ANNEXURE

VOLUME – I

ROUGH STONE & GRAVEL QUARRY

Therkkuilanthakulam Village,Kayathar Taluk, Thoothukudi District,Tamil Nadu State

ToR obtained vide

TN/F.No.8025/SEAC/TOR-936/2020 Dated: 16.04.2021;

CLUSTER EXTENT = 8.47.5 ha

PROPOSED QUARRY

Proponent
Thiru.P.Jahir Hussain, **S/o. Peer Mohamed,** **No. 11 A,Pavalar Street,** **Kayathar Village & Post,** **Kayathar Taluk,** **Thoothukudi District – 628 952**
3.94.5 Ha

LIST OF ANNEXURES

Proposed Quarry		
P1 Thiru.P.Jahir Hussain	Copy of ToR	1A – 13A
	Copy of 500m Radius Letter & Mining plan approval letter	14A – 18A
	Copy of Approved Mining plan and Drawing	19A – 67A
Existing Quarry		
E1 Thiru.Peer Mohameed & Sons	Copy of Mining Plan	68A – 121A
	Copy of Baseline Monitoring Data	122A-164A
	Copy of Consultant Accreditation certificate	165A

THIRU. K.V. GIRIDHAR, I.F.S.,
MEMBER SECRETARY

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY – TAMIL NADU
3rd Floor, Panagal Maaligai,
No.1, Jeenis Road, Saidapet,
Chennai-15.
Phone No. 044-24359973
Fax No. 044-24359975

TERMS OF REFERENCE (ToR)

Lr No.SEIAA-TN/F.No.8025/SEAC/ToR- 936/2020 Dated: 16.04.2021

To

Thiru.P.Jahir Hussain
11A, Pavalar Street, Kayathar Village & Post
Kayathar Taluk
Thoothukudi District - 628952.

Sir / Madam,

Sub: SEIAA, Tamil Nadu – Terms of Reference (TOR) with Public Hearing for the Proposed Rough Stone and Gravel Quarry over an Extent of 3.94.5 Ha in SF.No.182/1B, 183/1, 183/2B & 184/2 of Thekkuilanthakulam Village, Kayathar Taluk, Thoothukudi District, Tamil Nadu by Thiru.P.Jahir Hussain under project category – "B1" and Schedule S.No. 1(a) – TOR issued along with Public Hearing-preparation of EIA report –Regarding.

Ref: 1. Online proposal No.SIA/TN/MIN/ 57885/2020, Dated: 31.10.2020.
2. Your application submitted for Terms of Reference dated: 11.11.2020.
3. Minutes of the 203rd EAC Meeting held on 23.02.2021.
4. Minutes of the 436th SEIAA Meeting held on 30.03.2021.

Kindly refer to your proposal submitted to the State Level Impact Assessment Authority for Terms of Reference.

The proponent, Thiru.P.Jahir Hussain submitted application for TOR on 11.11.2020, in Form-I, Pre- Feasibility report for Rough Stone and Gravel Quarry over an Extent of 3.94.5 Ha

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in SF.No.182/1B, 183/1, 183/2B & 184/2 of Thekkuilanthakulam Village, Kayathar Taluk, Thoothukudi District, Tamil Nadu.

Discussion by SEAC and the Remarks:-

The proposal was placed in the 203rd SEAC Meeting held on 23.02.2021. Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Terms of Reference (ToR) with Public Hearing, subject to the following specific conditions in addition to the points mentioned in the standard terms of reference for EIA study for non-coal mining projects and details issued by the MoEF& CC to be included in EIA/EMP report:

1. The Project Proponent shall furnish the contour map of the water table detailing the number of wells located around the site and its impacts on the wells due to mining activity.
2. The Project Proponent shall conduct the hydro-geological study to evaluate the impact of proposed mining activity on the groundwater table, agriculture activity, and water bodies such as rivers, tanks, canals, ponds etc. located nearby by the proposed mining area.
3. The Project Proponent shall furnish the details on the number of groundwater pumping and open wells within 1 km (radius) along with the water levels in both monsoon and non-monsoon seasons. The proponent also shall collect the data of water table level from the PWD / TWAD in this area in both monsoon and non-monsoon seasons.
4. The Proponent shall carry out the Cumulative impact study on the Agricultural area due to Mining, Crushers and other activities around the site area.
5. The details of surrounding well and the cumulative impact on the groundwater shall be part of EIA study
6. The Socio-economic studies should be carried out within a 10 km buffer zone from the mines.
7. A tree survey study shall be carried out (nos. name of the species, age) in the mining lease applied area and its management during mining activity.
8. CER activities should be carried out taking into consideration the requirement of the local habitants available within the buffer zone as per Office Memorandum of MoEF& CC.
9. A Detailed mining closure plan for the proposed project shall be submitted.
10. A detail report on the safety and health aspects of the workers and for the surrounding habitants during operation of mining for drilling and blasting shall be submitted.

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11. The recommendation for the issue Terms of Reference is subject to the outcome of the Hon'ble NGT, Principal Bench, New Delhi in O.A No.186 of 2016 (M.A.No.350/2016) and O.A. No.200/2016 and O.A.No.580/2016 (M.A.No.1182/2016) and O.A.No.102/2017 and O.A.No.404/2016 (M.A.No. 758/2016, M.A.No.920/2016, M.A.No.1122/2016, M.A.No.12/2017 & M.A. No. 843/2017) and O.A.No.405/2016 and O.A.No.520 of 2016 (M.A.No. 981/2016, M.A.No.982/2016 & M.A.No.384/2017).
12. A detailed study of the lithology of the mining lease area shall be furnished.
13. The project proponent shall furnish the details of the existing Green belt area earmarked with GPS coordinates and list of trees are planted with a copy of photos/documents along with the EIA Report.

Discussion by SEIAA and the Remarks:-

The proposal was placed in 436th SEIAA meeting held on 30.03.2021. After detailed discussions, the Authority unanimously accepts the recommendation of SEAC and decided to grant **Terms of Reference (ToR) with Public Hearing** under cluster for undertaking the combined Environment Impact Assessment Study and preparation of separate Environment Management Plan subject to the conditions as recommended by SEAC & normal condition in addition to the following conditions.

1. As per the MoEF& CC office memorandum F.No.22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.

A. STANDARD TERMS OF REFERENCE

1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste

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generation and its management, mining technology etc. and should be in the name of the lessee.

4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ topo sheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).

5) Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.

6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.

7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.

8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.

9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass pre-operational, operational and post operational phases and

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submitted. Impact, if any, of change of land use should be given.

11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.

12) Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.

13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.

14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.

15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.

16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.

17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.

18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area,

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the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.

20) Similarly, for Coastal Projects, a CRZ map duly authenticated by one of the authorized agencies demarcating LTL. HTL, CRZ area, location of the mine lease with respect to CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).

21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.

22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of

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PM10, particularly for free silica, should be given.

23) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of Vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.

24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.

27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.

28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.

29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.

30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.

31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and

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submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.

32) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.

34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.

35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.

36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

38) Detailed Environmental Management Plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the

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proposed Project.

39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.

40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.

43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

44) Besides the above, the below mentioned general points are also to be followed:-

a) Executive Summary of the EIA/EMP Report

b) All documents to be properly referenced with index and continuous page numbering.

c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.

d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.

e) Where the documents provided are in a language other than English, an English translation should be provided.

f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.

g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the

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ToR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.

i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the Environment Clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

In addition to the above, the following shall be furnished:-

The Executive summary of the EIA/EMP report in about 8-10 pages should be prepared incorporating the information on following points:

1. Project name and location (Village, District, State, Industrial Estate (if applicable).
2. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.
3. Measures for mitigating the impact on the environment and mode of discharge or disposal.
4. Capital cost of the project, estimated time of completion.
5. The proponent shall furnish the contour map of the water table detailing the number of wells located around the site and impacts on the wells due to mining activity.
6. A detailed study of the lithology of the mining lease area shall be furnished.
7. Details of village map, "A" register and FMB sketch shall be furnished.
8. Detailed mining closure plan for the proposed project approved by the Geology of Mining department shall be shall be submitted along with EIA report.
9. Obtain a letter /certificate from the Assistant Director of Geology and Mining standing that there is no other Minerals/resources like sand in the quarrying area within the approved depth of mining and below depth of mining and the same shall be furnished in the EIA report.
10. EIA report should strictly follow the Environmental Impact Assessment Guidance Manual

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for Mining of Minerals published February 2010.

11. Detail plan on rehabilitation and reclamation carried out for the stabilization and restoration of the mined areas.
12. The EIA study report shall include the surrounding mining activity, if any.
13. Modeling study for Air, Water and noise shall be carried out in this field and incremental increase in the above study shall be substantiated with mitigation measures.
14. A study on the geological resources available shall be carried out and reported.
15. A specific study on agriculture & livelihood shall be carried out and reported.
16. Impact of soil erosion, soil physical chemical and biological property changes may be assumed.
17. Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./ private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest , eco-sensitive zones, accessibility, (note - in case of industrial estate this information may not be necessary)
18. Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
19. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
20. Likely impact of the project on air, water, land, flora-fauna and nearby population
21. Emergency preparedness plan in case of natural or in plant emergencies
22. Issues raised during public hearing (if applicable) and response given
23. CER plan with proposed expenditure.
24. Occupational Health Measures
25. Post project monitoring plan
26. The project proponent shall carry out detailed hydro geological study through intuitions/NABET Accredited agencies.
27. A detailed report on the green belt development already undertaken is to be furnished and also submit the proposal for green belt activities.
28. The proponent shall propose the suitable control measure to control the fugitive emissions during the operations of the mines.
29. A specific study should include impact on flora & fauna, disturbance to migratory pattern of animals.

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30. Reserve funds should be earmarked for proper closure plan.
31. A detailed plan on plastic waste management shall be furnished. Further, the proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throw away plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986. In this connection, the project proponent has to furnish the action plan.

Besides the above, the below mentioned general points should also be followed:-

a. A note confirming compliance of the TOR, with cross referencing of the relevant sections / pages of the EIA report should be provided.
b. All documents may be properly referenced with index, page numbers and continuous page numbering.
c. Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
d. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF & CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.
e. The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. In this regard circular no F. No.J -l1013/77/2004-IA-II(I) dated 2nd December, 2009, 18th March 2010, 28th May 2010, 28th June 2010, 31st December 2010 & 30th September 2011 posted on the Ministry's website http://www.moef.nic.in/ may be referred.

- After preparing the EIA (as per the generic structure prescribed in Appendix-III of the EIA Notification, 2006) covering the above mentioned points, the proponent will take further necessary action for obtaining environmental

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clearance in accordance with the procedure prescribed under the EIA Notification, 2006.

- The final EIA report shall be submitted to the SEIAA, Tamil Nadu for obtaining Environmental Clearance.
- The TORs prescribed shall be **valid for a period of three years** from the date of issue, for submission of the EIA/EMP report as per OMNo.J-11013/41/2006-IA-II(I)(part) dated 29th August, 2017.

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Copy to:

1. The Additional Chief Secretary to Government, Environment & Forests Department, Govt.of Tamil Nadu, Fort St. George, Chennai - 9.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
4. The APCCF (C), Regional Office, MoEF & CC (SZ), 34, HEPC Building, 1st& 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai -34.
5. Monitoring Cell, IA Division, Ministry of Environment, Forests & CC, Paryavaran Bhavan, CGO Complex, New Delhi 110003
6. The District Collector, Thoothukudi District.
7. Stock File.

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Department of Geology and Mining

From

Thiru. D. Bernard, M.Sc.,
Assistant Director,
Dept. of Geology and Mining,
Thoothukudi

To

Thiru. P. Jahir Hussian,
S/o. Peer Mohameed,
11A, pavalar Street,
Kayathar Village & post
Thoothukudi

Roc. No. 69/G&M/2016 dated: 8 .09.2020

Sir,

Sub: Mines and Minerals - Thoothukudi District – Kayathar Taluk – Therkkuilanthakulam Village Application for grant of Rough stone and Gravel quarry in S.F. Nos. 182/1B, 183/1, 2B & 184/2 - over an extent of 3.94.5 Hectares - Certain clarification called for - sent - Regarding.

Ref:
1. Thiru. P. Jahir Hussian, kayathar application dated. 08.02.2016.
2. District Collector letter Roc. No. G.M.1/69/2016 dt. 08.10.2018.
3. Letter from Thiru. P. Jahir Hussian dt. 12.04.2019.

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In the reference 1st cited above one Thiru. P. Jahir Hussian, S/o. Peer Mohameed, 11A, Pavalar Street, Kayathar Village and Post, Thoothukudi District has applied for the grant of lease to quarry Rough stone and Gravel over an extent of 3.94.5 Hectares in S.F. Nos. 182/1B, 183/1, 2B & 184/2 of Therkkuilanthakulam Village, Kayathar Taluk under Rule 19 of Tamil Nadu Minor Mineral Concession Rules, 1959.

a) In this connection it is informed that, the following quarries are located within 500m radius from the proposed area for clearance.

S.No	Name of the Quarry Owner	Name of Village & Survey Number	Extent (in Hect)	Period of Lease
a.	Existing quarries			
1	Peer Mohameed & Sons SEIAA.TN/F.No.5771/1(a)/ECNo.3 841/2016 dated 26.10.2016	Therkkuilanthai kulam 182/1A, 2, etc.,	4.53.0	30.12.2016 to 29.12.2021
b.	Abandoned quarries			
1	K.M.S. Peer Mohaideen	Therkkuilanthai kulam 161/1A	4.29.5	
c.	Present Proposed quarries			
1	Thiru. P. Jahir Hussian	Therkkuilanthai kulam 182/1B, 183/1, 2B & 184/2	3.94.5	
		Total Extent	12.77.0	

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b) The Earlier lease was granted vide District Collectors Proceedings Rc. No. G.M. 1/237/2011 dated 27.07.2011 for a period of five years from 27.07.2011 to 26.07.2016 and mining operation was stopped on 26/12/2015 due to non-submission of Env.Clearance.

c) In the earlier lease period the lesses had removed the quantity of 61,744 cbm of Rough Stone and 26,433 cbm of Gravel.

d) The dimension of the existing pit in the area applied for lease is given below

Pit No	Length (Max) in m	Width (Max) in m	Depth (Max) in m
1	44	41	7
2	91	77	3
3	72	63	10

Assistant Director,
Geology and Mining,
Thoothukudi

From

Thiru.G.Panneer Selvam, M.Sc., M.Phil.,
Assistant Director,
Geology and Mining,
Thoothukudi.

To

Thiru. P. Jahir Hussian,
S/o. Peer Mohammad
No.11A, Pavalar Street,
Kayathar village,
Kovilpatti Taluk

Rc. No.69/G&M/2016 Dated : 16 .10.2018

Sir,

Sub: Mines and Minerals – Thoothukudi District - S.F.Nos. 182/1B, 183/1, 183/2B & 184/2 over an extent 3.94.5 Hects. – Kayathar Taluk – Therkkuillanthaikulam Village by Thiru. P. Jahir Hussian - Precise area communicated – Draft Mining plan called for – submitted for approval – approved – Regarding.

Ref: 1. Quarry lease application preferred by Thiru. P. Jahir Hussian, Kovilpatti dated: 08.02.2016.
2. Precise area communication in District Collector Rc. No.69/G&M/2016 Dated : 08.10.2018.
3. Thiru. P. Jahir Hussian letter dated: 15.10.2018.

*****

In the reference 2nd cited, precise area had been communicated to Thiru. P. Jahir Hussian, S/o. Peer Mohammad residing at No.11A, Pavalar Street, Kayathar village, Kovilpatti Taluk for quarrying Rough Stone and Gravel in an extent of 3.94.5 Hects of patta lands in S.F.Nos. 182/1B, 183/1, 183/2B & 184/2 of Therkkuillanthaikulam Village, Kayathar Taluk with a direction to submit draft mining plan before the Assistant Director, Thoothukudi for approval within 90 days from the date of receipt of precise area communication.

2) In accordance with the above, the applicant has submitted three copies of Mining Plan duly prepared by a Recognized Qualified Person Thiru. N. Ravinthiran, M.Sc., of Tirunelveli.

3)The mining plan submitted by the applicant has been examined with reference to the Rule 41 of Tamil Nadu Minor Mineral Concession Rules, 1959 and the instructions issued by the Commissioner of Geology and Mining in letter Rc. No.3868/LC/2012, dated: 19.11.2012 and the followings are observed:-

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a)	Area applied for quarry lease	S.F Nos. Extent Classification Village Taluk District	: : : : : :	S.F.Nos. 182/1B, 183/1, 183/2B & 184/2 3.94.5 Hects. Patta Therkkuillanthaikulam Kayathar Thoothukudi	
b)	Minor Mineral applied for quarry lease	Rough stone and Gravel			
c)	Topo Sheet No.	5 8G/16			
d)	Co-ordinates	Corner	Latitude	Longitude	
		1	08° 57' 42.26" N	77° 45' 01.40 " E	
		2	08° 57' 53.52" N	77° 45' 08.02 " E	
e)	The available mineable reserves have been computed as 2,97,975 m^3 of rough stone and 51,450 m^3 of Gravel quarrying for a period of five years up to a depth of 23 mts below the ground level.				

5) The Mining plan submitted in respect of the lease area is examined and contains the stipulated details / particulars. The conditions imposed in the precise area communication were also incorporated in the plan.

6) Therefore, as per the guidelines issued in Rc.No.3868/LC/2012 dated 19.11.2012 by the Commissioner of Geology and Mining and as per the Rule 41 of Tamil Nadu Minor Mineral Concession Rules, 1959 amended vide G.O.(Ms.)No.79 /Ind (MMC-1) Dept dated 6.4.2015, I hereby approve the mining plan subject to the following conditions:-

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i. The mining plan is approved without prejudice to any other Law applicable to the quarry lease from time to time whether such Laws are made by the State Government or any other authority.

ii. The approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Tamil Nadu Minor Mineral concession Rules, 1959.

iii. The Mining plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.

iv. Quarrying shall be carried out scrupulously as per the Approved mining plan.

6) The applicant is directed to submit an application in Form-I as prescribed by the MoEF along with copy of Approved Mining Plan before the District Environment Impact Assessment Authority, Thoothukudi for obtaining Environmental Clearance in respect of the subject area.

Encl: 2 copies of Approved Mining Plan

Assistant Director,
Geology and Mining,
Thoothukudi.

Copy submitted to :

1. The Chairman,
   District Level Environment Impact Assessment Authority,
   Thoothukudi
2. The Commissioner of Geology and Mining,
   Industrial Estate, Guindy, Chennai- 32.

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MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

MINING PLAN FOR QUARRYING ROUGH STONE/GRAVEL

(PREPARED UNDER RULE 19 (1) and as per Amendment under rule no 41 & 42 of TAMILNADU MINOR MINERAL CONCESSION RULES, 1959)

(Lease Period – Five years)

IN

LOCATION OF THE QUARRY LEASE AREA

EXTENT	:	3.94.5 Hectares
SURVEY NO	:	182/1B,183/1,2B &184/2
VILLAGE	:	Therkkuilanthakulam
TALUK	:	KAYATHAR
DISTRICT	:	THOOTHUKUDI

FOR APPLICANT :

Mr .P.Jahir Hussian S/O. Shri Peer Mohamed,
11 A ,Pavalar Street,Kayathar Village & Post,
Kayatahr Tk
THOOTHUKUDI District PIN: 628 952.

PREPARED BY

N.RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
Valid upto 20.12.2020.

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Mr. P.Jahir Hussain, S/o. Shri Peer Mohammad ,
11 A , Pavalar Street,Kyathar Village & post
Thoothukudi District PIN: 628 952.

CONSENT LETTER FROM THE APPLICANT

I, hereby give my consent to prepare the Mining Plan for the quarry lease approval of **Rough stone /Gravel** over a total extent of **3.94.5 Hectares** in **SF.Nos:182/1B(0.05.5),183/1(1.71.5),183/2B(0.55.5)&184/2(1.62.0)of Therkkuilanthakulam Village, Kayathar Taluk, Thoothukudi District, vide District Collectors letter Roc. No. 69/G&M/2016 dated 08 .10. 2018** and submit by

Mr. . Ravinthiran, M.Sc(App.Geo)., RQP/MAS/130/98/A,.

I request the District Collector, Thoothukudi to make further correspondence regarding the modification of the Mining Plan with said Recognized Qualified Person at his following address :

Shri. N. Ravinthiran, M.Sc.,(App.Geo)
1699 / 1 – Madurai Road,
Opp. ABCOY GARDEN,
Sankar Nagar & (Po) – 627357. Tirunelveli District.
Cell : 9842126699 email : jpr.industry@gmail.com

I hereby undertake that all the modifications, if any made in the mining plan by the Recognized Qualified Person may be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me all respect.

Place : Kayathar

Date :

Signature of the Applicant.
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P.Jahir Hussian

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Mr. P.Jahir Hussain, S/o. Shri Peer Mohammad ,
11 A , Pavalar Street,Kyathar Village & post
Thoothukudi District PIN: 628 952.

DECLARATION OF THE APPLICANT

The Mining Plan in respect of the quarry lease approval of Roughstone /Gravel over a total extent of **3.94.5 Hectares** in **SF.Nos:182/1B,183/1, 183/2B, 184/2 of Therkkuilanthakulam Village, Kayathar Taluk, Thoothukudi District,** has been prepared in full consultation with me.

I have understand its contents and agree to implement the same in accordance with Laws, Rules and Act applicable to quarry.

Place : Kayathar

Signature of the Applicant.

P.Jahir Hussian

Date :

P.Jahir Hussian

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N. Ravinthiran , M.Sc., (App. Geo)
1699/1-Madurai Road
Sankar Nagar & (Po) - 627357.
Tirunelveli District.
Cell : 98421 26699.

CERTIFICATE FROM THE RECOGNIZED QUALIFIED PERSON

This is to certify that the provisions of the Mines Act, Rules and Regulations, Minor Mineral Conservation and Development Rules, 2010 & as per Amendment Rules under Tamil Nadu Minor Mineral Concession Rules, 1959 etc., made there under have been observed in the preparation of Mining Plan for Rough stone and Gravel quarry for **Mr. P.Jahir Hussain, S/o Shri Peer Mohammed** over an extent of **3.94.5 Hectares** in **SF.Nos:182/1B(0.05.5),183/1(1.71.5),183/2B(0.55.5)&184/2(1.62.0)of Therkkuilanthakulam Village, Kayathar Taluk, Thoothukudi District,**

Where ever the necessary permissions / exemptions / relaxations and approvals are required, the applicant would approach the concerned authorities of State and Central Governments for granting such permissions etc..

Place : Tirunelveli
Date :

N.Ravinthiran M.Sc.,(App.Geo)
RQP/MAS/130/98/A.

N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

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LIST OF ANNEXURES

Sl.No.	DESCRIPTION	ANNEXURE
1	COPY OF PRECISE AREA COMMUNICATION	I
2	COPIES OF FMB,	II
3	COPIES OF PATTA ,CHITTA,ADAGKAL	III
4	ID PROOF	IV
5	COPY OF RQP CERTIFICATE	V

LIST OF PLATES

S.NO	DESCRIPTION	PLATE No.	SCALE
1	LOCATION PLAN	I	Not to Scale
2	KEY MAP	I A	Not to Scale
3	KEY PLAN	II	1 : 50,000
4	MINING LEASE PLAN	III	1 : 2000
5	SURFACE & GEOLOGICAL PLAN & SECTIONS	IV	1 : 2000
6	YEARWISE PRODUCTION PLAN & ECTIONS	V	1 : 2000
7	CONCEPTUAL PLAN & SECTIONS	VI	1 : 2000
8	ENVIRONMENTAL PLAN	VII	1 : 5000
9	PROGRESSIVE MINE CLOSURE PLAN	VIII	1 : 2000
10	VILLAGE MAP SHOWING ENVIRONMENTAL FEATURES	IX	1 : 10000

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MINING PLAN FOR ROUGH STONE QUARRY OVER AN EXTENT OF3.94.5 IIa IN THERKKUILANTHAKULAM VILLAGE, KAYATHAR TALUK & THOOTHUKUDI DISTRICT, TAMILNADU

(Prepared Under Rule 19 (1) & 20 and as per Amendment under rule no 41& 42Tamilnadu Minor Mineral Concession Rules, 1959)

INTRODUCTION AND EXECUTIVE SUMMARY

The present Mining Plan and Environmental Management plan is prepared for **Mr. P.Jahir Hussain, S/o Shri Peer Mohammed** residing at 11A, Pavalar Street, Kayathar Village & Post, Kayathar Taluk, Thoothukudi District -628 952.

The lease area is upto an extent of **3.94.5 Hect** in **SF.Nos: 182/1B(0.05.5), 183/1(1.71.5), 183/2B(0.55.5) & 184/2(1.62.0)** in **Therkkuilanthakulam Village, Kayathar Taluk Thoothukudi District**. The District Collector passed a precise area communication letter vide Rc. No. **69/G&M /2016 dated 08.10.2018 for a period of 5 Years** to prepare Mining plan and obtain Environmental clearance from the DEIAA for grant of Mining lease. The mining plan has been prepared by keeping and considering all the conditions stipulated in the precise area communication letter.

Earlier the lease had granted four times in the Name of B.**Jahir Hussian** for quarrying & transporting Rough Stone vide proceedings no : **M6 /434/1997 dated 18.10.1997** for a period of 5 years ,**G.M.1/954/2002 dated 18-12-2002** for a period of 5 years, **G.M.1/1233/2007 dated 11-08-2008** for a period of 3 years and subsequently another five years granted vide proceedings no : **GM.1 /237/2011 dated 27.07.2011.**

Environmental parameters,

i) The area does not attract the Forest Conservation Act, 1980 as there is no forest around 10 Km radius.

ii) There is no interstate boundary around 10Km radius.

iii) There is no wild life animal sanctuary within 10Km radius.

a.	Village	:	Therkkuilanthakulam
b.	Taluk	:	Kayathar
c.	Total extent of the lease area	:	3.94.5 hect

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d.	The Total mineable Reserves are 2,97,975M^3 of Rough stone 51,450 M^3 of Top soil with gravel		
e.	Topography of the area	:	The area is plain terrain.
f.	Existing Depth	:	17 m(Pit-2), 4 m (Pit-1)
g.	Proposed Depth of mining	:	23 m (Below ground level)
h.	Proposed period of mining	:	5 years

i. It is a New quarry lease

j. Method of mining / level of mechanization Opencast semi mechanized method, the quarry operation involves shallow jack hammer drilling, slurry blasting.

k. Type of machineries proposed in the quarrying operation.
Excavator of 0.90Cbm bucket capacity (with Rock breaker attachment)
Jack hammers 30-32mm dia

l. Tractor mounted compressor (2 jack hammer capacity).

m. No trees are uprooted due to this quarrying operation.

n. The existing road from the main road to quarry is in good condition and the same with be maintained and utilized for transport.

o. There is No Export of the Rough stone.

p. The lease area is about 3.94.5 Hect which is bounded by four corners and the Co boundaries are clearly marked in the drawing enclosed as Plate No III.

q. The diagram of proposed mining area showing the dimensions of the pit, its proposed Depth of mining, proposed area is enclosed as Plate No V.

r.. There is no wastages anticipated during this quarry operation, hence top soil dump is proposed in the lease area.

s. Around 8 employees are proposed to be deployed for the quarrying operation.

t. Total Cost of the project.

a. Investment cost	=	Rs	1,40,000/-
b. Mining cost	=	Rs	1,58,31,540/-
c. EMP Cost	=	Rs	2,00,000/-
Total Project Cost (A+B+C)	=	**Rs**	**1,61,71,540/-**

1. GENERAL INFORMATION			
1.1	a)	Name of the applicant	Mr.P.Jahir Hussian
	b)	Address of the applicant (with phone No. & e-mail)	Address : S/o. Shri Peer Mohammed 11-A Pavalar Street, Kayathar Village & Post Taluk : Kayathar

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Tuticorin Dist.

			District : Thoothukudi Pin Code : 628 952. Mobile No : 94431 51377
	c)	Status of the applicant (Individual / Company / Firm)	The applicant is an individual.
1.2	a)	Mineral which the applicant intends to mine	The applicant intends to quarry Rough stone , Gravel only.
	b)	Precise area communication letter details received from the Competent authority of the Government	The letter was received from District Collector Thoothukudi vide Rc. No. **69/ G&M /2016 Dt . 08 .10.2018**
	c)	Period of permission / lease to be granted	Period of lease applied for 5 years under rule 19)1) & 20 laid down in Tamilnadu Mineral Concession Rules -1959
	d)	Name and address of the RQP / Authorized person preparing the mining plan	Name :N.Ravinthran M.Sc. (App.Geo)., Address 1699/1,Madurai Road, Opp.ABCOY Garden, Sankar Nagar- 627 357 Tirunelveli Cell : 98421 26699. Registration No : RQP/MAS/130/98/A Valid up to : 20.12.2020 Email : jpr.industy@gmail.com

2. LOCATION

1.	a)	Details of the area with location map	There are no villages within the radius of 500m, The area. bounded by following villages,

DIRECTION	VILLAGE	POPULATION	DISTANCE
North East	Therkkullatha kulam	800	2 Km
west	Panikar Kulam	500	2 Km
South	Athikulam	800	2.5 Km

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		i) District, Taluk and village	District : Thoothukudi Taluk : Kayathar village. : Thekkuilanthakulam
		ii) Survey No	182/1B,183/1, 183/2B, 184/2
		iii) Total Extent in Ha	3.94.5 Hec
	b)	Classification of the area (Ryotwari/ Poramboke / others)	It is a Patta land (Barren land)
	c)	Ownership / Occupancy of the applied area (surface right)	Own Patta land
	d)	Toposheet No. with latitude and longitude	Topo sheet No. : 58G/16
	e)	Existence of public road / Railway line, if any nearby and approximate distance	The area applied for quarry lease lies in ,1 km North of Kayathar to Panikarkulam Village road joins at Tirunelveli to Madurai NH Road . The road from the quarry to main road is already existence, the same road will be maintained and utilized for transportation. The nearest Rail head is at Kadampoor at a distance of 14 Km. The nearest airport is at Thoothukudi in 55 Km distance.

Corner	Lattitude	Longitude
A	08° 57'53.52" N	77° 45'01.64" E
B	08° 57'52.91" N	77° 45'04.62" E
C	08° 57'52.81" N	77° 45'04.75" E
D	08° 57'48.05" N	77° 45'04.67" E
E	08° 57'47.79" N	77° 45'08.02" E
F	08° 57'43.06" N	77° 45'06.80" E
G	08° 57'43.11" N	77° 45'06.63" E
H	08° 57'42.26" N	77° 45'06.45" E
I	08° 57'43.18" N	77° 45'01.40" E
J	08° 57'46.24" N	77° 45'01.84" E
K	08° 57'46.16" N	77° 45'02.26" E
L	08° 57'49.73" N	77° 45'02.44" E
M	08° 57'49.85" N	77° 45'01.43" E

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PART — A

3. GEOLOGY AND MINERAL RESERVES

3.1	Brief description of the Topography and general Geology of the area (with plans)	The lease area plain terrain which is covered by weathered rock formation, The massive Charnokite formation is clearly inferred followed by the 3 m (Avg) weathered rock formation. The slope is gentle towards Southern side. Water table is found at a depth of 40m in summer and at 35m in rainy seasons. Average annual rainfall is about 750mm during NE monsoon. Peninsular gneiss forms the oldest rock formations of Archean age, in which rich accumulation of recent quaternary formation. The general geological sequences of the rocks in this area are given below. **AGE** **FORMATION** Recent - Quaternary weathered Rock Formation .....Unconformity ..... Archaean - Charnockite Peninsular Gneiss complex.
3.2	Details of exploration already carried out if any	No exploration was carried out. Massive Rough stone formation clearly visible from old quarry pit.The old pit dimensions were marked in the Plate No :IV, V & VI
3.3	Estimation of reserves	
	a) Geological reserves with geological sections on a scale of 1:1000 / 1:2000	As far as Rough stone is concerned, the only practical method is the systematic geological mapping and delineation of Rough stone within the field and careful evaluation of body luster, physical properties, engineering properties, commercial aspects etc., Totally six sections have been drawn,Two section drawn Length wise as (A-A') (F-F')and four section Width wise as (B-B'),(C-C'),(D-D'),(E-E') to cover the maximum area considered for lease.

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		The Topographical, Geological plan and sections demarcated the commercial marketable Rough stone deposit has been prepared in 1:2000 scale (please refer the Geological plan and sections Plate No- IV.

Geological Resources (Plate No. IV)

The reserves have been calculated based on the cross section method. Availability of Resources is given below.

Table-1

SECTION	LENGTH (M)	WIDTH (M)	HEIGHT (M)	CHARNOKITE VOLUME (M^3)	TOP SOIL with GRAVEL VOLUME (M^3)
A-A' – B-B'	100 100	82 82	3 20	- 1,64,000	24,600
A-A' – C-C'	76 76	70 70	3 5	- 1,06,400	15,960
A-A' – D-D'	60 60	58 58	3 20	- 69,600	10,440
A-A' – E-E'	84 84	80 80	3 20	- 1,34,400	20,160
F-F'- D-D'	100 100	86 86	3 20	- 1,72,000	25,800
F-F'- E-E'	84 84	82 82	3 20	- 1,37,760	20,664
TOTAL GEOLOGICAL RESERVES				7,84,160	1,17,624
A-A' – B-B' Old Pit	44 43	41 40	3 4	- 6,880	5,412
F-F'- D-D'	91 72 54	77 63 44	3 10 4	- 45,360 9,504	21,021
Already excavated				61,744	26,433
BALANCE GEOLOGICAL RESERVES				**7,22,416**	**1,60,720**

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Available Mineable Reserves

The available mineable reserves are calculated, the 7.5 m safety distance left from all the sides of applied lease area, 50 m left from the northern side of A-A' section and bench loss.

Table-2

SECTION	LENGTH (M)	WIDTH (M)	HEIGHT (M)	CHARNOKITE VOLUME (M^3)	TOP SOIL with GRAVEL VOLUME (M^3)
A-A' – B-B'	84	32	3	-	8,064
	77	28	5	10,780	
	67	23	5	7,705	
	57	18	5	5,130	
	47	13	5	3,055	
A-A' – C-C'	27	8	3	-	648
	28	5	5	700	
	76	37	5	14,060	
	76	27	5	10,260	
	71	17	5	6,035	
A-A' – D-D'	58	53	3	-	9,222
	58	49	5	14,210	
	58	44	5	12,760	
	58	33	5	11,310	
	58	34	5	9,860	
A-A' – E-E'	76	73	3	-	16,644
	72	69	5	24,840	
	67	64	5	21,440	
	62	59	5	18,290	
	57	54	5	15,390	
F-F'- D-D'	13	11	5	715	-
	15	12	5	900	
	28	27	5	3,780	
	76	66	5	25,080	
F-F'- E-E'	76	74	3	-	16,872
	72	70	5	25,200	
	67	65	5	21,775	
	62	60	5	18,600	
	57	55	5	15,675	
TOTAL MINEABLE RESERVES				**2,97,975**	**51,450**

The available mineable reserves have been computed as 2,97,975 m^3 of rough stone,51,450 m^3 Topsoil with gravel upto depth of 23 m from the below ground level.

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4. MINING

4.1	Method of mining (opencast / underground)	Open cast Semi-Mechanized Mining with 5.0 meter bench height with a bench width is not less than the bench height. However, as far as the quarrying of Rough stone is concerned, observance of the provisions of Regulation 106 (2) (b) as above is seldom possible due to various inherent petro genetic factors coupled with mining difficulties. Hence it is proposed to obtain relaxation to the provisions of the above regulation from the Director of Mines Safety for which necessary provision is available with the Regulation 106 (2) (b) of MMR-1961, under Mine Act - 1952.
4.2	Mode of working (mechanized, semi mechanized, manual)	The Rough Stone is proposed to quarry at 5m bench height & width with conventional Opencast Semi-Mechanized Method. The quarry operation involves shallow jack hammer drilling, slurry blasting, Loading and transportation of Rough stone to the needy Building promoters by manually. The production of Rough stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining. Splitting of rock mass of considerable volume from the parent rock mass is braking by jackhammer drilling and blasting and loading the Rough Stone from pithead to the needy people
4.3	Proposed bench height & width	Height 5.0m & Width 5.0m.
4.4	Indicate the overburden / mineral production expected pit wise as detailed below (composite plan and section showing pit layout, dumps, disposal of waste if any etc.)	The overburden is in the form of topsoil & weathered rock formation, it has been removed while quarrying operation, the top soil was preserved all along the boundary barrier for afforestation. Hence there is no waste anticipated during the Rough stone quarry operation, The excavated rough stone will be directly loaded into tipper to the needy people. The Year wise and production Development plan and section indicating the Pit lay out, Green belt development are shown in Plate No-V.

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Yearwise Production Table-3

SECTION	LENGTH (M)	WIDTH (M)	HEIGHT (M)	CHARNOKITE VOLUME (M^3)	TOP SOIL with GRAVEL VOLUME (M^3)
A-A' – B-B'	84	32	3	-	8,064
	77	28	5	10,780	
	67	23	5	7,705	
	57	18	5	5,130	
	47	13	5	3,055	
A-A' – C-C'	27	8	3	-	648
	28	5	5	700	
	76	37	5	14,060	
	71	27	5	9,585	
	66	17	5	5,610	
A-A' – D-D'	53	14	3	-	2,226
	49	10	5	2,450	
	44	5	5	1,100	
I – Year Excavation				**60,175**	**10,938**
A-A' – C-C'	27	5	5	675	-
	17	10	5	850	
A-A' – D-D'	53	44	3	-	6,996
	49	44	5	10,780	
	44	44	5	9,680	
	39	44	5	8,580	
	34	39	5	6,630	
F-F' - D-D'	13	11	5	715	-
	15	12	5	900	
	28	27	5	3,780	
	76	46	5	17,480	
II – Year Excavation				**60,070**	**6,996**
A-A' – D-D'	49	4	5	980	
	44	9	5	1,980	
	39	14	5	2,730	
	34	19	5	3,230	
	76	73	3	-	16,644
A-A' – E-E'	72	69	5	24,840	-
	76	74	3	-	16,872
F-F' - E-E'	72	70	5	25,200	
III – Year Excavation				**58,960**	**33,516**
F-F' - D-D'	76	20	5	7,600	
A-A' – E-E'	67	64	5	21,440	
F-F' - E-E'	67	65	5	21,775	
A-A' – E-E'	27	59	5	7,965	
IV – Year Excavation				**58,780**	
	35	59	5	10,325	
	57	54	5	15,390	
	62	60	5	18,600	
	57	55	5	15,675	
V – Year Excavation				**59,990**	
TOTAL FIVE YEARS EXCAVATION				**2,97,975**	**51,450**

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The applicant has proposed to carry out **2,97,975 m^3** of rough stone, [illegible] Topsoil with gravel for the period of FIVE years.

4.5	Machineries to be used	
	a) For mining	Type of machineries proposed in the quarrying operation. Excavator of 0.90Cbm bucket capacity (with Rock breaker attachment) Jack hammers 30-32mm dia Tractor mounted compressor (2 jack hammer capacity).
	b) Loading equipment	Excavator of 0.90Cbm bucket capacity (with Rock breaker attachment)
	c) Transportation (includes within the mine and mine to destination	Tipper of 10/20 tons capacity (from quarry to needy crushers).
4.6	Disposal of overburden / waste	The overburden is in the form of topsoil & weathered rock formation, it has been removed while quarrying operation, the top soil was preserved all along the boundary barrier for afforestation, the weathered rock will be used for level filling and road lying purpose.
4.7	Brief note on conceptual mining plan for the entire lease period base on the geological, mining and environmental considerations	Conceptual mining plan is prepared with an object of long term systematic development of benches, layouts, selection of permanent structures, depth of quarrying and ultimate pit dimensions, selection of sites for construction of infrastructure, etc., The ultimate pit size is designed based on certain practical parameters such as economical depth of mining, safety zones, permissible area, etc., The ultimate pit limit (dimension) at the end of lease period is given below **Table-4** **Description End of the lease period** / **Length (Max) (m)** / **Width (Max) (m)** / **Depth (Max) (m)** Block -I / 120 / 70 / 23 Block -II / 156 / 140 / 23 Afforestation has planed every year in the safety barrier by planting 25 neem trees of native species in

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		every year. All the base line information studies like Air quality monitoring, Noise and vibration monitoring, Water analysis studies will be carried out as per the MOEF Norms. Please refer plat No. V & VI.

5. BLASTING

5.1	Blasting pattern	The quarrying operation will be carried out by Semi Mechanized Opencast Method in conjunction with conventional method of mining using Jack hammer drilling and blasting for shattering effect and loosen the Rough stone. **Drilling and Blasting** Drilling and blasting parameters are as follows Depth of Each hole : 1.2m-1.5m Diameter of hole : 30-32mm Spading between holes : 0.5m Burden for hole : 0.5m Pattern of hole : Zigzag Inclination of holes : 80°from horizontal Use of delay detonators : 25millisecond delays. Detonating fuse : "Detenating" Cord Hole pattern : Staggered in two to three rows
5.2	Type of explosives to be used	Small Dia. 25mm Slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Rough stone. No deep hole drilling or primary blasting is proposed
5.3	Measures proposed to minimize ground vibration due to blasting	The quarry is situated more than 1 Km from the nearby villages, Controlled blasting measures will be adopted for minimizing ground vibration and fly rock. Shallow depths jackhammer drilling & blasting is proposed to be carried out with minimum use of explosive mainly to give shattering effect in rough stone for easy excavation and to control fly rock. No of Holes = 32Holes Yield = 96Tons Powder factor = 6 tons/Kg of explosives Total explosive required = 16Kg-

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		Slurryexplosives Charge/ hole = 0.5 Kg Blasted at day time = 5-6p.m(whenever required)
5.4	Storage and safety measures to be taken while blasting	The lessee will engage an authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory foreman/Permit Mines Manager

6. MINE DRAINAGE

6.1	Depth of water table (based on nearby wells and water bodies)	The quarry operation upto a depth of 23m below the ground level. The water table is at 35m BGL in rainy season and 40m BGL in summer season which is observed from the nearby wells and the data obtained from existing Government and private boreholes. Hence the ground water will not be affected in any manner due to the quarrying operation during the entire life period.
6.2	Arrangements and places where the mine water is finally proposed to be discharged	Quarry operations are confined well above the water table during the five year plan period or entire lease period. If water is encountered at due to rain water and seepage, the same will be pumped out by 5HP water pumps to the afforestation and Green belt development areas. Besides the water will also be used for dust suppression on haul roads during Haulage of machineries.

7. OTHER PERMANENT STRUCTURES (also shown in the map)

7.1	Habitations / village natham	There is no habitation within the Radius of 500m.	
7.2	Power lines (HT/ LT)	There is no LT/HT line situated within the radius of 50m.	
7.3	Water bodies (river, pond, lake, odai, canal,etc.,)	There is small odai runs in Northern side in adjacent patta land for which 50 m is left from the applied lease area,	
7.4	Archaeological / historical monuments	There is no Archaeological / historical monuments within 500m radius from the area.	
7.5	Road (NH, SH others)	The National High Tirunelveli- Madurai highway which is about 3 Km on the Eastern side of the area.	
7.6	Places of worship	There is no place of worships within the Radius of 500m.	
7.7	Reserved forest / forest / social forest / wild life sanctuary etc.	There is no reserved forest with in 10 km radius.	

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8. EMPLOYMENT POTENTIAL & WELFARE MEASURES

8.1	Employment potential (skilled, semi skilled, unskilled)	a. Skilled labour Mine Foreman/ Permit Mines Manager : 1 Jack hammer operator : 2 Blaster/ mate : 1 b. Unskilled- helper : 15 **Total** **19** The above manpower is adequate to meet out the production schedule and the machinery strength envisaged in the mining plan and to comply with the statutory provisions of the Mines Safety Regulations. It is been ensured that the labor will not be employed less than 21 years, No child labour will engaged or entertained for any kind of quarrying operations. All the labors engaged for quarrying operations will be insured during the quarry lease period..
8.2	Welfare measures	
	a) Drinking water	Packaged drinking water is available from the nearby approved water vendors in Kayathar which is about 4 Km on the north side of the area.
	b) Sanitary facilities	Hygienic modern Sanitary facilities will be constructed with in the quarrying area as permanent structure and it will be maintained periodically.
	c) First Aid facility	First aid kits are kept in Mines office room, in case of such eventualities the victim will be given first aid immediately at the site and injured person will be taken to the hospital. Hospital is available at distance of 4 Km in Kayathar the competent and Statutory foreman/ permit manager will be in charge of first aid
	d) Labor Health	Periodically medical checkup related to occupational health safety will be conducted to all the workers in applicants own cost.

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	e) Precautionary safety measures to the laborers	All the quarry workers will be provided with safety equipments like helmets, Mine Goggle, Ear plugs, Ear muffs, Dust mask, reflector jackets and Safety Shoes as personal protective device as per the specification approved by Director of mines safety. Periodically medical checkup will be conducted for all workers for any mine health related problems. Proper training and induction will be given by qualified and experienced safety officer to all employees about the safe and systematic Rough stone quarrying operations. The drillers and workers will be sent for vocational training periodically to carry out the quarrying operations scientifically to safe guard the men machinery and mineral and to create awareness of conventional opencast quarrying operations.

PART — B

9. ENVIRONMENT MANAGEMENT PLAN

9.1	Existing landuse pattern	The lease area is plain terrain.
9.2	Water regime	The quarrying is up to a maximum depth of 23 m below the ground level. Hence the quarry operation will not be affected by the ground water.
9.3	Flora and fauna	There are no trees observed in the area. Thorny bushes, Neem and Palm are found in around the area. No plants of botanical interest or animals of zoological interest are noticed. There are no cultivation, plantation or agriculture found within the 300 m radius.
9.4	Climatic conditions	The area receives rainfall of about 750/per annum and the rainy season is mainly from Oct - Jan during North East, monsoon. The summer is hot with maximum temperature of 42°C and winter encounters a minimum temperature of 23°C.
9.5	Human settlement	There are few villages located in this area within 1km radius, the approximate distance and population are given below. Table – 5

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		DIRECTION / VILLAGE / POPULATION / DISTANCE North East / Therkkullatha kulam / 800 / 2 Km west / Panikar Kulam / 500 / 2 Km South / Athikulam / 800 / 2.5 Km Basic human welfare Amenities such as Health Center, Schools, Communication Facilities, and Commercial Centers etc are available at Kayathar located at a distance of 4 km
9.6	Plan for air, dust suppression	The Air quality will be affected during the quarrying period due to blasting and jack hammer drilling, which will be within prescribed limits. Mist Water spraying will be carried out to suppress dust.
9.7	Plan for noise level control	Shallow holes of 32mm diameter and 1.5m depth will be drilled and conventional low power explosives such as Slurry Explosives, ordinary safety fuse only will be used for rough stone. Hence, ground vibration and noise pollution will be minimal and restricted within the quarry workings. Noise level monitoring and other Mitigation measures will be carried out to reduce Noise and Vibration.. The drivers will be strictly inducted to move the vehicle during the transportation not exceed 40 km per hour. Sentries with flags & whistle will posted in village junction and populated area to control and regulate traffic and regulate traffic.
9.8	Environmental impact assessment statement describing impact of mining on the next five years	The mining plan is for a small production of Rough stone without involving deep hole drilling and heavy blasting. Such limited mining activity is not likely to cause any impact adversely on environment as far as pollution of air, water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MOEF. It is B2 Category mine.

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9.9	Proposal for waste management	The Air quality will be affected during the quarrying period due to blasting and jack hammer drilling, which will be within prescribed limits. Mist Water spraying will be carried out to suppress dust.
9.10	Proposal for reclamation of land affected during mining activities and at the end of mining (refilling / fencing etc.)	Shallow holes of 32mm diameter and 1.5m depth will be drilled and conventional low power explosives such as Slurry Explosives, ordinary safety fuse only will be used for rough stone. Hence, ground vibration and noise pollution will be minimum and restricted within the quarry workings. The drivers will be strictly inducted to move the vehicle during the transportation not exceed 40 km per hour. Sentries with flags & whistle will posted in village junction and populated area to control and regulate traffic.
9.11	Programme of afforestation (indicate extend, number, name of species to be afforestated)	The eucalyptus trees already planted in the7.5 m safety distance left from all the sides of the applied lease area, even then remaining safety distance area to be utilized for future afforestation

Year	Proposed plantation	No. of Trees	Survival
I Year	NEEM TREE	25	80%
II Year	NEEM TREE	25	80%
III Year	NEEM TREE	25	80%
IV Year	NEEM TREE	25	80%
V Year	NEEM TREE	25	80%

9.12 Proposed financial estimate / budget for (EMP) environment management:

a)Project cost / investment cost

S. NO	DETAILS	COST in Rs. /-
i)	Land Cost	Own patta land
ii)	Machinery to be used	Hired machinery
iii)	Fencing	100,000
iv)	Labourers Shed	10,000
v)	Sanitary facility	20,000
vi)	Other Items	10,000
TOTAL		1,40,,000

(b) Expenditure/ PRODUCTION COST. (1Unit= 2.83m³)

a) Drilling and Blasting cost / unit production = Rs.140/- including loading & breaking.

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b)Mining cost for up to 5 Years planned production quantity
= 2,97,975 M^3 (1,05,291 Units)
= 46,381 X Rs. 140
= Rs 1,47,40,740/-

c) Top soil with gravel 51,450 M^3 (18,180Unit) = 18,180 units X Rs 60
= Rs. 10,90,800/

EMP Cost

S. NO	DETAILS	COST/DAY (Rs. /-)	COST / MONTH(Rs./-)	TOTAL COST / LEASE PERIOD(Rs. /-)
i)	Drinking Water facility for Labourers	80	-	1,20,000
ii)	Sanitary maintenance	-	5,00	30,000
iii)	Safety kits	-	-	10,000
iv)	Water Sprinkling	-	-	30,000
v)	Afforestation, Plantation & Maintenance	-	-	10,000
			TOTAL	2,00,000

Investment cost	Rs.		1,40,000/-
Mining Cost up to lease period	=	Rs.	1,58,31,540/-
Total EMP cost	=	Rs.	2,00,000/-
GRAND TOTAL FOR PROJECT		Rs	1,61,71,540/-

10. MINE CLOSURE PLAN

10.1	Steps proposed for phased restoration, reclamation of already mined out areas	There is no proposal for back filling, reclamation and rehabilitation. The quarried pits after the end of the life of lease will "be fenced to prevent inherent entry of public and cattle's.
10.2	Measures to be under taken on mine closure as per Act & Rules	Measure will be taken as per Act & Rules, There is no proposal for back filling, reclamation and rehabilitation. The quarry pit will be fenced by barbed wire to prevent inherent entry of public and cattle. The quarried out pit will be allowed

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		to collect rain and seepage water as a reservoir for storage. This water storage will enhance the static level and ground water recharge of nearby wells.
10.3	**MITIGATION MEASURE TO BE UNDERTAKEN FOR SAFETY AND RESTORATION / RECLAMATION OF THE ALREADY MINED OUT AREA.**	
	AIR QUALITY: Air quality will be degrade due to the drilling, blasting, mining operation and transportation.	Mitigation measures: Drilling will be carried out by wet drilling mode to control the dust propagation into the air. Blasting will be carried out on limited scale. Mist Water spraying on haul road is proposed to prevent the dust propagation into the air.
	NOISE AND VIBRATION: The noise will be formed due to the drilling, blasting, loading and movement of Machineries.	The applicant has proposed to carry out the plantation all along the boundary to prevent Noise besides wet drilling will be practiced to prevent dust. All the machineries will be maintained in good conditions as per RTO and TNPCB Norms to prevent Noise, Smoke and vibration.
	WATER REGIME :	The quarry operation (23m depth below Ground level) is well above the water table (Summer in 40m and rainy seasons in 35m), hence the water table will not be affected in any manner. The seepage and rain water will be drained out from the pit by the 5H.P motor pump and will be discharged through filter media to boundary barrier for afforestation and excess water will be sprayed on haul roads to prevent dust propagation in to the atmosphere. The rough stone quarry will not produce any harmful toxic effluence in the form of solid liquid or gas.
	HUMAN HEALTH & SAFETY: Dust will be limited due to the mine operation.	All the labors will be provided with safety equipment's like helmet, Safety Goggles, Ear muff, Hand glouse, safety jacket, safety belt, and Mine boots etc., at applicant own cost, As per the specifications of Director of mines safety. The competent qualified person foreman/Permit Mines Manager will provide first aid and will take care of

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Tuticorin District

small & minor injuries. If any accident happens, the victim will be taken to the nearby hospital by the applicants van which is always kept in the mines office. The hospital is about 2Km in Puthiyamputhur.

Purpose	Quantity	Sources
Drinking & Domestic purpose	0.1 KLD	Mineral water purchased from approved water vendors available in Kayathar
Dust Suppression	0.2 KLD	From Hired Water Tanker
Green Belt	0.3 KLD	From Hired Water Tanker
Total	0.6 KLD	

11. ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT:

This mining plan for Rough stone (Charnockite) is prepared as per the Draft Minor Mineral conservation and Development Rules, 2010 and amendment by the Tamil Nadu Minor Mineral Concession Rules, 1959. The provisions of the Mines Act, Rules and Regulations and orders made there under shall be complied with, so that the safety of the mine, machinery and person will be well protected. Permission, relaxation or exemption wherever required for the safe and scientific quarrying of the deposit will be obtained from the Department of Mines Safety. Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department.

Place : Tirunelveli

Date :

RQP SIGNATURE

N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

Mining Plan Approved
In R.C. No GNI/69/2016
By
Assistant Director
Geology and Mining
Thoothukudi
16/1/18

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16/1/18

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From

Thiru. Sandeep Nanduri, I.A.S.,
District Collector,
Thoothukudi.

To

Thiru. P. Jahir Hussian,
S/o. Peer Mohammad
No.11A, Pavalar Street,
Kayathar village,
Kovilpatti Taluk

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Assistant Director
of Geology & Mining
Tuticorin Dist.

Rc.No. 69/G&M/2016 Dated : 08.10.2018

Sub: Mines and Quarries –Thoothukudi District - Application preferred for grant of quarry lease for quarrying Rough Stone and Gravel in patta land bearing S.F.Nos. 182/1B, 183/1, 183/2B & 184/2 over an extent 3.94.5 Hects. – Kayathar Taluk – Therkkuillanthaikulam Village by Thiru. P. Jahir Hussian - under Rule 19(1) of Tamil Nadu Minor Mineral Concession Rules, 1959 – Precise area communicated – regarding.

Ref:
1) Quarry lease application of Thiru. P. Jahir Hussian, Kovilpatti dated: 08.02.2016.
2) This office letter in Rc. No. 69/G&M/2016 dated 16.02.2016 and 07.02.2018.
3) Report of the Revenue Divisional Officer, Kovilpatti in Rc.No: B2/1152/2016, Dated: 21.12.2016 and A2/2358/2018, Dated: 11.04.2018.
4) Inspection Report of the Assistant Director of Geology and Mining, Thoothukudi dated 06.10.2018.
5) Government of India, Ministry of Environment and Forest, Office Memorandum No.L-11011/47/20112-1A-11(M), dated: 18.05.2012.
6) From the Commissioner of Geology and Mining, Chennai in Rc.No.3868/LC/2012, dated: 19.11.2012.
7) G.O.Ms. No. 79 Industries (MMC1) Department dated 06.04.2015 inserting Rules 41 & 42 to the Tamil Nadu Minor Mineral Concession Rules, 1959.
8) Other Connected records.

******

In the reference 1st cited, one Thiru. P. Jahir Hussian, S/o. Peer Mohammad residing at No.11A, Pavalar Street, Kayathar village, Kovilpatti Taluk has preferred an application requesting grant of quarry lease for quarrying and transportation of Rough Stone and Gravel in an extent of 3.94.5 Hects of patta lands in S.F.Nos. 182/1B, 183/1, 183/2B & 184/2 of Therkkuillanthaikulam Village, Kayathar Taluk, Thoothukudi District for a period of five years under Rule 19 of Tamil Nadu Minor Mineral Concession Rules, 1959.

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Tuticorin Dist.

2) In this connection the Revenue Divisional Officer, Kovilpatti and the Assistant Director of Geology and Mining, Thoothukudi had been called for to submit land availability report and technical report respectively.

3) The Revenue Divisional officer, Kovilpatti has submitted land availability reports vide reference 3rd cited wherein recommended for grant of quarry lease for quarrying and transportation of rough stone and gravel in the area as applied for with certain conditions.

4) The Assistant Director, Geology and Mining, Thoothukudi has also submitted technical report vide reference 4th cited wherein recommended for grant of quarry lease for quarrying and transportation of rough stone in the S.F.Nos. 182/1B, 183/1, 183/2B & 184/2 over an extent of 3.94.5 Hects in Therkkuillanthaikulam Village, Kayathar Taluk with certain conditions.

5) By considering the reports of the Revenue Divisional Officer, Kovilpatti and the Assistant Director of Geology and Mining, Thoothukudi with connected records, an extent of 3.94.5 Hects of patta lands bearing S.F.Nos. 182/1B, 183/1, 183/2B & 184/2 of Therkkuillanthaikulam Village, Kayathar is considered as "precise area" for grant of quarry lease for quarrying of rough stone and Gravel for a period of 5 years under Rules 19(1) and 20 of Tamil Nadu Mineral Concession Rules 1959 subject to the following conditions.

i. 50 mts safety distance has to be provided to the Odai passing west-east on the nortehrn side of the applied S.F.No. 183/1.
ii. 7.5 m should be provided all along the boundary for the patta lands of the area.
iii. Hindrance should not be caused to the adjacent Pattadars and Public while carrying on quarrying and transportation of minerals from the subject area.

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for the
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6) As per Rule 41 and 42 of Tamil Nadu Mineral and Concessions Rule 1959, the approved Mining Plan and the Environmental Clearance are mandatory for the grant of quarry lease in respect of minor minerals.

7) Hence, the applicant Thiru. P. Jahir Hussian, S/o. Peer Mohammad is directed to prepare a Draft Mining Plan incorporating all the conditions as stated above and produce the same before the Assistant Director of Geology and Mining, Thoothukudi for approval within a period of 90 days from the date of receipt of this communication.

Sd./- Sandeep Nanduri
Dt: 08.10.2018
District Collector
Thoothukudi

//Forwarded by Order//

For Collector
Thoothukudi 8/x/18.

Copy to:

1. The Chairman
   DEIAA, Thoothukudi.
2. The Director of Geology and Mining
   Guindy, Chennai - 32

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Tuticorin Dist.

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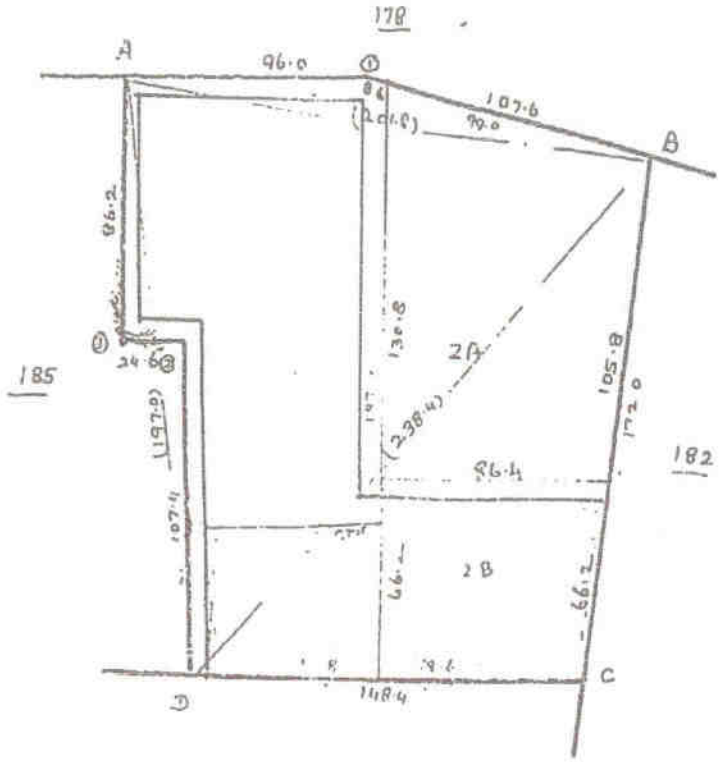

ஏற்கனவே உரிமம் பெற்றுள்ள இடம்

பாதுகாப்பு வளையம்

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Revenue Divisional Officer
Kovilpatti.

அளவு. 1:2000

வட்ட துணை வெள்ளாளர்
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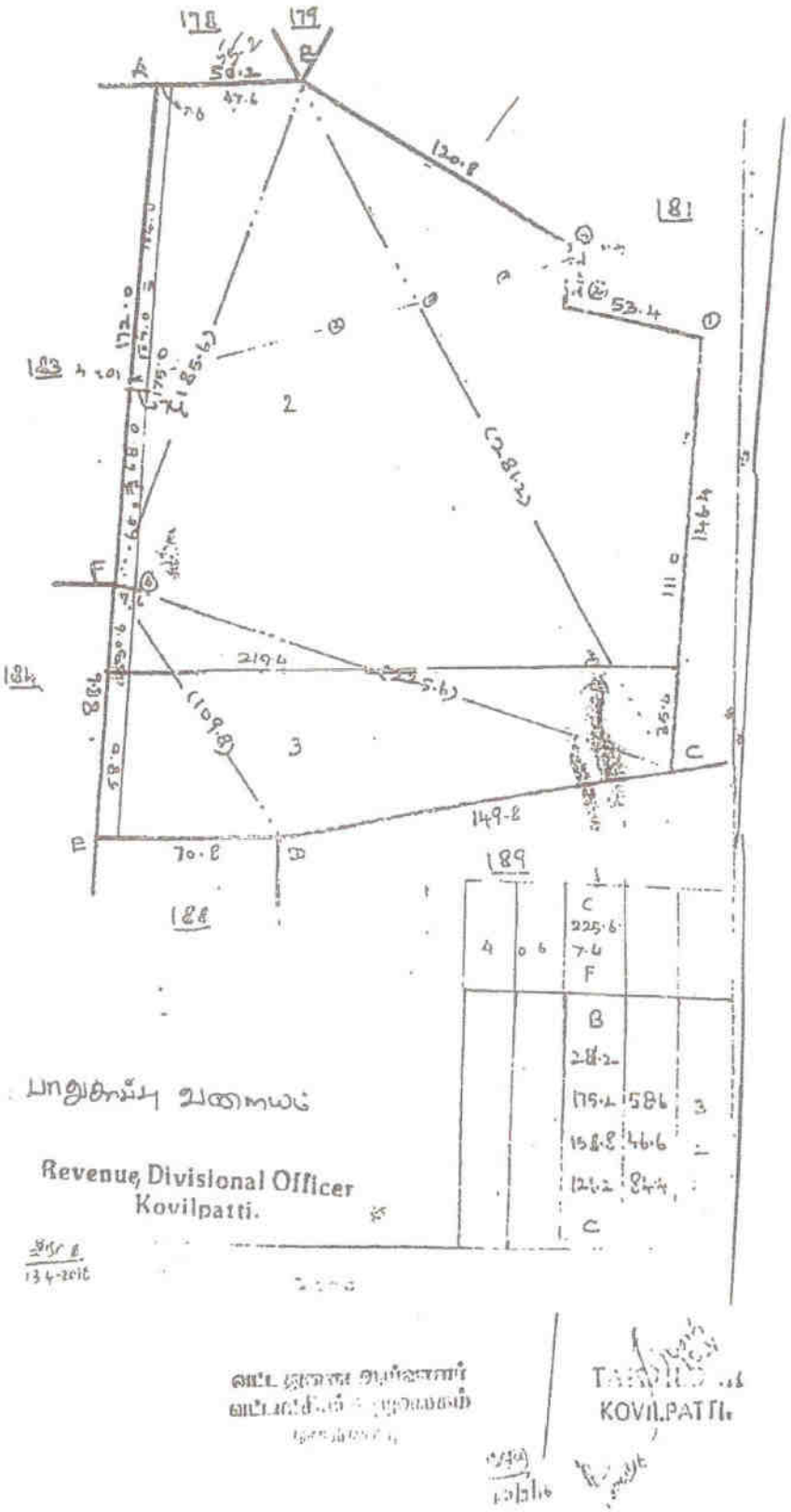
Assistant Director of Geology & Mining
Tuticorin Dist.



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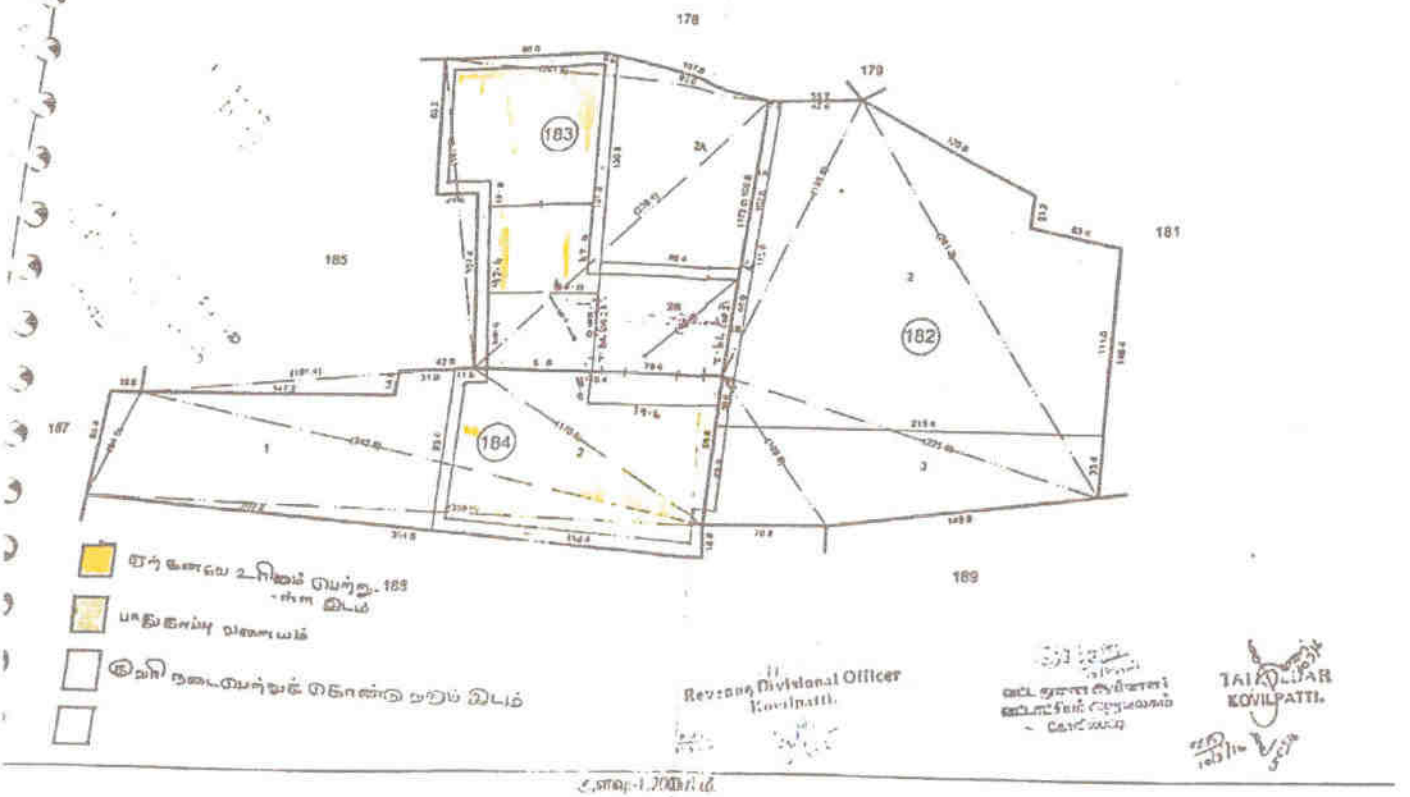
Tuticorin Dist.



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of Geology & Mining
Tuticorin Dist.

தமிழக அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : தூத்துக்குடிவட்டம் : கயத்தார்

வருவாய் கிராமம் : தெற்கு இலந்தைக்குளம்பட்டா எண் : 2614

உரிமையாளர்கள் பெயர்

1. பீர்முகம்மது இராவுத்தர் மகன் ஜாஹீர் உசேன்

		நன்செய்		புன்செய்		மற்றவை	
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை
புல எண்	உட்பிரிவு	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை
182	1B	--	--	0 - 5.50	0.06	--	--
183	2B	--	--	0 - 55.50	0.51	--	--
184	2	--	--	1 - 62.00	1.48	--	--
				2 - 23.00	2.05		

குறிப்பு2 :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **http://eservices.tn.gov.in** என்ற இணைய தளத்தில் **28/09/017/02614/30733** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்
2. இத் தகவல்கள் 13-10-2018 அன்று 02:54:56 PM நேரத்தில் அச்சடிக்கப்பட்டது.
3. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

P. ஜாஹீர் உசேன்

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MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

தமிழக அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : தூத்துக்குடிவட்டம் : கயத்தார்

வருவாய் கிராமம் : தெற்கு இலந்தைக்குளம்பட்டா எண் : 1649

உரிமையாளர்கள் பெயர்

1. பீர்முகம்மது மகன் ஜாஹிர்உசேன்

		நன்செய்		புன்செய்		மற்றவை	
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை
புல எண்	உட்பிரிவு	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை
183	1	--	--	1 - 71.50	1.57	--	--
				1 - 71.50	1.57		

குறிப்பு2 :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை இவற்றை தாங்கள் **http://eservices.tn.gov.in** என்ற இணைய தளத்தில் **28/09/017/01649/20780** என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்
2. இத் தகவல்கள் 13-10-2018 அன்று 02:58:32 PM நேரத்தில் அச்சடிக்கப்பட்டது
3. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

ஜ. ஜாஹிர்உசேன்

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மேயா முதலை கலாநிதி

MINING PLAN APPROVED
Assistant Director of Geology & Mining
திராமத் கணக்கு
Tuticorin District

125 - ஆம் பகலியில் தூத்துக்குடி மாவட்டம் கோவில்பட்டி வட்டம்

நில அளவை எண் (1)	உட்பிரிவு எண் (2)	பரப்பு (3)	தீர்வை (4)	ஒரு போகம் அல்லது இரு போகம் (5)	கைப்பற்றா தாரருடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர். (6)	முதலை யாளரின் பெயர் (7)	முதல் போகம் (8)	பயிரின் பெயர் (9)	பயிரான / அறுவடை யான பரப்பு (10)	உண்மையான பாய்ச்சல் ஆதாரம் (11)	விளைச்சல் அளவு விழுக்காடு (12)
182	1B	0.050	0.06	2614	ஜாஹீர் உசேன்		—	—	—		
183	2B	0.555	0.51	2614	ஜாஹீர் உசேன்		—	—	—		
184	2	1.62.0	1.48	2614	ஜாஹீர் உசேன்		—	—	—		
183	1	1.71.5	1.57	1649	ஜாஹீர் உசேன்		—	—	—		

(உண்மை நகல்)

VILLAGE ADMINISTRATIVE OFFICER
TERKU ILANTHAIKULAM VILLAGE
KOVILPATTI TALUK
10/12/15

Revenue Divisional Officer
Kovilpatti.

TAHSILDAR
KOVILPATTI.

13-6-2016

10/3/16

P. ஜாஹீர் உசேன்

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இ. எண். 19. தெற்குஇளந்தைக்குளம்.

	2	3	4	5	6	7	8	9	10	
							ரூ. பை.	ஹெ. ஏர்ஸ்.	ரூ. பை.	
15	180-15	ர	பு	...	8-4	6	0 91	0 27.5	0 25	998 ரா. ராஜ கோபால்(1). ப. சங்கையா நாயக்கர்(2).
16	-16	ர	பு	...	8-4	6	0 91	0 24.0	0 22	995 சோ. கிருஷ்ண சாமி(1). ம. சண்முக நாயக்கர்(2).
								4 14.0	3 80	
1	181-1	ர	பு	...	8-4	6	0 91	0 12.5	0 11	493 அ. தாவூது இராவுத்தர்.
2	-2	ர	பு	...	8-4	6	0 91	0 57.0	0 52	493 அ. தாவூது இராவுத்தர்.
3	-3	ர	பு	...	8-4	6	0 91	0 48.5	0 44	1309 க நாராயணன் மற்றும் மூன்று பேர்களும்.
4	-4	ர	பு	...	8-4	6	0 91	0 54.5	0 50	74 இரா. அனந்த கிருஷ்ணய்யர்.
5	-5	ர	பு	...	8-4	6	0 91	1 05.5	0 97	493 அ தாவூது இராவுத்தர்.
6	-6	ர	பு	...	8-4	6	0 91	4 44.5	4 06	1376 கோ ராமசாமி மற்றும் ஐந்து பேர்களும்.
7	-7	ர	பு	...	8-4	6	0 91	1 76.5	1 61	289 ம. சண்முக நாயக்கர்.
8	-8	ர	பு	...	8-4	6	0 91	1 41.5	1 29	289 ம. சண்முக நாயக்கர்.
9	-9	ர	பு	...	8-4	6	0 91	1 41.5	1 29	1415 வீ. சுப்பையா நாயக்கர் மற்றும் பதிமூன்று பேர்களும்.
10	-10	ர	பு	...	8-4	6	0 91	0 13.5	0 29	622 ச. பேச்சிமுத்து தேவர்.
								11 95.5	10 91	
	182-பா	ர	பு	...	8-4	6	0 91	0 13.5	0 13	1422 ம. செல்லத் துரை.
	-பா	ர	பு	...	8-4	6	0 91	3 44.5	3 13	1302 இ. சண்முகம், நாயக்கர் மற்றும் மூன்று பேர்களும்.

உண்மை நகல்

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

TAHSILDAR KOVILPATTI

Divisional Officer

VILLAGE ADMINISTRATIVE OFFICER
TERKU ILANTHAIKULAM VILLAGE

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MINING PLAN APPROVED
Assistant Direc[illegible]
of Geology & M[illegible]
Tuticorin D[illegible]

15 - 18

16

1 / 1

182/1A ... 0.91 - 0.080 0.07. 1472 ...
1B ... 0.4 ... 0.91 0.055 0.06. 1568 ...
0.13.5 0.13

18

| 2 ... |

Revenue Divisional Officer
Kovilpatti.

TAHSILDAR
KOVILPATTI.

VILLAGE ADMINISTRATIVE OFFICER
TERKU ILANTHAIKULAM VILLAGE
KOVILPATTI TALUK

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54 A

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Assistant Director of Geology & Mining
Tuticorin Dist.

1		2	3	4	5	6	7	8	9	10	11	12
								ரூ. பை.	ஹெ.ஏர்ஸ்	ரூ. பை		
182	3	182-3	ர	பு	...	8-4	6	0 91	1 14.0	1 05	398 ப.சுப்பிர மணியம்.	
									4 73.0	4 31		
183	1	183-1	ர	பு	...	8-4	6	0 91	1 71.5	1 57	883 ஆ.வேலு நாயக்கர்.	
	2	-2	ர	பு	...	8-4	6	0 91	1 56.0	1 42	1422 ம.செல்லத் துரை.	
									3 27.5	2 99		
184	...	184	ர	பு	...	8-4	6	0 91	3 01.0	2 75	1195 நா.கிருஷ்ண சாமி நாயக்கர்(1). மு.தேவ ராஜ்(2) மு.துரை சாமி(3).	
185	1	185-1	ர	பு	...	8-4	6	0 91	2 57.5	2 35	856 நா.வெங்கடேஷ்	
	2	-2	ர	பு	...	8-4	6	0 91	0 82.0	0 75	138 வே.கடற்கரை கோனார்.	
	3	-3	ர	பு	...	8-4	6	0 91	2 15.5	1 97	1415 வீ.சுப்பையா நாயக்கர் மற்றும் பதினான்கு பேர்களும்.*	
									5 55.0	5 07		
186	1	186 பா	ர	பு	...	8-4	6	0 91	5 83.0	5 30	1415 வீ.சுப்பையா நாயக்கர் மற்றும் பதினான்கு பேர்களும்.*	
	2	-பா	ர	பு	...	8-4	6	0 91	0 38.0	0 35	1415 வீ.சுப்பையா நாயக்கர் மற்றும் பதினான்கு பேர்களும்.*	நீ[illegible] சா[illegible]
	3	-பா	ர	பு	...	8-4	6	0 91	0 38.0	0 35	1415 வீ.சுப்பையா நாயக்கர் மற்றும் பதினான்கு பேர்களும்.*	
									6 59.0	6 00		
187	1	187-1	ர	பு	...	8-4	6	0 91	6 28.5	5 75	1195 நா.கிருஷ்ண நாயுடு(1). மு.தேவராஜ்(2) மு.துரைச் சாமி(3)	நீ[illegible]

Revenue Divisional Officer
Kovilpatti.

TAHSILDAR
KOVILPATTI.

*விவரப்பட்டியலைப் பார்க்கவும்.

VILLAGE ADMINISTRATIVE OFFICER
NAIKULAM VILLAGE

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P. [illegible] 2 [illegible]

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of Geology & Mining
Tuticorin Dist.

1.560 1.42

3.61.0-275

VILLAGE ADMINISTRATIVE OFFICER
ERKU ILANTHAIKULAM VILLAGE
KOVILPATTI TALUK

KOVILPATTI.

Revenue Divisional Officer
Kovilpatti.

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Assistant Director
of Geology & Mining
Tuticorin Dist.

आधार

இந்திய அரசாங்கம்
Unique Identification Authority of India
Government of India

பதிவு அடையாளம் / Enrollment No.: 2193/12319/42788

To
ஜாஹீர் உசேன் பீ
Jaheer Hussian B
S/O: Beer Mohammed
8/1 KASIMBAVA STREET
KAYATHAR
Kayathar
Kayathar
Kovilpatti Thoothukkudi
Tamil Nadu 628952
9965021712

24/01/2014
1106964685

ME106964685FH

உங்கள் ஆதார் எண் / Your Aadhaar No. :

9460 8317 2256

எனது ஆதார், எனது அடையாளம்

இந்திய அரசாங்கம்
Government of India

ஜாஹீர் உசேன் பீ
Jaheer Hussian B
பிறந்த நாள் / DOB : 04/05/1969
ஆண்பால் / Male

9460 8317 2256

எனது ஆதார், எனது அடையாளம்

ஜ. ஜாஹீர் உசேன்

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MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

नव्यीकृत
Renewed up to 20-12-2020

Regional Controller of Mines
INDIAN BUREAU OF MINES

REGIONAL CONTROLLER OF MINES.
INDIAN BUREAU OF MINES
CHENNAI

CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON TO PREPARE MINING PLANS

(Under Rule 22C of Mineral Concession Rules, 1960)

Shri N.RAVINTHIRAN *resident of* 3/105,Kannithavanpatti,Keelarajakularaman(PO),Virudhunagar dt.*son of* P.NARAYANASAMY, *having given satisfactory evidence of his qualifications and experience is hereby granted recognition under Rule 22C of the Mineral Concession Rules, 1960 as a Qualified Person to prepare Mining Plans.*

His registration number is RQP/MAS/130/98/A

This recognition is valid for a period of two years ending 21.12.2000

M.K.A.
Regional Controller of Mines
Indian Bureau of Mines
Chennai
22.12.98

Place : CHENNAI
Date : 21.12.98

P. மணிரத்னம்

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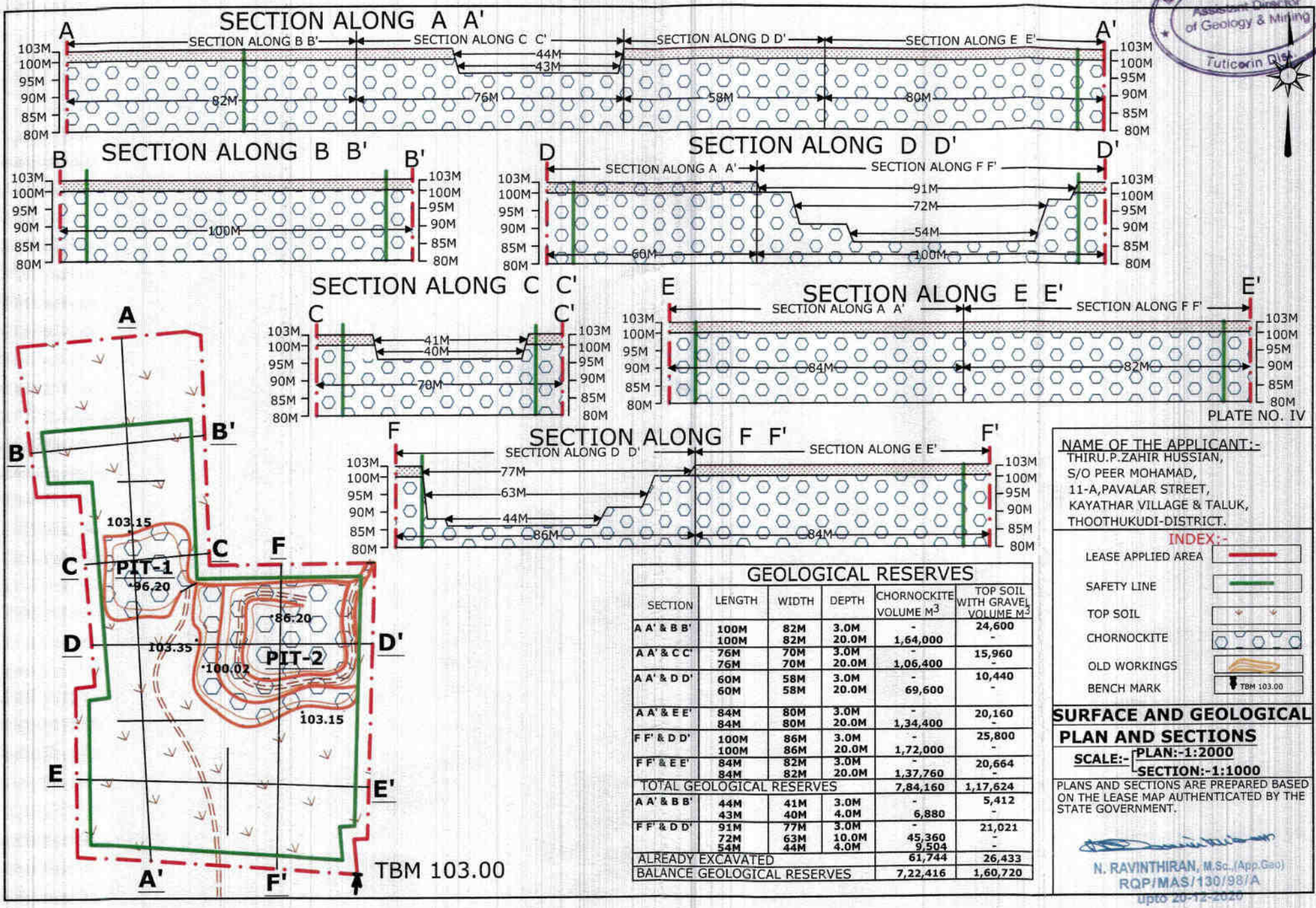

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

NAME OF THE APPLICANT:-
THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

INDEX:-
LEASE APPLIED AREA
SAFETY LINE
TOP SOIL
CHORNOCKITE
OLD WORKINGS
BENCH MARK TBM 103.00

GEOLOGICAL RESERVES

SECTION	LENGTH	WIDTH	DEPTH	CHORNOCKITE VOLUME M^3	TOP SOIL WITH GRAVEL VOLUME M^3
A A' & B B'	100M 100M	82M 82M	3.0M 20.0M	- 1,64,000	24,600 -
A A' & C C'	76M 76M	70M 70M	3.0M 20.0M	- 1,06,400	15,960 -
A A' & D D'	60M 60M	58M 58M	3.0M 20.0M	- 69,600	10,440 -
A A' & E E'	84M 84M	80M 80M	3.0M 20.0M	- 1,34,400	20,160 -
F F' & D D'	100M 100M	86M 86M	3.0M 20.0M	- 1,72,000	25,800 -
F F' & E E'	84M 84M	82M 82M	3.0M 20.0M	- 1,37,760	20,664 -
TOTAL GEOLOGICAL RESERVES				7,84,160	1,17,624
A A' & B B'	44M 43M	41M 40M	3.0M 4.0M	- 6,880	5,412 -
F F' & D D'	91M 72M 54M	77M 63M 44M	3.0M 10.0M 4.0M	- 45,360 9,504	21,021 - -
ALREADY EXCAVATED				61,744	26,433
BALANCE GEOLOGICAL RESERVES				7,22,416	1,60,720

SURFACE AND GEOLOGICAL PLAN AND SECTIONS

SCALE:- PLAN:-1:2000
SECTION:-1:1000

PLANS AND SECTIONS ARE PREPARED BASED ON THE LEASE MAP AUTHENTICATED BY THE STATE GOVERNMENT.

N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

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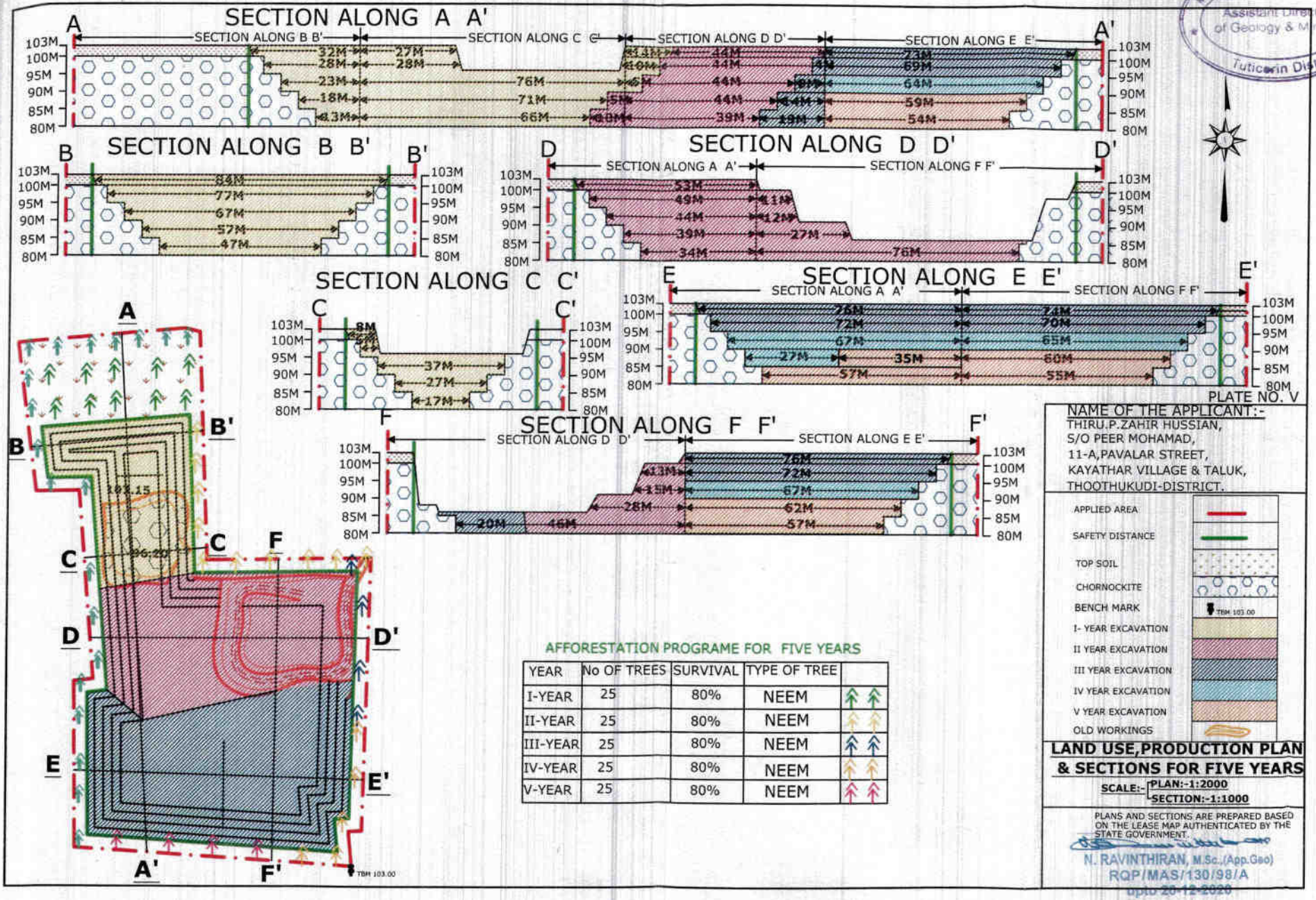


MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

PLATE NO. V

NAME OF THE APPLICANT :-
THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

APPLIED AREA
SAFETY DISTANCE
TOP SOIL
CHORNOCKITE
BENCH MARK
I- YEAR EXCAVATION
II YEAR EXCAVATION
III YEAR EXCAVATION
IV YEAR EXCAVATION
V YEAR EXCAVATION
OLD WORKINGS

LAND USE,PRODUCTION PLAN & SECTIONS FOR FIVE YEARS

SCALE:- PLAN:-1:2000
SECTION:-1:1000

PLANS AND SECTIONS ARE PREPARED BASED ON THE LEASE MAP AUTHENTICATED BY THE STATE GOVERNMENT.

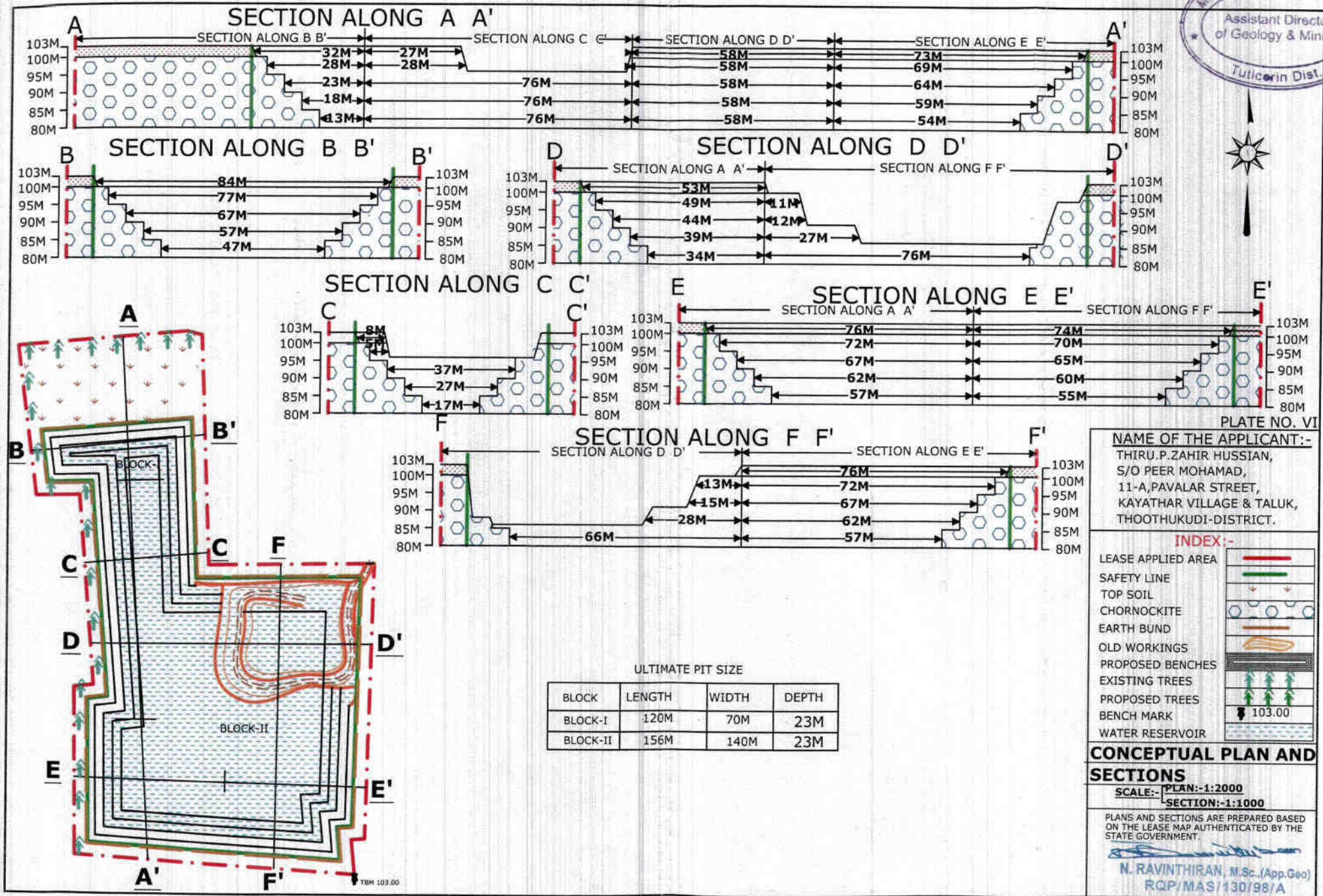
N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

AFFORESTATION PROGRAME FOR FIVE YEARS

YEAR	No OF TREES	SURVIVAL	TYPE OF TREE	
I-YEAR	25	80%	NEEM	
II-YEAR	25	80%	NEEM	
III-YEAR	25	80%	NEEM	
IV-YEAR	25	80%	NEEM	
V-YEAR	25	80%	NEEM	

88

60 A



MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

PLATE NO. VI

NAME OF THE APPLICANT:-
THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

ULTIMATE PIT SIZE

BLOCK	LENGTH	WIDTH	DEPTH
BLOCK-I	120M	70M	23M
BLOCK-II	156M	140M	23M

INDEX:-

- LEASE APPLIED AREA
- SAFETY LINE
- TOP SOIL
- CHORNOCKITE
- EARTH BUND
- OLD WORKINGS
- PROPOSED BENCHES
- EXISTING TREES
- PROPOSED TREES
- BENCH MARK 103.00
- WATER RESERVOIR

CONCEPTUAL PLAN AND SECTIONS

SCALE:- PLAN:-1:2000
SECTION:-1:1000

PLANS AND SECTIONS ARE PREPARED BASED ON THE LEASE MAP AUTHENTICATED BY THE STATE GOVERNMENT.

N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

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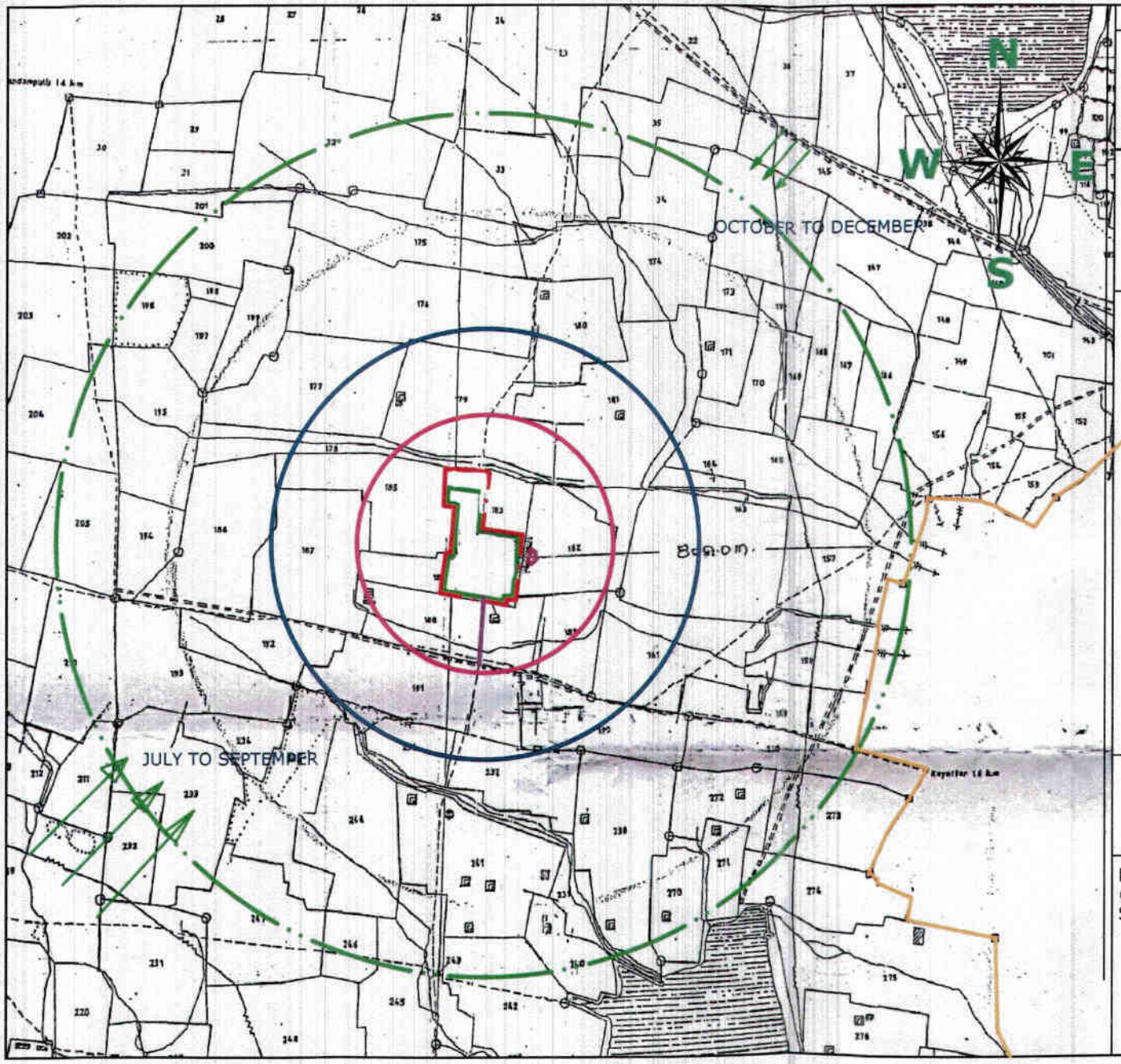

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

PLATE NO.VIIA

NAME OF THE APPLICANT:-

THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

LOCATION OF THE APPLIED AREA:-

S.F.Nos. :182/1B,183/1,183/2B&184/2
EXTENT : 3.94.5 HECTARE
VILL.. NAME : THERKKU ILANDAIKULAM
TALUK : KAYATHAR
DISTRICT : THOOTHUKUDI
STATE : TAMILNADU

INDEX:-

- APPLIED AREA
- 1000 M RADIUS
- 500 M RADIUS
- 300 M RADIUS
- INFRA STRUCTURE
- PANCHAYAT ROAD
- WIND DIRECTION
- SAFETY DISTANCE
- APPROACH ROAD
- ODAI
- POND
- VILLAGE BOUNDARY
- WELL
- ADJECENT MINES

VILLAGE MAP SHOWING ENVIRONMENTAL FEATURES

SCALE:-1:10,000

PLANS AND SECTIONS ARE PREPARED BASED ON THE LEASE MAP AUTHENTICATED BY THE STATE GOVERNMENT.

N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

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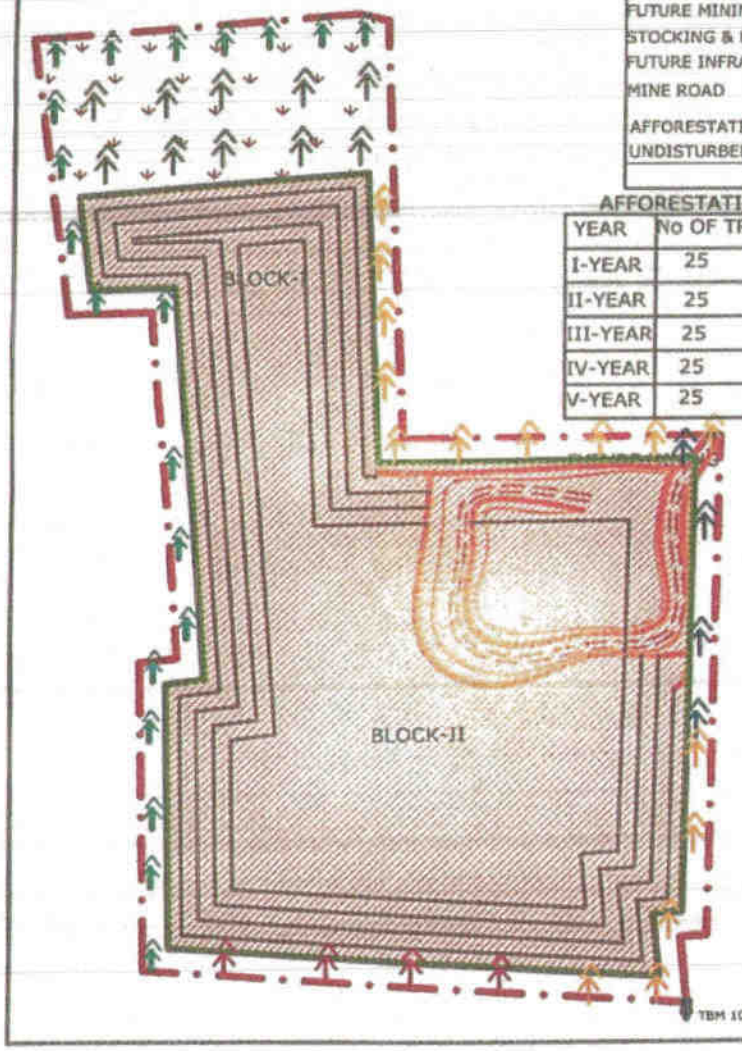
62 A



MINE CLOSURE PLAN WITH LAND USE PATTERN	
MINING / EXCAVATION	= 0.84.3 Ha
FUTURE MINING	= 2.18.1 Ha
STOCKING & MINERAL DRESSING YARD	= 0.00.0 Ha
FUTURE INFRASTRUCTURE	= 0.01.0 Ha
MINE ROAD	= 0.03.0 Ha
AFFORESTATION / MINE SAFETY	= 0.25.1 Ha
UNDISTURBED AREA	= 0.00.0 Ha
TOTAL	= 3.94.5 Ha

AFFORESTATION PROGRAME FOR FIVE YEARS

YEAR	No OF TREES	SURVIVAL	TYPE OF TREE
I-YEAR	25	80%	NEEM
II-YEAR	25	80%	NEEM
III-YEAR	25	80%	NEEM
IV-YEAR	25	80%	NEEM
V-YEAR	25	80%	NEEM

PLATE NO.VIII

N W E S

NAME OF THE APPLICANT:-
THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

LEGEND

APPLIED AREA	
LAYOUT OF MINE WORKING	
OLD WORKINGS	
SAFETY DISTANCE	
BENCH MARK	103.00
EARTH BUND	

PROGRESSIVE MINE CLOSURE PLAN

SCALE 1:2000

ALL PLANS AND SECTIONS ARE PREPARED BASED ON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

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PLATE NO :I

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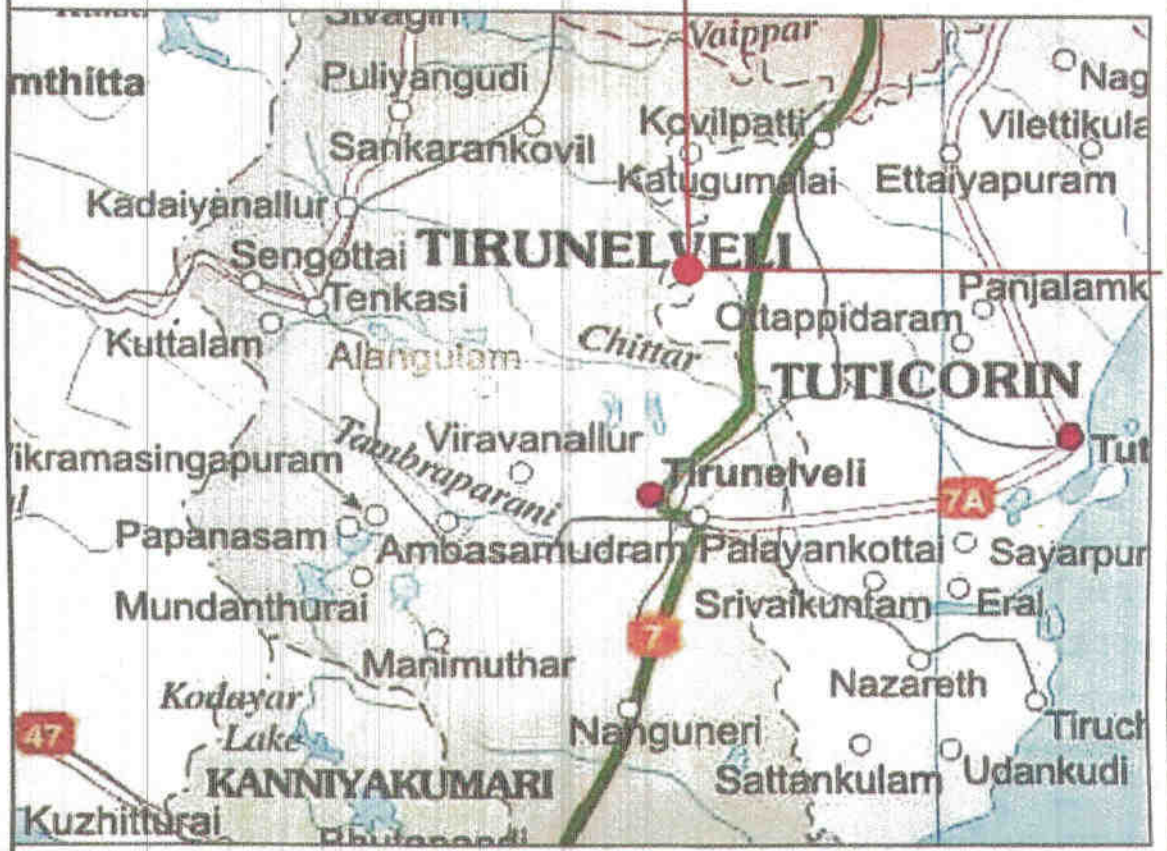
N E
S

NAME OF THE APPLICANT:-
THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

LOCATION OF THE QUARRY APPLIED AREA:-

S.F.Nos.	:182/1B,183/1,183/2B&184/2
EXTENT	: 3.94.5 HECTARE
VILL.. NAME	: THERKKU ILANDAIKULAM
TALUK	: KAYATHAR
DISTRICT	: THOOTHUKUDI
STATE	: TAMILNADU



INDEX:-

QUARRY LEASE AREA

TOPO SHEET NO:-58G/16

LATITUDE	:08°57'42"N to 08°57'52.91"N
LONGITUDE	:77°45'01"E to 77°45'08.02"E

- State capital
- District headquarters
- Other town
- National Highway number
- Golden Quadrilateral
- North-South & East-West Corridors
- National Highway
- Railway

LOCATION PLAN
(NOT TO SCALE)

PREPARED BY:-

N. RAVINTHIRAN, M.Sc.,(App.Geo.)
RQP/MAS/130/98/A
upto 20-12-2020

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

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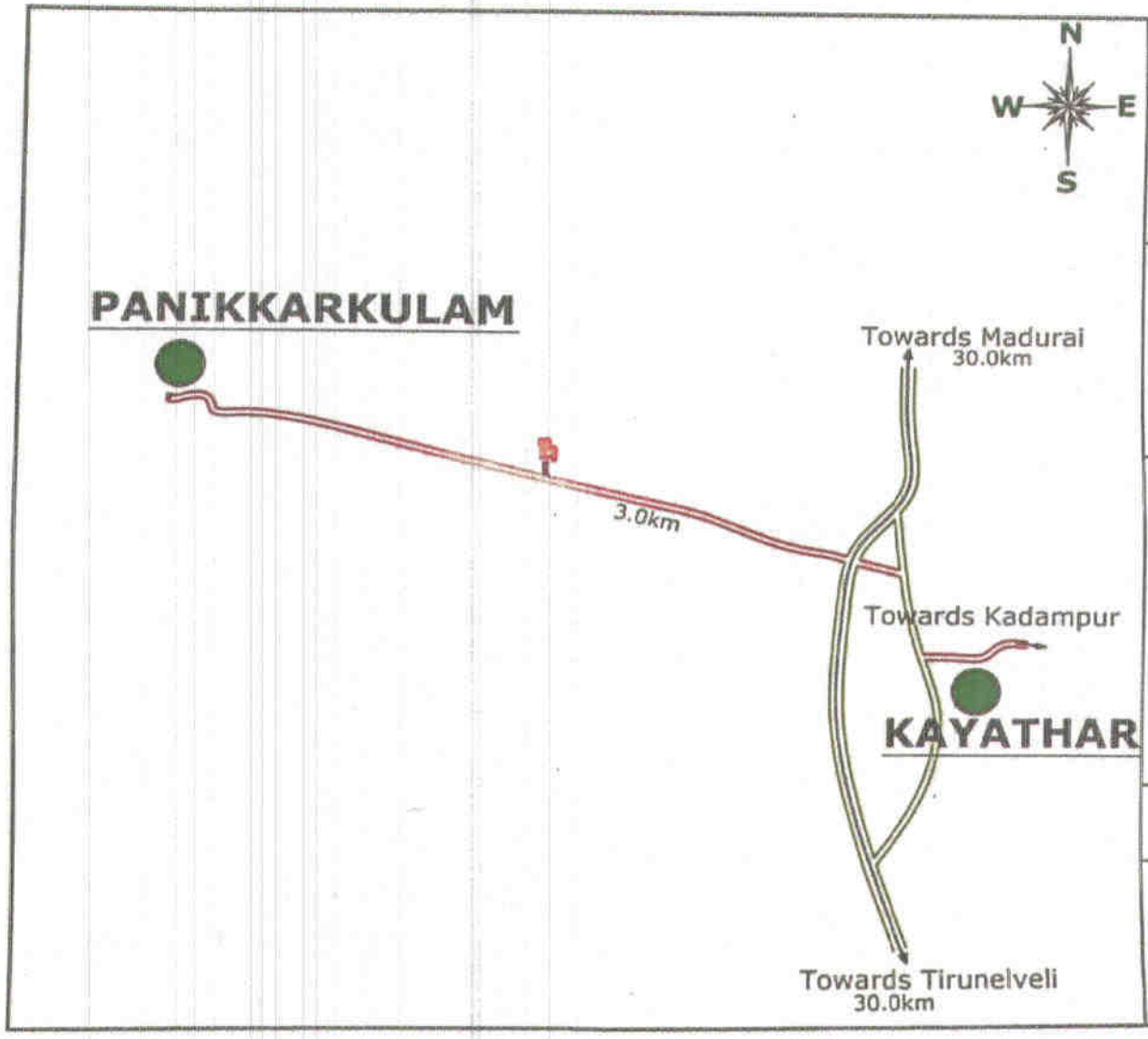
PLATE NO :I A

NAME OF THE APPLICANT:-

THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

LOCATION OF THE APPLIED AREA:-

S.F.Nos. :182/1B,183/1,183/2B&184/2
EXTENT : 3.94.5 HECTARE
VILL.. NAME : THERKKU ILANDAIKULAM
TALUK : KAYATHAR
DISTRICT : THOOTHUKUDI
STATE : TAMILNADU



INDEX:-

LEASE HOLD AREA

NATIONAL HIGHWAY-45B

APPROACH ROAD

MAJOR ROAD

KEY MAP
(NOT TO SCALE)

PREPARED BY:-

N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist

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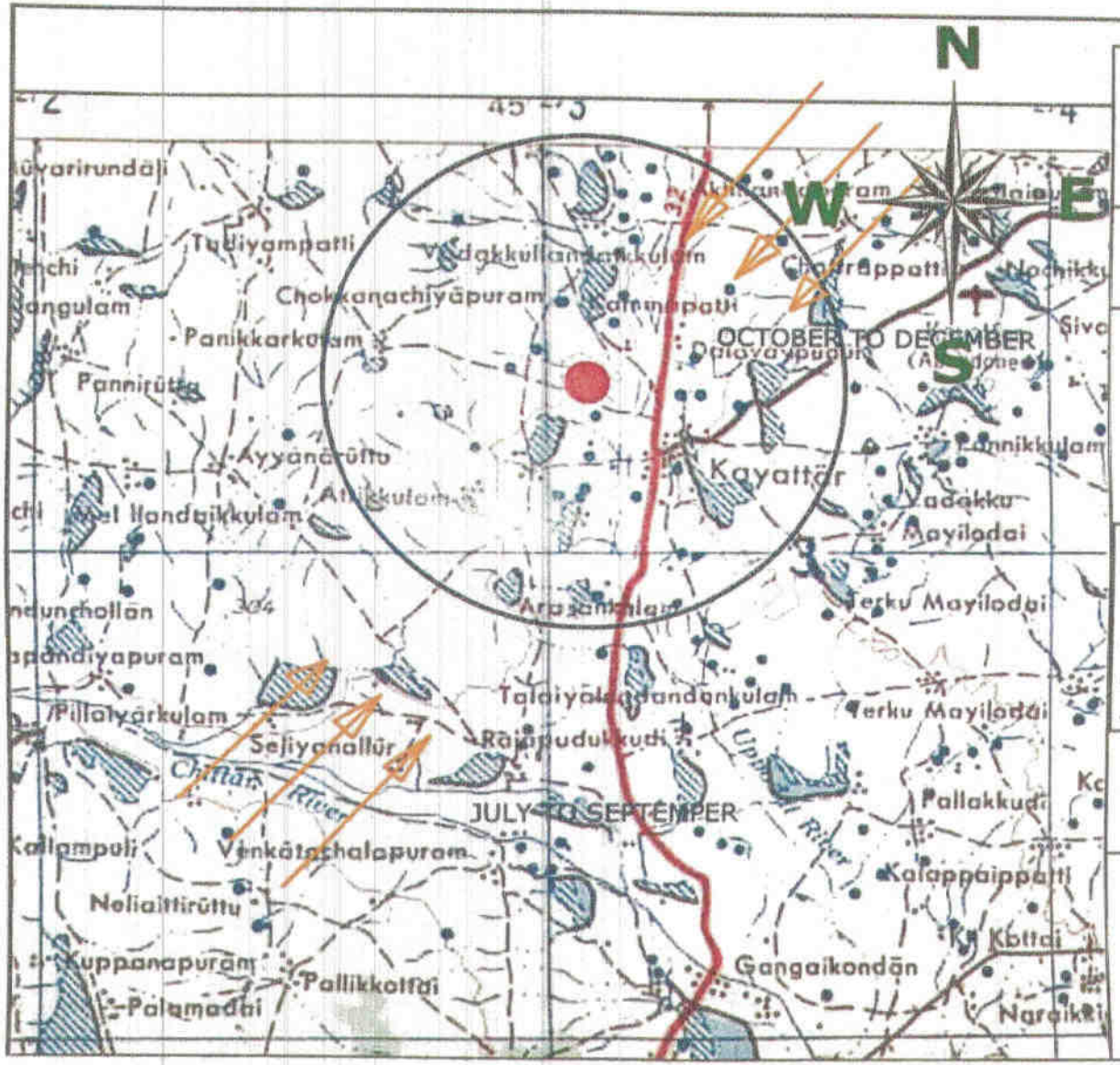

PLATE NO :II

NAME OF THE APPLICANT:-
THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

TOPO SHEET NO:-58G/16

LATITUDE :08°57'42"N to 08°57'52.91"N

LONGITUDE :77°45'01"E to 77°45'08.02"E

INDEX:-

LEASE AREA

APPROACH ROAD

WIND DIRECTION

2 KM RADIUS

KEY PLAN

(SCALE:-1:50,000)

PREPARED BY:-

N. RAVINTHIRAN, M.Sc.,(Appl.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

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Assistant Director of Geology & Mining
Tuticorin Dist.

BOUNDARY COORDINATES		
STATION	LATTITUDE	LONGITUDE
A	8°57'53.52"	77°45'01.64"
B	8°57'52.91"	77°45'04.62"
C	8°57'52.81"	77°45'04.75"
D	8°57'48.05"	77°45'04.67"
E	8°57'47.79"	77°45'08.02"
F	8°57'43.06"	77°45'06.80"
G	8°57'43.11"	77°45'06.63"
H	8°57'42.26"	77°45'06.45"
I	8°57'43.18"	77°45'01.40"
J	8°57'46.24"	77°45'01.84"
K	8°57'46.16"	77°45'02.26"
L	8°57'49.73"	77°45'02.44"
M	8°57'49.85"	77°45'01.43"

DETAILS OF LEASE APPLIED AREA

S.F.Nos.	EXTENT	PATTA No.
182/1B	0.05.50 Ha	2614
183/1	1.71.50 Ha	1649
183/2B	0.55.50 Ha	2614
184/2	1.62.00 Ha	2614
TOTAL	3.94.50Ha	

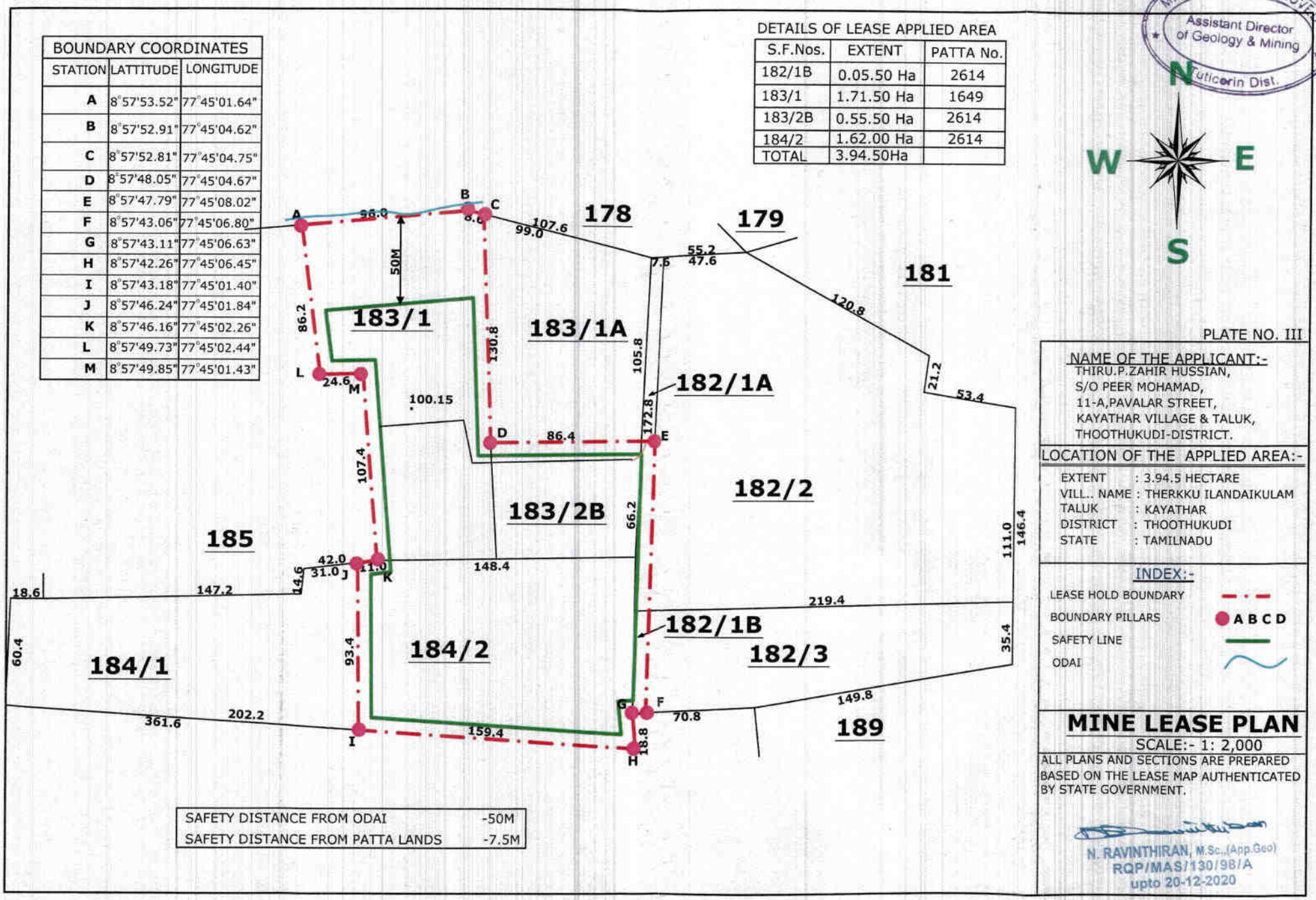

PLATE NO. III

NAME OF THE APPLICANT:-
THIRU.P.ZAHIR HUSSIAN,
S/O PEER MOHAMAD,
11-A,PAVALAR STREET,
KAYATHAR VILLAGE & TALUK,
THOOTHUKUDI-DISTRICT.

LOCATION OF THE APPLIED AREA:-

EXTENT : 3.94.5 HECTARE
VILL.. NAME : THERKKU ILANDAIKULAM
TALUK : KAYATHAR
DISTRICT : THOOTHUKUDI
STATE : TAMILNADU

INDEX:-
LEASE HOLD BOUNDARY
BOUNDARY PILLARS A B C D
SAFETY LINE
ODAI

SAFETY DISTANCE FROM ODAI	-50M
SAFETY DISTANCE FROM PATTA LANDS	-7.5M

MINE LEASE PLAN

SCALE:- 1: 2,000

ALL PLANS AND SECTIONS ARE PREPARED BASED ON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT.

N. RAVINTHIRAN, M.Sc.,(App.Geo)
RQP/MAS/130/98/A
upto 20-12-2020

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

MINING PLAN FOR TERKU ILANDHAIKULAM ROUGH STONE AND SARAL QUARRY

(PREPARED UNDER RULE 12 OF DRAFT MINOR MINERAL CONSERVATION AND DEVELOPMENT RULES, 2010 & AS PER AMENDMENTUNDER TAMILNADU MINOR MINERAL CONCESSION RULES, 1959, Rule 41 & 42)
(Lease Period = Five years)

IN

LOCATION OF THE QUARRY LEASE APPLIED AREA

EXTENT : 4.53.0Ha,
S.F.NO : 182/1A, 182/2, 183/2A,
VILLAGE : TERKU ILANDHAIKULAM,
TALUK : KOVILPATTI,
DISTRICT : THOOTHUKUDI,
STATE : TAMILNADU.

FOR

APPLICANT

THIRU. P.SHEIK DAWOOD (Managing Partner),
M/s. Peermohamed & sons,
11A, Paavalar Street,
Kayathar Village, Kovilpatti.

PREPARED BY

Dr. P.Thangaraju, M.Sc., Ph.D,
Recognized Qualified Person
RQP/MAS/206/2007/A
Valid Up to 30.01.2017

Regd.off.Old No.260-B, New No. 17,
Advaitha Ashram Road,
Alagapuram, Salem.
E-mail: geothangam@gmail.com

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

P.Sheik Dawood (Managing Partner),
M/s. Peermohamed & sons,
11A, Paavalar Street, Kayathar Village,
Kovilpatti.

CONSENT LETTER FROM THE APPLICANT

The Mining Plan in respect of Rough Stone and Saral Quarry lease applied area in S.F.Nos. 182/1A, 182/2 and 183/2A over an extent of 4.53.0Ha Patta land in Terku Ilandhaikulam Village, Kovilpatti Taluk, Thoothukudi District, Tamilnadu State has been prepared by

Dr. P.Thangaraju, M.Sc., Ph.D,
RQP/MAS/206/2007/A

I request the District Collector, Thoothukudi to make further correspondence regarding the modification of the Mining Plan with the said recognized qualified person at his following address.

Dr. P.Thangaraju, M.Sc., Ph.D,
Regd.off.Old No.260-B, New No. 17,
Advaitha Ashram Road,
Alagapuram, Salem.
Cell: 94433 56539, 94422 78601.

I hereby undertake that all the modifications, if any made in the mining plan by the Recognized qualified person may be deemed to have been made with my knowledge and consent and shall be acceptable to me and binding on me in all respects.

Signature of Applicant
For
M/s. Peermohamed & sons,

P.Sheik Dawood
(Managing partner)

Place: Thoothukudi
Date: 04.09.2016

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

P.Sheik Dawood (Managing Partner),
M/s. Peermohamed & sons,
11A, Paavalar Street, Kayathar Village,
Kovilpatti.

DECLARATION OF THE APPLICANT

The Mining Plan in respect of Rough Stone and Saral Quarry lease applied area in S.F.Nos. 182/1A, 182/2 and 183/2A over an extent of 4.53.0Ha Patta land in Terku Ilandhaikulam Village, Kovilpatti Taluk, Thoothukudi District, Tamilnadu State has been prepared in full consultation with me.

I have understood its contents and agree to implement the same in accordance with Laws, Rules and Act applicable to Quarry.

Signature of Applicant
For
M/s. Peermohamed & sons,

P.Sheik Dawood
(Managing partner)

Place: Thoothukudi
Date: 04.09.2016

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

Dr. P.Thangaraju, M.Sc., Ph.D,
Regd.off.Old No.260-B, New No. 17,
Advaitha Ashram Road,
Alagapuram, Salem.
Cell: 94422 78601, 94433 56539.

CERTIFICATE FROM THE RECOGNIZED QUALIFIED PERSON

This is to certify that the Provisions of Rule 12 of Draft Minor Mineral Conservation and Development Rules, 2010 & as per Amendment Rules under Tamilnadu Minor Mineral Concession Rules, 1959 have been observed in the preparation of Mining Plan for Rough Stone and Saral Quarry lease applied area in S.F.Nos. 182/1A, 182/2 and 183/2A over an extent of 4.53.0Ha Patta land in Terku Ilandhaikulam Village, Kovilpatti Taluk, Thoothukudi District, Tamilnadu State has been prepared for

Thiru. P.Sheik Dawood (Managing Partner),
M/s. Peermohamed & sons,
11A, Paavalar Street, Kayathar Village,
Kovilpatti.

Whenever specific permissions / exemptions / relaxations and approvals are required, the Applicant will approach the concerned authorities of the District Collectorate, Thoothukudi, Tamilnadu for such permissions/ exemptions / relaxations and approvals.

It is also certified that information furnished in the above Mining plan are true and correct to the best of my knowledge.

RQP SIGNATURE

Dr. P.Thangaraju, M.Sc., Ph.D,
RQP/MAS/206/2007/A

Place: Salem
Date: 09.09.2016

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist

Dr. P.Thangaraju, M.Sc., Ph.D,
Regd.off.Old No.260-B, New No. 17,
Advaitha Ashram Road,
Alagapuram, Salem.
Cell: 94422 78601, 94433 56539.

CERTIFICATE FROM THE RECOGNIZED QUALIFIED PERSON

Certified that the Provisions of Mines Act, Rules and Regulations and Orders made there under have been observed in the preparation of Mining Plan for Rough Stone and Saral Quarry lease applied area in S.F.Nos. 182/1A, 182/2 and 183/2A over an extent of 4.53.0Ha Patta land in Terku Ilandhaikulam Village, Kovilpatti Taluk, Thoothukudi District, Tamilnadu State has been prepared for

Thiru. P.Sheik Dawood (Managing Partner),
M/s. Peermohamed & sons,
11A, Paavalar Street, Kayathar Village,
Kovilpatti.

Whenever specific permissions/ exemptions/ relaxations and approvals are required, the applicant will approach the concerned authorities of Director General of Mines Safety (DGMS), No. 5, IInd Street, Block – AA, Anna Nagar, Chennai-40, Tamilnadu for such permissions/exemptions/relaxations and approvals.

It is also certified that information furnished in the mining plan are true and correct to the best of my knowledge.

RQP SIGNATURE

Dr. P.Thangaraju, M.Sc., Ph.D,
RQP/MAS/206/2007/A

Place: Salem
Date: 09.09.2016

LIST OF CONTENTS

S.No.	Description	Page No.
1.0	General Information	3
2.0	Location	4
	PART-A	
3.0	Geology and Mineral Reserves	5
4.0	Mining	8
5.0	Blasting	11
6.0	Mine Drainage	13
7.0	Other Permanent Structures	14
8.0	Employment Potential & Welfare Measures	16
	PART-B	
9.0	Environment Management Plan	17
10.0	Mine Closure Plan	23
11.0	Any Other Details Intend to Furnish by the Applicant	25

LIST OF ANNEXURES

S.No.	Description	Annx.no.
1.	Copy of Precise area communication letter	I
2.	Copy of FMB	II
3.	Copy of Village Map	III
4	Copy of Patta	IV
5	Copy of Adangal	V
6	Copy of A-Register	VI
7	Copy of Consent Document	VII
8	Copy of Partnership deed	VIII
9	Copy of ID Proof	IX
10	Copy of RQP Certificate	X

LIST OF PLATES

S.NO	DESCRIPTION	Plate No
1.	LOCATION PLAN	I
2.	TOPOSKETCH OF QUARRY LEASE APPLIED AREA COVERING 10KM RADIUS	IA
3.	ENVIRONMENTAL PLAN	IB
4.	KEY PLAN	IC
5.	QUARRY LEASE & SURFACE PLAN	II
6.	TOPOGRAPHY, GEOLOGICAL PLAN & SECTIONS SHOWING YEARWISE DEVELOPMENT & PRODUCTION	III
7.	CONCEPTUAL PLAN & SECTIONS	IV

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Terku Ilandhaikulam Village

MINING PLAN FOR TERKU ILANDHAIKULAM ROUGH STONE AND SARAL QUARRY OVER AN EXTENT OF 4.53.0Ha IN TERKU ILANDHAIKULAM VILLAGE, KOVILPATTI TALUK, THOOTHUKUDI DISTRICT, TAMILNADU.

(Prepared Under Rule 12 of Draft Minor Mineral Conservation and Development Rules, 2010 and as per Amendment under Tamilnadu Minor Mineral Concession Rules, 1959, Rule 41 & 42)

INTRODUCTION AND EXECUTIVE SUMMARY

The present Mining Plan and Environmental Management plan is prepared for Thiru. P.Sheik Dawood (Managing Partner), M/s. Peermohamed & sons, 11A, Paavalar Street, Kayathar Village, Kovilpatti.

The applicant applied to quarry Rough stone and Saral in the S.F.No, 182/1A, 182/2 and 183/2A over an extent of 4.53.0Ha in Terku Ilandhaikulam Village, Kovilpatti Taluk, Thoothukudi District.

The application was processed by the District Collector Thoothukudi and passed a letter vide **Rc No GM.1/619/2015 dated 03.09.2016** to submit Mining Plan for the approval in Department of Geology and Mining, Thoothukudi and obtain Environmental Clearance from the State Level Environment Impact Assessment Authority, Tamil Nadu.

Short Notes of Mining plan

a. Village Panchayat - Ilandhaikulam
b. Panchayat Union - Kayathar
c. The Total Mineable Reserves are **4,34,675m³** of rough stone and **1,10,385m³** of Saral in the entire area.
d. The proposed quantity of reserves/ (level of production) for Five year plan period is to be mined is **3,73,175m³** of Rough Stone and **1,10,385m³** of Saral.
e. Total extent of the lease applied area = 4.53.0Ha
f. Topography of the area = The area exhibits almost plain topography.
g. Proposed Depth of mining = 18m depth below ground level.
h. Lease period = Five years
i. It is a fresh lease
j. Method of mining / level of mechanization.
Open-cast semi mechanized method, the quarry operation involves shallow jack hammer drilling, slurry blasting.
k. Type of machineries proposed in the quarrying operation.
Excavator attached with rock breaker,
Hand Jack hammers 30-32mm Dia,
Tractor mounted compressor (2 jack hammer capacity).

MINING PLAN APPROVED
Assistant Director
Geology and Mining

l.	No trees will be uprooted due to this quarrying operation.
m.	The existing road from the main road to quarry is in good condition and the same will be maintained and utilized for Transportation of Rough stone and Saral.
n.	There is No Export of this Rough stone and Saral.
o.	Topo sketch covering 10Km and 1Km radius around the proposed area with markings of habitations, water bodies, including streams, rivers, roads, major structure like bridges, wells, archeological importance, places of worships is marked and enclosed as Plate No IA and IB.
p.	The area applied for lease is 4.53.0Ha bounded by fourteen corners; the corners are designated as 1- 14 Clockwise from the South west corner the Co – ordinates for the all the corners are clearly marked in the Topography, Geological Plan and section enclosed as (Plate No-III).
q.	The diagram showing the Mining area, dimensions of the pit, its proposed depth of mining for the remaining period are enclosed as Plate No III.
r.	The area applied for lease is 10Km away from the interstate boundary, protected area under wildlife protection ACT 1972, critically polluted areas as identified by CPCB and notified Eco sensitive areas.
s.	There are no wastages anticipated during this quarry operation, hence waste dump is not proposed in the lease applied area.
t.	Around 10 employees are deploying in the quarrying operation.
u.	The total cost of the project is about **Rs 63,21,000/-**

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist

1. GENERAL INFORMATION

1.1 a) Name of the Applicant : Thiru. P. Sheik Dawood (Managing partner of M/s. Peermohamed & sons,).

b) Address of the Applicant (With Phone No and E-mail Address)

Address	:	P.Sheik Dawood (Managing Partner)
		M/s. Peermohamed & sons,
		11A, Paavalar Street,
		Kayathar Village, Kovilpatti.
District.	:	Thoothukudi
Mobile No	:	94431 51377 & 93459 82205

c) Status of the Applicant (Individual / Company / Firm).

The Applicant is a firm, registered in the name of M/s. Peermohamed & Sons. Thiru P.Sheik Dawood is the Managing partner of the firm.

1.2 a) Mineral which the Applicant intends to mine

The Applicant intends to quarry Rough stone and Saral only. No other Minerals observed in the lease applied area.

b) Precise area communication letter details received from the Competent authority of the Government.

The precise area communication letter was received from the District Collector Thoothukudi vide **Rc.No GM.1/619/2015 dated 03.09.2016** to obtain mining plan and obtain Environmental Clearance from the SEIAA, Tamilnadu.

C) Period of permission / lease to be granted.

The Applicant applied permission to quarry Rough stone and Saral for the period of five years/ The District Collector considered for the Grant of quarry lease for the period of five years.

d) Name and address of the RQP / Authorized person preparing the mining plan.

Name	:	Dr. P.Thangaraju, M.Sc., Ph.D,
Address	:	Regd.off.Old No.260-B, New No. 17,
		Advaitha Ashram Road,
		Alagapuram, Salem.
Mobile	:	94422 78601 & 94433 56539.
Tele Fax	:	0427- 2431989
Registration No	:	RQP/MAS/206/2007/A
Valid up to	:	30.01.2017
Email		:geothangam@gmail.com

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2.0 Location

a) Details of the area with location map

The lease applied area is 26Km North East of Tirunelveli and 26Km South west of Kovilpatti. Kayathar is located in the Tirunelveli – Virudhunagar National highway about 26Km. From the Kayathar village lease applied area is located about 1.0Km western side

Fig. 1.0 Location Map of the Lease applied area

Table-1

District	Taluk	Village	S.F.No.	Area in Ha.
Thoothukudi	Kovilpatti	Terku Ilandhaikulam	182/1A	0.08.00
			182/2	3.44.50
			183/2A	1.00.50
Total Extent				4.53.00

b) Classification of the area (Ryotwari/ Poramboke / others).

It is a Patta land (Barren land) which is not fit for vegetation/ Cultivation.

c) Ownership / Occupancy of the applied area (surface right).

It is a Patta land the S.F.No 182/2 jointly registered in the name of 6 members ie., Partners of M/s. Peer mohammed & Sons. The S.F.No 182/1A and 183/2A registered in the name of M/s. Peer mohammed & Sons. The applicant is one of the partner as well as Managing partner of the Peer mohammed & Sons all the other partners gave consent to applicant to carrying out the quarry operation.

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d) Toposheet No. with latitude and longitude.

The lease applied area falls in the Toposheet No 58 H/09 Latitude between 08°57'44.19"N to 08°57'52.64"N and Longitude between 77°45'05.26"E to 77°45'14.73"E on WGS datum-1984. Please refer the Plate No (Plate No I to II).

e) Existence of public road / Railway line, if any nearby and approximate distance.

There is an existing road on the southern side of the area, this road connecting in the Kaythar – Usilankulam village road at a distance of 250m.

The road from the quarry to main road is already in exists, the same road will be maintained and utilized for transportation besides trees will be planted on the either side of the road to prevent dust and noise to the nearby areas. The area in and around the quarry is devoid of Vegetation and plantation.

The Nearest Railway line is Tirunelveli – Kovilpatti line which is about 12Km from the Eastern side of the area.

PART – A

3. GEOLOGY AND MINERAL RESERVES.

3.1 Brief description of the Topography and general Geology of the area (with plans).

The topography of the area is almost plain topography covered by the Thick Saral formation, the thickness of the Saral is about 3m, Charnockite formation is noticed followed by the Saral formation it is revealed from the existing quarry.

Thoothukudi district is underlain entirely by Archaean Crystalline formations with Recent alluvial deposits occurring along the river and streams courses and colluvium of valley-fills.

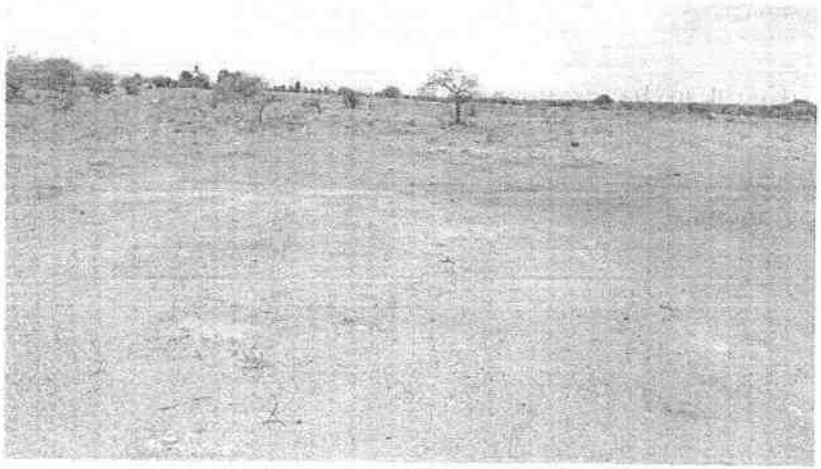

Fig.2.0. Topographical View of lease applied area

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The hard consolidated crystalline rocks of Archaean age represent weathered, fissured and fractured formations of gneisses, granites, charnockites and other associated rocks. The massive Charnockite formation is clearly inferred from the existing pit. The slope is gentle towards Southern side. The altitude of the area is above 82m (Maximum) from MSL.

Water table is found at a depth of 45m in summer and at 42m in rainy seasons. Average annual rainfall is about 800-900mm during NE monsoon. Archaean forms the oldest rock formations, in which the massive formation of Charnockite lies over with rich accumulation of recent quaternary formation. On regional scale the Charnockite body trends N50^{0}W S50^{0}E with dipping towards SW80^0.

The general geological sequences of the rocks in this area are given below.

AGE		FORMATION
Recent	-	Quaternary weathered formation (Saral)
---------Unconformity----------		
Archaean	-	Charnockite
		Peninsular Gneiss complex.

3.2 Details of exploration already carried out if any

State Geology and Mining Dept, Govt. of Tamil Nadu, has carried out the Regional prospecting and exploration in these areas during 1992 to 1993.Geological Survey of India has carried out detailed mapping in Thoothukudi District.

The RQP and his team members made a detailed geological study in the area The Rough stone formation is clearly inferred from the adjacent quarry works.

3.3 Estimation of Reserves

a) Geological reserves with geological sections on a scale of 1:1000 / 1:2000.

As far as Rough stone (Charnockite) is concerned, the only practical method is the systematic geological mapping and delineation of Rough stone within the field and careful evaluation of body luster, physical properties, engineering properties, commercial aspects etc.,

Totally four sections have been drawn, two section drawn Length wise as (X-Y) and (X1-Y1) other two section drawn Width wise as (A-B) and (C-D) to cover the maximum area considered for lease. The Topographical, Geological plan and sections demarcated the commercial, marketable Rough stone (Charnockite) deposit has been prepared in 1:1000 and vertical as 1:500 scale (please refer the Geological plan and sections Plate No- III. As the sale of Rough stone are in terms of cubic meters (Volume) only and not in terms of tonnage.

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Geological Resources (Plate No. III)

The Geological Resources are calculated in cross section method, the available Geological Resources are as follows.

Table-2

GEOLOGICAL RESOURCES							
Section	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in m^3**	**Geological Resources of Rough stone in (m^3)**	**Saral in (m^3)**
XY-AB	I	106	114	3	36252		36252
	II	106	114	5	60420	60420	
	III	106	114	5	60420	60420	
	IV	106	114	5	60420	60420	
					Total	**181260**	**36252**
XY-CD	I	152	87	3	39672		39672
	II	152	87	5	66120	66120	
	III	152	87	5	66120	66120	
	IV	152	87	5	66120	66120	
					Total	**198360**	**39672**
X1Y1-CD	I	211	97	3	61401		61401
	II	211	97	5	102335	102335	
	III	211	97	5	102335	102335	
	IV	211	97	5	102335	102335	
					Total	**307005**	**61401**
					Grand Total	**686625**	**137325**

Total Geological Resources of Rough Stone : 6,86,625m^3

Saral formation : 1,37,325m^3

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Mineable Reserves

The mineable reserves are calculated after leaving 7.5m safety distance to the adjacent patta lands, 10m safety distance to the seasonal odai located on the North side of the area and Bench loss.

Table-3

MINEABLE RESERVES							
Section	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in m^3**	**Mineable Reserves of Rough stone in (m^3)**	**Saral in (m^3)**
XY-AB	I	97	94	3	27354		27354
	II	92	85	5	39100	39100	
	III	87	75	5	32625	32625	
	IV	82	65	5	26650	26650	
	Total					**98375**	**27354**
XY-CD	I	140	75	3	31500		31500
	II	135	70	5	47250	47250	
	III	130	65	5	42250	42250	
	IV	125	60	5	37500	37500	
	Total					**127000**	**31500**
X1Y1-CD	I	193	89	3	51531		51531
	II	184	85	5	78200	78200	
	III	174	80	5	69600	69600	
	IV	164	75	5	61500	61500	
	Total					**209300**	**51531**
	Grand Total					**434675**	**110385**

The mineable reserves have been computed as **4,34,675m^3** of rough stone and **1,10,385m^3** of Saral at the rate of 100% recovery upto a depth of 18m below the ground level.

4.0 Mining.

4.1 Method of mining (open-cast / underground).

Open cast Semi-Mechanized Mining is being carried out with 5.0 meter vertical bench with a bench width is not less than the bench height.

However, as far as the quarrying of Rough stone is concerned, observance of the provisions of Regulation 106 (2) (b) as above is seldom possible due to various inherent Petro genetic factors coupled with mining difficulties.

Hence it is proposed to obtain relaxation to the provisions of the above regulation from the Director of Mines Safety for which necessary provision is available by the Regulation 106 (2) (b) of MMR-1961, under the Mine Act - 1952.

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4.2 Mode of working (mechanized, semi-mechanized, manual).

The Rough Stone is proposed quarry at 5m bench height & width with conventional Open-cast Semi- Mechanized Method.

The quarry operation involves shallow jack hammer drilling, slurry blasting, excavation, Loading and transportation of Rough stone to the needy crusher.

The production of Rough stone in this quarry involves the following method which is typical for Rough Stone quarrying in contrast to other major mineral mining.

Splitting of rock mass of a considerable volume of the parent rock mass by jackhammer drilling and blasting, hydraulic excavators are used for loading the Rough Stone from ported to the needy crushers.

Occasionally excavators are attached with rock breakers for fragmentation to avoid secondary blasting on rental basis. The primary boulders thus splitted are removed from the pits by excavators and further made to smaller sizes by rock breakers attached in excavators. It is a conventional opencast semi mechanized method of mining.

4.3 Proposed Bench Height and Width.

The bench height is proposed 5.0 meter vertical bench the width of the bench is not less than the Height.

4.4 Indicate the overburden / mineral production expected pit wise as detailed below (composite plan and section showing pit layout, dumps, disposal of waste if any etc.)

The overburden in the form of Saral formation, the Saral will be directly loaded into tippers for the filling and levelling of low lying areas. This will be done only after obtaining permission and paying necessary seigniorage fees to the Government.

The Composite plan, Development plan and section indicating the Pit lay out, Green belt development is shown in Plate No-III. The entire quarried out Rough stone and Saral will be consumed hence waste dump is not proposed.

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Year wise development and Production table

Table-4

YEARWISE PRODUCTION TABLE								
Section	**Year**	**Bench**	**Length in (m)**	**Width in (m)**	**Depth in (m)**	**Volume in m^3**	**Recoverable Reserve of Rough stone in (m^3)**	**Saral formation in (m^3)**
XY-AB	I	I	97	94	3	27354		27354
		II	92	85	5	39100	39100	
		III	87	75	5	32625	32625	
						Total	**71725**	**27354**
XY-CD	II	I	140	75	3	31500		31500
		II	135	70	5	47250	47250	
		III	130	65	5	42250	42250	
						Total	**89500**	**31500**
X1Y1-CD	III	I	193	89	3	51531		51531
		II	184	85	5	78200	78200	
						Total	**78200**	**51531**
	IV	III	174	80	5	69600	69600	
						Total	**69600**	
XY-CD	V	IV	125	60	5	37500	37500	
XY-AB		IV	82	65	5	26650	26650	
						Total	**64150**	
						Grand Total	**373175**	**110385**

The applicant intends to excavate **3,73,175m^3** of Rough Stone and **1,10,385m^3** of Saral upto a depth of 18m below the ground level for a period of five years.

4.5 Machineries to be used.

a) For Mining

The following Machinaries are proposed to meet out the proposed Rough stone production.

1. Excavator of 0.90Cbm bucket capacity (with Rock breaker attachment).
2. Hand jack hammer.

b) Loading Equipment

The quarried out Rough stone will be loaded with the help of Excavators attached with bucket.

c) Transportation (includes within the mine and mine to destination).

The Rough stone will be transported from the quarry pit to needy customer sites/Crushing unit by the 10/20Tons capacity tippers.

4.6 Disposal of Overburden/Waste

The overburden in the form of Saral formation, the Saral will be directly loaded into tippers for the filling and levelling of low lying areas. This will be done only after obtaining permission and paying necessary seigniorage fees to the Government.

No proposal for the Disposal of Overburden/The entire quarried out Materials will be consumed hence waste is not anticipated.

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4.7 Brief note on conceptual mining plan for the entire lease period base on the geological, mining and environmental considerations.

Conceptual mining plan is prepared with an object of long term systematic development of benches, layouts, selection of permanent structures, depth of quarrying and ultimate pit dimensions, selection of sites for construction of infrastructure, etc.,

The ultimate pit size is designed based on certain practical parameters such as economical depth of mining, safety zones, permissible area, etc.,

As the applicant has applied quarry lease for five years, the ultimate pit limit (dimension) at the end of lease period is given below.

Table-5

Description	Pit	Length (Max) (m)	Width (Max) (m)	Depth (Max) (m)
Conceptual	I	240	87	18
	II	196	90	13

Afforestation is proposed in the 10.0m safety barrier by planting neem trees of native species. All the base line information studies, like Air quality monitoring, Noise and vibration monitoring, Water analysis studies will be carried out every year as per the MOEF Norms. Please refer plat No.III & IV.

It is proposed to engage any local institution to monitor the EIA and EMP studies during the course of quarrying operation after the grant of quarry lease.

5.0 BLASTING

5.1 Blasting pattern

The quarrying operation is proposed to carry out by Semi Mechanized Open-cast Method in conjunction with conventional methods of mining using Jack hammer drilling and blasting for shattering effect and loosen the Rough stone. The blasting will be carried out in Muffle Blasting Method (Controlled Blasting).

Muffle blasting

Muffling or covering of blast holes properly before blasting is the common solution to prevent fly rock from damaging human habitants and structures.

Generally mat or mesh (40mm X 40mm size) made of preferably locally available steel ropes (5 to 6mm) are used for muffling purpose, sand bags weighing 40 to 50kg are kept over the mesh in close intervals.

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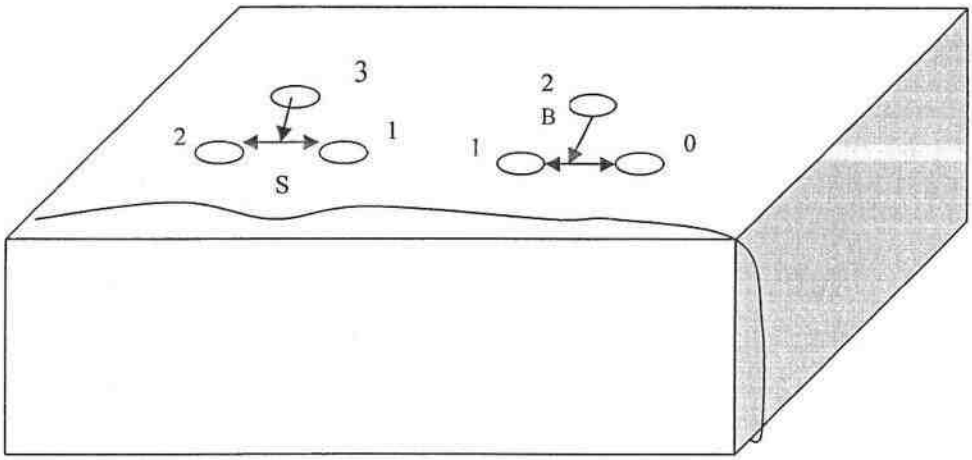
Drilling and Blasting pattern

Drilling and blasting parameters are as follows

Depth of Each hole	:	1.2m-1.5m
Diameter of hole	:	30-32mm
Spacing between holes	:	0.5m
Burden for hole	:	0.5m
Pattern of hole	:	Zigzag
Inclination of holes	:	$80^0$from horizontal
Use of delay detonators	:	25millisecond delays.
Detonating fuse	:	"Detonating" Cord
Hole pattern	:	Staggered in two to three rows

BLASTING PATTERN DRAWING



Spacing (S)	:	0.5m
Burden (B)	:	0.5m
Delay Detonators	:	0,1,2 ...

5.2 Type of explosives to be used

Small Dia. 25mm Slurry explosives are proposed to be used for shattering and heaving effect for removal and winning of Rough stone. No deep hole drilling or primary blasting is proposed.

5.3 Measures proposed to minimize ground vibration due to blasting

The quarry is situated more than 100m from the nearby villages, Controlled blasting measures is being adopt for minimizing ground vibration and fly rock.

Shallow depth of hand jackhammer drilling & slurry blasting is proposed to be carried out with minimum use of explosive mainly to give shattering effect in rough stone for easy excavation and to control fly rock.

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Delay detonators

Delay blasting (milli second delays) permits to divide the shot in to smaller charges, which are detonated in a predetermined millisecond sequence at specific time intervals.

The major advantage of delay blasting are

- Reduction of ground vibration.
- Reduction in air blast.
- Reduction in over break.
- Improved fragmentation.
- Better control of fly-rock.

Blasting program for the production per day

No of Holes	= 230Holes
Yield	= 690Tons
Powder factor	= 6 tons/Kg of explosives
Total explosive required	= 115Kg-Slurryexplosives
Charge/ hole	= 0.5 Kg
Blasted at day time	= 5-6 p.m (whenever required)

5.4 Storage and safety measures to be taken while blasting

The applicant will engage authorized explosive agency to carry out the small amount of blasting and it will be supervised by competent and statutory foreman/Permit Mines Manager. The explosives agencies will have experienced blaster. He will explode in the quarry site. After the completion of Blasting the explosives Agencies will take it out back the remaining quantity of Explosives. The Magazine is available at the quarry site to temporarily store the explosives.

6.0 Mine Drainage

6.1 Depth of water table (based on nearby wells and water bodies).

The water table in the area is 45m BGL in summer season and 42m in Rainy season which is observed from the nearby wells and the data obtained from existing Government and private boreholes.

Table -6

S.No	Type	Distance & Direction	Location
1	Bore hole	370m South East side	08°57'33.86"N 77°45'13.06"E

Hence the ground water will not be affected in any manner due to the quarrying operation during the entire life period.

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6.2 Arrangements and places where the mine water is finally proposed to be discharged.

Quarry operations are confined well above the water table compare to the proposed depth of quarry. If water is encountered at due to rain water and seepage, the same will be pumped out by 5HP water pumps to the afforestation and Green belt development areas. Besides the water will also be used for dust suppression on haul roads during Haulage of machineries.

The stagnant rain water will be utilized for the agriculture purpose to the nearby land. The water should be discharge through silt pan to prevent the accumulation of soil particles in the land.

7.0 OTHER PERMANENT STRUCTURES (also shown in the map)

7.1 Habitations/ Villages natham.

There is no habitations/ Villages, natham within the radius of 500m from the proposed quarry site.

7.2 Power Lines (HT/LT)

There is no LT/ HT line within the radius of 100m from the periphery of the quarry site.

7.3 Water bodies (river, pond, lake, odai, canal,etc.,).

One seasonal odai is located on the Northern side of the area, 10m safety distance has been maintained from the odai.

There is no other major water bodies like river, pond, lake odai etc., water bodies within the radius of 500m.

7.4 Archaeological / historical monuments.

There is no Archaeological / historical monuments within 500m radius from the area.

7.5 Road (NH, SH others)

The National Highway (NH- 7) Tirunelveli – Salem is about 2Km from the Eastern side of the area.

The State Highway (SH-41) Tirunelveli – Sankarankovil is 13Km from the Western side of the area.

7.6 Places of worships.

There is no places of worships within the radius of 500m.

7.7 Reserved forest / forest / social forest / wild life sanctuary etc.

There is no Reserved forest / forest / social forest / wild life sanctuary etc., within radius of 500m.

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SALIENT FEATURES

S. No.	Salient Futures Present around site	Prescribed safety distance	Actual Distance from the site
1.	Railways, Highways, Reservoirs or Canal	50m	Railway line – 12km (Tirunelveli – Kovilpatti) Eastern side. Highways- National Highway (NH- 7) Tirunelveli – Salem 2Km from Eastern side of area. Reservoir – no reservoir within 500m radius Canal- No canal within 500m radius. Odai is located on the north side of the area, 10m safety distance has been maintained from the odai.
2.	Village Road	10m	Kayathar – Panikkarkulam Village road is 260m from the south side of the area.
3.	Habitation / Village	300m	No habitations within the radius of 300m. Actual distance are clearly marked in the Plate No I-B.
4.	Adjacent Patta Land	7.5m	North - S.F.No 178, 179, 181 East - S.F.No 181 South - S.F.No182/3 West -S.F.No 184, 183/2B and 183/1 7.5m safety distance has been maintained from the patta land.
5.	Housing area, EB line (HT & LT Line)	50m	There is no houses within 500m radius. LT Line – No LT Line within the radius of 100m.
6.	Boundaries of the permitted area	7.5m & 10m	The boundaries of the permitted areas is as follows
7.	Reserve forest / protected area / ECO sensitive area	10Km	There is no reserve forest within 10Km radius.

S.No	Name of the Village	Approximate distance & Direction from lease applied area
1.	Vadakku ilandaikulam	3.0Km – NE
2.	Panikkarkulam	3.0Km - NW
3.	Kayathar	3.0Km – SE
4.	Terku ilandaikulam	2.0Km - SW

Direction	S.F.No	Classification
North	178, 179, 181	Patta land
East	181	Patta land
South	182/3	Pattta land
West	184, 183/2B and 183/1	Patta land

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8. EMPLOYMENT POTENTIAL & WELFARE MEASURES

8.1 Employment potential (skilled, semi skilled, un skilled)

The following manpower is proposed to carry out the day-to-day quarrying activities aimed at the proposed production target and also to comply with the statutory provisions of the metalliferous mines regulations, 1961.

a.	Skilled labour		
	Mine Foreman/		
	Permit Mines Manager	:	1
	Excavator operator	:	1
	Jack hammer operator	:	4
	Blaster/ mate	:	1
b.	Semi-skilled	:	
	watchman	:	1
c.	Unskilled- helper	:	2
	Total	**:**	**10**

Allowing 10% absenteeism the man power would be around 9, the above manpower is adequate to meet out the production schedule and the machinery strength envisaged in the mining plan and to comply with the statutory provisions of the Mines Safety Regulations.

It is being ensured that the labor will not be employed less than 18 years, **No child labour** will engage or entertained for any kind of quarrying operations. All the labours engaged in quarrying operations will be insured during the quarry lease period.

8.2 Welfare Measures

a) Drinking Water

Packaged drinking water is available from the nearby approved water vendors in Kayathar which is about 3.0Km from the South Eastern side of the area. Drinking water shall be readily available at conveniently accessible points during the whole of the working shift.

b) Sanitary Facilities

Hygienic modern sanitary facilities will be constructed within the quarrying area as permanent structure and it will be maintained periodically.

C) First aid facility

First aid kits are kept in the Mines office room, in case of such eventualities the victim will be given first aid immediately on the site and injured person will be taken to the hospital. Hospital is available at distance of 3.0Km South Eastern side in Kayathar the competent and Statutory foreman/ permit manager will be in charge of first aid.

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d) Labour Health

Periodically medical checkup related to occupational health safety will be conducted to all the workers in Applicant own cost.

e) Precautionary safety measures to the labourers.

All the quarry workers will be provided with safety equipments like helmets, Mine Goggles, Ear plugs, Ear muffs, Dust mask, reflector jackets and Safety Shoes as personal protective device as per the specification approved by Director of mines safety. Periodically medical checkup will be conducted for all workers for any mine health related problems. Proper training and induction will be given by qualified and experienced safety officer to all employees about the safe and systematic Rough stone quarrying operations. The drillers and workers will be sent for vocational training periodically to carry out the quarrying operations scientifically to safe guard the men machinery and mineral and to create awareness of conventional opencast quarrying operations.

PART – B

9. ENVIRONMENT MANAGEMENT PLAN

9.1 Existing Land use pattern

The quarry lease applied area is exhibits almost plain topography. The area is a dry barren land devoid of Agriculture and Habitations. The land is not used for any specific vegetation.

LAND USE TABLE-7

Description	Present area in (Ha)	Area at the end of Lease period (Ha.)
Area under quarrying	Nil	3.85.2
Infrastructure	Nil	0.01.0
Roads	Nil	0.02.0
Green Belt	Nil	0.10.0
Unutilized	4.53.0	0.54.8
Grand Total	4.53.0	4.53.0

9.2 Water Regime

Ground water occurrence in this area is 45m depth. The proposals are given only 18m below the ground level. The Ground water will not be affected due to the quarrying operation.

9.3 Flora and Fauna:

There are no trees observed in the area. Thorny bushes, Neem and coconut are found in around the area. No plants of botanical interest or animals of zoological interest are noticed. There is no cultivation, plantation or agriculture found within the vicinity of the area.

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9.4 Climatic Conditions

The area receives rainfall of about 900-1000mm/per annum and the rainy season is mainly from Oct - Jan during North East, monsoon. The summer is hot with maximum temperature of 40°C and winter encounters a minimum temperature of 22°C.

9.5 Human settlement

There is no houses within the radius of 300m except few farm houses, There are few villages located in this area within 5km radius, the approximate distance and population are given below.

Table – 8

S.No	Name of the Village	Approximate distance & Direction from lease applied area	Approximate population
1.	Vadakku ilandaikulam	3.0Km – NE	350
2.	Panikkarkulam	3.0Km - NW	600
3.	Kayathar	3.0Km – SE	800
4.	Terku ilandaikulam	2.0Km - SW	450

Basic human welfare Amenities such as Health Center, Schools, Communication Facilities, and Commercial Centers, etc. are available at Tirunelveli located at a distance of 26km on the South western side of the area.

9.6 Plan for air, dust suppression

The air quality will be affected by the Suspended Particulate Matter (SPM) this will be generated by the blasting, jack hammer drilling, Loading and unloading during the quarrying Rough stone quarry operation.

The following Mitigations measures will be carried out

- Mist Water spraying will be carried out by means of water sprinklers to suppress the dust emission in the Haul roads.
- Vegetations will be planted on the exposed surface.
- Avoiding spillages during the transportation.

Air quality will be monitored periodically as per Norms and Mitigation Measures will be carried out to prevent dust and Air propagation in to air. The estimated budget for dust suppression would be around **Rs 52,000/year.**

9.7 Plan for Noise level control.

The noise level will be increased due to the excavation, Drilling, Blasting, Transportation and Blasting.

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Engineering Noise control:

Noise will be created due to the usage of Machinaries and Vehicles. The Noise will be controlled in the following manner.

- Selection of new low – noise equipments for the Rough stone quarry operation.
- Modifications of older equipments
- Implementation of effective preventive maintenance which reduces noise more than 50%.
- Developing Green belts which act as Acoustic barrier, pollution absorbent and noise controller.
- The drivers will be strictly inducted to move the vehicle during the transportation not exceed 40 km per hour.
- Sentries with flags & whistle will posted in village junction and populated area to control and regulate traffic.

Shallow holes of 32mm diameter and 1.5m depth will be drilled and conventional low power explosives such as Slurry Explosives, ordinary safety fuse only will be used for rough stone. Hence, ground vibration and noise pollution will be minimal and restricted within the quarry workings. Noise level monitoring and other Mitigation measures will be carried out to reduce Noise and Vibration. The estimated budget for Noise level monitoring would be around **Rs 2,000/Year.**

9.8 Environmental impact assessment statement describing impact of mining on the next five years.

The mining plan proposed is for a small production of Rough stone without involving deep hole drilling and heavy blasting. Such limited mining activity is not likely to cause any impact adversely on the environment as far as pollution of air, water and noise is concerned, anyhow environmental impact studies will be conducted as per EIA notification issued by MoEF. It is B2 Category mine. The estimated budget would be around **Rs. 7,10,000/-**

9.9 Proposal for waste management

There is no waste in this Rough stone quarry and Saral quarry operation.

9.10 Proposal for reclamation of land affected during mining activities and at the end of mining (refilling / fencing etc.)

In the mining plan only a maximum depth of 18m has been envisaged as workable depth for safe & economic mining during the lease period. Fencing will be erected around the pit to prevent the inherent entry of public and Cattles. There is no proposal for reclamation and rehabilitation. The barbed wire fencing cost would be around **Rs 1,00,000/-**

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9.11 Programme of afforestation (indicate extend, number, name of species to be afforestated).

The 10m safety distance on the east side of the boundary has been identified to be utilized for afforestation Appropriate native species of neem trees will be planted in a phased manner as described below.

Table – 9

Year	No. of tress proposed to be planted	Survival %	Area to be covered Sq.m	Name of the species	No. of trees expected to be grown
I	20	80%	200	Neem/ Casuarina	18
II	20	80%	200	Neem/ Casuarina	18
III	20	80%	200	Neem/ Casuarina	18
IV	20	80%	200	Neem/ Casuarina	18
V	20	80%	200	Neem/ Casuarina	18

Nearly 1000Sqm area is proposed to use under afforestation by planting 20 Nos of neem/ Casuarina trees every year in the spacing interval of (3m X 3m) with an anticipated survival rate of 80%. (Please refer Plate No.III). The estimated budget for plantation and maintenance of Green belt development would be around **Rs. 30,000/-** for the period of five years.

9.12 Proposed financial estimate / budget for (EMP) environment management:

Budget Provision for the entire quarrying period.

Table -10

S. No	Monitory and Analysis Description	Rate per location	No. of location	Total Charges/ six months	Total Charges/ year
1	Ambient air quality monitoring	6500	4	26000	52000
2	Noise level monitoring	250	4	1000	2000
3	Ground vibration monitoring	1000	2	2000	4000
4	Water sampling and analysis	9000	1	9000	18000
Total EMP Cost/ year					**76,000**

The EMP cost would be around **Rs 3,80,000/-** for the period of five years.

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	Project cost / investment	
	i) Land cost	It is patta land, the present land cost is about Rs 2,00,000/ Ha, hence the total land cost is calculated about **Rs 9,06,000/-**
	ii) Machinery to be used	The following Machinries are proposed to meet out the proposed quantity of Rough stone and Saral. Excavators attached with rock breaker Excavator Cost **=Rs. 25,00,000/-.** Hand jack Hammer and loose tools. **= Rs 4,00,000/-** Tippers (10/20Tons Capacity) 1No **= Rs 14,00,000/-**
		Total Cost for the Machineries = **Rs. 43,00,000/-**
	iii) Refilling / Fencing	Fencing will be constructed around the quarry pit to prevent the inherent entry of public and cattles cost would be around **Rs.1,00,000/-**
	iv) Laboureres shed	Labour sheds will be constructed as semi permenant structure. The cost would be around **Rs 50,000/-**
	v) Sanitary facility	Adequate latrine and urinal accommodation shall be provided at conveniently accessible places the cost would be around **Rs. 50,000/-**
	vi) Others items	First aid room & accessories = **Rs. 50,000/-**
	vii)	**A. Fixed asset :-** Land cost = Rs 9,06,000/- Labour shed = Rs 50,000/- First aid room and accessories = Rs 50,000/- Sanitary facilities = Rs 50,000/- **Total Fixed asset = Rs 10,56,000/-** **B. Operational Cost :-** Machinaries to be used = Rs 43,00,000/- Fencing cost = Rs 1,00,000/- **Total operational cost =Rs. 44,00,000/-**

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	(a) Expenditure	
	i) Drinking water facility for the laborers	Packaged drinking water will be provided for all the labor. Drinking water is readily available at conveniently accessible points during the whole of the working shift the cost would be around **Rs.1,00,000/-**
	ii) Sanitary arrangement,	The latrine and urinal will keep clean and sanitary condition. The maintenance cost would be around **Rs.50,000/-** for the entire period.
	iii) Safety kits	All the Safety kits such as Helmet, Earmuffs, Goggles, Reflector Jackets, Safety shoes etc., will be provided by the applicant own cost the cost would be around **Rs. 50,000/-**
	iv) Water sprinkling	Water will be sprinkled in the haul roads by water sprinklers the cost would be around **Rs.1,00,000/-**
	v) Afforestation etc.	Afforestation program will be carried out in the boundary barrier the cost would be around **Rs.30,000/-** for the five year plan period.
		Total Cost = RS. 3,30,000/-
		C. EMP Cost :- (Per year) Air Quality monitoring = Rs. 52,000/- Water Quality Sampling = Rs. 18,000/- Noise Monitoring = Rs. 2,000/- Ground vibration test = Rs. 4,000/- **Total Cost = Rs. 76,000/-** Total EMP Cost for the five year period is **Rs. 3,80,000/-** Total Expenditure and EMP cost (Including EMP Studies) **= Rs. 7,10,000/-** **A+B+C=** A. Fixed asset cost = Rs 10,56,000/- B. Operational cost = Rs 44,00,000/- C. EMP Cost = Rs 7,10,000/- **Total Project Cost (A+B+C) = Rs 61,66,000/-**

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		The applicant ensures to involve corporate social responsibilities (CSR) like providing note books, Sanitary facility and Computer facilities to nearby school and providing drinking water facilities to the nearby villages etc., at around 2.5% from the total project cost the cost would be around **Rs 1,55,000/-** Total Project cost = Rs. 61,66,000/- CSR Cost (2.5%) = Rs. 1,55,000/- **Total cost = Rs. 63,21,000/-** (The total cost of the project including EMP Cost is Rupees sixty three lakh twenty one thousand)

10. MINE CLOSURE PLAN

10.1 Steps proposed for phased restoration, reclamation of already mined out areas.

There is no proposal for back filling, reclamation and rehabilitation. The quarried pits will be fenced with barbed wire fencing to prevent inherent entry of public and cattles. After treating the water the same will be utilized for nearby agriculture purpose to the nearby agriculture lands through silt trap to prevent the accumulation of silt particles in the nearby lands.

10.2 Measures to be under taken on mine closure as per Act & Rules.

Measure will be taken as per Act & Rules, There is no proposal for back filling, reclamation and rehabilitation. The quarry pit will be fenced by barbed wire to prevent inherent entry of public and cattle. The quarried out pit will be allowed to collect rain and seepage water which will act as a reservoir for storage. This water storage will enhance the static level and ground water recharge of nearby wells and it will be used for agriculture purpose to the nearby agriculture lands.

10.3 Mitigation Measure To Be Undertaken For Safety And Restoration / Reclamation Of The Already Mined Out Area.

Air quality: (Air quality will be degrade due to the drilling, blasting, mining operation and transportation).

Mitigation measures:

Drilling will be carried out by wet drilling mode to control the dust propagation into the air. Blasting will be carried out on limited scale. Mist Water spraying on haul road is proposed to prevent the dust propagation into the air. Air quality will be monitored periodically as per norms.

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NOISE AND VIBRATION: (The noise will be formed due to the drilling, blasting, loading and movement of Machineries.

Mitigation measures :

The applicant proposed to carry out the plantation all along the boundary to prevent Noise besides wet drilling will be practiced to prevent dust. All the machineries will be maintained in good conditions as per RTO and TNPCB Norms to prevent Noise, Smoke and vibration.

WATER REGIME :

Mitigation Masures :

The quarry operation is proposed upto a depth of 18m below the ground level. The proposed depth is well above the water table (Summer in 45m and rainy seasons in 42m), hence the water table will not be affected in any manner.

The seepage and rain water will be drained out from the pit by the 5H.P motor pump and will be discharged through filter media ie (Silt trap) to boundary barrier for afforestation and excess water will be sprayed on haul roads to prevent dust propagation in to the atmosphere. The rough stone quarry will not produce any harmful toxic effluence in the form of solid liquid or gas.

HUMAN HEALTH & SAFETY: Dust will be limited due to the mine operation.

All the labours will be provided with safety equipment's like helmet, Safety Goggles, Earmuff, Hand Glouse, safety jacket, safety belt, and Mine boots, etc., at Applicant own cost, As per the specifications of Director of mine safety. The competent, qualified person foreman/Permit Mines Manager will provide first aid and will take care of small & minor injuries. If any accident happens, the victim will be taken to the nearby hospital by the Applicant van which is always kept in the mine office. The hospital is about 3.0Km in Kayathar.

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11. ANY OTHER DETAILS INTEND TO FURNISH BY THE APPLICANT:

This Mining plan for Rough stone (Charnockite) and Saral is prepared as per the Draft Minor Mineral conservation and Development Rules, 2010 and amendment by the Tamil Nadu Minor Mineral Concession Rules, 1959. The provisions of the Mines Act, Rules and Regulations and orders made there under shall be complied with, so that the safety of the mine, machinery and person will be well protected. Permission, relaxation or exemption wherever required for the safe and scientific quarrying of the deposit will be obtained from the Department of Mines Safety. Any violation pointed out by the inspecting authorities shall be rectified as per the guidelines of the Department.

Prepared by

Dr. P.Thangaraju, M.Sc., Ph.D,
RQP/MAS/206/2007/A

Mining Plan Approved
In R.C. No 619/2015
By
22-9-2016
Assistant Director
Geology and Mining
Thoothukudi.

Place : Salem
Date : 09.09.2016

ANNEXURE-I

GM.1/619/2015

மாவட்ட ஆட்சித் தலைவர் அலுவலகம்,
தூத்துக்குடி

நாள் : 03.09.2016

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

அறிவிப்பு

அய்யா,

பொருள் : சுரங்கமும் குவாரியும் – சிறு கனிமங்கள் – தூத்துக்குடி மாவட்டம் - கோவில்பட்டி வட்டம் - தெற்கு இலந்தைகுளம் கிராமம் - புல எண்கள் 182/1A, 182/2 மற்றும் 183/2A ஆகியவற்றில் 4.53.0 ஹெக்டேர் பட்டா நிலப்பரப்பில் குண்டுகல்/சரள் குவாரி குத்தகை உரிமம் கோரியது – ஏற்பளிக்கப்பட்ட சுரங்கத்திட்டம் மற்றும் மாநில சுற்றுச்சூழல் ஒப்புதல் - அனுப்பக் கோருதல் - தொடர்பாக.

பார்வை : 1. திரு. P. சேக்தாவுது, பங்குதாரர், M/s. பீர் முகம்மது & சன்ஸ், கயத்தார் என்பவர் விண்ணப்பம், நாள் 30.10.2015

2. உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, தூத்துக்குடி, புலத் தணிக்கை குறிப்பு நாள் .06.2016.

3. ஆணையர், புவியியல் மற்றும் சுரங்கத்துறை, சென்னை அவர்களின் கடிதம் ந.க.எண்.3868/LC/2012 நாள்: 19.11.2012.

*****

திரு. P. சேக்தாவுது, பங்குதாரர், M/s. பீர் முகம்மது & சன்ஸ், கயத்தார் என்பவர் கோவில்பட்டி வட்டம், தெற்கு இலந்தைகுளம் கிராமம், புல எண்கள் 182/1A, 182/2 மற்றும் 183/2A ஆகியவற்றில் 4.53.0 ஹெக்டேர் பட்டா நிலப்பரப்பில் 5 வருடங்களுக்கு குண்டுகல் /சரள் குத்தகை உரிமம் பெற விண்ணப்பம் செய்துள்ளார்.

மனுதாரரின் விண்ணப்பம் பரிசீலினை செய்யப்பட்டு கோவில்பட்டி வட்டம், தெற்கு இலந்தைகுளம் கிராமம், புல எண்கள் 182/1A, 182/2 மற்றும் 183/2A ஆகியவற்றில் 4.53.0 ஹெக்டேரில் குத்தனை உரிமம் வழங்க வரையறுக்கப்பட்ட பரப்பு என முடிவு செய்யப்பட்டுள்ளது.

மனுதாரர் அங்கீகரிக்கப்பட்ட தகுதி வாய்ந்த நபரிடமிருந்து சுரங்கத்திட்டத்தை (Mining Plan) பெற்று உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கத்துறை, தூத்துக்குடி அவர்களிடம் இக்கடிதம் கிடைக்கப்பெற்ற நாளில் இருந்து 90 நாட்களுக்குள் ஒப்புதல் பெற்று அதைத் தொடர்ந்து சென்னையிலுள்ள மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு அணையத்திடமிருந்து தடையில்லா சான்று பெற்று இவ்வலுவலகத்தில் சமர்ப்பிக்கும் பட்சத்தில் குத்தகை உரிமம் வழங்குவது குறித்து முடிவு எடுக்கப்படும்.

ஒம்/- ரவி குமார்,
மாவட்ட ஆட்சியர்
தூத்துக்குடி.

/ஆணைப்படி அனுப்பப்படுகிறது/

3.9.16

மாவட்ட ஆட்சியருக்காக
தூத்துக்குடி

பெறுநர்

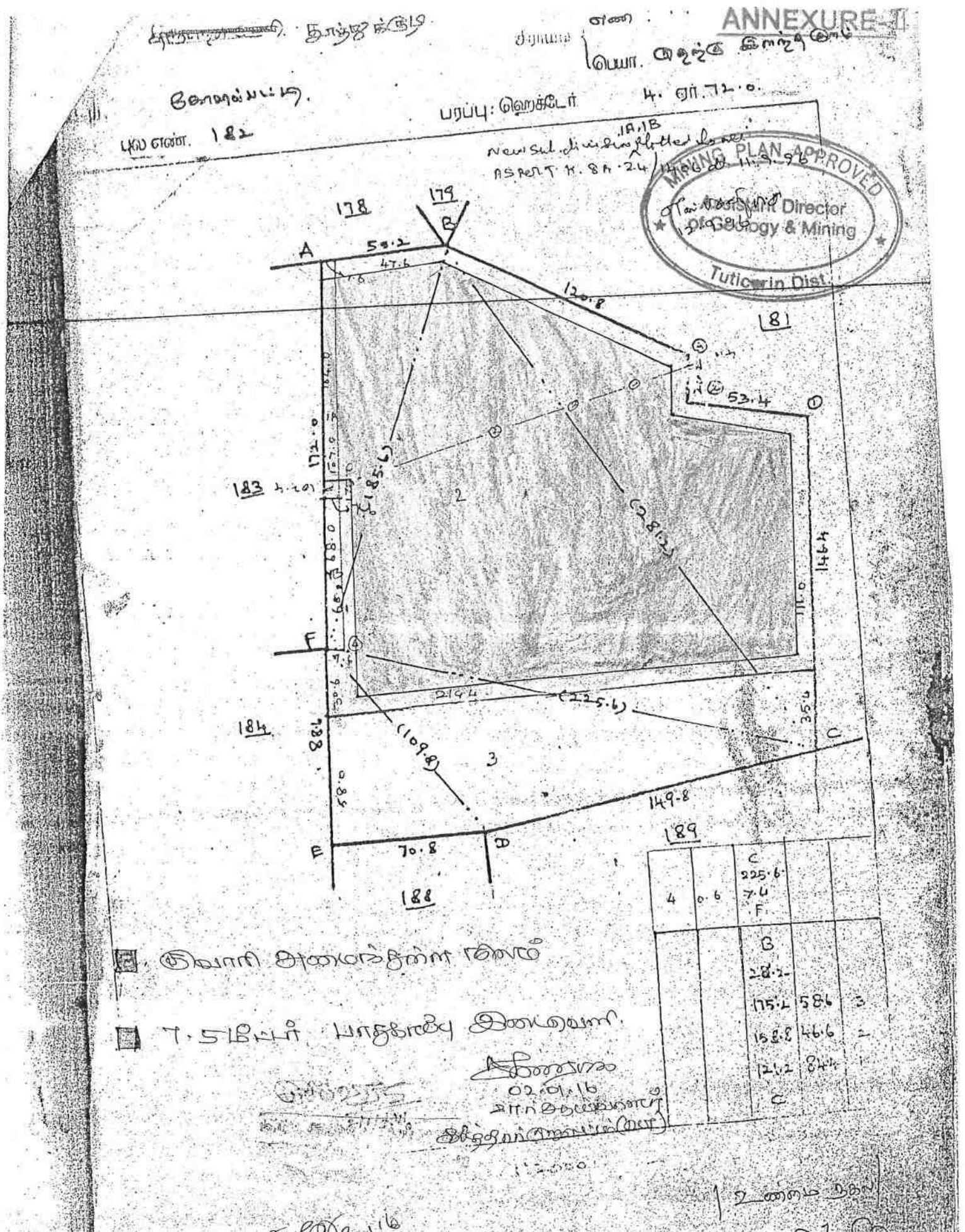
P. சேக்தாவுது, பங்குதாரர்,
M/s. பீர் முகம்மது & சன்ஸ்,
11A, பாவலர் தெரு, கயத்தார் கிராமம், கோவில்பட்டி.

நகல்:

1. ஆணையர்
புவியியல் மற்றும் சுரங்கத்துறை, சென்னை.

2. தலைவர்,
மாநில சுற்றுச்சுழல் அமைச்சகம்,
3வது மாடி, பனகல் மாளிகை, சைதாப்பேட்டை, சென்னை.

ANNEXURE-II



VILLAGE ADMINISTRATIVE OFFICER
TERKU ILANTHAIKULAM VILLAGE
KOVILPATTI TALUK

LEASE APPLIED AREA

101 A

வட்டம் கோவில்பட்டி

கிராமம் பெயர் தெற்கு கலந்தை

புல எண். 183

பரப்பு: ஹெக்டேர் 3 ஏர். 27.5

New Subdivision 2A, 2B Plotted by me
As per T.K. 24/1406 dt 11.9.96

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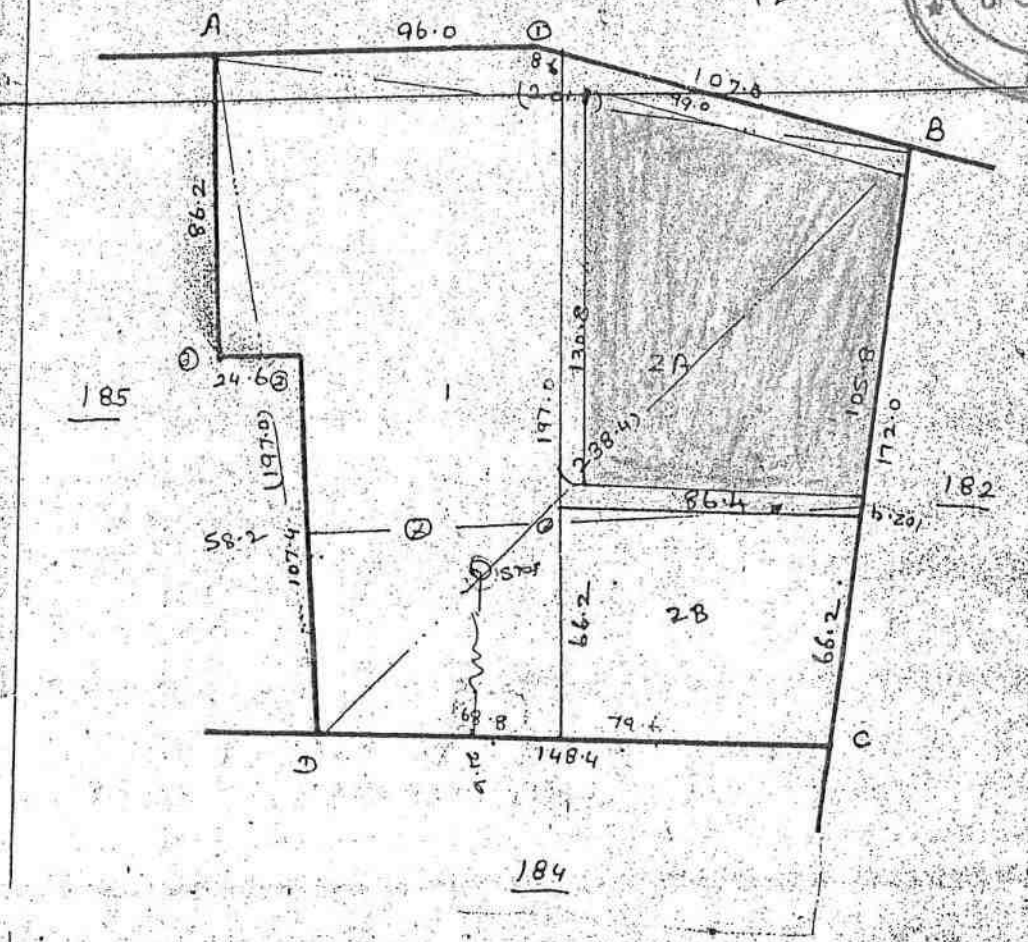
Tuticorin Dist.



இவாரி அமைந்துள்ள நிலம்

7.5 மீட்டர் பாதுகாப்பு இடைவளி

		D		
		179.0		
3	11.8	89.6		
		85.4	12.2	2
		A		
		201.8		
		106.8	14.2	1
		B		

02.01.16

Compared by
V. Esakkiammal
4.9.85

அளவு 1:2000

Prepared By
[illegible]
2.9.85

| உண்மை நகல் |

VILLAGE ADMINISTRATIVE OFFICER
TERKU ILANTHAIKULAM VILLAGE
KOVILPATTI TALUK

5/10/15

20.1.16

LEASE APPLIED AREA

102 A

ANNEXURE-III

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Tuticorin Dist.

103 A

ANNEXURE-IV

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Assistant Director of Geology & Mining
Tuticorin Dist.

தமிழக அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : தூத்துக்குடி வட்டம் : கோவில்பட்டி

வருவாய் கிராமம் : தெற்கு இலந்தைக்குளம் பட்டா எண் : 2537

உரிமையாளர்கள் பெயர்

1. மற்றவை மெசர்ஸ் பீர் முகம்மது அண்டு சன்ஸ்

		நன்செய்		புன்செய்		மற்றவை	
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை
புல எண்	உட்பிரிவு	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை
182	1A	--	--	0 - 8.00	0.07	--	--
183	2A	--	--	1 - 0.50	0.91	--	--
		--	--	1 - 8.50	0.98	--	--

குறிப்பு :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **http://eservices.tn.gov.in** என்ற இணைய தளத்தில் 28/06/190/02537/60037 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 28-09-2015 வரை வட்டாட்சியர் அலுவலகத்தில் இருந்து பெறப்பட்டவை.
3. இத் தகவல்கள் 05-10-2015 அன்று 04:17:21 PM நேரத்தில் அச்சடிக்கப்பட்டது.
4. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

20.1.16
வட்டாட்சியர்
கோவில்பட்டி.

வருவாய் கோட்டாட்சியர்
கோவில்பட்டி.

20.1.16

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

தமிழக அரசு

வருவாய்த் துறை

நில உரிமை விபரங்கள் : இ. எண் 10(1) பிரிவு

மாவட்டம் : தூத்துக்குடி வட்டம் : கோவில்பட்டி

வருவாய் கிராமம் : தெற்கு இலந்தைக்குளம் பட்டா எண் : 2271

உரிமையாளர்கள் பெயர்

1.	பீர் முகம்மது	மனைவி	மைமூன்பீவி
2.	பீர் முகம்மது	மகன்	ஜாகீர் உசேன்
3.	பீர் முகம்மது	மகன்	முகம்மது காசிம்
4.	பீர் முகம்மது	மகன்	இஸ்மாயில் முகைதீன்
5.	பீர் முகம்மது	மகன்	சேக்தாவுது
6.	பீர் முகம்மது	மகள்	செய்யது அலி பாத்திமா

		நன்செய்		புன்செய்		மற்றவை	
		பரப்பு	தீர்வை	பரப்பு	தீர்வை	பரப்பு	தீர்வை
புல எண்	உட்பிரிவு	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை	ஹெக் - ஏர்	ரூ - பை
182	2	--	--	3 - 44.50	3.13	--	--
		--	--	3 - 44.50	3.13	--	--

குறிப்பு :

1. மேற்கண்ட தகவல் / சான்றிதழ் நகல் விவரங்கள் மின் பதிவேட்டிலிருந்து பெறப்பட்டவை. இவற்றை தாங்கள் **http://eservices.tn.gov.in** என்ற இணைய தளத்தில் 28/06/190/02271/60072 என்ற குறிப்பு எண்ணை உள்ளீடு செய்து உறுதி செய்துகொள்ளவும்.
2. இத் தகவல்கள் 28-09-2015 வரை வட்டாட்சியர் அலுவலகத்தில் இருந்து பெறப்பட்டவை.
3. இத் தகவல்கள் 05-10-2015 அன்று 04:15:39 PM நேரத்தில் அச்சடிக்கப்பட்டது.
4. கைப்பேசி கேமராவின்2D barcode படிப்பான் மூலம் படித்து 3G/GPRS வழி இணையதளத்தில் சரிபார்க்கவும்

வருவாய் கோட்டாட்சியர்
கோவில்பட்டி

14 5 - ஆம் ட லியில மாத்துக்குடி மாவட்டம் கோவில்பட்டி வட்டம் 32, தெற்கு இலந்தைக்குளம் கிராமத்தில் வருடவாரி புலவாரி கைப்பற்று சாகுபடி அடங்கல் கணக்கு

நிலவரித் திட்டத்தின்படி புலன்களின் விபரம்.						சாகுபடியாளரின் பெயர்.	முதல் போகம்.					இரண்டாம் போகம்.						கீழ்க்கண்டவகையில் பயிரிடப்படாது உள்ள நிலத்தின் தன்மை மற்றும் பரப்பின் விவரங்கள் ஒவ்வொரு நில அளவை எண் அல்லது அதன் பகுதியில்.	
நில அளவை எண்.	உட்பிரிவு எண்.	பரப்பு.	தீர்வை.	ஒரு போகம் அல்லது இரு போகம்.	கைப்பற்று தாரருடைய பெயரும் எண்ணும் அல்லது அனுபோக தாரருடைய பெயர்.	நிலத்தின் எந்த பகுதி யாவது சாகுபடியாளரால் பயிரிடப்பட்டுள்ளதா.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	பயிரின் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விழுக்காடு.	எந்த மாதத்தில் பயிர் செய்யப்பட்டது எந்த மாதத்தில் அறுவடை செய்யப்பட்டது.	பயிரின் பெயர்.	பயிரான / அறுவடையான பரப்பு.	உண்மையான பாய்ச்சல் ஆதாரம்.	விளைச்சல் அளவு விழுக்காடு.	கிராம அலுவலரின் குறிப்புரை :- (1) புலன்களின் பகுதிகளில் மட்டும் பயிரிடப்பட்ட இனங்களில் விங்குகள் அளவில். (2) கைப்பற்றில் இல்லாத நிலங்களின் சாகுபடியின் தன்மையும் (3) முந்தைய மாதத்தில் பாய்ச்சல் உதவியின்றி பயிரிடப்பட்டவை என்று பதிவாகியுள்ள நிலங்களுக்கு பிந்தைய மாதங்களில் நீர் பாய்ச்சப்பட்ட விவரங்கள்.	(அ) வனம், (ஆ) பயனற்ற பயிர் செய்ய இயலாத நிலம், (இ) விவசாய மற்றும் இதர காரியங்களுக்கு பயன் படுத்தப் படும் நிலம், (ஈ) பயிரிடத்தக்க தரிசு (உ) நிலையான புல் தரைகளும் மற்றும் இதர மேய்ச்சல் நிலங்களும், (ஊ) விதைக்கப்பட்ட நிகர பரப்பில் சேர்க்கப்படாத மரவகைப் பயிர்களும் தோப்புகளும், (எ) நடப்புத் தரிசுகள் (ஏ) இதர தரிசு நிலங்கள்.	பயிர் பார்வையிடும் அலுவலர் குறிப்புரைகள்.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(18அ)	(19)
182	2	3.44.5	3.13	2271	மைமூன் பீவி (வ)			—	—	—							தரிசு - 3.44.5		
182	1A	0.08.0	0.07	2537	மெசர்ஸ் பீர் கெம்மது			—	—	—							தரிசு - 0.08.0		
183	2A	1.00.5	0.91	2537	அண்டு சன்ஸ்			—	—	—							தரிசு - 1.005		

| உண்மை நகல் |

அ. [illegible] 5/10/15
VILLAGE ADMINISTRATIVE OFFICER
TERKU ILANTHAIKULAM VILLAGE
KOVILPATTI TALUK

[illegible]
வட்டாட்சியர்
கோவில்பட்டி.

[illegible]
வருவாய் கோட்டாட்சியர்
கோவில்பட்டி.

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

ANNEXURE- V

ANNEXURE-VI

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

	2	3	4	5	6	7	8	9	10	11
							ரூ. பை.	ஹெ.ஏர்ஸ்	ரூ. பை	
3	182-3	ர	ப	...	8-4	6	0 91	1 14·0	1 05	398 ப.சுப்பிர மணியம்.
								4 72·0	4 31	
1	183-1	ர	ப	...	8-4	6	0 91	1 71·5	1 57	883 ஆ.வேலு நாயக்கர்.
2	-2	ர	ப	...	8-4	6	0 91	1 56·0	1 42	1422 ம.செல்லத் துரை.
								3 27·5	2 99	
...	184	ர	ப	...	8-4	6	0 91	3 01·0	2 75	1195 நா.கிருஷ்ண சாமி நாயக்கர்(1), மு.தேவ ராஜ்(2) மு.துரை சாமி(3).
1	185-1	ர	ப	...	8 4	6	0 91	2 57·5	2 35	856 நா.வெங்கடேஷ்
2	-2	ர	ப	...	8 4	6	0 91	0 82·0	0 75	138 வே.கடற்கரை தேவர்.
3	-3	ர	ப	...	8-4	6	0 91	2 15·5	1 97	1415 வீ.சுப்பையா நாயக்கர் மற்றும் பதினான்கு பேர்களும்.*
								5 55·0	5 07	
1	186 பா	ர	ப	...	8-4	6	0 91	5 83·0	5 30	1415 வீ.சுப்பையா நாயக்கர் மற்றும் பதினான்கு பேர்களும்.*
2	-பா	ர	ப	...	8-4	6	0 91	0 38·0	0 35	1415 வீ.சுப்பையா நாயக்கர் மற்றும் பதினான்கு பேர்களும்.*
3	-பா	ர	ப	...	8-4	6	0 91	0 38·0	0 35	1415 வீ.சுப்பையா நாயக்கர் மற்றும் பதினான்கு பேர்களும்.*
								6 59·0	6 00	
	187-1	ர	ப	...	8-4	6	0 91	6 28·5	5 75	1195 நா.கிருஷ்ண நாயுடு(1), மு.தேவராஜ்(2) மு.துரைச் சாமி(3)

*.விவரப்பட்டியலைப் பார்க்கவும்.

183/20

184/1.21

107 A

ANNEXURE-VII

MINING PLAN APPROVED
Assistant Director
Geology & Mining

தமிழ்நாடு तमिलनाडु TAMIL NADU

31AB 023449

J. ரமேஷ் ஆபிரகாம் (S.V.)
LIC No. 39/1997. தூத்துக்குடி

நாள்: 28 JUL 2016

தமிழ் நாடு எண்: 48611

NOTARY
Reg No. 6420
M. GANGA
THOOTHUKUDI DIST.
TAMILNADU
GOVT. OF INDIA

சம்மதப் பத்திரம்

2016ம் வருடம் ஜீலை மாதம் 28ம் தேதி வியாழக்கிழமை,

தூத்துக்குடி மாவட்டம், கோவில்பட்டி வட்டம், கயத்தாறு கிராமம், பாவலர் தெரு, கதவு எண்: 11A என்ற விலாசத்தில் வசித்து வரும் (லேட்) பீர் முகமது அவர்களின் மனைவி திருமதி.மைமூன் பீவி (1) மற்றும் மக்கள் ஜாகீர் ஹீசேன் (2) முகம்மது காசிம் (3) இஸ்மாயில் முகைதீன் (4) செய்யது அலி பாத்திமா (5) நாங்கள் ஐந்து பேரும் பீர் முகம்மது & சன்ஸ்ல் உறுப்பினர்களாக உள்ள படியால் நாங்கள் ஐந்து பேரும் சேர்ந்து எங்களது பீர் முகமது சன்சில் உறுப்பினராக உள்ள திரு.சேக் தாவூதுக்கு எழுதிக் கொடுக்கும் சம்மத பத்திரம் என்னவென்றால்,

1. P. மைமூன் பீவி
2. P. ஜாகீர் உசேன்
3.
4. P. Ismail
5. S. செய்யது அலி பாத்திமா

M. GANGA
ADVOCATE & NOTARY
GOVERNMENT OF INDIA
12-R, DEVARPURAM

108 A

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

தூத்துக்குடி மாவட்டம், கோவில்பட்டி வட்டம், தெற்கு இலந்தைக்குளம் கிராமம், அயன் புன் செய் பட்டா எண் : 2537 புல எண்கள் 182/1A, 183/2A மொத்தம் 1.8.50 ஹெக்டேர் பரப்பளவில் அரசு அனுமதி பெற்று கல்குவாரி செய்து கொள்ள சம்மதம் தெரிவித்து நாளது தேதி முதல் 10 வருடங்களுக்கு கல்குவாரி செய்து கொள்ள வேண்டும் என்று இந்த சம்மத பத்திரத்தில் சுய நினைவுடன் கையொப்பம் இடுகிறோம்.

1. P. [illegible]
2. P. [illegible]
3. P. [illegible]
4. P. [illegible]
5. S. [illegible]

NOTARY
Reg. No: 6420
M. GANGA
THOOTHUKUDI DIST.
TAMILNADU
GOVT. OF INDIA

Signed before me.

M. GANGA
ADVOCATE & NOTARY
GOVERNMENT OF INDIA
12-R, DEVARPURAM ROAD
TUTICORIN - 628 003. TAMILNADU

MINING PLAN APPROVED
Assistant Director of Geology & Mining

ANNEXURE

தமிழ்நாடு तमिलनाडु TAMIL NADU

21AB 965148

PEER MOHAMED & SONS
KAYATHAR

NOTARY
Reg. No.6420
M. GANGA
THOOTHUKUDI DIST.
TAMILNADU
GOVT. OF INDIA

L. No: 2/2005
தூத்துக்குடி
நாள்: 23 OCT 2015
TN No: 18173

சம்மதப்பத்திரம்

2015 ஆம் வருடம் அக்டோபர் 23-ம் தேதி வெள்ளிகிழமை

தூத்துக்குடி மாவட்டம், கோவில்பட்டி வட்டம், கயத்தாறு கிராமம் பாவலர் தெரு கதவு எண்:11A என்ற விலாசத்தில் வசிக்கும் (லேட்) பீர்முகம்மது அவர்களின் மனைவி திருமதி மைமூன் பீவி (1), மற்றும் மக்கள் ஜாகீர் உரசேன் (2), முகம்மது காசீம் (3), இஸ்மாயில் முகைதீன் (4), சேக் தாவூது (5), செய்யது அலி பாத்திமா (6) நாங்கள் ஆறு பேரும் சேர்ந்து எழுதிக் கொடுக்கும் சம்மதப்பத்திரம் என்னவென்றால்,

(1) P மைமூன்பீவி

(2) P. ஜாகீர்உசேன்

(3)

(4)

(5)

(6) S. செய்யது அலிபாத்திமா

M. GANGA
ADVOCATE & NOTARY
GOVERNMENT OF INDIA
12-R, DEVARPURAM ROAD
TAMILNADU

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

நாங்கள் மேற்கண்ட முகவரியில் துவங்கியுள்ள தி/வா. பி"முகம்மது அண்டு சன்ஸ்" நிறுவனத்திற்கு நாங்கள் கிரையம் பெற்று அனுபவித்து வரும் தூத்துக்குடி மாவட்டம், கோவில்பட்டி வட்டம், தெற்கு இலந்தைக்குளம் கிராமம், அயன் புன்செய் பட்டா புல எண் 2271 புல எண் 182/2ல் 3.44.5 ஹெறக்டேர் பரப்பளவில் அரசு அனுமதி பெற்று கல் குவாரி செய்து கொள்ள சம்மதம் தெரிவித்து நாளது தேதி முதல் 10 வருடங்களுக்கு கல் குவாரி செய்து கொள்ளவேண்டும் என்று இந்த ஒப்பந்தப் பத்திரத்தில் சுய நினைவுடன் கையொப்பம் இடுகிறோம்.

① [illegible]
② [illegible]
③ [illegible]
④ [illegible]
⑤ [illegible]
⑥ S. செய்யது அலிபாத்திமா

NOTARY
Reg. No.6420
M. GANGA
THOOTHUKUDI DIST.
TAMILNADU
GOVT. OF INDIA

M. GANGA
ADVOCATE & NOTARY
GOVERNMENT OF INDIA
12-R, DEVARPURAM ROAD
TUTICORIN - 628 003. TAMILNADU

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

ANNEXURE- VIII

Regn. IV-2A1,00,006-18-4-2002-G.B.P., Pdkt

படிவம் -இ

[விதி 9 (அ) காண்க.]

தொழிற் கூட்டுப் பதிவு அறிலிப்பு

பாலையம்கோட்டை தொழில் நிறுவனப் பதிவாளர், 1923 ஆம் ஆண்டு இந்தியக் கூட்டு வாணிபச் சட்டம், 58(1) பிரிவில் குறிப்பிட்டிருக்கும் அறிக்கை வரப்பெற்றுக் கொண்டதை இதனால் அறிவித்துக்கொள்கிறார். அந்த அறிக்கை கோப்பில்சேர்க்கப்பட்டு தொழில் நிறுவனத்தின் பெயரான்—

PEER MOHAMMED & SONS.

---என்பது தொழில் நிறுவனப் பதிவேட்டில்

2007 ஆம் ஆண்டு 49 -என்னாகப் பதிவாயிருக்கிறது.

கூட்டுநிறுவனப்பதிவாளர்
13/7/07 பாளையங்கோட்டை

2007 ஆண்டு 07 திங்கள் 13 நாள்.

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

भारतीय गैर न्यायिक

एक सौ रुपये Rs. 100

रु. 100 ONE HUNDRED RUPEES

भारत INDIA

INDIA NON JUDICIAL

தமிழ்நாடு तमिलनाडु TAMILNADU T 974550

R. Sam

தமிழ்நாடு
எண் 1647
மதிப்பு 100-00
தேதி 20-08-2010

P. Sheikh Dawood
Kayathar

DEED OF RECONSTITUTION OF PARTNERSHIP

This Deed of Reconstitution of the Partnership made on 20th of August 2010 between

1. Mr.P. ISMAIL MOHIDEEN, S/O.K. PEER MOHAMMED, aged about 35 years, residing at 11-A, PAVALAR STREET, KAYATHAR – 628 952, KOVILPATTI TALUK, THOOTHUKUDI DISTRICT.

2. Mr.P. SHEIKH DAWOOD, S/O.K. PEER MOHAMMED, aged about 33 years, residing at 11-A, PAVALAR STREET, KAYATHAR – 628 952, KOVILPATTI TALUK, THOOTHUKUDI DISTRICT.

3. Mr.P. ZAHIR HUSSAIN, S/O.K. PEER MOHAMMED, aged about 38 years, residing at 11-A, PAVALAR STREET, KAYATHAR – 628 952, KOVILPATTI TALUK, THOOTHUKUDI DISTRICT.

1. P. Ismail Mohideen
2. Dawood
3. P. [illegible]
4. [illegible]
5. M. Nabila Kasim.
6. S. [illegible]

MINING PLA... Assistant Director of Geology & Mining Tuticorin Dist.

भारतीय गैर न्यायिक

एक सौ रुपये Rs. 100

रु. 100 ONE HUNDRED RUPEES

भारत INDIA

INDIA NON JUDICIAL

தமிழ்நாடு तमिलनाडु TAMILNADU T 974551

தமிழ்நாடு
எண் : 1548 P. Sheikh Dawood Kayathar
மதிப்பு : 100-00
தேதி : 20-08-2010

R. Sama
R. கணேசன்
முத்திரைத்தாள் விற்பனையாளர்
உ. எண்: 7/92, கோவில்பட்டி

4. Mrs.P. MAIMOON BEEVI, W/O.K. PEER MOHAMMED, aged about 58 years, residing at 11-A, PAVALAR STREET, KAYATHAR – 628 952, KOVILPATTI TALUK, THOOTHUKUDI DISTRICT.

5. Mrs.M. NABILLA KASIM, W/O. P. MOHAMMED KASIM, aged about 34 years, residing at 11-A, PAVALAR STREET, KAYATHAR – 628 952, KOVILPATTI TALUK, THOOTHUKUDI DISTRICT.

6. Mrs.P. SYED ALI FATHIMA, W/O. A. SHAHUL HAMEED, aged about 32 years, residing at 11-A, PAVALAR STREET, KAYATHAR – 628 952, KOVILPATTI TALUK, THOOTHUKUDI DISTRICT.

1. P. [illegible]
2. [illegible]
3. P. [illegible]
4. P. மைமூன்பீவி
5. M. Nabilakasim.
6. S. செய்யது அலி பாத்திமா

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

भारतीय गैर न्यायिक

एक सौ रुपये Rs. 100

रु. 100 ONE HUNDRED RUPEES

भारत INDIA

INDIA NON JUDICIAL

தமிழ்நாடு तमिलनाडु TAMILNADU T 974552

R. Sam

R. கணேசன்
முத்திரைத்தாள் ... உ. எண்: 7/92, கோவிந்தபட்டி

கமிழ்நாடு
எண் : 1549 P. Sheikh Dawood Kayathan
மதிப்பு : 100-00
கேதி :

Whereas the above named parties and along with Mr. Peer Mohammed were working in partnership, a business under the name and style of M/s. 'M/s. Peer Mohammed & Sons' entitled under an instrument of partnership dated on 2nd July, 2007 & 4th January 2010.

Whereas the above named parties have been carrying on a business of contract works to Government departments and others and such other business or businesses as the parties may from time to time determine.

ON 1st of August of 2010 the Managing partner Mr. Peer Mohammed is expired , as per clause 19 of original partnership deed dated 2nd of July 2007 firm shall not be dissolved by the death or retirement of any partner/partners". It is, therefore agreed by all the existing partners to continue the operation of M/s.Peer Mohammed & Sons, loan account with the State Bank of Travancore, Kovilpatti Branch and also take responsibility of all the liability of Mr. Peer Mohammed (Expired) as liability of this re-constituted firm.

1. P. Tamilmaran 2. [signature]
3. P. [illegible] 4. [illegible]
5. M. Nalailakasim. 6. S. செய்யது அலி பாத்திமா

Whereas the partners hereto & hereby mutually agree to the following terms & conditions of the partnership with effect from the signing of the deed.

Whereas the partners had decided to alter the following clauses on the original deed dated 2nd July, 2007 & 4th January 2010.

7. The capital of the firm are Rs. 580000/- and the same shall be contributed by the partners as follows: (And the capital account balance of the deceased partner shall be apportioned to the other partners and the profit sharing ratios are altered as follows

S.No.	Name of the Partner	Capital Introduced	Profit/Loss Sharing Ratio
1.	P. Ismail Mohideen	96,670	16.67 %
2	P. Sheikh Dawood	96,670	16.67 %
3	P. Zahir Husaain	96,670	16.67 %
4	P. Maimoon Beevi	96,670	16.67 %
5	M. Nabilla Kasim	96,670	16.67 %
6	P. Syed Ali Fathima	96,650	16.65 %
	Total	**5,80,000**	**100 %**

This Capital may be increased by such sums as the parties shall from time to time agree to contribute.

10. The second Partner Mr. P. Sheikh Dawood shall be the Managing Partner and he along with the Fourth Partner Mrs. P. Maimoon Beevi and Fifth Partner Mrs.M. Nabilla Kasim shall look after the management of the Firm.
11. The Third Partner Mr.P. Zahir Hussain shall look after the labor management.

1. P. [illegible] 2. [illegible]
3. P. [illegible] 4. P. [illegible]
5. M. Nabilakasim. 6. S. [illegible]

ANNEXURE-

இந்திய அரசாங்கம்
Government of India

ஷேக் தாவூது பீ
Sheik Dawood P
தந்தை : பீர்முகம்மது
Father : PEERMOHAMED
பிறந்த நாள் / DOB : 30/04/1972
ஆண்பால் / Male

3974 3115 1512

ஆதார் - சாதாரண மனிதனின் அதிகாரம்

Unique Identification Authority of India

முகவரி:
S/O: பீர் முகமது, 11 ஏ, பாவலர் தெரு, கயத்தார், கயத்தார், தூத்துக்குடி, தமிழ் நாடு, 628952

Address:
S/O: Peer Mohamed, 11 a, pavallar STREET, KAYATHAR, Kayathar, Kayathar, Thoothukkudi, Tamil Nadu, 628952

3974 3115 1512

1947
1800 300 1947

help@uidai.gov.in

www.uidai.gov.in

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

ANNEXURE- X

MINING PLAN APPRO...
Assistant Director
of Geology & Mining
Tuticorin Dist.

CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON TO PREPARE MINING PLANS

(Under Rule 22 C of Mineral Concession Rules, 1960)

Shri P.Thangaraju resident of H.No: 77 D-3, CauveryAvenue, M.D.S.Nagar, Salem – 636 Tamil Nadu, son of Late S.Periyasamy having given satisfactory evidence of his qualifications and experience is hereby granted recognition under Rule 22C of the Mineral Concession Rules, 1960 as a Qualified Person to prepare Mining Plans.

His registration number is **RQP/MAS/206/2007/A**

The recognition is valid for a period of ten years ending 30-01-2017

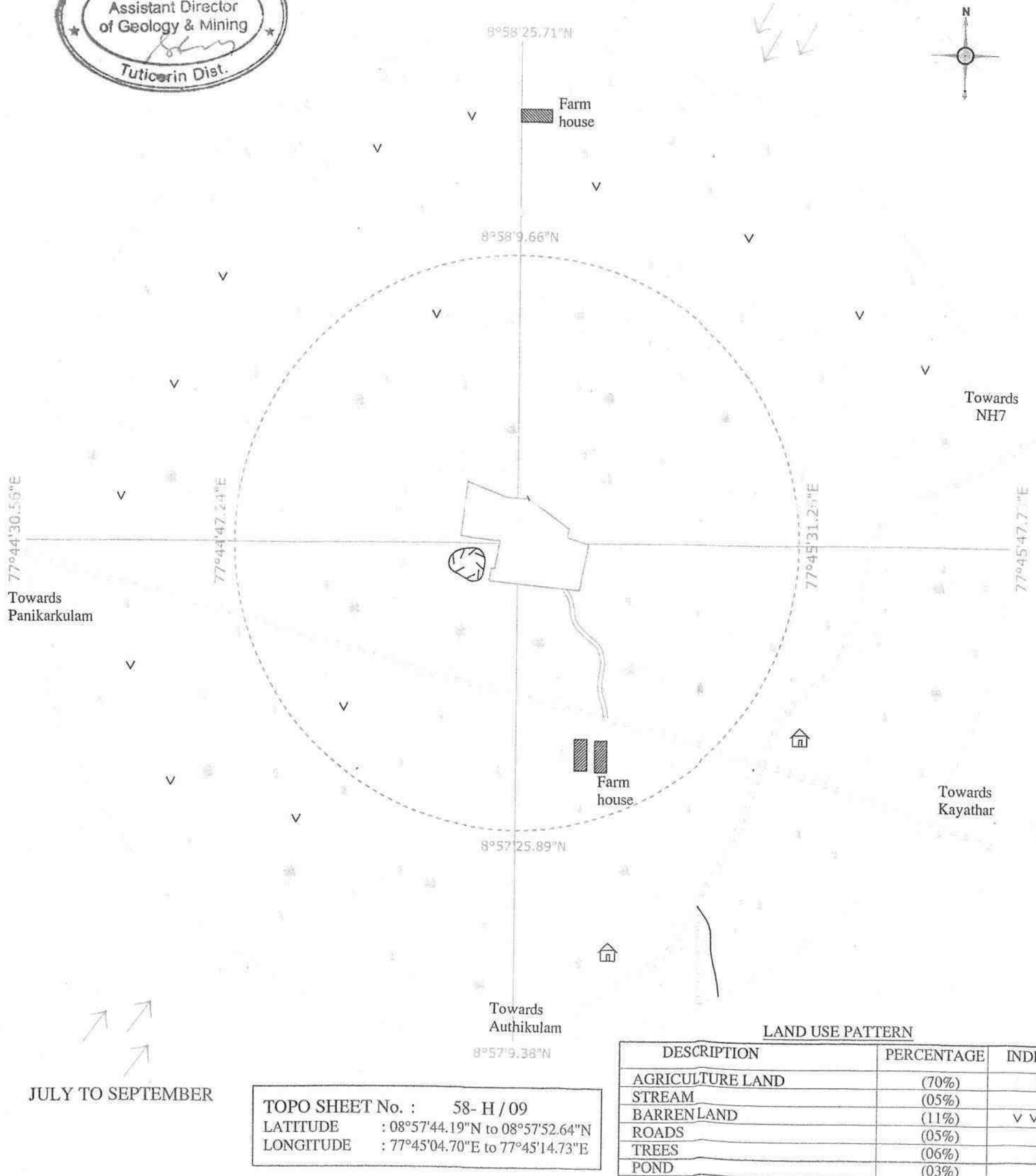
(B. Babu Rao)
Regional Controller of Mines
Indian Bureau of Mines
Chennai Region

Place : Chennai
Date : 31.01.2007

119 A

MINING PLAN APPROVED
Assistant Director
of Geology & Mining
Tuticorin Dist.

OCTOBER TO DECEMBER



JULY TO SEPTEMBER

TOPO SHEET No. : 58- H / 09
LATITUDE : 08°57'44.19"N to 08°57'52.64"N
LONGITUDE : 77°45'04.70"E to 77°45'14.73"E

LAND USE PATTERN

DESCRIPTION	PERCENTAGE	INDEX
AGRICULTURE LAND	(70%)	
STREAM	(05%)	
BARREN LAND	(11%)	V V
ROADS	(05%)	
TREES	(06%)	
POND	(03%)	

PLATE NO: I-B

DATE OF SURVEY : 07.09.2016

APPLICANT :
Thiru.P.SHEIK DAWOOD,(Managing Partner),
M/s PHEER MUHAMED & SONS,
11A , PAAVALAR STREET ,KAYATHAR VILLAGE
KOVILPATTI ,
THOOTHUKUDI DISTRICT.

LOCATION OF Q L APPLIED AREA:

S.F.No : 182/1A , 2 & 183/2A
EXTENT : 4.53.0 Ha.
VILLAGE : TERKU ILANDHAI KULAM ,
TALUK : KOVILPATTI,
DISTRICT : THOOTHUKUDI,
STATE : TAMIL NADU.

INDEX

- Q.L. APPLIED AREA
- 1 Km RADIUS
- 500m RADIUS
- APPROACH ROAD
- STREAM
- ROAD
- TREES
- SEASONAL AGRI LAND
- V V BARREN LAND
- WIND DIRECTION
- TANK
- QUARRY PITS

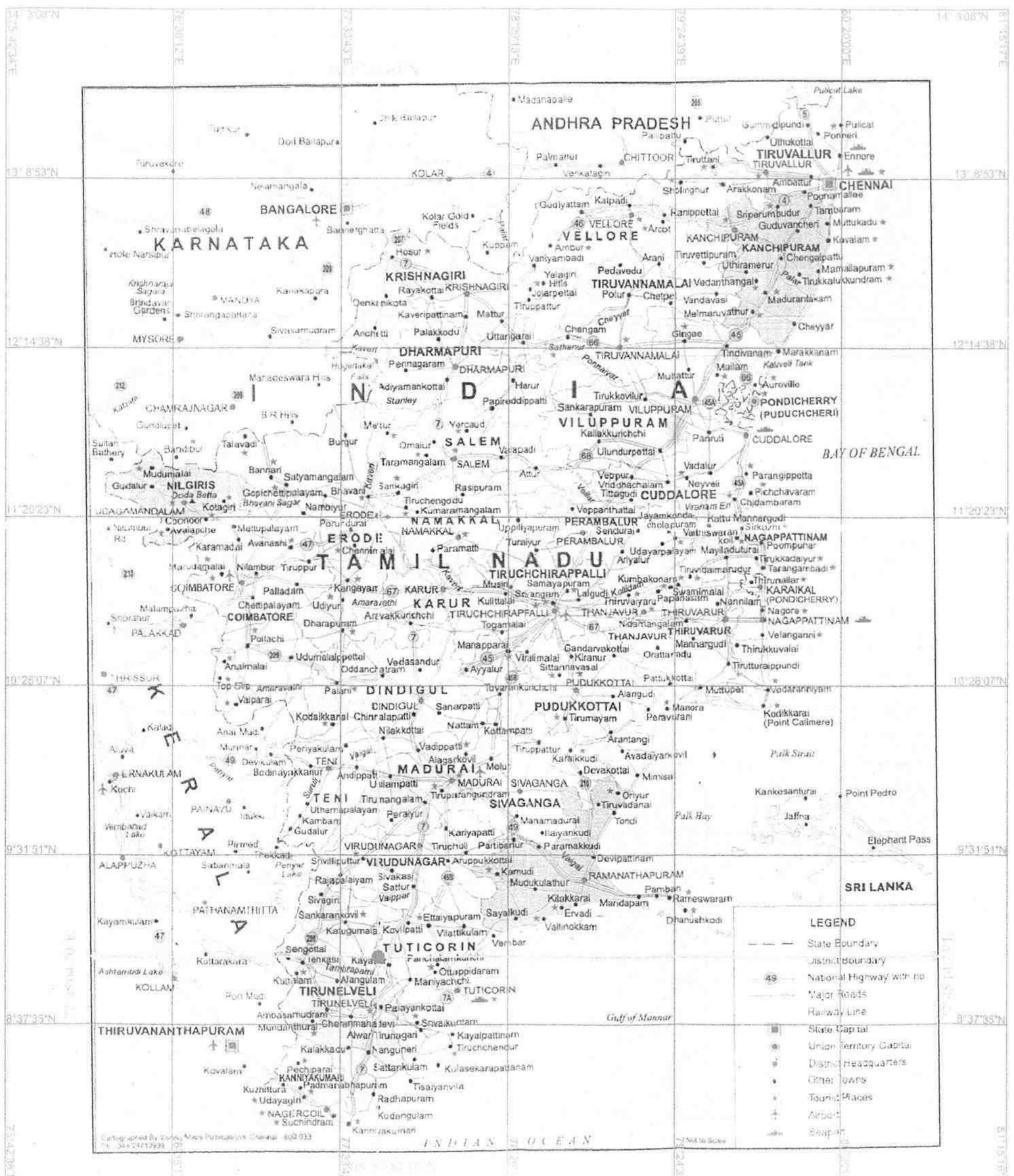
ENVIRONMENTAL & LANDUSE PLAN

SCALE- 1:10,000

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

Dr.P.THANGARAJU,M.Sc.,Ph.D.,M.E.A.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/206/2007/A



N

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.

PLATE NO : I

DATE OF SURVEY : 07.09.2016

APPLICANT :

Thiru.P.SHEIK DAWOOD,(Managing Partner),
M/s PHEER MUHAMED & SONS,
11A , PAAVALAR STREET ,KAYATHAR VILLAGE
KOVILPATTI ,
THOOTHUKUDI DISTRICT.

LOCATION OF Q L APPLIED AREA:

S.F.No : 182/1A , 2 & 183/2A
EXTENT : 4.53.0 Ha.
VILLAGE : TERKU ILANDHAI KULAM ,
TALUK : KOVILPATTI,
DISTRICT : THOOTHUKUDI,
STATE : TAMIL NADU.

INDEX

Q. L.A. AREA :

TOPO SHEET No. : 58- H / 09

LATITUDE : 08°57'44.19"N to 08°57'52.64"N
LONGITUDE : 77°45'04.70"E to 77°45'14.73"E

LOCATION PLAN

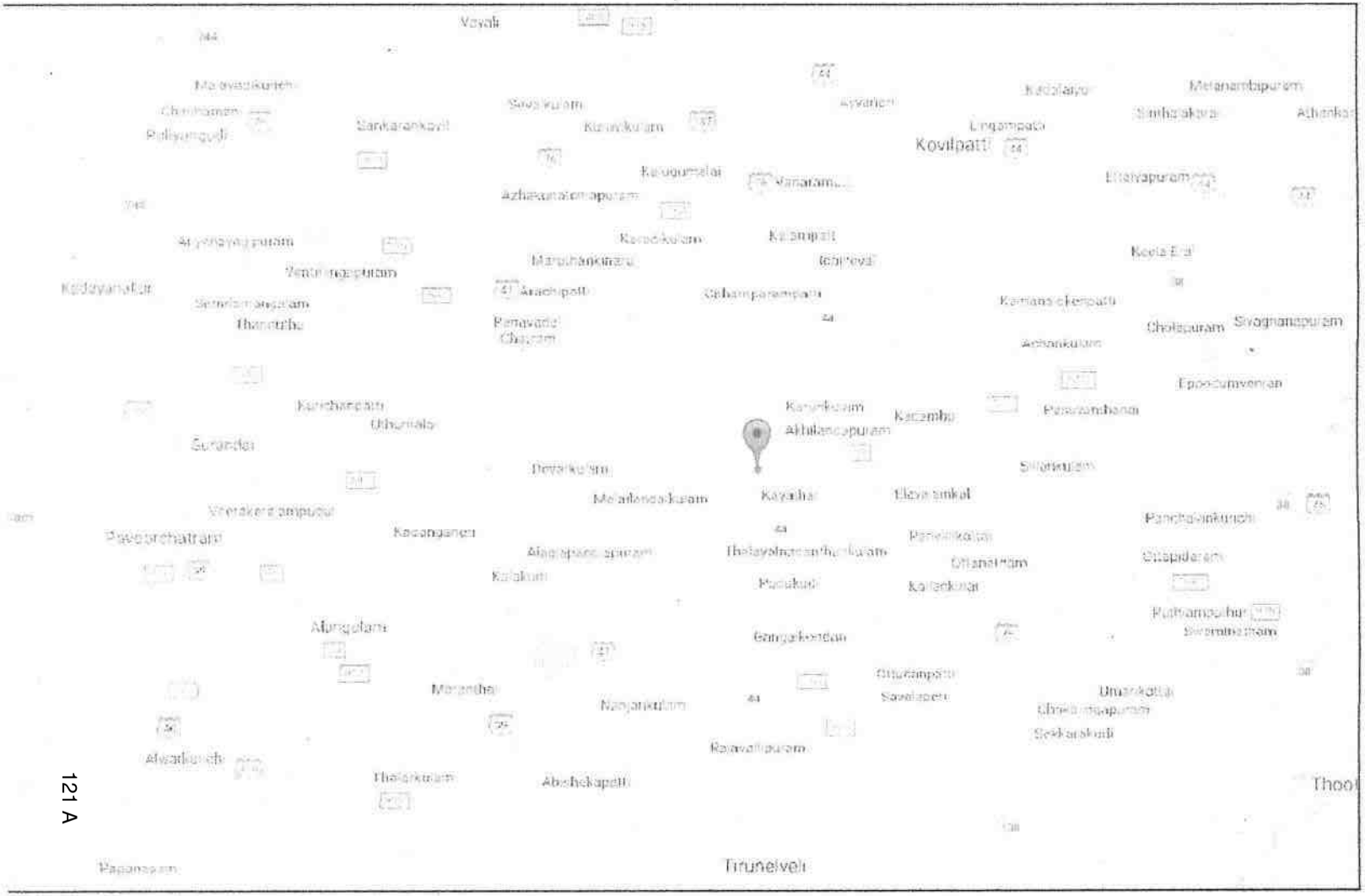
SCALE 1:24,00,000

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT.

Dr.P.THANGARAJU,M.Sc., Ph.D., M.M.E.A.,
RECOGNIZED QUALIFIED PERSON
RQP/MAS/208/2009

MINING PLAN APPROVED
Assistant Director of Geology & Mining
Tuticorin Dist.



N

PLATE NO:I-C

DATE OF SURVEY : 07.09.2016

APPLICANT :

Thiru.P.SHEIK DAWOOD,(Managing Partner),
M/s PHEER MUHAMED & SONS,
11A , PAAVALAR STREET ,
KAYATHAR VILLAGE
KOVILPATTI ,
THOOTHUKUDI DISTRICT.

LOCATION OF Q L APPLIED AREA:

S.F.No : 182/1A , 2 & 183/2A
EXTENT : 4.53.0 Ha.
VILLAGE : TERKU ILANDHAI KULAM ,
TALUK : KOVILPATTI,
DISTRICT : THOOTHUKUDI,
STATE : TAMIL NADU.

INDEX

Q.L. APPLIED AREA

NH- ROAD

SH - ROAD

PANCHAYAT ROAD

KEY PLAN

Not To Scale

PREPARED BY :

THIS IS TO CERTIFY THAT THE INFORMATION IN THIS PLATE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE BASED UPON THE LEASE MAP AUTHENTICATED BY STATE GOVERNMENT

Dr.P.THANGARAJU,M.Sc.,Ph.D.,M.M.E.A.

121 A

Mobile : 94433 78006, 94452 97182, 73738 78006

OMEGAA LABORATORIES

(ANALYTICAL TESTING & RESEARCH CENTRE)

S.F.No. 55/6B, Plot No.10, Near Collector Office, Thiruchengodu Road, Namakkal - 637 003.
E-mail : dr.s.palaniappan@gmail.com, omegaalabs@gmail.com Website : www.omegaalabs.com

ISO 9001: 2015, ISO 45001: 2018 Certified & MoEF Recognized Laboratory

TEST REPORT

Name of the Customer	Site Location:	Duration of sampling:	Sampling Code & location: AAQ1-
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952.	Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Mar 2021-May 2021 Sampling Time: 24-hourly	South East Corner (Core Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m³	$PM_{2.5}$, µg/m³	SO_2, µg/m³	NO_2, µg/m³	NH_3 µg/m³	O_3 µg/m³	CO mg/m³	Pb, µg/m³	As, ng/m³	Ni, ng/m³	C_6H_6, µg/m³	BaP, ng/m³
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
01.03.2021	46.2	9.8	9.8	20.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
02.03.2021	45.1	9.3	9.3	20.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
08.03.2021	46.9	9.5	9.5	19.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
09.03.2021	44.6	9.3	9.3	19.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
15.03.2021	45.3	8.1	8.1	18.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
16.03.2021	44.7	8.9	8.9	18.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
22.03.2021	45.5	9.2	9.2	19.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
23.03.2021	46.1	9.3	9.3	18.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
29.03.2021	46.5	9.4	9.4	19.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
30.03.2021	44.3	8.6	8.6	19.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
05.04.2021	45.7	8.9	8.9	18.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
06.04.2021	46.0	9.5	9.5	19.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
12.04.2021	46.0	20.4	9.5	19.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
13.04.2021	47.4	23.7	8.9	20.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standards Issued by CPCB (Central Pollution Control Board) in 2009,

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For Omegaa Laboratories,

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E-mail : dr.s.palaniappan@gmail.com, omegaalabs@gmail.com Website : www.omegaalabs.com

ISO 9001: 2015, ISO 45001: 2018 Certified & MoEF Recognized Laboratory

TEST REPORT

Name of the Customer	Site Location:	Duration of sampling: Mar 2021-May, 2021 Sampling Time: 24-hourly	Sampling Code & location: AAQ1-South East Corner (Core Zone)
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.		

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m^3	$PM_{2.5}$, µg/m^3	SO_2, µg/m^3	NO_2, µg/m^3	NH_3 µg/m^3	O_3 µg/m^3	CO mg/m^3	Pb, µg/m^3	As, ng/m^3	Ni, ng/m^3	C_6H_6, µg/m^3	BaP, ng/m^3
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
19.04.2021	45.6	22.5	8.6	20.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
20.04.2021	45.4	23.1	9.9	19.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
26.04.2021	47.2	24.3	9.0	19.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
27.04.2021	46.0	24.5	8.5	19.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
03.05.2021	46.8	23.3	6.9	19.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
04.05.2021	46.1	23.5	8.5	20.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
10.05.2021	44.9	22.7	8.1	20.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
11.05.2021	48.4	23.6	9.9	21.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
17.05.2021	46.5	22.1	9.5	20.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
18.05.2021	45.2	23.3	9.1	20.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
24.05.2021	45.9	23.6	8.5	21.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
25.05.2021	44.3	23.9	8.2	21.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standards Issued by CPCB (Central Pollution Control Board) in 2009.

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ISO 9001: 2015, ISO 45001: 2018 Certified & MoEF Recognized Laboratory

TEST REPORT

Name of the Customer	Site Location:	Duration of sampling: Mar-May, 2021	Sampling Code & location: AAQ 2-North West Corner (Core Zone)
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Sampling Time: 24-hourly	

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m³	$PM_{2.5}$, µg/m³	SO_2, µg/m³	NO_2, µg/m³	NH_3 µg/m³	O_3 µg/m³	CO mg/m³	Pb, µg/m³	As, ng/m³	Ni, ng/m³	C_6H_6, µg/m³	BaP, ng/m³
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
01.03.2021	44.6	22.6	8.2	20.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
02.03.2021	43.7	22.1	8.9	20.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
08.03.2021	43.1	23.6	9.6	21.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
09.03.2021	44.2	23.9	8.7	19.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
15.03.2021	44.6	22.3	8.3	19.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
16.03.2021	43.7	22.4	8.4	19.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
22.03.2021	43.9	23.2	9.1	19.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
23.03.2021	43.3	23.1	9.5	19.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
29.03.2021	44.1	23.3	8.3	19.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
30.03.2021	44.0	22.8	8.8	17.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
05.04.2021	43.5	23.6	9.0	20.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
06.04.2021	42.3	23.3	8.2	21.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
12.04.2021	43.8	24.1	9.7	19.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
13.04.2021	43.6	24.3	9.5	20.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

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TEST REPORT

Name of the Customer	Site Location:	Duration of sampling:	Sampling Code & location: AAQ 2-
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Mar2021-May2021, Sampling Time: 24-hourly	North West Corner (Core Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m^3	$PM_{2.5}$, µg/m^3	SO_2, µg/m^3	NO_2, µg/m^3	NH_3 µg/m^3	O_3 µg/m^3	CO mg/m^3	Pb, µg/m^3	As, ng/m^3	Ni, ng/m^3	C_6H_6, µg/m^3	BaP, ng/m^3
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
19.04.2021	44.0	22.8	8.9	20.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
20.04.2021	44.7	24.7	8.1	18.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
26.04.2021	43.6	23.9	9.9	19.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
27.04.2021	43.3	23.1	8.6	21.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
03.05.2021	42.1	22.9	8.1	19.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
04.05.2021	43.8	22.8	9.8	20.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
10.05.2021	42.5	21.3	9.2	21.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
11.05.2021	42.9	21.1	9.8	20.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
17.05.2021	43.4	22.9	8.1	21.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
18.05.2021	43.9	22.3	8.6	20.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
24.05.2021	43.5	22.7	8.7	20.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
25.05.2021	43.1	23.1	8.9	20.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

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TEST REPORT

Name of the Customer	Site Location:	Duration of sampling:	Sampling Code & location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Mar 2021-May 2021 Sampling Time: 24-hourly	AAQ3- Panikkarkulam (Buffer Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m³	$PM_{2.5}$, µg/m³	SO_2, µg/m³	NO_2, µg/m³	NH_3 µg/m³	O_3 µg/m³	CO mg/m³	Pb, µg/m³	As, ng/m³	Ni, ng/m³	C_6H_6, µg/m³	BaP, ng/m³
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
01.03.2021	43.8	22.3	6.9	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
02.03.2021	42.5	21.6	6.8	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
08.03.2021	42.9	21.9	7.2	17.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
09.03.2021	42.5	21.5	7.3	16.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
15.03.2021	41.9	21.6	6.8	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
16.03.2021	42.4	21.9	7.1	17.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
22.03.2021	43.1	22.3	6.9	17.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
23.03.2021	43.6	21.5	6.7	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
29.03.2021	42.1	21.9	6.3	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
30.03.2021	42.3	22.7	6.8	17.0	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
05.04.2021	43.5	21.6	6.3	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
06.04.2021	43.9	21.3	6.8	18.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
12.04.2021	43.8	21.8	7.5	17.0	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
13.04.2021	43.5	22.5	7.4	16.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

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TEST REPORT

Name of the Customer	Site Location:	Duration of sampling: Mar 2021-May 2021	Sampling Code & location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Sampling Time: 24-hourly	AAQ3-Panikkarkulam (Buffer Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m^3	$PM_{2.5}$, µg/m^3	SO_2, µg/m^3	NO_2, µg/m^3	NH_3 µg/m^3	O_3 µg/m^3	CO mg/m^3	Pb, µg/m^3	As, ng/m^3	Ni, ng/m^3	C_6H_6, µg/m^3	BaP, ng/m^3
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
19.04.2021	43.5	21.4	7.6	17.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
20.04.2021	42.6	22.5	7.2	17.0	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
26.04.2021	42.8	23.1	6.8	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
27.04.2021	43.1	23.9	6.1	18.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
03.05.2021	43.6	21.5	7.3	17.0	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
04.05.2021	41.4	21.7	7.9	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
10.05.2021	42.9	21.6	7.5	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
11.05.2021	42.5	20.8	7.1	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
17.05.2021	41.4	21.3	7.3	17.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
18.05.2021	42.6	20.9	7.9	17.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
24.05.2021	41.7	20.1	7.1	17.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
25.05.2021	42.4	20.4	7.6	17.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
	42.3											

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TEST REPORT

Name of the Customer – Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Site Location: Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Duration of sampling: Mar 2021-May 2021 Sampling Time: 24-hourly	Sampling Code & location: AAQ 4-Vadakku ILandaikulam (Buffer Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m³	$PM_{2.5}$, µg/m³	SO_2, µg/m³	NO_2, µg/m³	NH_3 µg/m³	O_3 µg/m³	CO mg/m³	Pb, µg/m³	As, ng/m³	Ni, ng/m³	C_6H_6, µg/m³	BaP, ng/m³
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
01.03.2021	43.4	19.2	6.5	17.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
02.03.2021	42.9	18.6	6.0	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
08.03.2021	43.1	19.5	5.8	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
09.03.2021	43.8	18.9	6.2	17.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
15.03.2021	44.2	19.5	5.9	18.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
16.03.2021	43.1	19.9	6.6	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
22.03.2021	42.8	18.9	6.8	18.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
23.03.2021	42.1	19.3	5.6	17.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
29.03.2021	43.6	19.2	6.3	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
30.03.2021	42.5	19.5	6.6	17.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
05.04.2021	42.9	18.6	7.3	18.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
06.04.2021	43.1	17.3	6.9	18.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
12.04.2021	43.8	19.5	6.2	18.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
13.04.2021	42.4	18.1	6.5	17.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standards Issued by CPCB (Central Pollution Control Board) in 2009,

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ISO 9001: 2015, ISO 45001: 2018 Certified & MoEF Recognized Laboratory

TEST REPORT

Name of the Customer	Site Location:	Duration of sampling: Mar 2021-May 2021 Sampling Time: 24-hourly	Sampling Code & location: AAQ 4- Vadakku ILandaikulam (Buffer Zone)
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.		

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m^3	$PM_{2.5}$, µg/m^3	SO_2, µg/m^3	NO_2, µg/m^3	NH_3 µg/m^3	O_3 µg/m^3	CO mg/m^3	Pb, µg/m^3	As, ng/m^3	Ni, ng/m^3	C_6H_6, µg/m^3	BaP, ng/m^3
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
19.04.2021	42.5	5.9	6.1	18.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
20.04.2021	43.9	6.3	5.9	17.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
26.04.2021	43.1	6.0	6.3	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
27.04.2021	42.6	6.5	6.0	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
03.05.2021	42.4	7.4	6.5	17.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
04.05.2021	43.2	6.5	7.4	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
10.05.2021	44.5	5.9	6.5	18.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
11.05.2021	44.9	6.2	5.9	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
17.05.2021	43.2	6.4	6.2	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
18.05.2021	43.7	6.5	6.4	18.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
24.05.2021	42.1	6.7	6.5	18.0	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
25.05.2021	42.5	6.7	6.7	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standards Issued by CPCB (Central Pollution Control Board) in 2009,

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TEST REPORT

Name of the Customer Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Site Location: Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Duration of sampling: Mar 2021-May 2021 Sampling Time: 24-hourly	Sampling Code & location: AAQ5-Ayyanaruthu (Buffer Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m³	$PM_{2.5}$, µg/m³	SO_2, µg/m³	NO_2, µg/m³	NH_3 µg/m³	O_3 µg/m³	CO mg/m³	Pb, µg/m³	As, ng/m³	Ni, ng/m³	C_6H_6, µg/m³	BaP, ng/m³
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
01.03.2021	41.5	21.5	5.2	16.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
02.03.2021	40.6	20.8	5.8	16.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
08.03.2021	41.5	21.0	5.6	17.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
09.03.2021	40.8	21.9	5.4	15.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
15.03.2021	40.5	21.5	5.7	15.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
16.03.2021	41.1	20.8	5.3	17.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
22.03.2021	42.6	20.6	5.9.	16.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
23.03.2021	41.5	20.3	5.3	16.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
29.03.2021	42.5	21.5	5.4	15.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
30.03.2021	42.1	22.1	5.7.	15.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
05.04.2021	42.3	21.8	5.4	18.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
06.04.2021	42.6	21.2	5.9	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
12.04.2021	43.6	23.5	5.2	19.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
13.04.2021	41.5	22.8	5.4	16.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standards Issued by CPCB (Central Pollution Control Board) in 2009,

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TEST REPORT

Name of the Customer Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	Site Location: Extent 3.94.5Ha, S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Duration of sampling: Mar 2021-May 2021 Sampling Time: 24-hourly	Sampling Code & location: AAQ 5- Ayyanaruthu (Buffer Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m^3	$PM_{2.5}$, µg/m^3	SO_2, µg/m^3	NO_2, µg/m^3	NH_3 µg/m^3	O_3 µg/m^3	CO mg/m^3	Pb, µg/m^3	As, ng/m^3	Ni, ng/m^3	C_6H_6, µg/m^3	BaP, ng/m^3
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
19.04.2021	63.9	21.4	5.3	16.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
20.04.2021	64.7	21.9	5.1	16.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
26.04.2021	64.0	22.4	5.9	17.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
27.04.2021	62.5	22.9	5.4	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
03.05.2021	62.8	21.1	5.3	16.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
04.05.2021	62.7	22.3	5.6	16.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
10.05.2021	61.8	22.4	5.8	16.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
11.05.2021	63.7	21.9	5.1	16.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
17.05.2021	64.4	22.4	5.5	15.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
18.05.2021	63.4	22.1	5.3	16.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
24.05.2021	63.7	22.4	5.1	16.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
25.05.2021	62.5	22.6	5.4	16.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

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TEST REPORT

Name of the Customer	Site Location: S.F.No: 182/1B,	Duration of sampling: Mar 2021-	Sampling Code & location: AAQ 6-
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Taluk, Thoothukudi District-628 952	183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	May 2021 Sampling Time: 24-hourly	Thadiyampatti (Buffer Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m³	$PM_{2.5}$, µg/m³	SO_2, µg/m³	NO_2, µg/m³	NH_3 µg/m³	O_3 µg/m³	CO mg/m³	Pb, µg/m³	As, ng/m³	Ni, ng/m³	C_6H_6, µg/m³	BaP, ng/m³
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
01.03.2021	62.5	38.5	4.3	16.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
02.03.2021	65.4	37.9	4.1	16.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
08.03.2021	65.4	38.1	4.6	14.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
09.03.2021	65.8	38.5	4.1	14.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
15.03.2021	64.2	39.1	4.8	16.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
16.03.2021	64.1	38.6	4.5	15.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
22.03.2021	65.5	38.1	4.7	15.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
23.03.2021	62.1	37.9	4.4	16.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
29.03.2021	62.4	37.5	4.8	15.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
30.03.2021	62.7	38.6	4.6	15.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
05.04.2021	62.2	39.5	4.7	15.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
06.04.2021	61.2	38.9	4.1	15.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
12.04.2021	61.0	39.7	4.5	16.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
13.04.2021	64.5	38.6	4.8	15.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

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TEST REPORT

Name of the Customer	Site Location:	Duration of sampling:	Sampling Code &
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Talik, Thoothukudi District-628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District.	Mar 2021-May 2021 Sampling Time: 24-hourly	location: AAQ 6-Thadiyampatti (Buffer Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m^3	$PM_{2.5}$, µg/m^3	SO_2, µg/m^3	NO_2, µg/m^3	NH_3 µg/m^3	O_3 µg/m^3	CO mg/m^3	Pb, µg/m^3	As, ng/m^3	Ni, ng/m^3	C_6H_6, µg/m^3	BaP, ng/m^3
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
19.04.2021	64.3	17.2	4.6	15.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
20.04.2021	62.8	16.3	4.2	15.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
26.04.2021	62.4	18.2	4.0	15.0	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
27.04.2021	62.3	17.9	4.8	16.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
03.05.2021	62.7	18.3	4.4	16.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
04.05.2021	63.3	18.4	4.6	15.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
10.05.2021	64.1	17.6	4.2	16.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
11.05.2021	62.5	17.9	4.8	16.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
17.05.2021	62.8	18.3	4.5	17.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
18.05.2021	62.5	19.1	4.3	17.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
24.05.2021	60.7	18.5	4.9	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
25.05.2021	61.8	18.6	4.5	17.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standards Issued by CPCB (Central Pollution Control Board) in 2009,

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For Omegaa Laboratories,

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E-mail : dr.s.palaniappan@gmail.com, omegaalabs@gmail.com Website : www.omegaalabs.com

ISO 9001: 2015, ISO 45001: 2018 Certified & MoEF Recognized Laboratory

TEST REPORT

Name of the Customer	Site Location: S.F.No: 182/1B,	Duration of sampling: Mar 2021-May 2021	Sampling Code & location: AAQ7-
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Taluk, Thoothukudi District-628 952	183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District	Sampling Time: 24-hourly	Manakathan (Buffer Zone)

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m³	$PM_{2.5}$, µg/m³	SO_2, µg/m³	NO_2, µg/m³	NH_3 µg/m³	O_3 µg/m³	CO mg/m³	Pb, µg/m³	As, ng/m³	Ni, ng/m³	C_6H_6, µg/m³	BaP, ng/m³
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
01.03.2021	41.6	20.5	6.3	17.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
02.03.2021	41.2	21.9	6.4	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
08.03.2021	42.5	21.8	6.2	16.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
09.03.2021	42.9	18.3	6.9	17.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
15.03.2021	43.6	19.5	6.2	17.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
16.03.2021	40.9	18.6	6.1	18.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
22.03.2021	40.3	19.5	6.8	18.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
23.03.2021	40.6	19.9	6.5	18.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
29.03.2021	41.3	19.3	6.2	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
30.03.2021	40.0	18.6	6.8	17.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
05.04.2021	40.6	19.9	6.1	16.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
06.04.2021	41.1	19.6	6.4	17.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
12.04.2021	41.6	18.8	6.8	17.4	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
13.04.2021	41.1	20.5	6.3	18.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standards Issued by CPCB (Central Pollution Control Board) in 2009,

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TEST REPORT

Name of the Customer	Site Location: S.F.No: 182/1B, 183/1,2B & 184/2,	Duration of sampling: Mar 2021-May 2021	Sampling Code & location: AAQ 7- Manakathan (Buffer Zone)
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Taluk, Thoothukudi District-628 952	Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District	Sampling Time: 24-hourly	

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m^3	$PM_{2.5}$, µg/m^3	SO_2, µg/m^3	NO_2, µg/m^3	NH_3 µg/m^3	O_3 µg/m^3	CO mg/m^3	Pb, µg/m^3	As, ng/m^3	Ni, ng/m^3	C_6H_6, µg/m^3	BaP, ng/m^3
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
19.04.2021	40.8	20.9	6.9	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
20.04.2021	40.9	19.6	6.4	17.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
26.04.2021	41.6	19.5	6.2	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
27.04.2021	40.8	19.0	5.9	18.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
03.05.2021	40.3	19.1	5.5	17.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
04.05.2021	40.8	19.7	6.1	18.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
10.05.2021	40.9	19.3	6.8	17.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
11.05.2021	41.2	21.1	6.2	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
17.05.2021	41.3	21.5	6.5	18.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
18.05.2021	41.9	21.9	6.0	19.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
24.05.2021	42.7	20.3	6.5	19.8	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
25.05.2021	42.1	20.9	6.7	19.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standards Issued by CPCB (Central Pollution Control Board) in 2009,

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TEST REPORT

Name of the Customer	Site Location:	Duration of sampling: : Mar 2021-May 2021 Sampling Time: 24-hourly	Sampling Code & location: AAQ 8- Vadakku Subramaniapuram (Buffer Zone)
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Taluk, Thoothukudi District-628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District		

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m³	$PM_{2.5}$, µg/m³	SO_2, µg/m³	NO_2, µg/m³	NH_3 µg/m³	O_3 µg/m³	CO mg/m³	Pb, µg/m³	As, ng/m³	Ni, ng/m³	C_6H_6, µg/m³	BaP, ng/m³
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
01.03.2021	43.5	20.6	6.2	16.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
02.03.2021	42.1	21.2	6.0	16.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
08.03.2021	42.9	22.5	6.9	17.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
09.03.2021	42.5	21.5	7.5	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
15.03.2021	42.1	22.8	6.1	18.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
16.03.2021	41.6	22.1	6.9	19.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
22.03.2021	42.1	23.1	7.3	18.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
23.03.2021	42.8	22.5	7.1	18.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
29.03.2021	43.6	22.0	5.6	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
30.03.2021	42.5	22.5	5.8	18.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
05.04.2021	41.1	21.8	7.2	18.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
06.04.2021	42.5	22.1	7.9	19.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
12.04.2021	44.2	22.8	7.5	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
13.04.2021	43.6	23.7	7.1	18.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

* NAAQS–National Ambient Air Quality Standar1ds Issued by CPCB (Central Pollution Control Board) in 2009,

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TEST REPORT

Name of the Customer	Site Location:	Duration of sampling: Mar 2021-May 2021 Sampling Time: 24-hourly	Sampling Code &location: AAQ 8- Vadakku Subramaniapuram(Buffer Zone)
Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Taluk, Thoothukudi District-628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District		

Monitoring	Particulates		Gaseous Pollutants					Other Pollutants (Particulate Phase)				
Date	PM_{10}, µg/m^3	$PM_{2.5}$, µg/m^3	SO_2, µg/m^3	NO_2, µg/m^3	NH_3 µg/m^3	O_3 µg/m^3	CO mg/m^3	Pb, µg/m^3	As, ng/m^3	Ni, ng/m^3	C_6H_6, µg/m^3	BaP, ng/m^3
NAAQ Norms*	100 (24 hrs.)	60 (24 hrs.)	80 (24 hrs.)	80 (24 hrs.)	400 (24 hrs.)	100 (8 hrs.)	2.0 (8hrs.)	1.0 (24 hrs.)	6.0 (annual)	20 (annual)	5.0 (annual)	1.0 (annual)
19.04.2021	43.1	22.4	6.9	19.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
20.04.2021	43.5	21.4	6.5	18.7	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
26.04.2021	42.1	22.8	7.2	17.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
27.04.2021	41.9	22.4	6.8	18.3	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
03.05.2021	42.5	23.1	7.3	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
04.05.2021	43.9	22.8	7.1	18.2	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
10.05.2021	41.8	22.4	7.5	19.6	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
11.05.2021	42.5	21.9	7.2	19.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
17.05.2021	42.2	21.1	6.9	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
18.05.2021	43.9	22.5	7.2	18.5	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
24.05.2021	42.3	21.9	7.4	18.9	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0
25.05.2021	42.1	21.4	7.6	18.1	<5	<5	<1.0	<0.01	<5	<3	<1.0	<3.0

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TEST REPORT

Name of the Customer	Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Taluk, Thoothukudi District-628 952	*Site Location:*	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District

Sample Description	Noise (Sound Pressure) Level Monitoring			Date of monitoring	12.04.2021
Sampled by	Laboratory	Sampling Time	Every 60 minutes	Test Completed on	17.04.2021

Location		N1 – South East Corner			N2 – North West Corner			N3 - Panikkarikulam		
S.No	Time (Hrs)	Min dB(A)	Max dB(A)	Leq dB(A)	Min dB(A)	Max dB(A)	Leq dB(A)	Min dB(A)	Max dB(A)	Leq dB(A)
1.	0600	45.3	46.5	45.9	47.3	50.1	48.9	41.8	45.2	43.8
2.	0700	46.8	48.8	47.9	46.2	51.2	49.4	42.2	45.6	44.2
3.	0800	47.9	49.2	48.6	46.1	48.6	47.5	42.6	47.6	45.8
4.	0900	48.3	51.3	50.1	47.2	46.2	46.7	43.1	49.6	47.5
5.	1000	46.8	49.2	48.2	46.2	49.1	47.9	43.7	50.2	48.1
6.	1100	46.1	48.2	47.3	45.1	47.3	46.3	44.5	48.8	47.2
7.	1200	46.9	50.2	48.9	46.9	49.2	48.2	45.1	48.2	46.9
8.	1300	45.2	51.5	49.4	46.2	48.8	47.7	45.4	47.9	46.8
9.	1400	46.8	53.6	51.4	45.7	46.7	46.2	46.3	54.1	51.8
10.	1500	48.9	50	49.5	46.3	48.2	47.4	45.2	53.6	51.2
11.	1600	46.8	55.9	53.4	48.1	50.2	49.3	44.3	53.7	51.2
12.	1700	46.7	54.6	52.2	46.8	51.5	49.8	42.8	54.1	51.4
13.	1800	44.5	56.1	53.4	47.3	53.5	51.4	43.6	57.1	54.3
14.	1900	43.1	53.7	51.1	48.9	50.5	49.8	45.1	58.4	55.6
15.	2000	40.8	48.6	46.3	42.6	55.3	52.5	45.3	57.3	54.6
16.	2100	35.4	46.8	44.1	40.9	51.9	49.2	46.7	51.2	49.5
17.	2200	36.1	46.2	43.6	41.6	53.2	50.5	47.1	49.4	48.4
18.	2300	38.7	47.3	44.9	35.1	43.6	41.2	40.5	42.9	41.9
19.	0000	32.6	34.7	33.8	36.4	47.2	44.5	39.7	42.5	41.3
20.	0100	34.8	38.1	36.8	32.9	37.5	35.8	37.5	40.2	39.1
21.	0200	33.7	37.7	36.1	31.6	39.8	37.4	36.2	37.5	36.9
22.	0300	32.8	36.9	35.3	32.7	37.5	35.7	35.8	36.6	36.2
23.	0400	31.6	36.5	34.7	32.5	36.9	35.2	33.6	35.1	34.4
24.	0500	30.2	34.2	32.6	31.4	35.5	33.9	32.5	35.2	34.1
Day Mean dB(A)				48.9	Day Mean dB(A)		48.7	Day Mean dB(A)		49.3
Night Mean dB(A)				36.3	Night Mean dB(A)		37.7	Night Mean dB(A)		37.7

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TEST REPORT

Name of the Customer	Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A, Pavalar Street, Kayathar Village & Taluk, Thoothukudi District-628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District	
Sample Description	Noise (Sound Pressure) Level Monitoring	Date of monitoring	12.04.2021
Sampled by	Laboratory / Sampling Time: Every 60 minutes	Test Completed on	17.04.2021

S.No	Time (Hrs)	Location: N4 - Vadakku Ilandaikulam			Location: N5 - Ayyanaruthu			Location: N6 - Thadiyampatti		
		Min dB(A)	Max dB(A)	Leq dB(A)	Min dB(A)	Max dB(A)	Leq dB(A)	Min dB(A)	Max dB(A)	Leq dB(A)
1.	0600	49.3	50.2	49.8	46.8	48.8	47.9	40.4	48.7	46.3
2.	0700	48.2	52.3	50.7	49.5	50.1	49.8	41.8	49.5	47.2
3.	0800	45.7	48.3	47.2	47.2	52.6	50.7	41.6	50.4	47.9
4.	0900	46.5	51.2	49.5	46.5	47.5	47.0	42.8	49.6	47.4
5.	1000	47.2	52.3	50.5	48.3	52.3	50.7	45.5	48.8	47.5
6.	1100	45.1	48.8	47.3	45.9	48.1	47.1	46.8	51.3	49.6
7.	1200	43.6	47.5	46.0	47.2	49.5	48.5	47.7	50.2	49.1
8.	1300	45.9	48.2	47.2	45.8	51.2	49.3	48.1	52.5	50.8
9.	1400	47.6	49.7	48.8	46.1	57.6	54.9	47.9	51.6	50.1
10.	1500	49.6	51.5	50.7	47.3	54.5	52.2	48.5	54.3	52.3
11.	1600	48.1	51.6	50.2	46.8	53.2	51.1	47.7	51.8	50.2
12.	1700	48.3	55.7	53.4	47.1	53.5	51.4	46.1	50.4	48.8
13.	1800	42.6	53.4	50.7	46.2	54.3	51.9	45.1	50	48.2
14.	1900	38.4	46.7	44.3	48.5	51.3	50.1	45.2	48.7	47.3
15.	2000	35.2	48.5	45.7	35.1	46.3	43.6	46.1	49.5	48.1
16.	2100	31.6	43.8	41.0	36.4	45.7	43.2	44.1	48.5	46.8
17.	2200	32.8	42.7	40.1	33.7	44.6	41.9	43.2	48.6	46.7
18.	2300	36.1	40.8	39.1	36.1	40.2	38.6	31.5	42.1	39.5
19.	0000	32.4	39.7	37.4	34.2	38.7	37.0	36.7	40.5	39.0
20.	0100	35.4	40.1	38.4	33.9	39.9	37.9	35.7	36.9	36.3
21.	0200	34.8	38.9	37.3	32.8	34.9	34.0	31.2	35.9	34.2
22.	0300	32.9	33.9	33.4	33.1	36.6	35.2	34.2	36.8	35.7
23.	0400	34.6	37.2	36.1	36.2	38.8	37.7	33.5	35.9	34.9
24.	0500	33.7	36.5	35.3	33.4	38.2	36.4	32.2	35.6	34.2
Day Mean dB(A)				47.8	Day Mean dB(A)		48.9	Day Mean dB(A)		48.5
Night Mean dB(A)				36.7	Night Mean dB(A)		36.7	Night Mean dB(A)		36.2

Tested by

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E-mail : dr.s.palaniappan@gmail.com, omegaalabs@gmail.com Website : www.omegaalabs.com

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TEST REPORT

Name of the Customer	Thiru.P.Jahir Hussain, S/o. Peer Mohamed No.11 A,Pavalar Street, Kayathar Village & Taluk, Thoothukudi District-628 952				*Site Location:* S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District		
Sample Description	Noise (Sound Pressure) Level Monitoring				Date of monitoring		12.04.2021
Sampled by	Laboratory	Sampling Time		Every 60 minutes	Test Completed on		17.04.2021
Location	N7 - Manakathan				N8 - Vadakku Subramaniapuram		

S.No	Time (Hrs)	Min dB(A)	Max dB(A)	Leq dB(A)	Min dB(A)	Max dB(A)	Leq dB(A)
1.	0600	39.6	43.6	42.0	43.7	48.4	46.7
2.	0700	40.3	46.5	44.4	42.4	48.9	46.8
3.	0800	40.6	48.9	46.5	43.1	49.2	47.1
4.	0900	41.6	49.8	47.4	45.8	47.9	47.0
5.	1000	41.9	50.6	48.1	47.7	49.5	48.7
6.	1100	42.5	52.6	50.0	45.4	48.3	47.1
7.	1200	43.5	49.8	47.7	43.1	49.6	47.5
8.	1300	41.6	51.6	49.0	46.8	50.2	48.8
9.	1400	41.5	53.5	50.8	45.1	51.2	49.1
10.	1500	42.6	52.6	50.0	45.5	49.2	47.7
11.	1600	41.6	46.5	44.7	43.2	53.1	50.5
12.	1700	43.5	48.3	46.5	42.1	51.2	48.7
13.	1800	42.5	47.6	45.8	44.8	50.8	48.8
14.	1900	40.9	48.9	46.5	44.3	51.5	49.2
15.	2000	43.5	47.6	46.0	43.2	50.4	48.1
16.	2100	41.5	47.1	45.1	40.6	51.1	48.5
17.	2200	39.8	45.6	43.6	36.8	49.8	47.0
18.	2300	38.8	43.5	41.8	36.4	42.1	40.1
19.	0000	37.6	42.8	40.9	35.1	38.8	37.3
20.	0100	36.8	41.6	39.8	35.6	36.8	36.2
21.	0200	37.3	43.8	41.7	32.5	39.1	36.9
22.	0300	36.3	38.9	37.8	34.5	38.8	37.2
23.	0400	35.9	36.8	36.4	36.8	39.7	38.5
24.	0500	34.8	35.6	35.2	35.5	37.5	36.6
Day Mean dB(A)				**46.7**	Day Mean dB(A)		**48.1**
Night Mean dB(A)				**39.1**	Night Mean dB(A)		**37.6**

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk,Thoothukudi District

Sample Name	Soil-1	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Project Area	Test Report Date	17.04.2021
		Sample Drawn by Laboratory	

S.No	Test Parameters	Test Protocol	Unit	Test Results
1	pHat27°C	IS 2720Part 26–1987(RA2011)	-	7.05
2	ElectricalConductivityat25C	IS 14767 : 2000 (RA 2010)	µs/cm	341
3	Texture	IS 2720 PART 2 (RA 2010)	-	Clay Loam
4	Sand	Food and Agriculture Organization of the United Nations Rome, 2007	%	44.1
5	Slit		%	34.6
6	Clay		%	21.1
7	Water Holding Capacity		%	46.4
8	Bulk Density		g/cc	0.97
9	Porosity		%	20.3
10	Exchangeable Calcium(asCa)		mg/Kg	180
11	Exchangeable Magnesium(asMg)	Food and Agriculture Organization of the United Nations Rome, 2007	mg/Kg	24.1
12	Exchangeable Manganese(asMn)		mg/Kg	38
13	Exchangeable Zinc as Zn		mg/Kg	0.99
14	Available Boron (as B)		mg/Kg	0.55
15	Soluble Chloride(as Cl)		mg/Kg	188
16	Soluble Sulphate(as SO_4)		mg/Kg	171
17	Available Potassium(as K)		mg/Kg	40.2

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk,Thoothukudi District

Sample Name	Soil-1	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Project Area	Test Report Date	17.04.2021
		Sample Drawn by Laboratory	

S.No	Test Parameters	Test Protocol	Unit	Test Results
18	Available Phosphorous(as P)	Food and Agriculture Organization of the United Nations Rome, 2007	Kg/hec	0.89
19	Available Nitrogen(as N)		Kg/hec	138
20	Cadmium (as Cd)		mg/Kg	BDL(DL:0.003)
21	Chromium (asCr)		mg/Kg	BDL (DL:0.05)
22	Copper(asCu)		mg/Kg	BDL (DL:0.05)
23	Lead (asPb)		mg/Kg	0.89
24	Total Iron		mg/Kg	2.22
25	Organic Matter		%	0.96
26	Organic Carbon		%	0.56
27	CEC		meq/100g	42.5

Note: BDL- Below Detection Limit ; DL- Detection limit

----------x---------- End of report ----------x----------

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk,Thoothukudi District

Sample Name	Soil-2	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Vadakku Ilandaikulam	Test Report Date	17.04.2021
		Sample Drawn by Laboratory	

S.No	Test Parameters	Test Protocol	Unit	Test Results
1	pHat27°C	IS 2720Part 26–1987(RA2011)	-	7.89
2	ElectricalConductivityat25C	IS 14767 : 2000 (RA 2010)	µs/cm	523
3	Texture	IS 2720 PART 2 (RA 2010)	-	Clay Loam
4	Sand	Food and Agriculture Organization of the United Nations Rome, 2007	%	41.2
5	Slit		%	31.6
6	Clay		%	27.0
7	Water Holding Capacity		%	42.5
8	Bulk Density		g/cc	1.09
9	Porosity		%	20.7
10	Exchangeable Calcium(asCa)		mg/Kg	142.4
11	Exchangeable Magnesium(asMg)	Food and Agriculture Organization of the United Nations Rome, 2007	mg/Kg	25.5
12	Exchangeable Manganese(asMn)		mg/Kg	38.2
13	Exchangeable Zinc as Zn		mg/Kg	0.98
14	Available Boron (as B)		mg/Kg	0.55
15	Soluble Chloride(as Cl)		mg/Kg	162.9
16	Soluble Sulphate(as SO_4)		mg/Kg	138.2
17	Available Potassium(as K)		mg/Kg	27.4

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TEST REPORT

Name of the Customer	Site Location:
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Sample Name	Soil-2	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Vadakku Ilandaikulam	Test Report Date	17.04.2021
		Sample Drawn by Laboratory	

S.No	Test Parameters	Test Protocol	Unit	Test Results
18	Available Phosphorous(as P)	Food and Agriculture Organization of the United Nations Rome, 2007	Kg/hec	1.49
19	Available Nitrogen(as N)		Kg/hec	168
20	Cadmium (as Cd)		mg/Kg	BDL (DL:0.003)
21	Chromium (asCr)		mg/Kg	BDL (DL:0.05)
22	Copper(asCu)		mg/Kg	BDL (DL:0.05)
23	Lead (asPb)		mg/Kg	0.96
24	Total Iron		mg/Kg	2.84
25	Organic Matter		%	1.49
26	Organic Carbon		%	0.87
27	CEC		meq/l00g	43.0

Note: BDL- Below Detection Limit ; DL- Detection limit

----------x---------- End of report ----------x----------

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk,Thoothukudi District

Sample Name	Soil-3	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Ayyanaruthu	Test Report Date	17.04.2021

S.No	Test Parameters	Test Protocol	Unit	Test Results
1	pHat27°C	IS 2720Part 26–1987(RA2011)	-	8.15
2	ElectricalConductivityat25C	IS 14767 : 2000 (RA 2010)	µs/cm	510
3	Texture	IS 2720 PART 2 (RA 2010)	-	Clay Loam
4	Sand	Food and Agriculture Organization of the United Nations Rome, 2007	%	35.5
5	Slit		%	29.4
6	Clay		%	35.1
7	Water Holding Capacity		%	41.0
8	Bulk Density		g/cc	1.02
9	Porosity		%	27.3
10	Exchangeable Calcium(asCa)		mg/Kg	162
11	Exchangeable Magnesium(asMg)	Food and Agriculture Organization of the United Nations Rome, 2007	mg/Kg	27.5
12	Exchangeable Manganese(asMn)		mg/Kg	36
13	Exchangeable Zinc as Zn		mg/Kg	0.91
14	Available Boron (as B)		mg/Kg	0.62
15	Soluble Chloride(as Cl)		mg/Kg	175
16	Soluble Sulphate(as SO_4)		mg/Kg	146
17	Available Potassium(as K)		mg/Kg	35.4

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village,Kayathar Taluk,Thoothukudi District

Sample Name	Soil-3	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Ayyanaruthu	Test Report Date	17.04.2021

S.No	Test Parameters	Test Protocol	Unit	Test Results
18	Available Phosphorous(as P)	Food and Agriculture Organization of the United Nations Rome, 2007	Kg/hec	1.21
19	Available Nitrogen(as N)		Kg/hec	197
20	Cadmium (as Cd)		mg/Kg	BDL (DL:0.003)
21	Chromium (asCr)		mg/Kg	BDL (DL:0.05)
22	Copper(asCu)		mg/Kg	BDL (DL:0.05)
23	Lead (asPb)		mg/Kg	0.60
24	Total Iron		mg/Kg	2.33
25	Organic Matter		%	1.70
26	Organic Carbon		%	0.99
27	CEC		meq/l00g	46.5

Note: BDL- Below Detection Limit ; DL- Detection limit

----------x---------- End of report ----------x----------

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk,Thoothukudi District

Sample Name	Soil-4	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Thadiyampatti	Test Report Date	17.04.2021

S.No	Test Parameters	Test Protocol	Unit	Test Results
1	pH at27°C	IS 2720Part 26–1987(RA2011)	-	7.02
2	ElectricalConductivityat25C	IS 14767 : 2000 (RA 2010)	µs/cm	486
3	Texture	IS 2720 PART 2 (RA 2010)	-	Sandy Clay Loam
4	Sand	Food and Agriculture Organization of the United Nations Rome, 2007	%	61.2
5	Slit		%	20.7
6	Clay		%	18.1
7	Water Holding Capacity		%	41.8
8	Bulk Density		g/cc	0.86
9	Porosity		%	29.3
10	Exchangeable Calcium(asCa)		mg/Kg	174
11	Exchangeable Magnesium(asMg)	Food and Agriculture Organization of the United Nations Rome, 2007	mg/Kg	24.1
12	Exchangeable Manganese(asMn)		mg/Kg	30.1
13	Exchangeable Zinc as Zn		mg/Kg	0.84
14	Available Boron (as B)		mg/Kg	0.41
15	Soluble Chloride(as Cl)		mg/Kg	159
16	Soluble Sulphate(as SO_4)		mg/Kg	141
17	Available Potassium(as K)		mg/Kg	33.3

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village,Kayathar Taluk,Thoothukudi District

Sample Name	Soil-4	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Thadiyampatti	Test Report Date	17.04.2021

S.No	Test Parameters	Test Protocol	Unit	Test Results
18	Available Phosphorous(as P)	Food and Agriculture Organization of the United Nations Rome, 2007	Kg/hec	1.29
19	Available Nitrogen(as N)		Kg/hec	211.1
20	Cadmium (as Cd)		mg/Kg	BDL (DL:0.003)
21	Chromium (asCr)		mg/Kg	BDL (DL:0.05)
22	Copper(asCu)		mg/Kg	BDL (DL:0.05)
23	Lead (asPb)		mg/Kg	0.51
24	Total Iron		mg/Kg	2.78
25	Organic Matter		%	0.36
26	Organic Carbon		%	0.21
27	CEC		meq/100g	48

Note: BDL- Below Detection Limit ; DL- Detection limit

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Sample Name	Soil-5	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Vadakku Subramaniapuram	Test Report Date	17.04.2021
		Sample Drawn by Laboratory	

S.No	Test Parameters	Test Protocol	Unit	Test Results
1	pHat27°C	IS 2720Part 26–1987(RA2011)	-	7.35
2	ElectricalConductivityat25C	IS 14767 : 2000 (RA 2010)	µs/cm	440
3	Texture	IS 2720 PART 2 (RA 2010)	-	Clay Loam
4	Sand	Food and Agriculture Organization of the United Nations Rome, 2007	%	42.5
5	Slit		%	34.9
6	Clay		%	22.3
7	Water Holding Capacity		%	41.2
8	Bulk Density		g/cc	0.71
9	Porosity		%	29
10	Exchangeable Calcium(asCa)		mg/Kg	166
11	Exchangeable Magnesium(asMg)	Food and Agriculture Organization of the United Nations Rome, 2007	mg/Kg	32.8
12	Exchangeable Manganese(asMn)		mg/Kg	36.5
13	Exchangeable Zinc as Zn		mg/Kg	0.57
14	Available Boron (as B)		mg/Kg	0.79
15	Soluble Chloride(as Cl)		mg/Kg	190
16	Soluble Sulphate(as SO_4)		mg/Kg	152
17	Available Potassium(as K)		mg/Kg	31.1

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Sample Name	Soil-5	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Vadakku Subramaniapuram	Test Report Date	17.04.2021

S.No	Test Parameters	Test Protocol	Unit	Test Results
18	Available Phosphorous(as P)	Food and Agriculture Organization of the United Nations Rome, 2007	Kg/hec	1.54
19	Available Nitrogen(as N)		Kg/hec	160
20	Cadmium (as Cd)		mg/Kg	BDL (DL:0.003)
21	Chromium (asCr)		mg/Kg	BDL (DL:0.05)
22	Copper(asCu)		mg/Kg	BDL (DL:0.05)
23	Lead (asPb)		mg/Kg	0.71
24	Total Iron		mg/Kg	2.09
25	Organic Matter		%	1.05
26	Organic Carbon		%	0.61
27	CEC		meq/100g	43.5

Note: BDL- Below Detection Limit ; DL- Detection limit

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Sample Name	Soil-6	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Manakathan	Test Report Date	17.04.2021
		Sample Drawn by Laboratory	

S.No	Test Parameters	Test Protocol	Unit	Test Results
1	pHat27°C	IS 2720Part 26–1987(RA2011)	-	7.10
2	ElectricalConductivityat25C	IS 14767 : 2000 (RA 2010)	µs/cm	460
3	Texture	IS 2720 PART 2 (RA 2010)	-	Clay Loam
4	Sand	Food and Agriculture Organization of the United Nations Rome, 2007	%	40.8
5	Slit		%	35.2
6	Clay		%	24.0
7	Water Holding Capacity		%	49.5
8	Bulk Density		g/cc	1.07
9	Porosity		%	30.1
10	Exchangeable Calcium(asCa)		mg/Kg	161
11	Exchangeable Magnesium(asMg)	Food and Agriculture Organization of the United Nations Rome, 2007	mg/Kg	21.3
12	Exchangeable Manganese(asMn)		mg/Kg	31.5
13	Exchangeable Zinc as Zn		mg/Kg	0.82
14	Available Boron (as B)		mg/Kg	0.61
15	Soluble Chloride(as Cl)		mg/Kg	184
16	Soluble Sulphate(as SO_4)		mg/Kg	166
17	Available Potassium(as K)		mg/Kg	38.1

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Sample Name	Soil-6	*Sampling date*	12.04.2021
Description of Sample	Powder	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Kg	Sample Completed on	16.04.2021
Sampling Location	Manakathan	Test Report Date	17.04.2021

S.No	Test Parameters	Test Protocol	Unit	Test Results
18	Available Phosphorous(as P)	Food and Agriculture Organization of the United Nations Rome, 2007	Kg/hec	0.79
19	Available Nitrogen(as N)		Kg/hec	180
20	Cadmium (as Cd)		mg/Kg	BDL(DL:0.003)
21	Chromium (asCr)		mg/Kg	BDL (DL:0.05)
22	Copper(asCu)		mg/Kg	BDL (DL:0.05)
23	Lead (asPb)		mg/Kg	0.61
24	Total Iron		mg/Kg	2.44
25	Organic Matter		%	1.43
26	Organic Carbon		%	0.83
27	CEC		meq/l00g	44.4

Note: BDL- Below Detection Limit ; DL- Detection limit

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Sample Name	Water	Sampling date	12.04.2021
Description of Sample	SW-1	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Vadakku Subramaniapuram	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
1	Color	IS 3025 Part 4 :1983	Hazen	10
2	Odour	IS 3025 Part 5 :1983	-	Agreeable
3	pH@ 25°C	IS 3025 Part 11 :1983	-	7.11
4	Electrical Conductivity @ 25°C	IS 3025 Part 14 :1984	µs/cm	811
5	Turbidity	IS 3025 Part 10 :1984	NTU	14.6
6	Total Dissolved Solids	IS 3025 Part 17 :1984	mg /l	478
7	Total Hardness as $CaCO_3$	IS 3025 Part 21: 2009	mg/l	168.28
8	Calcium as Ca	IS 3025 Part 40 :1991	mg/l	33.5
9	Magnesium as Mg	IS 3025 Part 46 :1994	mg/l	20.6
10	Total Alkalinity as $CaCO_3$	IS 3025 Part 23 :1984	mg/l	199
11	Chloride as Cl^-	IS 3025 Part 32 :1988	mg/l	135
12	Sulphate as SO_4^-	IS 3025 Part 24:1986	mg/l	18.1
13	Iron as Fe	IS 3025 Part 53 :2003	mg/l	0.22
14	Free Residual Chlorine	IS 3025 Part 26: 1986	mg/l	BDL(DL: 2.0)
15	Fluoride as F	IS 3025 Part 60 : 2008	mg/l	0.29
16	Nitrates as NO_3	IS 3025 Part 34: 1988	mg/l	11.5
17	Copper as Cu	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.2)
18	Manganese as Mn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.05)
19	Mercury as Hg	IS 3025 Part 2 : 2004	mg/l	(BDL (DL: 0.0005)
20	Cadmium as Cd	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
21	Selenium as Se	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
22	Aluminium as Al	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.03)
23	Lead as Pb	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
24	Zinc as Zn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.02)

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Sample Name	Water	Sampling date	12.04.2021
Description of Sample	SW-1	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Vadakku Subramaniapuram	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
25	Total Chromium	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
26	Boron as B	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.1)
27	Mineral Oil	IS 3025 Part 39 : 1991	mg/l	BDL (DL:1.0)
28	Phenolic Compunds as C_6H_5OH	IS 3025 Part 43 : 1992	mg/l	Absent
29	Anionic Detergents as MBAS	IS 13428: 2005 (Annex K)	mg/l	BDL (DL:0.1)
30	Cynaide as CN	IS 3025 Part 27 : 1986	mg/l	Absent
31	Biological Oxygen Demand, 3 days @ 27°C	IS 3025 Part 44	mg/l	7.1
32	Chemical Oxygen Demand	IS 3025 Part 58	mg/l	25
33	Dissolved Oxygen	IS 3025 Part 39	mg/l	4.9
34	Total Coliform	IS 1622 : 1981	Per 100ml	present
35	E-Coli	IS 1622 : 1981	Per 100ml	present
36	Barium as Ba	IS 13428	mg/l	BDL (DL:0.5)
37	Ammonia (as Total Ammonia-N)	IS 3025 Part 34	mg/l	3.1
38	Sulphide as H_2S	IS 3025 Part 29	mg/l	BDL (DL:0.05)
39	Molybdenum as Mo	IS 3025 Part 2	mg/l	BDL (DL:0.5)
40	Total Arsenic as As	IS 3025 Part 37	mg/l	BDL (DL:0.01)
41	Total Suspended Solids	IS 3025 PART17	mg/l	23.5

Note: BDL- Below Detection Limit; DL- Detection Limit

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Sample Name	Water	Sampling date	12.04.2021
Description of Sample	SW-2	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Pudukottai Tank	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
1	Color	IS 3025 Part 4 :1983	Hazen	Agreeable
2	Odour	IS 3025 Part 5 :1983	-	6.84
3	pH@ 25°C	IS 3025 Part 11 :1983	-	692
4	Electrical Conductivity @ 25°C	IS 3025 Part 14 :1984	µs/cm	8.4
5	Turbidity	IS 3025 Part 10 :1984	NTU	408
6	Total Dissolved Solids	IS 3025 Part 17 :1984	mg /l	117.4
7	Total Hardness as $CaCO_3$	IS 3025 Part 21: 2009	mg/l	21.2
8	Calcium as Ca	IS 3025 Part 40 :1991	mg/l	15.7
9	Magnesium as Mg	IS 3025 Part 46 :1994	mg/l	162
10	Total Alkalinity as $CaCO_3$	IS 3025 Part 23 :1984	mg/l	122
11	Chloride as Cl^-	IS 3025 Part 32 :1988	mg/l	15.5
12	Sulphate as SO_4	IS 3025 Part 24:1986	mg/l	0.11
13	Iron as Fe	IS 3025 Part 53 :2003	mg/l	BDL(DL: 2.0)
14	Free Residual Chlorine	IS 3025 Part 26: 1986	mg/l	0.13
15	Fluoride as F	IS 3025 Part 60 : 2008	mg/l	7.7
16	Nitrates as NO_3	IS 3025 Part 34: 1988	mg/l	BDL (DL:0.2)
17	Copper as Cu	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.05)
18	Manganese as Mn	IS 3025 Part 2 : 2004	mg/l	(BDL (DL: 0.0005)
19	Mercury as Hg	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
20	Cadmium as Cd	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
21	Selenium as Se	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.03)
22	Aluminium as Al	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
23	Lead as Pb	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
24	Zinc as Zn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.02)

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Sample Name	Water	Sampling date	12.04.2021
Description of Sample	SW-2	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Pudukottai Tank	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
25	Total Chromium	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
26	Boron as B	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.1)
27	Mineral Oil	IS 3025 Part 39 : 1991	mg/l	BDL (DL:1.0)
28	Phenolic Compunds as C_6H_5OH	IS 3025 Part 43 : 1992	mg/l	Absent
29	Anionic Detergents as MBAS	IS 13428: 2005 (Annex K)	mg/l	BDL (DL:0.1)
30	Cynaide as CN	IS 3025 Part 27 : 1986	mg/l	Absent
31	Biological Oxygen Demand, 3 days @ 27°C	IS 3025 Part 44	mg/l	4.5
32	Chemical Oxygen Demand	IS 3025 Part 58	mg/l	20
33	Dissolved Oxygen	IS 3025 Part 39	mg/l	5.6
34	Total Coliform	IS 1622 : 1981	Per 100ml	present
35	E-Coli	IS 1622 : 1981	Per 100ml	present
36	Barium as Ba	IS 13428	mg/l	BDL (DL:0.5)
37	Ammonia (as Total Ammonia-N)	IS 3025 Part 34	mg/l	2.2
38	Sulphide as H_2S	IS 3025 Part 29	mg/l	BDL (DL:0.05)
39	Molybdenum as Mo	IS 3025 Part 2	mg/l	BDL (DL:0.5)
40	Total Arsenic as As	IS 3025 Part 37	mg/l	BDL (DL:0.01)
41	Total Suspended Solids	IS 3025 PART17	mg/l	25.9

Note: BDL- Below Detection Limit; DL- Detection Limit

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District

Sample Name	Water	Sampling date	12.04.2021
Description of Sample	WW-3	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Near Project Area	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
1	Color	IS 3025 Part 4 :1983	Hazen	< 5
2	Odour	IS 3025 Part 5 :1983	-	Agreeable
3	pH@ 25°C	IS 3025 Part 11 :1983	-	6.86
4	Electrical Conductivity @ 25°C	IS 3025 Part 14 :1984	µs/cm	832
5	Turbidity	IS 3025 Part 10 :1984	NTU	< 1
6	Total Dissolved Solids	IS 3025 Part 17 :1984	mg /l	490
7	Total Hardness as $CaCO_3$	IS 3025 Part 21: 2009	mg/l	163.8
8	Calcium as Ca	IS 3025 Part 40 :1991	mg/l	31.9
9	Magnesium as Mg	IS 3025 Part 46 :1994	mg/l	20.5
10	Total Alkalinity as $CaCO_3$	IS 3025 Part 23 :1984	mg/l	159
11	Chloride as Cl^-	IS 3025 Part 32 :1988	mg/l	187
12	Sulphate as SO_4	IS 3025 Part 24:1986	mg/l	20.8
13	Iron as Fe	IS 3025 Part 53 :2003	mg/l	BDL(DL:0.1)
14	Free Residual Chlorine	IS 3025 Part 26: 1986	mg/l	BDL(DL: 2.0)
15	Fluoride as F	IS 3025 Part 60 : 2008	mg/l	0.22
16	Nitrates as NO_3	IS 3025 Part 34: 1988	mg/l	8.6
17	Copper as Cu	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.2)
18	Manganese as Mn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.05)
19	Mercury as Hg	IS 3025 Part 2 : 2004	mg/l	(BDL (DL: 0.0005)
20	Cadmium as Cd	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
21	Selenium as Se	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
22	Aluminium as Al	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.03)
23	Lead as Pb	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
24	Zinc as Zn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.02)

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District

Sample Name	Water	Sampling date	12.04.2021
Description of Sample	WW-3	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Near Project Area	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
25	Total Chromium	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
26	Boron as B	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.1)
27	Mineral Oil	IS 3025 Part 39 : 1991	mg/l	BDL (DL:1.0)
28	Phenolic Compunds as C_6H_5OH	IS 3025 Part 43 : 1992	mg/l	Absent
29	Anionic Detergents as MBAS	IS 13428: 2005 (Annex K)	mg/l	BDL (DL:0.1)
30	Cynaide as CN	IS 3025 Part 27 : 1986	mg/l	Absent
31	Total Coliform	IS 1622 : 1981	Per 100ml	< 2
32	E-Coli	IS 1622 : 1981	Per 100ml	< 2
33	Barium	IS 13428	mg/l	BDL (DL:0.5)
33	Ammonia (as Total Ammonia-N)	IS 3025 Part 34	mg/l	BDL (DL:0.1)
34	Sulphide as H_2S	IS 3025 Part 29	mg/l	BDL (DL:0.05)
35	Molybdenum as Mo	IS 3025 Part 2	mg/l	BDL (DL:0.5)
36	Total Arsenic as As	IS 13428	mg/l	BDL (DL:0.01)
37	Total Suspended Solids	IS 3025 Part 34	mg/l	BDL(DL:2)

Note: BDL- Below Detection Limit; DL- Detection Limit

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk, Thoothukudi District

Sample Name	Water	Sampling date	12.04.2021
Description of Sample	SW-4	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Ayyanaruthu	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
1	Color	IS 3025 Part 4 :1983	Hazen	< 5
2	Odour	IS 3025 Part 5 :1983	-	Agreeable
3	pH@ 25°C	IS 3025 Part 11 :1983	-	7.58
4	Electrical Conductivity @ 25°C	IS 3025 Part 14 :1984	µs/cm	762
5	Turbidity	IS 3025 Part 10 :1984	NTU	< 1
6	Total Dissolved Solids	IS 3025 Part 17 :1984	mg /l	449
7	Total Hardness as $CaCO_3$	IS 3025 Part 21: 2009	mg/l	136.9
8	Calcium as Ca	IS 3025 Part 40 :1991	mg/l	25.9
9	Magnesium as Mg	IS 3025 Part 46 :1994	mg/l	17.6
10	Total Alkalinity as $CaCO_3$	IS 3025 Part 23 :1984	mg/l	144
11	Chloride as Cl^-	IS 3025 Part 32 :1988	mg/l	168
12	Sulphate as SO_4	IS 3025 Part 24:1986	mg/l	22.3
13	Iron as Fe	IS 3025 Part 53 :2003	mg/l	BDL(DL:0.1)
14	Free Residual Chlorine	IS 3025 Part 26: 1986	mg/l	BDL(DL: 2.0)
15	Fluoride as F	IS 3025 Part 60 : 2008	mg/l	0.17
16	Nitrates as NO_3	IS 3025 Part 34: 1988	mg/l	9.7
17	Copper as Cu	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.2)
18	Manganese as Mn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.05)
19	Mercury as Hg	IS 3025 Part 2 : 2004	mg/l	(BDL (DL: 0.0005)
20	Cadmium as Cd	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
21	Selenium as Se	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
22	Aluminium as Al	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.03)
23	Lead as Pb	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
24	Zinc as Zn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.02)

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Name of the Customer	Site Location:
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Sample Name	Water	Sampling date	12.04.2021
Description of Sample	SW-4	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Tottikuppam Village	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
25	Total Chromium	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
26	Boron as B	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.1)
27	Mineral Oil	IS 3025 Part 39 : 1991	mg/l	BDL (DL:1.0)
28	Phenolic Compunds as C_6H_5OH	IS 3025 Part 43 : 1992	mg/l	Absent
29	Anionic Detergents as MBAS	IS 13428: 2005 (Annex K)	mg/l	BDL (DL:0.1)
30	Cynaide as CN	IS 3025 Part 27 : 1986	mg/l	Absent
31	Total Coliform	IS 1622 : 1981	Per 100ml	< 2
32	E-Coli	IS 13428	Per 100ml	< 2
33	Barium as Ba	IS 3025 Part 39	mg/l	BDL (DL:0.5)
34	Ammonia (as Total Ammonia-N)	IS 1622 : 1981	mg/l	BDL (DL:0.1)
35	Sulphide as H_2S	IS 1622 : 1981	mg/l	BDL (DL:0.05)
36	Molybdenum as Mo	IS 13428	mg/l	BDL (DL:0.5)
37	Total Arsenic as As	IS 3025 Part 34	mg/l	BDL (DL:0.01)
38	Total Suspended Solids	IS 3025 Part 29	mg/l	BDL(DL:2)

Note: BDL- Below Detection Limit; DL- Detection Limit

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Sample Name	Water	Sampling date	12.04.2021
Description of Sample	BW-5	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Thadiyampatti	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
1	Color	IS 3025 Part 4 :1983	Hazen	< 5
2	Odour	IS 3025 Part 5 :1983	-	Agreeable
3	pH@ 25°C	IS 3025 Part 11 :1983	-	7.97
4	Electrical Conductivity @ 25°C	IS 3025 Part 14 :1984	µs/cm	796
5	Turbidity	IS 3025 Part 10 :1984	NTU	< 1
6	Total Dissolved Solids	IS 3025 Part 17 :1984	mg /l	470
7	Total Hardness as $CaCO_3$	IS 3025 Part 21: 2009	mg/l	126.8
8	Calcium as Ca	IS 3025 Part 40 :1991	mg/l	26.8
9	Magnesium as Mg	IS 3025 Part 46 :1994	mg/l	14.6
10	Total Alkalinity as $CaCO_3$	IS 3025 Part 23 :1984	mg/l	139
11	Chloride as Cl^-	IS 3025 Part 32 :1988	mg/l	194
12	Sulphate as SO_4	IS 3025 Part 24:1986	mg/l	20.5
13	Iron as Fe	IS 3025 Part 53 :2003	mg/l	BDL(DL:0.1)
14	Free Residual Chlorine	IS 3025 Part 26: 1986	mg/l	BDL(DL: 2.0)
15	Fluoride as F	IS 3025 Part 60 : 2008	mg/l	0.12
16	Nitrates as NO_3	IS 3025 Part 34: 1988	mg/l	10.1
17	Copper as Cu	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.2)
18	Manganese as Mn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.05)
19	Mercury as Hg	IS 3025 Part 2 : 2004	mg/l	(BDL (DL: 0.0005)
20	Cadmium as Cd	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
21	Selenium as Se	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
22	Aluminium as Al	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.03)

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Name of the Customer	Site Location:
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Sample Name	Water	Sampling date	12.04.2021
Description of Sample	BW-5	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Thadiyampatti	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
23	Lead as Pb	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
24	Zinc as Zn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.02)
25	Total Chromium	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
26	Boron as B	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.1)
27	Mineral Oil	IS 3025 Part 39 : 1991	mg/l	BDL (DL:1.0)
28	Phenolic Compunds as C_6H_5OH	IS 3025 Part 43 : 1992	mg/l	Absent
29	Anionic Detergents as MBAS	IS 13428: 2005 (Annex K)	mg/l	BDL (DL:0.1)
30	Cynaide as CN	IS 3025 Part 27 : 1986	mg/l	Absent
31	Total Coliform	IS 1622 : 1981	Per 100ml	< 2
32	E-Coli	IS 1622 : 1981	Per 100ml	< 2
33	Barium as Ba	IS 13428	mg/l	BDL (DL:0.5)
34	Ammonia (as Total Ammonia-N)	IS 3025 Part 34	mg/l	BDL (DL:0.1)
35	Sulphide as H_2S	IS 3025 Part 29	mg/l	BDL (DL:0.05)
36	Molybdenum as Mo	IS 3025 Part 2	mg/l	BDL (DL:0.5)
37	Total Arsenic as As	IS 3025 Part 37	mg/l	BDL (DL:0.01)
38	Total Suspended Solids	IS 3025 PART17	mg/l	BDL(DL:2)

Note: BDL- Below Detection Limit; DL- Detection Limit

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TEST REPORT

Name of the Customer	Site Location:
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Sample Name	Water	Sampling date	12.04.2021
Description of Sample	BW-6	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Vadakku Subramaniapuram	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
1	Color	IS 3025 Part 4 :1983	Hazen	< 5
2	Odour	IS 3025 Part 5 :1983	-	Agreeable
3	pH@ 25°C	IS 3025 Part 11 :1983	-	8.05
4	Electrical Conductivity @ 25°C	IS 3025 Part 14 :1984	µs/cm	729
5	Turbidity	IS 3025 Part 10 :1984	NTU	< 1
6	Total Dissolved Solids	IS 3025 Part 17 :1984	mg /l	430
7	Total Hardness as $CaCO_3$	IS 3025 Part 21: 2009	mg/l	165.3
8	Calcium as Ca	IS 3025 Part 40 :1991	mg/l	29.5
9	Magnesium as Mg	IS 3025 Part 46 :1994	mg/l	22.3
10	Total Alkalinity as $CaCO_3$	IS 3025 Part 23 :1984	mg/l	135
11	Chloride as Cl^-	IS 3025 Part 32 :1988	mg/l	140
12	Sulphate as SO_4^-	IS 3025 Part 24:1986	mg/l	17.2
13	Iron as Fe	IS 3025 Part 53 :2003	mg/l	BDL(DL:0.1)
14	Free Residual Chlorine	IS 3025 Part 26: 1986	mg/l	BDL(DL: 2.0)
15	Fluoride as F	IS 3025 Part 60 : 2008	mg/l	0.29
16	Nitrates as NO_3	IS 3025 Part 34: 1988	mg/l	11.2
17	Copper as Cu	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.2)
18	Manganese as Mn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.05)
19	Mercury as Hg	IS 3025 Part 2 : 2004	mg/l	(BDL (DL: 0.0005)
20	Cadmium as Cd	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
21	Selenium as Se	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
22	Aluminium as Al	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.03)

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TEST REPORT

Name of the Customer	Site Location:
Thiru.P.Jahir Hussain, S/o. Peer Mohamed,No.11 A, Pavalar Street, Kayathar Village & Taluk,Thoothukudi -628 952	S.F.No: 182/1B, 183/1,2B & 184/2, Therkkulianthakulam Village, Kayathar Taluk,Thoothukudi District

Sample Name	Water	Sampling date	12.04.2021
Description of Sample	BW-6	Sample Received on	13.04.2021
Sample Receipt Condition	Good - Ambient	Sample Analyzed on	13.04.2021
Sample Quantity	2 Liters	Sample Completed on	16.04.2021
Sampling Location	Vadakku Subramaniapuram	Test Report Date	17.04.2021
Sample Drawn by	Omegaa Lab		

S. No	TEST PARAMETER	TEST METHOD	UNITS	RESULT
24	Lead as Pb	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.01)
25	Zinc as Zn	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.02)
26	Total Chromium	IS 3025 Part 2 : 2004	mg/l	BDL (DL: 0.05)
27	Boron as B	IS 3025 Part 2 : 2004	mg/l	BDL (DL:0.1)
28	Mineral Oil	IS 3025 Part 39 : 1991	mg/l	BDL (DL:1.0)
29	Phenolic Compunds as C_6H_5OH	IS 3025 Part 43 : 1992	mg/l	Absent
30	Anionic Detergents as MBAS	IS 13428: 2005 (Annex K)	mg/l	BDL (DL:0.1)
31	Cynaide as CN	IS 3025 Part 27 : 1986	mg/l	Absent
32	Total Coliform	IS 1622 : 1981	Per 100ml	< 2
33	E-Coli	IS 1622 : 1981	Per 100ml	< 2
34	Barium as Ba	IS 13428	mg/l	BDL (DL:0.5)
35	Ammonia (as Total Ammonia-N)	IS 3025 Part 34	mg/l	BDL (DL:0.1)
36	Sulphide as H_2S	IS 3025 Part 29	mg/l	BDL (DL:0.05)
37	Molybdenum as Mo	IS 3025 Part 2	mg/l	BDL (DL:0.5)
38	Total Arsenic as As	IS 3025 Part 37	mg/l	BDL (DL:0.01)
39	Total Suspended Solids	IS 3025 PART17	mg/l	BDL(DL:2)

Note: BDL- Below Detection Limit; DL- Detection Limit

----------x---------- End of report ----------x----------

For Omegaa Laboratories,

Tested by

OMEGAA LABORATORIES 94435 78006 NAMAKKAL

Checked by

Authorized Signatory

Terms & Conditions:

- *Test report issued by Omegaa Laboratories is subject to following terms and conditions.*
- *Test results refer only to tested samples and applicable parameters.*
- *Samples will be disposed after 15 days for chemical testing, 7 days for microbiological testing form the date of issue of test report unless otherwise specified.*
- *This report is not to be reproduced or distributed wholly or in part, and cannot be used as evidence in the court to law and should not be used in any advertising media without the prior written permission of Omegaa Laboratories.*

In case any reconfirmation of content of this test certificate is required, Please contact our Office

Quality Council of India

National Accreditation Board for Education & Training

CERTIFICATE OF ACCREDITATION

Geo Exploration and Mining Solutions

Old No. 260-B, New No. 17, Advaitha Ashram Road, Fairlands, Salem, Tamil Nadu - 636004

Accredited as **Category - A** organization under the QCI-NABET Scheme for Accreditation of EIA Consultant Organizations: Version 3 for preparing EIA-EMP reports in the following Sectors:

Sl. No.	Sector Description	Sector (as per)		Cat.
		NABET	MoEFCC	
1	Mining of minerals - opencast mining only	1	1 (a) (i)	A
2	Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of Schedule 2 & 3 of MSIHC Rules 1989 amended 2000)	28	6 (B)	B
3	Building and Construction Projects	38	8 (a)	B

Note: Names of approved EIA Coordinators and Functional Area Experts are mentioned in RAAC minutes dated January 18, 2019 posted on QCI-NABET website.

The Accreditation shall remain in force subject to continued compliance to the terms and conditions mentioned in QCI-NABET's letter of accreditation bearing no. QCI/NABET/ENV/ACO/19/0940 dated March 27, 2019. The accreditation needs to be renewed before the expiry date by Geo Exploration and Mining Solutions, Salem, following due process of assessment.

Sr. Director, NABET
Dated: March 27, 2019

Certificate No.
NABET/ EIA/1821/ RA 0123

Valid till
07.11.2021

For the updated List of Accredited EIA Consultant Organizations with approved Sectors please refer to QCI-NABET website.

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