluva		
	District	Ernakulam		
200 200	State	Kerala		
Customer Reference	Test Request Form Da	ated 22.04.2017		
		MPLE DETAILS		
Source of sample		Ambient Sound Level		
Location of Monitoring				
Date of Monitoring		Near East side Boundary 22.04.2017		
		22.04.2017		
DAYTIME	RESULT	NIGHTTIME	1	RESULT
06.00 Hrs	37.8 dB (A)	23.00 Hrs		5.0 dB (A)
07.00 Hrs 08.00 Hrs	40.6 dB (A)	00.00 Hrs		2.4 dB (A)
08.00 Hrs	44.9 dB (A)	01.00 Hrs		2.4 dB (A)
0.00 Hrs	48.4 dB (A)	02.00 Hrs		.2 dB (A)
1.00 Hrs	50.7 dB (A)	03.00 Hrs		3.6 dB (A)
2.00 Hrs	47.2 dB (A)	04.00 Hrs		1.6 dB (A)
3.00 Hrs	49.1 dB (A)	05.00 Hrs		.9 dB (A)
4.00 Hrs	48.0 dB (A)	RESU		V
5.00 Hrs	50.7 dB (A) 49.1 dB (A)	NOO	LIS	
6.00 Hrs	49.1 dB (A) 49.5 dB (A)			
7.00 Hrs	47.6 dB (A)	Ambient Sound Level (Leq) Day	vtime	47.1 dB (A
8.00 Hrs	46.0 dB (A)	A second	ytimic	47.1 UD (A
9.00 Hrs	43.7 dB (A)			
0.00 Hrs	39.8 dB (A)	-		
1. 00.Hrs	39.3 dB (A)	Ambient Sound Level (Leq) Nigi	httime	33.1 dB (A
2.00 Hrs	36.7 dB (A)	Tr Security		33.1 UB (A)

End of Report

For and on behalf of Standards Environmental & Analytical Laboratories

Standard^S Environmental & Analytical Laboratories
Accreditation and Approval: NABL as per ISO 17025: 2005 & "A" Grade laboratory of KSPCB
K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 20 67 24 02
Web: www.sealabs.in, E-mail: seaalab@gmail.com, info@sealabs.in

Result of ambient sound level





TEST REPORT

Test Report No: SEAAL/1704/EN/R087	Date: 26.04.2017	Page 1 of 1
Test Report No: SEAAL/ 1704/ EN/ ROOT	Datc. 20.01.2017	1480 1 01 1

	CUSTOMER	RDETAILS	gal.
	Name & Address	M/s Planters Aggregates Karukutty, Aluva, Ernakulam District	i i i i i i i i i i i i i i i i i i i
	Survey No	168, Block - 1	
Customer Details	Village	Karukutty	
	Panchayath	Karukutty	
	Taluk	Aluva	
	District	Ernakulam	
	State	Kerala	
Customer Reference	Test Request form dated 22	.04.2017	
	SAMPLE	DETAILS	
Source of Sample	Ambient Air	Sample Code	SEAAL/1704/EN/S087
Location of Monitoring	Near East Side Boundary	Sampled By	By Laboratory
Date of Monitoring	22.04.2017	Test Started On	24.04.2017
Sample Received On	24.04.2017	Test Completed On	26.04.2017
Humidity	78 %	Sampling Procedure	IS 5182 Part V & XIV

SL NO	TEST PARAMETER	TEST METHOD	UNIT	RESULTS	NAAQ STANDARD
01	Particulate matter (PM ₁₀)	IS 5182 Part 23 : 2006 RA 2012	μg/m³	68.1	100
02	Particulate matter (PM _{2.5})	EPA 40 CFR Part 50	μg/m³	39.3	60.0
03	Sulphur dioxide (SO ₂)	IS 5182 Part 2 : 2001 RA 2012	μg/m³	< 2.00	80.0
04	Nitrogen dioxide (NO ₂)	IS 5182 Part 6 : 2006 RA 2012	μg/m³	< 2.00	80.0

End of Report

For and on behalf of Standards Environmental & Analytical Laboratories

Uniju P. N.

Authorized Signatory

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: 2005 & "A" Grade laboratory of KSPCB

K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 20 67 24 02

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

Result of ambient air





TEST REPORT

	Date: 26.04.2017	Page 1 of 2
est Report No. SEAAL/1704/WA/R089	Date: 20.04.2017	1 450 1 01 2

	CUSTOMER	DETAILS	(m)
	Name & Address	M/s Planters Agggregates Karukutty, Aluva, Ernakulam District	24 - 20 -
	Survey No	168, Block - 1	
Customer Details	Village	Karukutty	
	Panchayath	Karukutty	
	Taluk	Aluva	
	District	Ernakulam	
	State	Kerala	
Customer Reference	Test Request Form dated	22.04.2017	
	SAMPLE I	DETAILS	
Sample Code	SEAAL/704/WA//S089	Sample Received On	24.04.2017
Sample Name	Water	Sampling Procedure	
Sample Description	Quarry Water	Sampling Location	
Identification By Customer		Sample Condition	Good
Sampled On	. 22.04.2017	Test Started On	24.04.2017
Sampled By	By Customer	Test Completed On	26.04.2017

SL NO	TEST PARAMETER	TEST METHOD	UNITS	RESULTS	ACCEPTABLE LIMIT (IS 10500 - 2012)
01	Colour	IS 3025 Part 4: 1983 RA 2012	Hazen	5.00	5.0 (Max)
02	Odour	IS 3025 Part 5: 1983 RA 2012	3426	Unobjectionable	Unobjectionable
03	Turbidity	IS 3025 Part 10: 1984 RA 2012	NTU	8.10	1.0 (Max)
04	pH Value	IS 3025 Part 11: 1984 RA 2012		7.06	6.5 - 8.5
05	Total Dissolved Solids	IS 3025 Part 16: 1984 RA 2012	mg/L	156	500 (Max)
06	Total Hardness (as CaCO ₃)	IS 3025 Part 21: 2009	mg/L	75.2	200 (Max)
07	Calcium (as Ca)	IS 3025 Part 40: 1991 RA 2009	mg/L	22.9	75.0 (Max)
08	Magnesium (as Mg)	IS 3025 Part 46: 1994 RA 2009	mg/L	4.33	30.0 (Max)
09	Chloride (as Cl)	IS 3025 Part 32: 1986 RA 2009	mg/L	15.3	250 (Max)
10	Total Alkalinity (as CaCO ₃)	IS 3025 Part 23: 1986 RA 2009	mg/L	38.6	200 (Max)
11	Iron (as Fe)	IS 3025 Part 53: 2003 RA 2009	mg/L	0.19	1.00 (Max)
12	Sulphate (SO ₄)	IS 3025 Part 24: 1986 RA 2009	mg/L	28.9	200 (Max)
*13	Total Coli form Bacteria	IS 1622: 1981 RA 2009		Absent	Absent/100 ml
*14	E coli	IS 15185: 2002		Absent	Absent/100 ml

^{*}Not under NABL

End of Report

For and on behalf of Standards Environmental & Analytical Laboratories

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 appropriate the factor of the samples submitted for analysis and this test report shall not be reproduced except in full, without the written appropriate the samples submitted for analysis and this test report shall not be reproduced except in full, without the written appropriate the samples submitted for analysis and this test report shall not be reproduced except in full, without the written appropriate the samples submitted for analysis and this test report shall not be reproduced except in full, without the written appropriate the samples submitted for analysis and this test report shall not be reproduced except in full, without the written appropriate the samples submitted for analysis and this test report shall not be reproduced except in full, without the written appropriate the samples submitted for analysis and the samples

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Accreditation and Approval: NABL as per ISO 17025: 2005 & "A" Grade laboratory of KSPCB K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 20 67 24 02 Web: www.sealabs.in F-mail: seaalab@gmail.com/info@sealabs.in

Result of Quarry water





TEST REPORT

	Date: 26.04.2017	Page 1 01 2
est Report No: SEAAL/1704/WA/R088	Date: 20.04.2017	
est Report No: SEAAL/ 1101/		

est Report No. SEREID/	2		
	CUSTOMER D	M/s Planters Agggregates	
	o Address	M/s Planters Agggregater Karukutty, Aluva, Ernakulam District	1. M
	Survey No	168, Block - 1	
	Village	Karukutty	
Customer Details	Panchayath	Karukutty	
	Taluk	Aluva	
	District	Ernakulam	
	State	Kerala	
	Test Request Form dated 2	22.04.2017	
Customer Reference	SAMPLE D	ETAILS	24.2017
	SEAAL/1704/WA//S088		24.04.2017
Sample Code		Sampling Procedure	
Sample Name	Water	Sampling Location	
Sample Description	Bore Well Water	Sample Condition	Good
Identification By Customer		Test Started On	24.04.2017
Sampled On	22.04.2017	Test Completed On	26.04.2017
Sampled By	By Customer	Test compassed	L CONTRADIE I

ampic		- ADMILOD	UNITS	RESULTS	(IS 10500 - 2012)
SL	TEST PARAMETER	TEST METHOD	Hazen	10.0	5.0 (Max)
01	Colour	IS 3025 Part 4: 1983 RA 2012	0.000	Unobjectionable	Unobjectionable
02	Odour	IS 3025 Part 5: 1983 RA 2012		1.80	1.0 (Max)
	Turbidity	IS 3025 Part 10: 1984 RA 2012	NTU	6.89	6.5 - 8.5
)3		IS 3025 Part 11: 1984 RA 2012			500 (Max)
)4	pH Value	IS 3025 Part 16: 1984 RA 2012	mg/L	233	200 (Max)
05	Total Dissolved Solids	IS 3025 Part 21: 2009	mg/L	123	75.0 (Max)
)6	Total Hardness (as CaCO ₃)	IS 3025 Part 40: 1991 RA 2009	mg/L	39.6	
07	Calcium (as Ca)	IS 3025 Part 46: 1994 RA 2009	mg/L	5.79	30.0 (Max)
08	Magnesium (as Mg)	IS 3025 Part 32: 1986 RA 2009	mg/L	30.7	250 (Max)
09	Chloride (as Cl)	22 1086 PA 2009	mg/L	32.5	200 (Max)
10	Total Alkalinity (as CaCO ₃)	IS 3025 Part 23: 1986 RA 2009	mg/L	0.20	1.00 (Max)
11	Iron (as Fe)	IS 3025 Part 53: 2003 RA 2009	mg/L	36.4	200 (Max)
12	Sulphate (SO ₄)	IS 3025 Part 24: 1986 RA 2009	mg/ L	Absent	Absent/100 m
*13	Posteria	IS 1622: 1981 RA 2009		Absent	Absent/100 n
*14	1991	IS 15185: 2002		1100	

^{*}Not under NABL

For and on behalf o

Standards Environmental & Analytical Laboratorie

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 the 1366 and 1967 and 1967

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Result of Drinking water

^{***}End of Report***