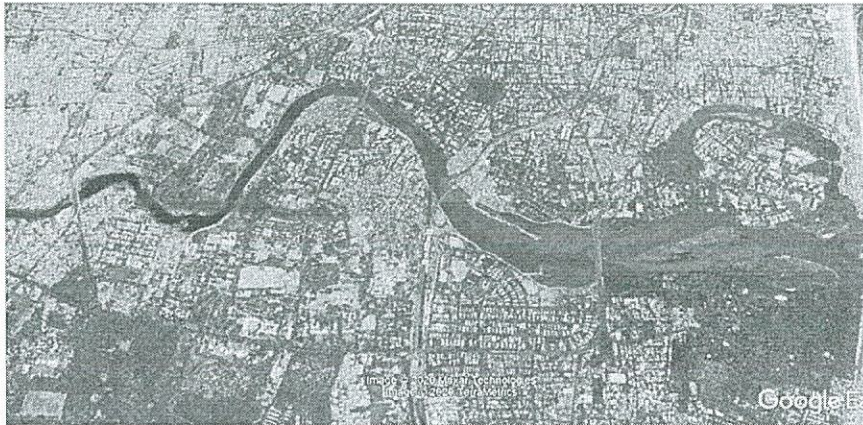


# COMPLIANCE REPORT ON THE STIPULATED CONDITIONS OF CRZ CLEARANCE

Phase - III Eco - Restoration of Adyar River (2000-4800m) Chainage from Thiru.  
Vi.Ka. Bridge to 400 m upstream of Kottupuram Bridge, Chennai, Tamil Nadu.



By

**Chennai Rivers Restoration Trust (CRRT)**  
Adyar Poonga, 6/103, Dr.D.G.S. Dinakaran Salai,  
Raja Annamalaipuram, Chennai - 600 089

Submitted to;

**Ministry of Environment, Forests and Climate Change (MoEF & CC)**  
Regional Office (Southern Eastern Zone)  
No.34, Cathedral Garden Road,  
Nungambakkam, Chennai - 600 034

December 2020

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## **COMPLIANCE REPORT ON THE STIPULATED CONDITIONS OF CRZ CLEARANCE**

### **Phase – III Eco – Restoration of Adyar River (2000-4800 m) Chainage from Thiru. Vi.Ka. Bridge to 400 m upstream of Kottupuram Bridge, Chennai, Tamil Nadu.**

#### **1.0 Project Background**

The proposed project pertains to restoration of entire stretch of Adyar River in a phae-wise manner, where the first two phases includes the development of eco-park (Adyar Poonga) & the estuarine region which extends from the River mouth to the Thiru Vi Ka Bridge and the Phase-III eco-restoration comprises of the remaining 40 Km from Thiru Vi Ka Bridge to Adanur Tank. Of the 40 Km, the 2.8 Km stretch from Thiru Vi Ka Bridge to 400 m upstream of Kotturpuram Bridge fall under the Coastal Regulation Zone IVB with the salinity of 5 ppt.

The tidal influenced CRZ stretch of the river has been proposed with an array of interventions along with ecological restoration work with flora. Thirteen different activities have been proposed on either banks of the Adyar River for the entire 4.8 Km.

The 13 proposed activities can be broadly grouped as sewage management, river channel improvement, riverfront development, river mouth management and other associated facilities. The proposed project activities fall under CRZ I(B), CRZ II and CRZ IV(B) as per CRZ Notification 2011.

The existing STP within Chennai limit where the sewage can be treated is located at Perungudi with a capacity of 114 MLD. The two interception mains and diversion systems proposed in Adyar and Kotturpuram have been designed to route the outfalls to the current sewers or the proposed modular STPs and reduce the pollution in the Adyar River.

Total effluent generated is 395 KLD, shall be treated in the Sewage Treatment Plant of capacity 600 KLD (2X0.3 MLD). Treated wastewater of 336 KLD will be used for plantation in parks, vegetation along the river banks and maintenance ways proposed in this project. Solar Panels shall be provided as the source of power for Modular STP and the total quantity of power required will be 13.00 KWh. In addition, one DG set will be provided as stand-by arrangements.

The desilted soil of quantity 291968 m<sup>3</sup> will be used for earth filling for the proposed riverfront developmental activities such as parks and maintenance ways etc. The remaining desilted soil will be taken to the perungudi landfill maintained by Greater Chennai Corporation.



## 2.0 CRZ Clearance

The project proposal attracts the provisions of Coastal Regulation Zone Notification 2011.

Based on this, the proposal was appraised by the MoEF of New Delhi during October 2019 and accorded CRZ Clearance and copy of CRZ clearance is attached herewith as Annexure I.

## 3.0 Project Status

Sl. No	Work Description	To be achieved in %	Achieved as on December'20 in %
<b>1</b>	<b>Sewage Management</b>		
a	Two interception mains in Adyar and Kotturpuram diverting the raw sewage to a new in- situ treatment facility located d/s of the MRTS Bridge	100	14
b	Laying of a new network to collect the sewage in the houses and connect to the existing network in Greenways Road	100	Yet to be taken up
<b>2</b>	<b>River Channel Improvement</b>		
a	Lowering the riverbed from Thiru. Vi. Ka Bridge to Kotturpuram MRTS Bridge	100	100
b	Lowering the riverbed from Kotturpuram MRTS Bridge to Kotturpuram Bridge	100	100
c	Lowering the riverbed from Kotturpuram Bridge to 400m upstream	100	100
<b>3</b>	<b>Riverfront Development</b>		
a	Maintenance way on the right bank from Thiru. Vi. Ka Bridge to MRTS Bridge	100	Yet to be taken up
b	Maintenance way on the right bank from MRTS Bridge to Kotturpuram Bridge	100	
c	Maintenance way on the right bank from Kotturpuram Bridge to Suriya Nagar Slum	100	
d	Park near Kotturpuram downstream of MRTS Bridge on the right bank.	100	
e	Installation of floating docks in 2 locations (Kotturpuram & Dr. Radhakrishna Puram)	100	
f	Parking lots in 2 locations (Thiru. Vi. Ka Bridge and Kotturpuram)	100	
<b>4</b>	<b>Plantation</b>		
a	Plantation of trees, shrubs, creepers, reeds and mangrove and grass all along the riverbank	100	Yet to be taken up
<b>5</b>	<b>River Mouth Management</b>		
a	Continuous opening of the mouth for 2 years / Mouth Opening and Maintenance in the 4th & 5th Year	100	Yet to be taken up

**3.2    Ambient Noise Level Monitoring**

X During restoration activities, the ambient noise level is likely to increase due to excavation, and movement of vehicles. Ambient noise level is being monitored at six locations. The test reports of noise levels are enclosed herewith as Annexure - VIII.

**3.3    Surface Water Sampling and Analysis**

The surface water is being tested for basic parameters including heavy metals to identify any impact due to restoration activities. The test reports of surface water samples are enclosed herewith as Annexure - VIII.

**3.4    Ground Water Sampling and Analysis**

The ground water is being tested for basic parameters including heavy metals to identify any impact due to restoration activities. The test reports of ground water samples are enclosed herewith as Annexure - VIII.

**3.5    Soil Sampling and Analysis**

7 Soil quality during restoration activities is likely to get affected due to excavation activities. Hence the soil samples are being collected and analyzed for different parameters including heavy metals. The test reports of soil samples are enclosed as Annexure - VIII.

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**Annexure - I**  
**Copy of CRZ Clearance**

**F.No.11-26/2019-IA-III**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(IA.III Section)

Indira Paryavaran Bhawan,  
Jor Bagh Road, New Delhi-3  
Dated: 22<sup>nd</sup> October, 2019

To,

✓ M/s Chennai River Restoration Trust,  
6/103, Adyar Poonga,  
Dr. D.G.S. Dinakaran Salai,  
Raja Annamalai Puram, Chennai - 28, Tamil Nadu

**Sub: CRZ Clearance for Eco-Restoration of Adyar River (2000-4800m) Chainage from Thiru. Vi.Ka. Bridge to 400 m upstream of Kotturpuram Bridge, Chennai - reg.**

Sir,

This has reference to your online proposal No. IA/TN/CRZ/112212/2019 received in this Ministry for CRZ Clearance of the above mentioned project proposal, in accordance with the provisions of the Coastal Regulation Zone (CRZ) Notification, 2011 issued under the Environment (Protection) Act, 1986.

2. The proposal was considered by the Expert Appraisal Committee (EAC) for Infrastructure Development, Coastal Regulation Zone, Building/ Construction and Miscellaneous projects, in its 221<sup>st</sup> meeting held on 19.08.2019. The details of the project as per the documents submitted and presented during the aforesaid meeting are as under:

(i) The proposed project pertains to restoration of the entire stretch of Adyar River in a phase-wise manner, where the first two phases includes the development of eco-park (Adyar Poonga) & the estuarine region which extends from the River mouth to the Thiru Vi Ka Bridge and the Phase-III eco-restoration comprises of the remaining 40 Km from Thiru Vi Ka Bridge to Adanur Tank. Of the 40 Km, the 2.8 Km stretch from Thiru Vi Ka Bridge to 400m upstream of Kotturpuram Bridge fall under the Coastal Regulation Zone IVB with the salinity of 5 ppt.

(ii) The tidal influenced CRZ stretch of the river has been proposed with an array of interventions along with ecological restoration work with flora. Thirteen different activities have been proposed on either banks of the Adyar River for the entire 4.8 km.

(iii) The 13 proposed activities can be broadly grouped as sewage management, river channel improvement, riverfront development, river mouth management and other associated facilities. The list of activities that have been proposed under each of the category are presented in the table below:

Category	Description of the Project	Chainage (in m) (L - Left & R - Right)
Sewage Management	Two interception mains in Adyar and Kotturpuram diverting the raw sewage to a new in- situ treatment facility located d/s of the MRTS Bridge	R 2000 - 4000
	Laying of a new network to collect the sewage in the houses and connect to the existing network in Greenways Road	L 3500





River Channel Improvement	Lowering the river bed from Thiru. Vi. Ka Bridge to Kotturpuram MRTS Bridge	2000 - 3200
	Lowering the river bed from Kotturpuram MRTS Bridge to Kotturpuram Bridge	3200 - 4350
	Lowering the river bed from Kotturpuram Bridge to 400m upstream	4350 - 4800
Riverfront Development	Maintenance way on the right bank from Thiru. Vi. Ka Bridge to MRTS Bridge	R 2000 - 3050
	Maintenance way on the right bank from MRTS Bridge to Kotturpuram Bridge	R 3220 - 4380
	Maintenance way on the right bank from Kotturpuram Bridge to Suriya Nagar Slum	R 4380 - 5480
	Park near Kotturpuram downstream of MRTS Bridge on the right bank	R 2880 - 3200
	Installation of floating docks in 2 locations (Kotturpuram & Dr. Radhakrishna Puram)	-
	Parking lots in 2 locations (Thiru. Vi. Ka Bridge and Kotturpuram)	-
Plantation	Plantation of trees, shrubs, creepers, reeds and mangrove and grass all along the river bank	-
River Mouth Management	Continuous opening of the mouth for 2 years / Mouth Opening and Maintenance in the 4th & 5th Year	0 - 100

(iv) The proposed project activities fall under CRZ I (B), CRZ II and CRZ IV(B) as per CRZ Notification 2011. The Buckingham canal joins the Adyar River at Kotturpuram.

Activity	Identification	CRZ Classification
Parking Lot	P1	CRZ II
	P2	CRZ II and little outside CRZ
Park	Park	CRZ IB, II, IVB and outside CRZ
Floating Dock	FD1	CRZ IB, II and IVB
	FD2	CRZ IB, II and IVB
Plantation		CRZ IB, II, IVB and outside CRZ
Mangrove		CRZ IB, II and IVB
Maintenance Ways		CRZ IB, II, IVB and outside CRZ
Modular STP		CRZ II
Desilting		CRZ IB, II, IVB
River Mouth Opening		CRZ IB, IVB
Proposed Sewage pipeline with manhole		CRZ IB, II, IVB and outside CRZ
Sewage Pumping Station		CRZ II

(v) The existing STP within Chennai limit where the sewage can be treated is located at Perungudi with a capacity of 114 MLD. The two interception mains and diversion systems proposed in Adyar and Kotturpuram have been designed to route the outfalls to the current sewers or the proposed modular STPs and reduce the pollution in the Adyar River.

(vi) Total effluent generated is 395 KLD, which will be treated in the Sewage Treatment Plant of capacity 600 KLD (2x0.3 MLD). Treated wastewater of 336 KLD



will be used for plantation in parks, vegetation along the river banks and maintenance ways proposed in this project.

(vii) Solar Panels will be provided as the source of power for Modular STP and the total quantity of power required will be 13.00 KWh. In addition, one DG set will be provided as a stand-by arrangement

(viii) Native Vegetation is proposed all along the river banks as part of the eco-restoration project.

(ix) The desilted soil of quantity 291968 m<sup>3</sup> will be used for earth filling for the proposed riverfront developmental activities such as parks and maintenance ways etc. The remaining desilted soil will be taken to the perungudi landfill maintained by Greater Chennai Corporation.

(x) The cost of the project is Rs. 121.17 crores

(xi) Total employment generated will be 120 Numbers (20 permanent employees during operation phase, 50 temporary employees during construction phase and 50 temporary employees during operation phase).

(xii) The Tamil Nadu Coastal Zone Management Authority has recommended the above proposal for clearance vide their letter No. 9444/EC.3/2019-1, dated 20.06.2019.

3. Based on the recommendation of the Tamil Nadu Coastal Zone Management Authority issued vide its letter No. 9444/EC.3/2019-1, dated 20.06.2019, and information submitted as at para no. 2 above and information provided during the presentation before the Expert Appraisal Committee and others, the Ministry of Environment, Forest and Climate Change, in acceptance of the recommendation of the Expert Appraisal Committee (CRZ), hereby accords CRZ Clearance to the above project viz '*Eco-Restoration of Adyar River (2000-4800m) Chainage from Thiru. Vi.Ka. Bridge to 400 m upstream of Kottupuram Bridge, Chennai*, under the provision of CRZ Notification, 2011 and amendments thereto and circulars issued thereon, and subject to compliance of the following specific and general conditions as under:

**PART A – SPECIFIC CONDITIONS:**

- (i) Proposed opening of river mouth and sand bars removal shall not be carried out and proposal to this effect shall be submitted at a later date once a detail study spanning multi-season, with specific focus on riverine/estuarine ecology and biodiversity and Besant Nagar Turtle Nesting Site by an institute of repute like NIOT, Chennai, is carried out and its findings are positive.
- (ii) A robust conservation, plantation of native mangroves and management plan shall be immediately implemented in consultation with the concerned agency in the State government.
- (iii) The temporary modular STPs in the CRZ areas shall be removed within a year of commissioning of the main STP under construction.
- (iv) No construction (including cemented/concretised parking space for vehicles) shall be made in the NDZ area.





- (v) Management of solid waste in accordance with the Solid Waste Management Rules, 2016 shall be strictly implemented.
- (vi) All conditions/recommendations stipulated by the Tamil Nadu Coastal Zone Management Authority (TNCZMA) vide their letter No. 9444/EC.3/2019-1, dated 20.06.2019, shall strictly be complied with.
- (vii) 'Consent to Establish' and /or 'Consent to Operate' shall be obtained from State Pollution Control Board under the provisions of Air (Prevention and Control of Pollution) Act, 1981 and / or the Water (Prevention and Control of Pollution) Act, 1974, as may be applicable.
- (viii) There shall be no dressing or alteration of the sand dunes present in the vicinity and the same shall be kept undisturbed. No alteration of natural features including landscape changes shall be undertaken for beautification, recreation and other such purpose.
- (ix) No permanent labour camp, machinery and material storage shall be allowed in CRZ area.
- (x) Temporary toilets will be provided for all construction labour. Suitable toilet fixtures for water conservation shall be provided. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- (xi) Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xii) All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by Central/State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea/coastal water bodies. It shall be ensured that the wastewater generated is treated in the STP as committed by the project proponent. The treated waste water shall be reused for landscaping, flushing and / or HVAC cooling purposes etc. within the development. The project proponent should also make alternate arrangement for situation arising due to malfunctioning of STP. There shall be regular monitoring of standard parameters of the effluent discharge from STP under intimation to the SPCB.
- (xiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

- (xiv) Project Proponent shall ensure regular operation and maintenance of the STP to meet the effluent discharge standards laid down under the rules and should also meet conditions (if any) stipulated in Consent to Establish and Consent to Operate.
- (xv) Ambient noise levels should conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the ambient noise standards.

**PART B - GENERAL CONDITIONS:**

- (i) A copy of the clearance letter shall be uploaded on the website of the concerned State Coastal Zone Management Authority/State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
- (ii) A six-monthly monitoring report shall need to be submitted by the project proponent to the concerned regional Office of this Ministry regarding the implementation of the stipulated conditions.
- (iii) The Ministry of Environment, Forest & Climate Change or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (iv) Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (v) The above stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991, the EIA Notification, 2006 and the extant CRZ regulations.
- (vi) Full co-operation shall be extended to the officials from the Regional Office of MoEF&CC, during monitoring of implementation of environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the concerned Regional Office of MoEF&CC.





- (vii) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
- (viii) The Ministry reserves the right to add additional safeguard measures subsequently, if considered necessary, and to take action to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner, including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, for non compliance.
- (ix) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective competent authorities.
- (x) The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board (SPCB) and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <http://www.envfor.nic.in>. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the concerned Regional Office of this Ministry.

4. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

5. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

6. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

7. The proponent shall upload the status of compliance of the stipulated conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.

8. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of clearance conditions and shall also be sent to the respective Regional Office of the Ministry by e-mail.

  
(W. Bharat Singh)  
Director (CRZ)

Copy to:

1. The Principal Secretary, Environment & Forests Department (EC-3), Government of Tamil Nadu, Secretariat, Chennai - 600 009
2. The Chairman, Tamil Nadu Coastal Zone Management Authority, Environment & Forests Department (EC-3), Government of Tamil Nadu, Secretariat, Chennai - 600 009
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, CBD cum Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Tamil Nadu Pollution Control Board, No. 76, Anna Salai, Guindy Industrial Estate, Race View Colony, Guindy, Chennai - 600 032
5. The Member Secretary, Tamil Nadu Coastal Zone Management Authority, Department of Environment, No.1, Jeenis Road, Panagal Building, Ground Floor, Saidapet, Chennai - 600 015
6. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), I and II Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai - 34
7. Guard File/ Record File/ Monitoring Cell.

  
(W. Bharat Singh)  
Director (CRZ)





**Annexure - II**  
**Compliance Report on Conditions Stipulated in**  
**CRZ Clearance**



**COMPLIANCE REPORT ON THE STIPULATED CONDITIONS  
OF CRZ CLEARANCE**

**Annexure – II**

**CRZ Clearance for Eco-restoration of Adyar River (2000 – 4800m) Chainage from  
Thiru.Vi.Ka Bridge to 400m upstream of Kottupuram Bridge in Chennai, Tamil Nadu  
M/s. Chennai Rivers Restoration Trust (CRRT).**

CRZ Clearance F.No. 11 -26/2019-IA.III dated 22.10.2019 (Copy enclosed as Annexure – I)

**PART A – SPECIFIC CONDITIONS**

<b>S. No.</b>	<b>Specific Conditions</b>	<b>Status of Compliance</b>
(i)	Proposed opening of river mouth and sand bars removal shall not be carried out and proposal to this effect shall be submitted at a later date once a detail study spanning multi-season, with specific focus on riverine/estuarine ecology and biodiversity and Besant Nagar Turtle Nesting Site by an institute of repute like NIOT, Chennai, is carried out and its findings are positive.	Noted and agreed upon.
(ii)	A robust conservation, plantation of native mangroves and management plan shall be immediately implemented in consultation with the concerned agency in the State government.	The plantation of native mangroves and management plan will be implemented in consultation with the Forest department, Tamilnadu
(iii)	The temporary modular STPs in the CRZ areas shall be removed within a year of commissioning of the main STP under construction.	After commissioning of the main STP under construction, the temporary modular STPs in the CRZ areas will be removed immediately.
(iv)	No construction (including cemented/concretised parking space for vehicles) shall be made in the NDZ area.	Noted. There is no construction in the NDZ area
(v)	Management of solid waste in accordance with the Solid Waste Management Rules, 2016 shall be strictly implemented.	The solid waste generated from the site will be collected and disposed as per Solid Waste Management Rules, 2016
(vi)	All conditions / recommendations stipulated by the Tamil Nadu Coastal Zone Management Authority (TNCZMA) vide letter no 9444/EC.3/2019-1 dated 20.06.2019, shall be complied with.	All conditions / recommendations stipulated by the Tamil Nadu Coastal Zone Management Authority (TNCZMA) vide letter no 9444/EC.3/2019-1 dated 20.06.2019, is complied with. The copy of the same is enclosed as Annexure – III for your reference.

**COMPLIANCE REPORT ON THE STIPULATED CONDITIONS  
OF CRZ CLEARANCE**

S. No.	Specific Conditions	Status of Compliance
(vii)	'Consent to Establish' and /or 'Consent to Operate' shall be obtained from State Pollution Control Board under Air (Prevention and Control of pollution) Act, 1981 and / or the Water(Prevention and Control of pollution) Act, 1974, as may be applicable.	Noted and Consent for Establishment will be obtained from Tamilnadu Pollution Control Board prior to construction of STP.
(viii)	There shall be no dressing or alteration of the sand dunes present in the vicinity and the same shall be kept undisturbed. No alteration of natural features including landscape changes shall be undertaken for beautification, recreation and other such purpose.	Noted. No dressing or alteration of the sand dunes present in the vicinity will be done and the same will be kept undisturbed. No alteration of natural features including landscape changes will be undertaken for beautification, recreation and other such purpose.
(ix)	No permanent labour camp, machinery and material storage shall be allowed in CRZ area.	No permanent labour camp has been set up within the CRZ area. Only small temporary camps are set up for safeguarding the machinery and material stored in the project area will be removed after the completion of the project.
(x)	Temporary toilets will be provided for all construction labour, Suitable toilet fixtures for water conservation shall be provided. Fixtures for showers, toilet flushing and drinking should be of low flow either by use if aerators or pressure reducing devices or sensor based control.	No permanent labour camp has been set up within the CRZ area. . If there is a need for labour camp, the conditions will be complied.
(xi)	Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	The muck generated during the construction phase is being disposed in approved sites with the approval of Greater Chennai Corporation and it will not create any adverse effect on the neighbouring communities.
(xii)	All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by Central/ State Pollution Control Board. There shall not be any disposal of untreated effluent into the	During Construction phase, toilets have been provided in temporary camps. The sewage generated from the temporary toilets will be treated through septic tank followed by soak pit. There shall



**COMPLIANCE REPORT ON THE STIPULATED CONDITIONS  
OF CRZ CLEARANCE**

S. No.	Specific Conditions	Status of Compliance
	sea/coastal water bodies. It shall be ensured that the wastewater generated is treated in the STP as committed by the project proponent. The treated waste water shall be reused for landscaping, flushing and / or HVAC cooling purposes etc. Within the development. The project proponent should also make alternate arrangement for situation arising due to malfunctioning of STP. There shall be regular monitoring of standard parameters of the effluent discharge from STP under intimation to the SPCB.	not be any disposal of untreated effluent into the sea/coastal water bodies. We ensured that the wastewater generated will be treated in STP as committed and treated waste water will be used for plantation in parks, vegetation along the river banks and maintenance ways proposed in this project. The treated sewage will conform to the SPCB norms and standards.
(xii)	Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.	No hazardous materials are used during construction. However, Any hazardous waste generated during construction phase, will be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
(xiv)	Project Proponent shall ensure regular operation and maintenance of the STP to meet the effluent discharge standards laid down under the rules and should also meet conditions (If any) stipulated in Consent to Establish and Consent to Operate.	Noted and agreed upon.
(xv)	Ambient noise levels should conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the ambient noise standards.	Adequate measures are taken to maintain ambient noise levels within the prescribed limits during construction phase. Ambient noise level is monitored to ensure conformance to standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000.



**COMPLIANCE REPORT ON THE STIPULATED CONDITIONS  
OF CRZ CLEARANCE**

**PART- B GENERAL CONDITIONS**

S. No.	General Conditions	Status of Compliance
(i)	A copy of the clearance letter shall be uploaded on the website of the concerned State Coastal Zone Management Authority/ State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office / Tehsildar's office for 30 days	Noted. We have sent a copy of the clearance letter to the TNPCB (copy of the same is enclosed as Annexure – III), Regional Office, District Industries centre and the Collector's Office (copy of the same is enclosed as Annexure – IV).
(ii)	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry regarding implementation of the stipulated conditions.	We are submitting Six monthly monitoring reports regularly to the Ministry's Regional Office, Chennai regarding implementation of the stipulated conditions as per the direction of the Clearance Order.
(iii)	The Ministry of Environment, Forest & Climate Change or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	Noted. We will comply with any additional conditions or modifications of existing ones as and when it is stipulated by The Ministry of Environment, Forest & Climate Change or any other competent authority in the interest of environment protection.
(iv)	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may results in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
(v)	The above stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991, the EIA Notification, 2006 and the extant CRZ regulations.	Noted.
(vi)	Full co-operation shall be extended to the officials from the Regional Office MoEF&CC,	Full support will be extended to the officers of the Ministry/Regional Office

**COMPLIANCE REPORT ON THE STIPULATED CONDITIONS  
OF CRZ CLEARANCE**

S. No.	General Conditions	Status of Compliance
	during monitoring of implementation of environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the concerned Regional Office of MoEF&C.	at Chennai by us during inspection of the project for monitoring purposes by furnishing the requisite data/ Information/ monitoring Reports.
(vii)	In the case of any change(s) in the scope of the project would require a fresh appraisal by this Ministry.	Noted. We will make a fresh application to Ministry if in any case there is any change in the project profile or change in the implementation agency.
(viii)	The Ministry reserves the right to add additional safeguard measures subsequently, if considered necessary, and to take action to ensure effective implantation of the suggested safeguard measures in a time bound and satisfactory manner, including revoking of the environment clearance under the provisions of the Environmental (Protections) Act, 1986, for non compliance.	Noted.
(ix)	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protction) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted. No such approvals are applicable for our project.
(x)	The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ clearance and copies of clearance letters are available with the State Pollution Control Board (SPCB) and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a> . The advertisement should be made within	Basic details of the project were advertised in two local newspapers and a copy of the same was forwarded to Regional MoEF office, chennai. The advertisement copy is enclosed as Annexure – VI.



**COMPLIANCE REPORT ON THE STIPULATED CONDITIONS  
OF CRZ CLEARANCE**

S. No.	General Conditions	Status of Compliance
	Seven days from the date of receipt of the clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry	
4	This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project	Noted.
5	Any appeal against this clearance shall lie with National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010	No appeal was made.
6	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestion / representations, if any, were received while processing the proposal.	Noted. A Copy of the Clearance letter has been sent to our local body (Greater Chennai Corporation) for their suggestion and the copy of the same is enclosed as Annexure – V.
7	The proponent shall upload the status of compliance of the stipulated Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.	Noted and We will submit the status of compliance of the stipulated Clearance conditions, including results of monitored data regularly to the regional office of MoEF & CC and the Zonal office of the CPCB and TNPCB and the status will be up loaded in the web site.
8	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form –V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Office of MoEF by e-mail.	Noted and we agree to comply with same.



**Annexure - III**  
**Proof of the MoM of the Tamil Nadu State Coastal  
Zone Management Authority**

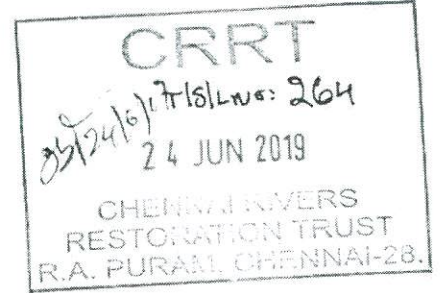


Environment & Forests (EC.3)  
Department, Secretariat,  
Chennai- 600 009

Letter No: 9444/EC.3/2019-1, Dated: 20.06.2019

From  
Thiru. Shambhu Kallollikar, I.A.S.,  
Principal Secretary to Government.

To  
The Chairman,  
National Coastal Zone Management Authority,  
Government of India,  
Ministry of Environment, Forests & Climate Change,  
Agni Wing, 5<sup>th</sup> Floor,  
Indira Paryavaran Bhawan,  
Jor Bag Road, Aliganj,  
New Delhi - 110 003. (w.e.)



Sir,

Sub: Coastal Regulation Zone - Eco-Restoration of Adyar River -  
2000m - 4800m Chainage from Thiru. Vi.Ka. Bridge to  
400m upstream of Kotturpuram Bridge by Chennai Rivers  
Restoration Trust (CRRT), Chennai - Clearance under  
Coastal Regulation Zone Notification 2011 requested -  
regarding.

Ref: From the Member Secretary, TNSCZMA/ Director of  
Environment letter No: R.C/P1/2959/2018 dated  
31.5.2019.

I am to enclose a copy of the proposal received from the Member Secretary, Tamil Nadu State Coastal Zone Management Authority/Director of Environment together with its enclosures and to state that the Member Secretary, Tamil Nadu State Coastal Zone Management Authority/ Director of Environment has sent the proposal for clearance under Coastal Regulation Zone Notification, 2011, for Eco-restoration of Adyar River as Phase-III, especially the stretch within the CRZ, between Thiru. Vi. Ka. Bridge and 400m upstream of Kotturpuram Bridge accounting to a distance of 4.8 km. and she has furnished the following details:-

- a. The Chennai Rivers Restoration Trust has proposed to Eco-restoration of Adyar River as Phase-III, especially the stretch within the Coastal Regulation Zone, between Thiru. Vi. Ka. Bridge and 400m upstream of Kotturpuram Bridge accounting to a distance of 4.8 km. The tidal influenced Coastal Regulation Zone stretch of the river has been proposed with an array of infrastructural developments along with

(P.T.O)

ecological restoration work with flora. Thirteen different activities have been proposed on either banks of the Adyar River for the entire 4.8 km. The 13 proposed activities broadly grouped under sewage management, river channel improvement, resettlement and rehabilitation plan, biological diversity management, riverfront development and other associated facilities.

- b. The two interception mains, proposed under the project, in Adyar and Kotturpuram diverting the raw sewage to a new in-situ treatment facility located downstream of the MRTS Bridge. The proposed intervention lies along the right bank of Adyar River between the chainages 2000m and 4000m. Two gravity mains have been proposed for intercepting all the outfalls along the said stretch. There are 9 storm water drains within the stretch between Thiru Vi Ka Bridge and MRTS bridge in Kotturpuram.
- c. The project is proposed to restore the Adyar River and protect and provide a clean environment to the urban community. To prevent dumping of garbage along the river banks, park, maintenance ways are proposed to be developed which does not include major construction activity. The river mouth will be opened to enhance tidal interaction. The river sediments will be de-silted to maintain the free flow of water. The de-silted soil of quantity 2,91,968 m<sup>3</sup> will be used for earth filling for the proposed riverfront development activities such as parks and maintenance ways etc. The remaining de-silted soil will be taken to the Perungudi landfill maintained by Greater Chennai Corporation.
- d. The existing STP within Chennai limit where the sewage treated is located at Perungudi with a capacity of 114 MLD. Within the CRZ area, a Modular STP with 2 modules of each 0.3 MLD has been proposed, making the total capacity of 0.60 MLD. The proposed Modular STP will be installed inside the proposed Park downstream of the Kotturpuram MRTS Bridge where the two interception mains in Adyar and Kotturpuram end. The total power consumption for the modular STP at Kotturpuram with 2 modules of 0.3 MLD each will be 13 KW. Solar panels will be provided to avoid interruption in power supply. DG sets will also be provided to avoid power shortage failures. The treated wastewater from the modular STP will be used for the vegetation along the river bank and parks.
- e. The District Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai District has forwarded the proposal with the following conditions:
  - i) The de-silting of River Adyar shall be undertaken only once.
  - ii) The silt generated shall be scientifically disposed in suitable area outside CRZ area.



..3..

- iii) The parks proposed to be established in the CRZ area shall not be a public park and be maintained as a Bio-Park. Park should not be utilized for entertainment / recreation purpose.
  - iv) The greeneries proposed in the CRZ area shall be undertaken in consultation with the Forests Department.
  - v) The modular STPs proposed in the CRZ area shall be temporary nature to treat the raw sewage let into the river Adyar, until permanent measures are taken by the CMWSSB to provide sewerage network for treatment and disposal.
  - vi) The treated sewage shall meet the disposal standards as prescribed by the TNPCB and to be utilized for greenery development (or) for other beneficial use.
  - vii) The Consent to Establish (CTE) of the TNPC Board shall be obtained prior to the establishment of the STPs.
  - viii) Food Courts should not be established. There should not be any cycle track, children play ground, view point and terraces.
  - ix) Walk way should be paved for only maintenance purpose.
  - x) The proponent shall submit the HTL demarcation in the CZMP map 2011 available with the Director of Environment based on the CRZ Notification 2011.
- f. As per approved CZMP the proposed project is falling in CRZ-IB (inter-tidal area), CRZ-II (developed area) and CRZ-IVB (water area) and the total project cost is Rs. 121.17 crores.
- g. As per CRZ Notification 2011 vide para 3 (v) (a), facilities required for the discharging treated effluents into the water course with the approval under the Water (Prevention and Control of Pollution) Act, 1974 is permissible activity. Further vide para 3 (iv) (c) land reclamation, bunding or disturbing the natural course of seawater are permissible activities for the maintenance or clearing of waterways, channels and ports, based on EIA studies etc., Further vide para 4 (1) (a) Clearance shall be given for any activity within CRZ only if it requires waterfront and foreshore facilities. However, as per para 4 (ii) (d), the above activities require clearance from the Ministry of Environment, Forests and Climate Change, Govt.
- h. The proposal was placed before the Tamil Nadu State Coastal Zone Management Authority in its 105<sup>th</sup> meeting held on 21.05.2019 and the Authority resolved to recommend the proposal to the Ministry of Environment Forests & Climate Change, Government of India.

..4..

2. I am also directed to state that the Member Secretary, Tamil Nadu State Coastal Zone Management Authority/Director of Environment has sent a copy of proposal along with the reports, HTL map and minutes of the 105<sup>th</sup> meeting of Tamil Nadu State Coastal Zone Management Authority held on 21.05.2019 and requested to recommend the proposals to the Ministry of Environment, Forests and Climate Change, Government of India, subject to the following specific conditions:-

- i) The de-silting of River Adyar shall be undertaken only once.
- ii) The silt generated shall be scientifically disposed in suitable, outside CRZ area after analyzing the characteristics of the sedimentation.
- iii) The parks proposed to be established in the CRZ area shall not be a public park and be maintained as a Bio-Park. Park should not be utilized for entertainment / recreation purpose.
- iv) The greeneries proposed in the CRZ area shall be undertaken in consultation with the Forests Department.
- v) For planting mangroves, the Institutions like MSSRF shall be involved in the survival, growth of the Plantations and an agreement shall be executed with them for a period of 3 to 5 years and the payment shall be linked with the actual survival and growth rate, which ensure the protection of plantation.
- vi) The modular STPs proposed in the CRZ area shall be temporary nature to treat the raw sewage let into the river Adyar, until permanent measures are taken by the CMWSSB to provide sewerage network for treatment and disposal.
- vii) The adequacy of the installation of STP should be studied. The treated sewage shall meet the disposal standards as prescribed by the TNPCB and to be utilized for greenery development or (or) for other beneficial use.
- viii) The Consent to Establish (CTE) of the TNPC Board shall be obtained prior to the establishment of the STPs.
- ix) Food Courts should not be established. There should not be any cycle track, children play ground, view point and terraces.
- x) Walk way should be paved for only maintenance purpose.
- xi) Necessary consent should be obtained from the implementing agency viz., Chennai Metro Water Supply and Sewage Board for the continuance of operations, maintenance etc., after commencement of the project.



3. I am therefore directed to state that in line with the recommendation of the Tamil Nadu State Coastal Zone Management Authority, this Government recommend and forward the proposal of Member Secretary, Tamil Nadu State Coastal Zone Management Authority /Director of Environment, Chennai, for Eco-restoration of Adyar River as Phase-III, especially the stretch within the CRZ, between Thiru. Vi. Ka. Bridge and 400m upstream of Kotturpuram Bridge accounting to a distance of 4.8 km. proposed by Chennai Rivers Restoration Trust (CRRT) to the Chairman, National Coastal Zone Management Authority, Government of India, Ministry of Environment, Forests and Climate Change, New Delhi, for clearance under Coastal Regulation Zone Notification, 2011, subject to the specific conditions mentioned at para 2 above.

Yours faithfully,



for Principal Secretary to Government.



Copy to:-

The Member Secretary, Tamil Nadu State Coastal Zone Management Authority / Director of Environment, Chennai - 15.  
Chennai Rivers Restoration Trust,  
No.6/103, D.G.S. Dinakaran Salai,  
Raja Annamalaipuram, Chennai- 600 028.  
(with a request to furnish 20 copies of  
the proposal of Government of India,  
Ministry of Environment, Forest & Climate Change, New Delhi)





**Annexure - IV**  
**Proof of the Clearance letter submitted to**  
**TNPCB**

CRRT

CHENNAI RIVERS RESTORATION TRUST

Speed Post

(Wholly owned by Government of Tamil Nadu)

G. Prakash, I.A.S.,  
Member Secretary

CRRT/ARRP/CRZ/542/2019

Date 11.11.2019

To  
The Member Secretary,  
Tamil Nadu Pollution Control Board,  
No.76, Anna Salai, Guindy,  
Chennai - 600 032.

Sir,

**Sub:** CRRT – CRZ Clearance for Eco –Restoration of Adyar River (2000-4800m) Chainage from Thiru.Vi.Ka Bridge to 400m upstream of Kotturpuram Bridge – Reg.

**Ref:** Government of India, Ministry of Environment, Forest and Climate Change, New Delhi, Letter No.F.No.11-26/2019-IA-III, dated 22.10.2019

-----

We wish to inform that the Ministry of Environment, Forest and Climate Change, Government of India, in their letter cited have accorded CRZ Clearance for the Eco-restoration of Adyar River (2000-4800m) Chainage from Thiru.Vi.Ka Bridge to 400m upstream of Kotturpuram Bridge. A copy of the letter is also enclosed herewith for your ready reference.

Encl: A/a

Sd/- G.Prakash  
Member Secretary

//Forwarded by Order//

  
Project Officer



**Annexure - V**  
**Proof of the Clearance letter submitted to**  
**Regional Office, District Industries centre and**  
**Collector office**

CRRT

CHENNAI RIVERS RESTORATION TRUST

(Wholly owned by Government of Tamil Nadu)

Date:28/08/2020

The Regional Joint Director  
Department of Industries and Commerce,  
Thiru-Vi-Ka Industrial Estate, Guindy,  
Chennai 600 032.

Sir,

**Sub:** CRRT-CRZ Clearance for Eco-Restoration of Adyar Poonga River (2000-4800m) Chainage from Thiru-Vi-Ka Bridge to 400m upstream of Kotturpuram Bridge- Reg.

**Ref:** Government of India, Ministry of Environment, Forest and Climate Change, New Delhi, Letter No.F.No.11-26/2019-IA-III/dated.22.10.2019

We wish to inform that, the Ministry of Environment, Forest and Climate Change, Government of India, in their letter cited have accorded CRZ Clearance for the Eco Restoration of Adyar River (2000 - 4800m) Chainage from Thiru-Vi-Ka Bridge to 400m upstream of Kotturpuram Bridge. A copy of the CRZ Clearance order is enclosed herewith for your ready reference.

Encl: A/a

  
Project Officer  
Chennai Rivers Restoration Trust

# CRRT

## CHENNAI RIVERS RESTORATION TRUST

(Wholly owned by Government of Tamil Nadu)

**G. Prakash, I.A.S.,**  
Member Secretary

CRRT/ARRP/CRZ/542/2019

Date 11.11.2019

The Collector,  
Chennai Collectorate,  
4<sup>th</sup> Floor, Singaravelar Maaligai,  
No.62, Rajaji Salai,  
Chennai - 600 001.

Madam,

**Sub:** CRRT – CRZ Clearance for Eco –Restoration of Adyar River (2000-4800m) Chainage from Thiru.Vi.Ka Bridge to 400m upstream of Kotturpuram Bridge – Reg.

**Ref:** Government of India, Ministry of Environment, Forest and Climate Change, New Delhi, Letter No.F.No.11-26/2019-IA-III, dated 22.10.2019

-----

We wish to inform that the Ministry of Environment, Forest and Climate Change, Government of India, in their letter cited have accorded CRZ Clearance for the Eco-restoration of Adyar River (2000-4800m) Chainage from Thiru.Vi.Ka Bridge to 400m upstream of Kotturpuram Bridge. A copy of the letter is also enclosed herewith for your ready reference.

Encl: A/a

Sd/- G.Prakash  
Member Secretary

//Forwarded by Order//

  
Project Officer



**Annexure - VI**  
**Proof of the Clearance letter submitted to local  
body (Corporation of Chennai)**

**CRRT**

**CHENNAI RIVERS RESTORATION TRUST**

(Wholly owned by Government of Tamil Nadu)

**G. Prakash, I.A.S.,  
Member Secretary**

CRRT/ARRP/CRZ/542/2019

Date 11.11.2019

To  
The Commissioner,  
Greater Chennai Corporation,  
Ripon Building,  
Chennai – 600 003.

Sir,

**Sub:** CRRT – CRZ Clearance for Eco –Restoration of Adyar River (2000-4800m) Chainage from Thiru.Vi.Ka Bridge to 400m upstream of Kotturpuram Bridge – Reg.

**Ref:** Government of India, Ministry of Environment, Forest and Climate Change, New Delhi, Letter No.F.No.11-26/2019-IA-III, dated 22.10.2019

-----

We wish to inform that the Ministry of Environment, Forest and Climate Change, Government of India, in their letter cited have accorded CRZ Clearance for the Eco-restoration of Adyar River (2000-4800m) Chainage from Thiru.Vi.Ka Bridge to 400m upstream of Kotturpuram Bridge. A copy of the letter is also enclosed herewith for your ready reference.

Encl: A/a

Sd/- G.Prakash  
Member Secretary

//Forwarded by Order//

  
Project Officer

**Annexure - VII**  
**Advertisement copy (two local newspaper)**



CRRT

CHENNAI RIVERS RESTORATION TRUST

(Wholly owned by Government of Tamil Nadu)

20.8.2020

To

The Director,

Ministry of Environment, Forest & Climate Change

Regional Office (SEZ), 1<sup>st</sup> and 2<sup>nd</sup> Floor, Handloom Export Promotion Council

34, Cathedral Garden Road

Nungambakkam, Chennai - 34

Sir,

Sub: CRRT–Ecorestoration of Adyar River (2000-4800m) Chainage from Thiru-vi-ka Bridge to 400 m upstream of Kotturpuram Bridge, Chennai - Submission of copy of the Newspaper Advertisement - Reg.

Ref: CRZ Clearance Order–F.No.11-26/2019-IA-III, GOI, MoEF&CC, Dated: 22<sup>nd</sup> October, 2019.

In the reference cited, the project proponent was directed to advertise in at least two local Newspaper widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance. In this regard, we wish to inform that the CRZ Clearance Order accorded to CRRT for Ecorestoration of Adyar river has been advertised in Hindu (English) and in Dinamani (Tamil) newspapers and the copy of the same is enclosed for reference.

Thanking you,

  
Project Officer

Chennai Rivers Restoration Trust







# 10 TAMIL NADU

## Coaching sessions to get Class V and VIII students boards-ready

Each subject will be allotted a special class once a week before school hours.

**SPOORVAJ CAMPAL**

With students of classes V and VIII all set to have board examinations at the end of the 2019-20 academic year in Tamil Nadu, a few education districts are mulling the idea of having special classes for students in government and government-aided schools to tackle the exam.

Several teachers had voiced their concern about the conduct of public exams for young students and questioned the need for Tamil Nadu to implement it so early. The State Government had, however, said that they will ensure that no students will be detained for the first three years of the exam and will take a call on it later on.

With students already being burdened with public exams as early as class V, the preliminary plans



APART FROM THE CLASSES, SCHOOLS WILL BE EXPECTED TO HOLD A TEST IN EVERY SUBJECT ONCE A WEEK. T.N. PHOTO

drawn up to conduct coaching classes in an educational district indicate that each subject will be allotted a special class once a week from 8.30 a.m. to 9.15 a.m. before school hours. Apart from the classes, schools will be expected to hold a test in every subject once a week from 4.30 p.m. to 5.20 p.m. for 25 marks.

An amendment to the

**RIGHT TO EDUCATION (RTE) ACT, 2009** had called for a regular common examination to be conducted for classes V and VIII at the end of every academic year.

However, several teachers and academics had raised questions about why Tamil Nadu is implementing this despite other states not having done so, and said that it could lead to an increase in dropout rates among younger students.

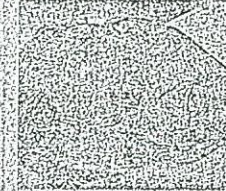
"We have been opposing the conduct of board exams for students at such a young age, right from the start. There is undue mental stress inflicted on such young children and we want the education department to consider the adverse effects this exam fear will have on students," said P.K. Ilamaram, President of the Tamil Nadu Teachers Association.

**STAFF REPORTER TRIPPIUR**

The comments made by Chief Minister Edappadi K. Palaniswami regarding an accident in Coimbatore in which a young woman was injured, reportedly, when she tried to avoid a flagpost erected by MDDWS members, were inappropriate for this position, said Communist Party of India (CPI) State Secretary R. Mutharasan here on Wednesday.

Speaking to a newspaper soon after the inauguration of Jeeva Namam, a new party building at Velampalayam, he urged the State government to avoid placing party flagpoles and flagposts across the State.

"Fair elections, Mr. Mutharasan, urged for more transparency in elections ahead of the local body elections as the al-



R. MUTHARASAN

leged that the political parties were kept in the dark by the State government as to whether the Corporation wards have been redrawn across the State.

"Fair elections, Mr. Mutharasan, urged for more transparency in elections ahead of the local body elections as the al-

### NORTHERN RAILWAY

**ENGAGEMENT OF SENIOR RESIDENTS**  
Applications are invited from eligible candidates for engagement to the post of Senior Resident under Senior Residency Scheme at Northern Railway Central Hospital, New Delhi.

Detailed advertisement with VACANCY STATUS Terms & Conditions, Format of Application form is available on Northern Railway website [www.nr.indianrailways.gov.in](http://www.nr.indianrailways.gov.in) under head: News & Recruitment info.

The Date and Time of the Walk-in interview is specified against each Specialty. Any request for a change in dates will not be entertained. Candidates should report along with Application form duly filled in & signed along with self attested copies of all the requisite documents in Auditorium, 1st Floor, Academic Block, Northern Railway Central Hospital, New Delhi on the date of walk-in interview (21/11/2019 to 22/11/2019). They must carry with them all the Documents in ORIGINAL & produce the same for verification.

No. EME/DSR/74CH/19 Adv. No. NRCH/SR/2019/003

3651/19

### SOUTHERN RAILWAY

**MATERIALS MANAGEMENT DEPARTMENT**

CENTRAL WORKSHOPS, PONMALAI, TRICHY - 620 004

**TENDER NOTICE FOR THE SUPPLY OF STORES**

NO. GOCT/Stores LE/18/2019

The following stores have been published in their website. Firms are requested to Login to <http://tenders.southernrailways.gov.in> - Login - E Tender - Goods & Services (New) and quote against the tender. Manual quotations will not be entertained. Closing time: 14:00 hours.

SLS	Invoice No.	Description	Due Date
1	52190446	Installation and Commissioning of Best Top Grid Connected Solar photo voltaic generating system	02-Dec-2019
2	57190286	Black top coat road mechanical	02-Dec-2019
3	57190301	High speed welding mirror coil wire	02-Dec-2019
4	57190436	Set of fixtures for ELCS Wagon	02-Dec-2019
5	57190447	Supply Installation and Commissioning of Inverter based hand plasma cutting machine	03-Dec-2019

Notes: Micro Small Medium Enterprises (MSMEs): The bidders provide a MSME registration certificate for their business. For the details of MSME registration policy, for goods and services and for the eligible products in the list, please refer to the website [www.msme.gov.in](http://www.msme.gov.in) or [www.sme.gov.in](http://www.sme.gov.in) or [www.mca.gov.in](http://www.mca.gov.in) or [www.mca2011.gov.in](http://www.mca2011.gov.in).

Deputy Chief Materials Manager, Godebattur, Trichy

### CHEMICAL WATERS RESTORATION TRUST

The Ministry of Environment, Forest and Climate Change, Government of India, vide letter F.No.15/262019-M-II, dated: 22.10.2019, have accorded CRZ Clearance for the Eco-restoration of Ayar River (from Thiruvaiyaru - Kotturpuram - Bridge) by Chennai Rivers Restoration Trust. These informations are available in the office of Tamil Nadu Pollution Control Board, No.76 Anna Salai, Guindy, Chennai - 32 and also in the website of the Ministry of Environment, Forest and Climate Change at <http://www.envfor.nic.in>

**MEMBER SECRETARY**  
Chennai Rivers Restoration Trust  
09951330014/09951330012

### TRAI: 54 million set-top boxes lying idle

Nearly 54 million set-top boxes (STBs) are lying idle in the country in the Directorate Home (DTH) segment alone, with a sizeable chunk of these being idle due to non-interoperability. T.N. PHOTO

An amendment to the law does not prevent a member of a political party from filing an election petition.

### HC says no to awarding Kanimozhi costs for contesting poll petition

The Madras High Court has refused to award costs (expenses) to Thoothukudi Member of Parliament Kanimozhi for contesting an election petition that was or-



**Annexure - VIII**  
**Environmental Monitoring Location Map**

## Air & Noise Monitoring Location Map

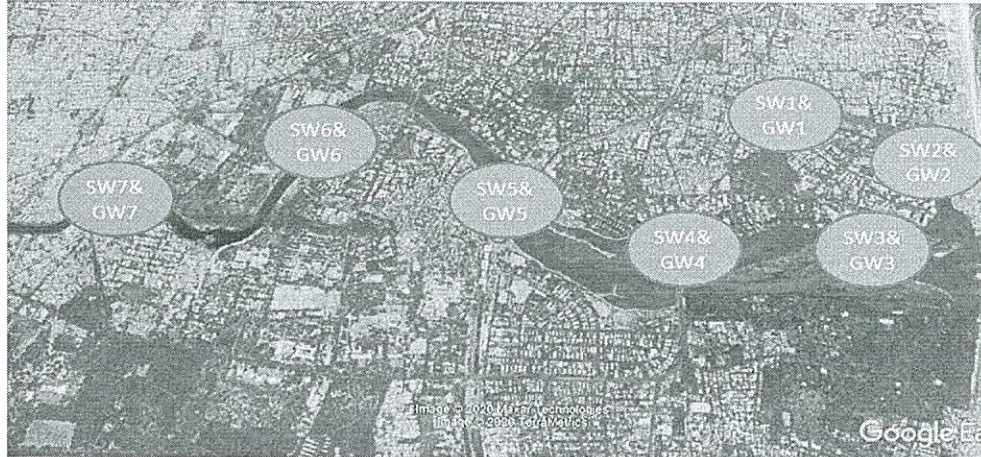


SL.No	Location Code	Name of the Location
1	A1	Near Cemetery Road Sathome Signal
2	A2	Near Forshore Estate Bus Stand
3	A3	Near Chettinad Palace
4	A4	Near M.G.R Janaki college back side gate
5	A5	Near Kottupuram Canal Ground
6	A6	YMCA – Near cosmopolitan club golf link
7	A7	Near Madha Temple Saidapet

SL.No	Location Code	Name of the Location
1	N1	Near Cemetery Road Sathome Signal
2	N2	Near Forshore Estate Bus Stand
3	N3	Near Chettinad Palace
4	N4	Near M.G.R Janaki college back side gate
5	N5	Near Kottupuram Canal Ground
6	N6	YMCA – Near cosmopolitan club golf link
7	N7	Near Madha Temple Saidapet



## Surface & Ground Water Sampling Location Map



SL.No	Location Code	Source of Water	Name of the Location
1	SW1	Surface Water	Near Cemetery Road Santhome Signal –Adyar river
	GW1	Ground Water	MRC Nagar – Near Sun Tv office
2	SW2	Surface Water	Near Forshore Estate Bus Stand –Adyar river
	GW2	Ground Water	Forshore Estate Bus Depot ticket counter
3	SW3	Surface Water	Near Chettinad Palace – Adyar river
	GW3	Ground Water	India bank training center – R.A Puram
4	SW4	Surface Water	Near M.G.R Janaki college back side gate – Adyar river
	GW4	Ground Water	HP Petrol Bunk-(Near M.G.R Janaki college )
5	SW5	Surface Water	Kottupuram –Adyar river
	GW5	Ground Water	Kottupuram – Bharathi Avenue
6	SW6	Surface Water	YMCA – Near cosmopolitan club golf link – Adyar river
	GW6	Ground Water	YMCA Nandanam – Govt. form
7	SW7	Surface Water	Saidapet – Adyar river
	GW7	Ground Water	Saidapet – Near Little mount church



**Annexure - IX**  
**Environmental Monitoring Reports**



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/873  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2241  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020

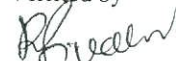
Sample Description : Ambient Air  
Sampling Location : Near Cemetry Road Santhome Signal (AAQ-1)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.6°C  
Relative Humidity during the sampling (Average) : 60%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	68	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	21	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	7.6	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	19	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

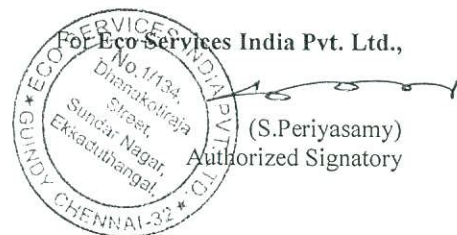
BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

  
(R.Sivakumar)

.....End of page 1.....



**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/07/873

Page 2 of 2

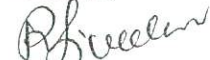
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>§</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

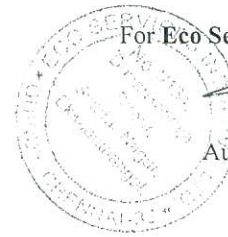
1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>§</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/874  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2242  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ambient Air  
Sampling Location : Near Forshore Estate Bus Stand (AAQ-2)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.6°C  
Relative Humidity during the sampling (Average) : 60%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	60	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	17	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	7.8	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	15	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

(R.Sivakumar)

.....End of page 1.....



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/07/874

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S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>S</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>S</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/875  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2243  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ambient Air  
Sampling Location : Near Chettinad Palace (AAQ-3)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.6°C  
Relative Humidity during the sampling (Average) : 60%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	49	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	16	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	5.7	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	14	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

(R.Sivakumar)

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/07/875

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



ECO SERVICES INDIA PVT. LTD.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,  
GUINDY, CHENNAI-32

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/876  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottapuram Bridge, Chennai.  
Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2244  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020

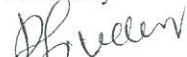
Sample Description : Ambient Air  
Sampling Location : Near M.G.R.Janaki College Backside Gate (AAQ-4)  
Category of Area/Zone : Silence Zone  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.6°C  
Relative Humidity during the sampling (Average) : 60%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	62	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	20	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	6.1	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	23	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

  
(R.Sivakumar)

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(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/07/876

Page 2 of 2

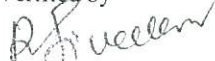
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>S</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>S</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/877  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2245  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ambient Air  
Sampling Location : Near Kotturpuram Canal Ground (AAQ-5)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.6°C  
Relative Humidity during the sampling (Average) : 60%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	56	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	15	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	4.8	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	20	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

(R.Sivakumar)

.....End of page 1.....



For Eco Services India Pvt. Ltd.,

(S) Periyasamy  
Authorized Signatory

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### Registered Office & Laboratory:

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/07/877

Page 2 of 2

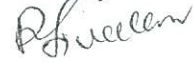
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : E L/EMS/2020/07/878  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2246  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ambient Air  
Sampling Location : YMCA–Near Cosmopolitan Club Golf Link (AAQ-6)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.6°C  
Relative Humidity during the sampling (Average) : 60%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	53	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	19	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	BDL(DL: 4.5µg/m <sup>3</sup> )	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	16	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

.....End of page 1.....

Verified by

(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/07/878

Page 2 of 2

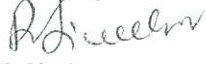
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/07/879

Page 2 of 2

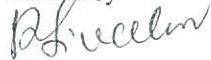
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>S</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>S</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/880  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : “Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2248  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020


Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near Cemetry Road Santhome Signal  
Category of Area/Zone : Residential Area

Time of monitoring	(NQ – 1) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	56.4	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	58.7		
8.00 - 9.00	61.3		
9.00 - 10.00	62.8		
10.00 - 11.00	63.6		
11.00 - 12.00	62.3		
12.00 - 13.00	63.5		
13.00 - 14.00	64.2		
14.00 - 15.00	64.7		
15.00 - 16.00	62.9		
16.00 - 17.00	63.7		
17.00 - 18.00	64.3		
18.00 - 19.00	65.2		
19.00 - 21.00	64.4		
21.00 - 21.00	63.9		
21.00 - 22.00	62.1		
22.00 - 23.00	61.7		
23.00 - 24.00	59.4		
0.00 - 1.00	56.7		
1.00 - 2.00	54.7		
2.00 - 3.00	52.8		
3.00 - 4.00	53.3		
4.00 - 5.00	54.1		
5.00 - 6.00	55.4		
Average Noise of Day dB(A) Lequivalent	63.1		
Average Noise of Night Day dB(A) Lequivalent	55.8		


<sup>s</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,  
No.1/134,  
Dhanakotiraja Street,  
Sundar Nagar,  
Ekkaduthangal,  
Guindy,  
Chennai-32

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/881  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : “Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2249  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020


Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near Forshore Estate Bus Stand  
Category of Area/Zone : Residential Area

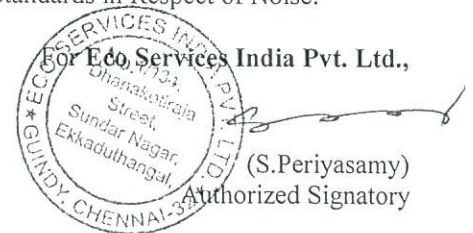
Time of monitoring	(NQ – 2) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	54.7	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	56.3		
8.00 - 9.00	57.6		
9.00 - 10.00	59.2		
10.00 - 11.00	60.5		
11.00 - 12.00	60.2		
12.00 - 13.00	61.7		
13.00 - 14.00	63		
14.00 - 15.00	64.6		
15.00 - 16.00	62.8		
16.00 - 17.00	62.9		
17.00 - 18.00	63.6		
18.00 - 19.00	61.2		
19.00 - 21.00	59.4		
21.00 - 21.00	57.7		
21.00 - 22.00	55.3		
22.00 - 23.00	53.9		
23.00 - 24.00	52.1		
0.00 - 1.00	49.8		
1.00 - 2.00	47.1		
2.00 - 3.00	45.4		
3.00 - 4.00	49.2		
4.00 - 5.00	50.5		
5.00 - 6.00	51.7		
Average Noise of Day dB(A) Lequivalent	60.7		
Average Noise of Night Day dB(A) Lequivalent	49.9		

<sup>s</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/882  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : "Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2250  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near Chettinad Palace  
Category of Area/Zone : Residential Area

Time of monitoring	(NQ – 3) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	56.9	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	58.1		
8.00 - 9.00	60.7		
9.00 - 10.00	63.7		
10.00 - 11.00	64.2		
11.00 - 12.00	63.0		
12.00 - 13.00	63.6		
13.00 - 14.00	64.9		
14.00 - 15.00	63.5		
15.00 - 16.00	62.2		
16.00 - 17.00	62.4		
17.00 - 18.00	60.6		
18.00 - 19.00	59.3		
19.00 - 21.00	59.9		
21.00 - 21.00	60.5		
21.00 - 22.00	59.1		
22.00 - 23.00	56.9		
23.00 - 24.00	55.7		
0.00 - 1.00	53.3		
1.00 - 2.00	52.2		
2.00 - 3.00	49.6		
3.00 - 4.00	51.9		
4.00 - 5.00	54.1		
5.00 - 6.00	55.6		
Average Noise of Day dB(A) Lequivalent	61.8		
Average Noise of Night Day dB(A) Lequivalent	53.6		

The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....


Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No. 1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,  
GUINDY, CHENNAI-32

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/883  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : “Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 22.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2251  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near M.G.R.Janaki College Backside Gate  
Category of Area/Zone : Silence Zone

Time of monitoring	(NQ – 4) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	55.8	Day Time Level = 50 dB(A) Leq	Night time Level = 40 dB(A) Leq
7.00 - 8.00	56.4		
8.00 - 9.00	58.7		
9.00 - 10.00	59.3		
10.00 - 11.00	58.6		
11.00 - 12.00	60.5		
12.00 - 13.00	61.3		
13.00 - 14.00	62.8		
14.00 - 15.00	63.5		
15.00 - 16.00	61.2		
16.00 - 17.00	59.8		
17.00 - 18.00	58.3		
18.00 - 19.00	59.4		
19.00 - 21.00	58.1		
21.00 - 21.00	57.5		
21.00 - 22.00	55.1		
22.00 - 23.00	52.5		
23.00 - 24.00	51.6		
0.00 - 1.00	49.4		
1.00 - 2.00	47.3		
2.00 - 3.00	46.7		
3.00 - 4.00	49.8		
4.00 - 5.00	51.7		
5.00 - 6.00	52.9		
Average Noise of Day dB(A) Lequivalent	59.5		
Average Noise of Night Day dB(A) Lequivalent	50.4		


The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,  
No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,  
GUINDY, CHENNAI-32

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/884	Date of Sampling : 22.07.2020
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaipuram Chennai – 600 028.	Date of Registration : 23.07.2020
Project Address : "Eco-restoration of Adyar River(2000-4800m) Chainage From Thiru.Vi.ka. Bridge to 400m upstream of Kotturpuram Bridge, Chennai.	Sample Code : EM-2252
	Test Commenced on : 23.07.2020
	Test Completed on : 27.07.2020
	Report Issuing Date : 29.07.2020

Sample Description	: Ambient Noise in dB(A) Leq
Sampling Plan/Procedure	: ESIPL/SOP/C- NL/01
Sampling Period	: 24 Hrs
Sample Location	: Near Kotturpuram Canal Ground (AAQ-5)
Category of Area/Zone	: Residential Area

Time of monitoring	(NQ – 5) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	53.5	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	54.8		
8.00 - 9.00	55.9		
9.00 - 10.00	58.2		
10.00 - 11.00	59.0		
11.00 - 12.00	60.2		
12.00 - 13.00	61.5		
13.00 - 14.00	62.6		
14.00 - 15.00	59.4		
15.00 - 16.00	58.2		
16.00 - 17.00	60.5		
17.00 - 18.00	62.6		
18.00 - 19.00	63.4		
19.00 - 21.00	61.6		
21.00 - 21.00	59.8		
21.00 - 22.00	58.3		
22.00 - 23.00	57.4		
23.00 - 24.00	55.4		
0.00 - 1.00	52.3		
1.00 - 2.00	50.5		
2.00 - 3.00	51.9		
3.00 - 4.00	52.4		
4.00 - 5.00	53.7		
5.00 - 6.00	54.6		
<b>Average Noise of Day dB(A) Lequivalent</b>	<b>60.0</b>		
<b>Average Noise of Night Day dB(A) Lequivalent</b>	<b>53.3</b>		

\*The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)

For Eco Services India Pvt. Ltd.,  
No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,  
CHENNAI-600032

(S.Periyasamy)  
Authorized Signatory

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**Registered Office & Laboratory:**

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

## Test Report

Report No. : ESIPL/EMS/2020/07/885  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : “Eco-restoration of Adyar River(2000-4800m)  
 Chainage From Thiru.Vi.ka. Bridge to 400m  
 upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 22.07.2020  
 Date of Registration : 23.07.2020  
 Sample Code : EM-2253  
 Test Commenced on : 23.07.2020  
 Test Completed on : 27.07.2020  
 Report Issuing Date : 29.07.2020

Sample Description : Ambient Noise in dB(A) Leq  
 Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
 Sampling Period : 24 Hrs  
 Sample Location : YMCA–Near Cosmopolitan Club Golf Link  
 Category of Area/Zone : Residential Area

Time of monitoring	(NQ –6 ) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	52.8	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	53.5		
8.00 - 9.00	54.1		
9.00 - 10.00	56.5		
10.00 - 11.00	58.5		
11.00 - 12.00	62.7		
12.00 - 13.00	64.2		
13.00 - 14.00	66.8		
14.00 - 15.00	65.1		
15.00 - 16.00	63.4		
16.00 - 17.00	61.1		
17.00 - 18.00	59.4		
18.00 - 19.00	58.5		
19.00 - 21.00	57.1		
21.00 - 21.00	56.5		
21.00 - 22.00	54.9		
22.00 - 23.00	52.1		
23.00 - 24.00	51.4		
0.00 - 1.00	48.7		
1.00 - 2.00	46.9		
2.00 - 3.00	47.5		
3.00 - 4.00	49.1		
4.00 - 5.00	50.6		
5.00 - 6.00	52.8		
Average Noise of Day dB(A) Lequivalent			
Average Noise of Night Day dB(A) Lequivalent			

The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)

For Eco Services India Pvt. Ltd.,  
 No.1/134,  
 Dhanakotiraja  
 Street,  
 Sundar Nagar,  
 Ekkaduthangal,  
 GUINDY, CHENNAI.  
 (S.Periyasamy)  
 Authorized Signatory

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 Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

## (LABORATORY DIVISION)



Certificate No.  
TC-5664

Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

### Test Report

Report No. : ESIPL/EMS/2020/07/886		Date of Sampling : 22.07.2020
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST		Date of Registration : 23.07.2020
Dr.D.G.S. Dinakaran Salai		Sample Code : EM-2254
Raja Annamalaipuram		Test Commenced on : 23.07.2020
Chennai – 600 028.		Test Completed on : 27.07.2020
Project Address : “Eco-restoration of Adyar River(2000-4800m)		Report Issuing Date : 29.07.2020
Chainage From Thiru.Vi.ka. Bridge to 400m		
upstream of Kotturpuram Bridge, Chennai.		

Sample Description :	Ambient Noise in dB(A) Leq
Sampling Plan/Procedure :	ES IPL/SOP/C- NL/01
Sampling Period :	24 Hrs
Sample Location :	Near Madha Temple Saidapet
Category of Area/Zone :	Residential Area

Time of monitoring	(NQ –7 ) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	57.2	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	58.3		
8.00 - 9.00	59.6		
9.00 - 10.00	62.4		
10.00 - 11.00	63.1		
11.00 - 12.00	63.8		
12.00 - 13.00	64.2		
13.00 - 14.00	62.9		
14.00 - 15.00	63.2		
15.00 - 16.00	61.8		
16.00 - 17.00	62.7		
17.00 - 18.00	63.4		
18.00 - 19.00	65.1		
19.00 - 21.00	62.9		
21.00 - 21.00	62.6		
21.00 - 22.00	61.4		
22.00 - 23.00	59.1		
23.00 - 24.00	57.4		
0.00 - 1.00	54.1		
1.00 - 2.00	53.5		
2.00 - 3.00	52.2		
3.00 - 4.00	53.4		
4.00 - 5.00	54.8		
5.00 - 6.00	55.7		
<b>Average Noise of Day dB(A) Lequivalent</b>	<b>62.4</b>		
<b>Average Noise of Night Day dB(A) Lequivalent</b>	<b>54.7</b>		

\*The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,  
GUINDY, CHENNAI-32

(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/887  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2255  
Test Commenced on : 23.07.2020  
Test Completed on : 28.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Surface Water  
Sampling Location : Near Cemetry Road Santhome Signal - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.9
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	11
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	5.3
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.79
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	37891
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	21398
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	48
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	174
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	41
12	Salinity in g/hour	By Calculation	19.9
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	9
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	5
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	3.2
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	20.4
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.1
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	3.7
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	298
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	752
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	11024
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	410
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	1306
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	7166
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	293

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/887

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.09
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/887 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2255  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Near Cemetery Road Santhome Signal - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/888  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2256  
Test Commenced on : 23.07.2020  
Test Completed on : 28.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Surface Water  
Sampling Location : Near Forshore Estate Bus Stand - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

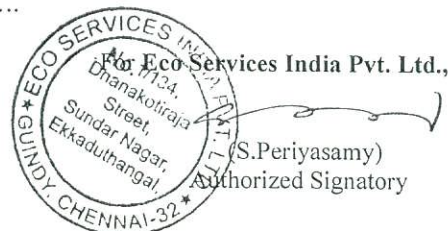
S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	27
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	24
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38 (Reaff.2009)	5.6
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.60
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	46237
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	27785
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	34
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	96
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	59
12	Salinity in g/hour	By Calculation	25.3
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	5.7
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	4.9
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.8
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	14.1
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.9
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.53
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	282
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	986
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	14008
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	374
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	1991
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	9105
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	384

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. **ESIPL/EMS/2020/07/888**

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.10
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/888 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2256  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Near Foreshore Estate Bus Stand - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/889  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2257  
Test Commenced on : 23.07.2020  
Test Completed on : 28.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Surface Water  
Sampling Location : Near Chettinad Palace - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.6
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	7
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	4.9
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.27
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	15677
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	8936
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	44
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	170
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	31
12	Salinity in g/hour	By Calculation	7.98
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	4.24
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	2.6
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2003)	BDL(DL:1.0)
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	7.3
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.2
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.0
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	174
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	280
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	4416
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	504
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	489
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	2870
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	194

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/889

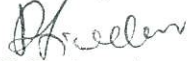
Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.04
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/889 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2257  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Near Chettinad Palace - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/890		Date of Sampling : 23.07.2020
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST		Date of Registration : 23.07.2020
Dr.D.G.S. Dinakaran Salai		Sample Code : EM-2258
Raja Annamalaipuram		Test Commenced on : 23.07.2020
Chennai – 600 028.		Test Completed on : 28.07.2020
Project Address : Eco-restoration of Adyar River (2000 -4800m)		Report Issuing Date : 29.07.2020
Chainage from Thiru. Vi. Ka. Bridge to 400m		
upstream of Kottupuram Bridge, Chennai.		

Sample Description	: Surface Water
Sampling Location	: Near M.G.R.Janaki Collage Backside Gate - Adyar River
Sampling Plan/Procedure	: ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	27.2
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	16
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	1.9
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.56
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	21471
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	12024
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	52
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	248
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	41
12	Salinity in g/hour	By Calculation	10.7
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	8.1
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	4.9
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2003)	1.3
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	15.6
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	2.1
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	2.8
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	170
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	362
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	5984
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	445
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	589
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	3840
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	614

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/891 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2259  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Kotturpuram - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.  
No.1/134  
Dhanakotiraja Street,  
Sundar Nagar,  
Ekkaduthangal  
Dr.D.Loganathan  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/892  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 23.07.2020  
 Date of Registration : 23.07.2020  
 Sample Code : EM-2260  
 Test Commenced on : 23.07.2020  
 Test Completed on : 28.07.2020  
 Report Issuing Date : 29.07.2020

Sample Description : Surface Water  
 Sampling Location : Near YMCA – Cosmopolitan Club Golf Link - Adyar River  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	10
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	27.1
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	12
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	BDL(DL:1.0)
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.70
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	3840
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	2189
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	39
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	158
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	20
12	Salinity in g/hour	By Calculation	1.4
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	7
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	3.4
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	BDL(DL:1.0)
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	11.9
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.94
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.7
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	96
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	44
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	778
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	570
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	103
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	508
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	67

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/892

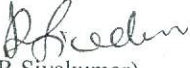
Page 2 of 2

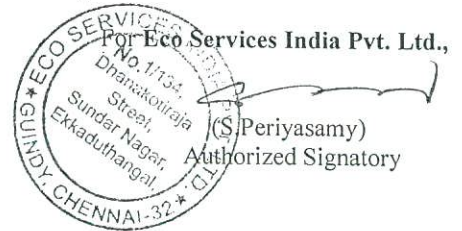
S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.03
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/890 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2258  
Raja Annamalai puram, Chennai-28  
Project Address : Eco-Restoration of Adyar River(2000- 4800m) Test Commenced on : 23.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Test Completed on : 29.07.2020  
Upstream of Kotturpuram Bridge, Chennai Report Issuing Date : 30.07.2020

Sample Description : Surface Water  
Sampling Location : Near M.G.R Janaki Arts College, Back Side Gate - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



*[Signature]*  
D. Loganathan  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/893  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2261  
Test Commenced on : 23.07.2020  
Test Completed on : 28.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Surface Water  
Sampling Location : Saidapet - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	15
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	27.0
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	24
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	BDL(DL:1.0)
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.89
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	2551
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1457
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	31
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	160
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	26
12	Salinity in g/hour	By Calculation	0.67
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	15.3
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	5.8
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	1.4
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	23.9
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	2.1
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	3.4
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	81
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	46
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	370
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	586
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	70
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	241
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	34

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/893

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.07
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**


1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

**Registered Office & Laboratory:**

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.	: ESIPL/EMS-M/2020/07/893	Date of Sampling	: 23.07.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai,	Date of Registration	: 23.07.2020
Project Address	: Raja Annamalai puram,Chennai-28 Eco-Restoration of Adyar River(2000- 4800m) Chain from Thiru.Vi.Ka.Bridge to 400m Upstream of Kotturpuram Bridge, Chennai	Sample Code	: EM -2261
		Test Commenced on	: 23.07.2020
		Test Completed on	: 29.07.2020
		Report Issuing Date	: 30.07.2020

Sample Description	: Surface Water
Sampling Location	: Saidapet Bridge - Adyar River
Sampling Method	: IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/894  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2262  
Test Commenced on : 23.07.2020  
Test Completed on : 28.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ground Water  
Sampling Location : MRC Nagar - Near Sun TV Office  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.6
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.60
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	3667
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	2090
07	Salinity in g/hour	By Calculation	1.12
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	4.3
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.5
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	180
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	88
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	619
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	504
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	220
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	402
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	50

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No. 1/34,  
Dhanakotiraja Street,  
Sundar Nagar,  
Ekkaduthangal,  
CHENNAI-32

Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/894

Page 2 of 2

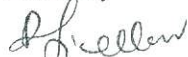
S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.09
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/894 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM – 2262  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : MRC Nagar- Near SUN TV Office  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	110
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	13

**Note:**

Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/895  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2263  
Test Commenced on : 23.07.2020  
Test Completed on : 28.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ground Water  
Sampling Location : Forshore Estate Bus Depot Ticket Counter  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.9
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.49
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	10033
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	5819
07	Salinity in g/hour	By Calculation	4.55
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	5
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	9.2
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.3
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	327
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	190
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	2519
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	620
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	276
17	Sodium as Na in mg/l	IS 3025 : Part 45 (Reaff.2009)	1637
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	198

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,  
Sunder Nagar, Ekkaduthangal,  
Dhanakotiraja Street,  
Chennai - 600032, Tamil Nadu, India  
NO 1/134,  
Dhanakotiraja Street,  
Sunder Nagar,  
Ekkaduthangal  
S. Periyasamy  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/895

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.05
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/895 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2263  
Raja Annamalai puram,Chennai-28  
Project Address : Eco-Restoration of Adyar River(2000- 4800m) Test Commenced on : 23.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Test Completed on : 29.07.2020  
Upstream of Kotturpuram Bridge, Chennai Report Issuing Date : 30.07.2020

Sample Description : Ground Water  
Sampling Location : Foreshore Estate Bus Depot Ticket Counter  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	280
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	34

**Note:**

\*Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/896  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2264  
Test Commenced on : 23.07.2020  
Test Completed on : 28.07.2020  
Report Issuing Date : 29.07.2020

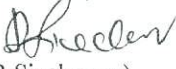
Sample Description : Ground Water  
Sampling Location : Indian Bank Training Centre R.A. Puram  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

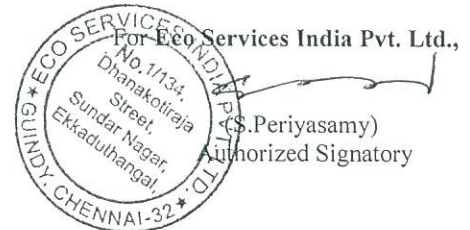
S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.7
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.40
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	2081
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1207
07	Salinity in g/hour	By Calculation	0.50
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	2.0
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.43
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	108
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	51
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	276
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	428
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	115
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	179
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	22

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/896

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.07
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.	: ESIPL/EMS-M/2020/07/896	Date of Sampling	: 23.07.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST	Date of Registration	: 23.07.2020
Project Address	: Dr.D.G.S. Dinakaran Salai,	Sample Code	: EM – 2264
	: Raja Annamalai puram, Chennai-28	Test Commenced on	: 23.07.2020
	: Eco-Restoration of Adyar River(2000- 4800m)	Test Completed on	: 29.07.2020
	: Chain from Thiru.Vi.Ka.Bridge to 400m	Report Issuing Date	: 30.07.2020
	: Upstream of Kotturpuram Bridge, Chennai		

Sample Description	: Ground Water
Sampling Location	: Indian Bank Training Center - R.A. Puram
Sampling Method	: IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	80
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	6

**Note:** \* Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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### Registered Office & Laboratory:

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No.	: ESIPL/EMS/2020/07/897	Date of Sampling	: 23.07.2020
Customer Name	: M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaipuram Chennai – 600 028.	Date of Registration	: 23.07.2020
Project Address	: Eco-restoration of Adyar River (2000 -4800m) Chainage from Thiru. Vi. Ka. Bridge to 400m upstream of Kottupuram Bridge, Chennai.	Sample Code	: EM-2265
		Test Commenced on	: 23.07.2020
		Test Completed on	: 28.07.2020
		Report Issuing Date	: 29.07.2020

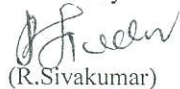
Sample Description	:	Ground Water
Sampling Location	:	HP Petrol Bunk (Near M.G.R.Janaki College)
Sampling Plan/Procedure	:	ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	27
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.01
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	6047
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	3464
07	Salinity in g/hour	By Calculation	2.56
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	BDL(DL:1)
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.18
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	248
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	160
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	1416
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	219
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	327
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	920
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	119

BDL: Below Detection Limit


.....End of Page 1.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

**Registered Office & Laboratory:**

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/897

Page 2 of 2

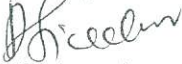
S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	0.07
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



Eco Services India Pvt. Ltd.,

No.1/134,

Dhanakotiraja

Street,

Sundar Nagar,

Ekkaduthangal,

CHENNAI-32

(S) Periyasamy  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/897 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2265  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : HP Petrol Bank-Near M.G.R Janaki Arts College  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	130
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	9

**Note:**

Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No.	: ESIPL/EMS/2020/07/898	Date of Sampling	: 23.07.2020
Customer Name	: M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaipuram Chennai – 600 028.	Date of Registration	: 23.07.2020
Project Address	: Eco-restoration of Adyar River (2000 -4800m) Chainage from Thiru. Vi. Ka. Bridge to 400m upstream of Kottupuram Bridge, Chennai.	Sample Code	: EM-2266
		Test Commenced on	: 23.07.2020
		Test Completed on	: 28.07.2020
		Report Issuing Date	: 29.07.2020

Sample Description	: Ground Water
Sampling Location	: Kotturpuram – Bharathi Avenue
Sampling Plan/Procedure	: ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.8
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.48
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	2377
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1352
07	Salinity in g/hour	By Calculation	0.53
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	BDL(DL:1)
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.3
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	128
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	55
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	296
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	444
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	159
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	159
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	26

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,  
CHENNAI-32

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/07/898

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S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

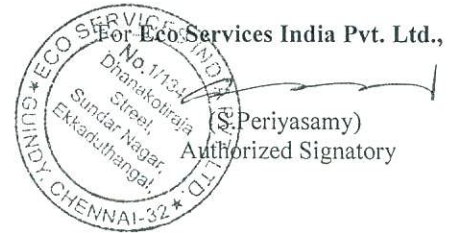
**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/898 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2266  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : Kotturpuram - Bharathi Avenue  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	140
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	14

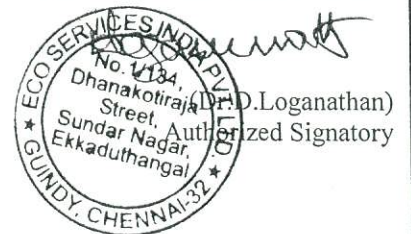
**Note:**

Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

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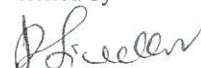
Report No.	: ESIPL/EMS/2020/07/899	Date of Sampling	: 23.07.2020
Customer Name	: M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaiapuram Chennai – 600 028.	Date of Registration	: 23.07.2020
Project Address	: Eco-restoration of Adyar River (2000 -4800m) Chainage from Thiru. Vi. Ka. Bridge to 400m upstream of Kottupuram Bridge, Chennai.	Sample Code	: EM-2267
		Test Commenced on	: 23.07.2020
		Test Completed on	: 28.07.2020
		Report Issuing Date	: 29.07.2020
Sample Description	: Ground Water		
Sampling Location	: YMCA Nandanam – Govt. Form		
Sampling Plan/Procedure	: ESIPL/SOP/CA/WSA/01		

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.6
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.68
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	14392
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	8206
07	Salinity in g/hour	By Calculation	6.95
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	9.26
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	21.5
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.52
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	305
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	378
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	3852
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	580
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	271
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	2503
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	294

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ES IPL/EMS/2020/07/899

Page 2 of 2

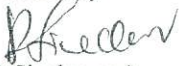
S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/899 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2267  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : YMCA Nandanam - Govt. Form  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	170
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	13

**Note:**

Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/07/900  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2268  
Test Commenced on : 23.07.2020  
Test Completed on : 28.07.2020  
Report Issuing Date : 29.07.2020

Sample Description : Ground Water  
Sampling Location : Saidapet - Near Little Mount Church  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.9
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.33
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	1740
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	992
07	Salinity in g/hour	By Calculation	0.49
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	2.85
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	BDL(DL:0.1)
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	78
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	34
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	270
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	306
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	93
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	176
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	20

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIP/EMS/2020/07/900

Page 2 of 2

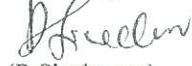
S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

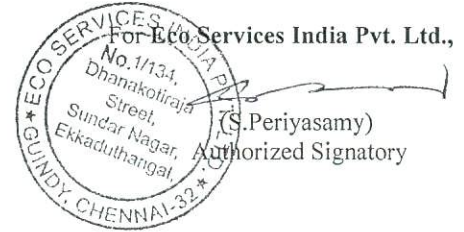
**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/07/900 Date of Sampling : 23.07.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 23.07.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2268  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 23.07.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 29.07.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 30.07.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : Saidapet - Near Little Mount Church  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	60
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	4

**Note:** Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/901  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2269  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 28.07.2020

Sample Description : Soil-1  
Sampling Location : Near Cemetery Road Santhome Signal River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

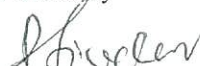
S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff.2011)	7.97
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.68
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	81
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.03
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	6.6
	b. Percent Silt	FAO United Nations Rome,2007	64
	c. Percent Sand	FAO United Nations Rome,2007	29
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	1.2
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	29
13	Iron as Fe in mg/kg	EPA METHOD	97

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/902  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2270  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 28.07.2020

Sample Description : Soil-2  
Sampling Location : Near Forshore Estate Bus Stand River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	7.41
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.53
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	69
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.029
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	7.8
	b. Percent Silt	FAO United Nations Rome,2007	59
	c. Percent Sand	FAO United Nations Rome,2007	33
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	1.8
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	34
13	Iron as Fe in mg/kg	EPA METHOD	102

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

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Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/903  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2271  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 28.07.2020

Sample Description : Soil-3  
Sampling Location : Near Chettinad Palace River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01


S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.92
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.97
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	86
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.036
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	2.4
	b. Percent Silt	FAO United Nations Rome,2007	67
	c. Percent Sand	FAO United Nations Rome,2007	30
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.93
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	26
13	Iron as Fe in mg/kg	EPA METHOD	91

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/904  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2272  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 28.07.2020

Sample Description : Soil-4  
Sampling Location : Near M.G.R.Janaki Collage Backside Gate River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

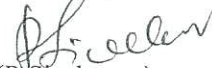
S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	7.09
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.56
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	68
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjheldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.028
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	5.6
	b. Percent Silt	FAO United Nations Rome,2007	58
	c. Percent Sand	FAO United Nations Rome,2007	36
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	1.17
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	30
13	Iron as Fe in mg/kg	EPA METHOD	89

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/905  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2273  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 28.07.2020

Sample Description : Soil-5  
Sampling Location : Kotturpuram River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

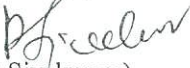
S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.86
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.60
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	77
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjheldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.021
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	6.3
	b. Percent Silt	FAO United Nations Rome,2007	70
	c. Percent Sand	FAO United Nations Rome,2007	23
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	1.15
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	24
13	Iron as Fe in mg/kg	EPA METHOD	81

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/906  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2274  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 28.07.2020

Sample Description : Soil-6  
Sampling Location : Near YMCA – Cosmopolitan Club Golf Link River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.98
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.81
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	86
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.03
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	5.4
	b. Percent Silt	FAO United Nations Rome,2007	61
	c. Percent Sand	FAO United Nations Rome,2007	33
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.93
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	29
13	Iron as Fe in mg/kg	EPA METHOD	84

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/07/907  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 23.07.2020  
Date of Registration : 23.07.2020  
Sample Code : EM-2275  
Test Commenced on : 23.07.2020  
Test Completed on : 27.07.2020  
Report Issuing Date : 28.07.2020

Sample Description : Soil-7  
Sampling Location : Saidapet River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

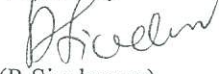
S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	7.70
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.95
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	74
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	BDL(DL:0.02)
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	7.9
	b. Percent Silt	FAO United Nations Rome,2007	48
	c. Percent Sand	FAO United Nations Rome,2007	44
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.82
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	35
13	Iron as Fe in mg/kg	EPA METHOD	111

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,  
No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,  
CHENNAI-32

(S.Periyasamy)  
Authorized Signatory

**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

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Phone: (044) 30683067/43 102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1158  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.  
Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2349  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Air  
Sampling Location : Near Cemetry Road Santhome Signal (AAQ-1)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.1°C  
Relative Humidity during the sampling (Average) : 64%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>S</sup>
01	Particulate Matter( Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	65	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	19	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	8	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	26	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	5.8	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>S</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

(R.Sivakumar)

.....End of page 1.....

For Eco Services India Pvt. Ltd.,



(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/08/1158

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1159  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2350  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Air  
Sampling Location : Near Forshore Estate Bus Stand (AAQ-2)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.5°C  
Relative Humidity during the sampling (Average) : 62%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter( Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	58	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	21	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	8.3	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	24	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	6.1	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

.....End of page 1.....

Verified by

(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/08/1159

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1160  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2351  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Air  
Sampling Location : Near Chettinad Palace (AAQ-3)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.5°C  
Relative Humidity during the sampling (Average) : 62%  
Time and Hours of sampling : 24 Hrs

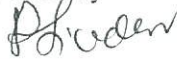
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter( Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	53	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	18	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	7.4	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	20	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.


.....End of page 1.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



  
(S.Periyasamy)  
Authorized Signatory

**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ES IPL/EMS/2020/08/1160

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



  
(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1161  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2352  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Air  
Sampling Location : Near M.G.R.Janaki College Backside Gate (AAQ-4)  
Category of Area/Zone : Silence Zone  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.5°C  
Relative Humidity during the sampling (Average) : 62%  
Time and Hours of sampling : 24 Hrs

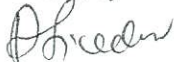
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter( Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	63	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	18	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	8.1	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	19	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.


.....End of page 1.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



  
(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/08/1161

Page 2 of 2

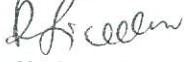
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1162  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2353  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Air  
Sampling Location : Near Kotturpuram Canal Ground (AAQ-5)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.5°C  
Relative Humidity during the sampling (Average) : 62%  
Time and Hours of sampling : 24 Hrs

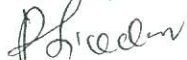
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter( Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	62	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	20	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	6.1	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	17	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.


.....End of page 1.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



  
(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/08/1162

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1163  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.  
Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2354  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Air  
Sampling Location : YMCA–Near Cosmopolitan Club Golf Link (AAQ-6)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.5°C  
Relative Humidity during the sampling (Average) : 62%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>S</sup>
01	Particulate Matter( Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	48	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	17	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	6.5	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	19	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>S</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

.....End of page 1.....

Verified by

(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/08/1163

Page 2 of 2

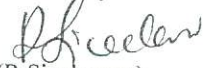
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1164  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.  
Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2355  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

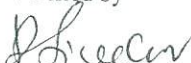
Sample Description : Ambient Air  
Sampling Location : Near Madha Temple Saidapet (AAQ-7)  
Category of Area/Zone : Residential Area  
Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
Ambient Temperature during the sampling (Average) : 31.5°C  
Relative Humidity during the sampling (Average) : 62%  
Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter( Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	66	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	23	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	8.6	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	27	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	6.3	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.


Verified by

  
(R.Sivakumar)

.....End of page 1.....



Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/08/1164

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>S</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>S</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

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## Test Report

Report No. : ESIPL/EMS/2020/08/1165  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : “Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2356  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near Cemetry Road Santhome Signal  
Category of Area/Zone : Residential Area

Time of monitoring	(NQ – 1) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	51.6	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	52.8		
8.00 - 9.00	53.4		
9.00 - 10.00	55.0		
10.00 - 11.00	57.6		
11.00 - 12.00	57.9		
12.00 - 13.00	60.1		
13.00 - 14.00	62.8		
14.00 - 15.00	63.3		
15.00 - 16.00	64.8		
16.00 - 17.00	66.0		
17.00 - 18.00	63.9		
18.00 - 19.00	61.4		
19.00 - 21.00	59.8		
21.00 - 21.00	60.7		
21.00 - 22.00	60.9		
22.00 - 23.00	59.0		
23.00 - 24.00	57.2		
0.00 - 1.00	55.9		
1.00 - 2.00	53.7		
2.00 - 3.00	51.1		
3.00 - 4.00	49.4		
4.00 - 5.00	50.6		
5.00 - 6.00	51.0		
Average Noise of Day dB(A) Lequivalent	61.1		
Average Noise of Night Day dB(A) Lequivalent	53.6		

<sup>s</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/08/1166  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : “Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2357  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near Forshore Estate Bus Stand  
Category of Area/Zone : Residential Area

Time of monitoring	(NQ – 2) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	52.0	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	53.4		
8.00 - 9.00	53.6		
9.00 - 10.00	56.1		
10.00 - 11.00	57.0		
11.00 - 12.00	57.6		
12.00 - 13.00	57.9		
13.00 - 14.00	60.2		
14.00 - 15.00	61.3		
15.00 - 16.00	65.4		
16.00 - 17.00	66.0		
17.00 - 18.00	67.4		
18.00 - 19.00	66.6		
19.00 - 21.00	67.0		
21.00 - 21.00	65.1		
21.00 - 22.00	60.3		
22.00 - 23.00	60.8		
23.00 - 24.00	58.1		
0.00 - 1.00	56.8		
1.00 - 2.00	54.0		
2.00 - 3.00	52.6		
3.00 - 4.00	50.8		
4.00 - 5.00	51.4		
5.00 - 6.00	52.6		
Average Noise of Day dB(A) Lequivalent	62.9		
Average Noise of Night Day dB(A) Lequivalent	54.6		

<sup>5</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

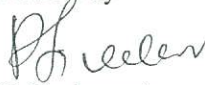
Report No. : ESIPL/EMS/2020/08/1167	Date of Sampling : 21.08.2020
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaipuram Chennai – 600 028.	Date of Registration : 22.08.2020
Project Address : “Eco-restoration of Adyar River(2000-4800m) Chainage From Thiru.Vi.ka. Bridge to 400m upstream of Kotturpuram Bridge, Chennai.	Sample Code : EM-2358
	Test Commenced on : 22.08.2020
	Test Completed on : 28.08.2020
	Report Issuing Date : 28.08.2020
Sample Description :	Ambient Noise in dB(A) Leq
Sampling Plan/Procedure :	ESIPL/SOP/C- NL/01
Sampling Period :	24 Hrs
Sample Location :	Near Chettinad Palace
Category of Area/Zone :	Residential Area

Time of monitoring	(NQ – 3) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	49.4	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	51.7		
8.00 - 9.00	52.9		
9.00 - 10.00	54.1		
10.00 - 11.00	55.5		
11.00 - 12.00	56.7		
12.00 - 13.00	56.9		
13.00 - 14.00	62.0		
14.00 - 15.00	64.4		
15.00 - 16.00	64.8		
16.00 - 17.00	63.0		
17.00 - 18.00	63.7		
18.00 - 19.00	64.1		
19.00 - 21.00	63.6		
21.00 - 21.00	61.2		
21.00 - 22.00	58.9		
22.00 - 23.00	56.3		
23.00 - 24.00	54.7		
0.00 - 1.00	51.4		
1.00 - 2.00	47.1		
2.00 - 3.00	45.4		
3.00 - 4.00	46.2		
4.00 - 5.00	47.5		
5.00 - 6.00	48.7		
Average Noise of Day dB(A) Lequivalent	60.9		
Average Noise of Night Day dB(A) Lequivalent	49.9		

<sup>s</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.


.....End of Report.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



  
(S.Periyasamy)  
Authorized Signatory

**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/08/1168  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : “Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2359  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near M.G.R.Janaki College Backside Gate  
Category of Area/Zone : Silence Zone

Time of monitoring	(NQ – 4) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	53.7	Day Time Level = 50 dB(A) Leq	Night time Level = 40 dB(A) Leq
7.00 - 8.00	54.6		
8.00 - 9.00	56.9		
9.00 - 10.00	58.1		
10.00 - 11.00	59.7		
11.00 - 12.00	61.6		
12.00 - 13.00	63.7		
13.00 - 14.00	65.4		
14.00 - 15.00	66.6		
15.00 - 16.00	67.1		
16.00 - 17.00	66.5		
17.00 - 18.00	66.9		
18.00 - 19.00	63.5		
19.00 - 21.00	63.1		
21.00 - 21.00	62.4		
21.00 - 22.00	59.6		
22.00 - 23.00	57.4		
23.00 - 24.00	55.8		
0.00 - 1.00	54.6		
1.00 - 2.00	53.9		
2.00 - 3.00	51.7		
3.00 - 4.00	50.4		
4.00 - 5.00	50.8		
5.00 - 6.00	51.2		
Average Noise of Day dB(A) Lequivalent	63.3		
Average Noise of Night Day dB(A) Lequivalent	53.1		

<sup>§</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)



(S.Periyasamy)  
Authorized Signatory

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### Registered Office & Laboratory:

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/08/1169  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : "Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2360  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near Kotturpuram Canal Ground (AAQ-5)  
Category of Area/Zone : Residential Area

Time of monitoring	(NQ – 5) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	52.8	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	54.0		
8.00 - 9.00	53.8		
9.00 - 10.00	56.1		
10.00 - 11.00	58.8		
11.00 - 12.00	61.4		
12.00 - 13.00	62.9		
13.00 - 14.00	64.5		
14.00 - 15.00	66.0		
15.00 - 16.00	66.9		
16.00 - 17.00	68.8		
17.00 - 18.00	65.4		
18.00 - 19.00	64.9		
19.00 - 21.00	64.1		
21.00 - 21.00	62.8		
21.00 - 22.00	61.4		
22.00 - 23.00	60.7		
23.00 - 24.00	57.8		
0.00 - 1.00	55.4		
1.00 - 2.00	53.6		
2.00 - 3.00	49.4		
3.00 - 4.00	50.2		
4.00 - 5.00	51.6		
5.00 - 6.00	52.4		
Average Noise of Day dB(A) Lequivalent	63.5		
Average Noise of Night Day dB(A) Lequivalent	53.8		

The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/08/1170  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : “Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2361  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

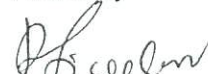
Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : YMCA–Near Cosmopoliton Club Golf Link  
Category of Area/Zone : Residential Area

Time of monitoring	(NQ –6 ) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	53.9	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	56.4		
8.00 - 9.00	56.0		
9.00 - 10.00	58.7		
10.00 - 11.00	60.1		
11.00 - 12.00	62.6		
12.00 - 13.00	66.0		
13.00 - 14.00	66.8		
14.00 - 15.00	62.5		
15.00 - 16.00	64.3		
16.00 - 17.00	64.3		
17.00 - 18.00	63.8		
18.00 - 19.00	62.2		
19.00 - 21.00	60.8		
21.00 - 21.00	58.3		
21.00 - 22.00	58.8		
22.00 - 23.00	57.2		
23.00 - 24.00	56.3		
0.00 - 1.00	54.7		
1.00 - 2.00	52.1		
2.00 - 3.00	48.7		
3.00 - 4.00	49.3		
4.00 - 5.00	51.4		
5.00 - 6.00	53.0		
Average Noise of Day dB(A) Lequivalent	62.1		
Average Noise of Night Day dB(A) Lequivalent	52.9		

The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/08/1171  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : “Eco-restoration of Adyar River(2000-4800m)  
Chainage From Thiru.Vi.ka. Bridge to 400m  
upstream of Kotturpuram Bridge, Chennai.

Date of Sampling : 21.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2362  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020


Sample Description : Ambient Noise in dB(A) Leq  
Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
Sampling Period : 24 Hrs  
Sample Location : Near Madha Temple Saidapet  
Category of Area/Zone : Residential Area

Time of monitoring	(NQ -7) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	55.1	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	57.8		
8.00 - 9.00	59.1		
9.00 - 10.00	60.7		
10.00 - 11.00	62.6		
11.00 - 12.00	63.7		
12.00 - 13.00	63.9		
13.00 - 14.00	65.1		
14.00 - 15.00	67.8		
15.00 - 16.00	67.0		
16.00 - 17.00	68.1		
17.00 - 18.00	66.6		
18.00 - 19.00	64.9		
19.00 - 21.00	63.1		
21.00 - 21.00	61.0		
21.00 - 22.00	59.7		
22.00 - 23.00	58.1		
23.00 - 24.00	56.0		
0.00 - 1.00	55.2		
1.00 - 2.00	52.9		
2.00 - 3.00	52.1		
3.00 - 4.00	51.6		
4.00 - 5.00	53.9		
5.00 - 6.00	55.1		
<b>Average Noise of Day dB(A) Lequivalent</b>	<b>64.0</b>		
<b>Average Noise of Night Day dB(A) Lequivalent</b>	<b>54.1</b>		

<sup>5</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....


Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1179  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2370  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Surface Water  
Sampling Location : Near Cemetry Road Santhome Signal - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	5
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	27.2
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	16
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	4.8
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.80
07	Electrical Cconductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	36143
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	20602
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	36
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	152
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	46
12	Salinity in g/hour	By Calculation	19.3
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	8
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	4.2
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.8
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	18.1
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.25
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	4.1
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	290
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	674
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	10688
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	395
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	1339
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	6947
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	242

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1179 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2370  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Near Cemetery Road Santhome Signal - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1180  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2371  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Surface Water  
Sampling Location : Near Forshore Estate Bus Stand - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	10
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.5
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	21
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38 (Reaff.2009)	4.8
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.77
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	30415
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	17641
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	25
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	78
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	44
12	Salinity in g/hour	By Calculation	24.8
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	4.7
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	6.1
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.3
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	15.4
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.7
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	2.5
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	264
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	898
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	13726
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	338
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	2004
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	8922
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	370

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1180

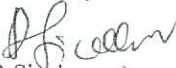
Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.09
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1180 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2371  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Near Foreshore Estate Bus Stand - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

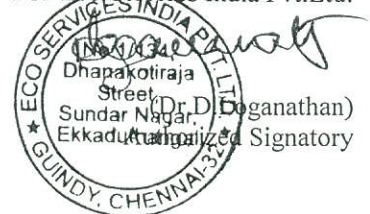
S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1181  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2372  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020


Sample Description : Surface Water  
Sampling Location : Near Chettinad Palace - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.9
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	12
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	3.6
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.41
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	13991
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	8255
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	32
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	154
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	39
12	Salinity in g/hour	By Calculation	7.25
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	5.35
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	3.0
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.12
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	13.6
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.73
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.07
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	201
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	236
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	4012
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	566
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	385
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	2608
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	202


BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,  
  
(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1181

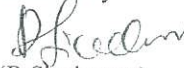
Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.07
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

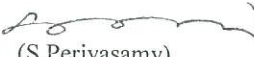
1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1181 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2372  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Near Chettinad Palace - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1182  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2373  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Surface Water  
Sampling Location : Near M.G.R.Janaki Collage Backside Gate - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01


S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	10
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	27.0
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	9
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	BDL(DL:1)
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	8.01
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	18271
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	10597
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	57
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	284
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	46
12	Salinity in g/hour	By Calculation	9.56
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	10.4
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	6.1
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.75
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	22.1
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.72
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	2.13
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	134
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	309
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	5294
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	390
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	487
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	3441
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	507

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)

  
No.1/134,  
Dhanakotiraja  
Eco Services India Pvt. Ltd.,  
Sundar Nagar,  
Ekkaduthangal,  
GUINDY, CHENNAI-58  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1182

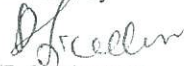
Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.03
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

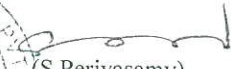
1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1182 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2373  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Near M.G.R Janaki Arts College, Back Side Gate - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1183  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2374  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Surface Water  
Sampling Location : Kotturpuram - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	5
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.8
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	35
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	1
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.65
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	3450
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1932
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	30
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	195
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	76
12	Salinity in g/hour	By Calculation	1.50
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	9.5
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	5.3
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.0
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	20
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.5
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	2.3
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	112
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	78
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	790
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	265
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	102
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	510
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	68

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1183

Page 2 of 2

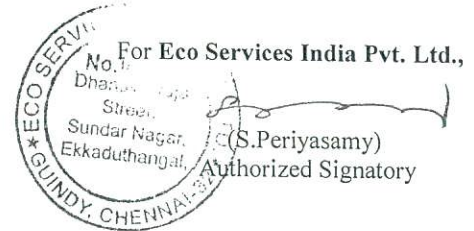
S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.06
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R. Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1183 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2374  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

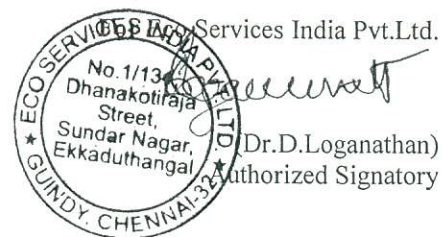
Sample Description : Surface Water  
Sampling Location : Kotturpuram - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1184  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2375  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Surface Water  
Sampling Location : Near YMCA – Cosmopolitan Club Golf Link - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	10
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.5
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	10
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	BDL(DL:1.0)
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.62
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	3654
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	2046
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	35
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff.2012)	162
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	31
12	Salinity in g/hour	By Calculation	1.3
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	7.5
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	4.2
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.2
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	15
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.8
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	2.4
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	124
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	36
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	712
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	550
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	83
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	436
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	98

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



Eco Services India Pvt. Ltd.,

(S.Periyasamy)

Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1184

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.06
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**


1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1184 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2375  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Near YMCA - Cosmopolitan Club Golf Link -Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

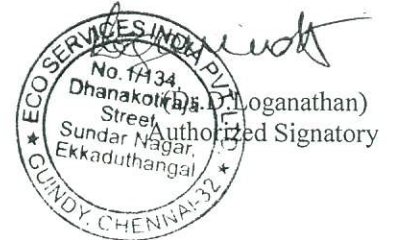
S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

..... End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1185  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2376  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Surface Water  
Sampling Location : Saidapet - Adyar River  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	10
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.5
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	12
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	BDL(DL:1.0)
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.82
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	2376
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1330
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	28
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	142
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	22
12	Salinity in g/hour	By Calculation	0.66
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	11
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	4.3
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	1.2
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	18
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.9
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.6
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	82
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	43
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	350
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	502
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	53
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	228
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	65

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1185

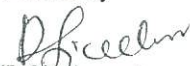
Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.07
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1185 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2376  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Surface Water  
Sampling Location : Saidapet Bridge - Adyar River  
Sampling Method : IS 1622 : 1981 Reaff 2014

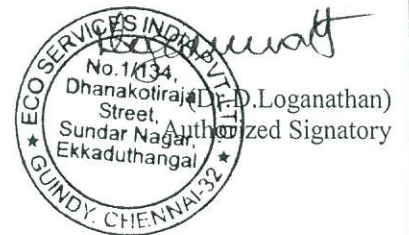
S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1172  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2363  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

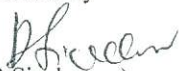
Sample Description : Ground Water  
Sampling Location : MRC Nagar - Near Sun TV Office  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.8
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.33
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	3241
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1832
07	Salinity in g/hour	By Calculation	0.95
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	3.2
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.3
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	143
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	65
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	526
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	488
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	193
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	342
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	43

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1172

Page 2 of 2

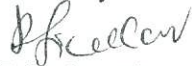
S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.06
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1172 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2363  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : MRC Nagar- Near SUN TV Office  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	90
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	7

**Note:** Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

**Report No.** : ESIPL/EMS/2020/08/1173  
**Customer Name** : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
**Project Address** : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
**Date of Sampling** : 22.08.2020  
**Date of Registration** : 22.08.2020  
**Sample Code** : EM-2364  
**Test Commenced on** : 22.08.2020  
**Test Completed on** : 28.08.2020  
**Report Issuing Date** : 28.08.2020

**Sample Description** : Ground Water  
**Sampling Location** : Forshore Estate Bus Depot Ticket Counter  
**Sampling Plan/Procedure** : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.8
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	6.95
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	9842
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	5609
07	Salinity in g/hour	By Calculation	4.19
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	2
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	6.5
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.1
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	273
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	161
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	2324
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	595
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	256
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	1511
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	189

BDL: Below Detection Limit

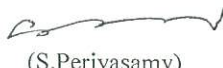
.....End of Page 1.....

Verified by

  
(R.Sivakumar)



Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1173

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

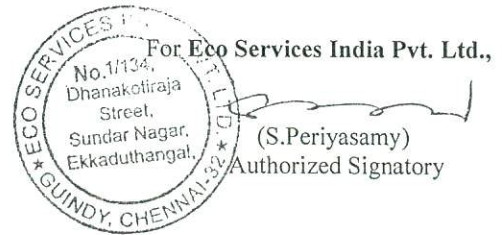
**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS-M/2020/08/1173 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2364  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : Foreshore Estate Bus Depot Ticket Counter  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	240
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	27

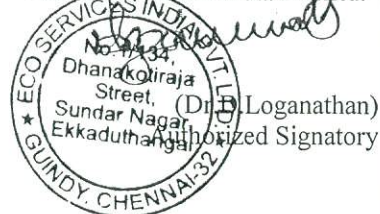
**Note:**

Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/08/1174  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2365  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

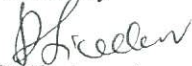
Sample Description : Ground Water  
Sampling Location : Indian Bank Training Centre R.A. Puram  
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.2
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.22
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	1903
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1085
07	Salinity in g/hour	By Calculation	0.40
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	1.1
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.20
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	82
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	35
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	226
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	405
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	84
17	Sodium as Na in mg/l	IS 3025 : Part 45 (Reaff.2009)	147
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	18


BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1174

Page 2 of 2

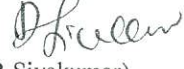
S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,

(S.Periyasamy)

Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ES IPL/EMS-M/2020/08/1174 Date of Sampling : 22.08.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 22.08.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : EM -2365  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 22.08.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 28.08.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 29.08.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : Indian Bank Training Center - R.A. Puram  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	70
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	8

**Note:**

Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Page 1 of 2

<b>Report No.</b>	: ESIPL/EMS/2020/08/1175	<b>Date of Sampling</b>	: 22.08.2020
<b>Customer Name</b>	: M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaipuram Chennai – 600 028.	<b>Date of Registration</b>	: 22.08.2020
<b>Project Address</b>	: Eco-restoration of Adyar River (2000 -4800m) Chainage from Thiru. Vi. Ka. Bridge to 400m upstream of Kottupuram Bridge, Chennai.	<b>Sample Code</b>	: EM-2366
		<b>Test Commenced on</b>	: 22.08.2020
		<b>Test Completed on</b>	: 28.08.2020
		<b>Report Issuing Date</b>	: 28.08.2020

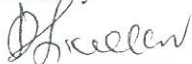
<b>Sample Description</b>	: Ground Water
<b>Sampling Location</b>	: HP Petrol Bunk (Near M.G.R.Janaki College)
<b>Sampling Plan/Procedure</b>	: ESIPL/SOP/CA/WSA/01

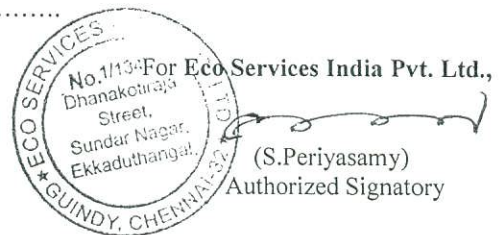
S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.6
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	6.81
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	5424
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	3092
07	Salinity in g/hour	By Calculation	2.31
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	BDL(DL:1)
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	BDL(DL:0.1)
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	213
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	131
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	1284
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	177
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	315
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	935
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	104

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

  
(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/08/1175

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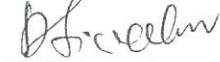
S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	0.06
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/08/1190  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2381  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Soil-5  
Sampling Location : Kotturpuram River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.74
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.58
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	63
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.028
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	5.4
	b. Percent Silt	FAO United Nations Rome,2007	66
	c. Percent Sand	FAO United Nations Rome,2007	28
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.98
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	29
13	Iron as Fe in mg/kg	EPA METHOD	94

### Note:

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/08/1191  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Date of Sampling : 22.08.2020  
Date of Registration : 22.08.2020  
Sample Code : EM-2382  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Test Commenced on : 22.08.2020  
Test Completed on : 28.08.2020  
Report Issuing Date : 28.08.2020

Sample Description : Soil-6  
Sampling Location : Near YMCA – Cosmopolitan Club Golf Link River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

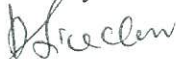
S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.66
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.59
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	67
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.032
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	6.3
	b. Percent Silt	FAO United Nations Rome,2007	58
	c. Percent Sand	FAO United Nations Rome,2007	35
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	1.4
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	33
13	Iron as Fe in mg/kg	EPA METHOD	78

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



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**Registered Office & Laboratory:**

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

**Report No.** : ESIPL/EMS/2020/08/1192  
**Customer Name** : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
**Project Address** : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

**Date of Sampling** : 22.08.2020  
**Date of Registration** : 22.08.2020  
**Sample Code** : EM-2383  
**Test Commenced on** : 22.08.2020  
**Test Completed on** : 28.08.2020  
**Report Issuing Date** : 28.08.2020

**Sample Description** : Soil-7  
**Sampling Location** : Saidapet River Bank  
**Sampling Plan/Procedure** : ESIPL/SOP/CA/SS/01

S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	7.52
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.77
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	69
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.021
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	6.6
	b. Percent Silt	FAO United Nations Rome,2007	51
	c. Percent Sand	FAO United Nations Rome,2007	42
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.91
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	31
13	Iron as Fe in mg/kg	EPA METHOD	104

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

(R.Sivakumar)



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## Test Report

Page 1 of 2

Report No.	: ESIPL/EMS/2020/09/766	Date of Sampling	: 28.09.2020
Customer Name	: M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaipuram Chennai – 600 028.	Date of Registration	: 29.09.2020
Project Address	: Eco-restoration of Adyar River (2000 -4800m) Chainage from Thiru. Vi. Ka. Bridge to 400m upstream of Kottupuram Bridge, Chennai.	Sample Code	: E-1081
		Test Commenced on	: 29.09.2020
		Test Completed on	: 05.10.2020
		Report Issuing Date	: 05.10.2020

Sample Description	: Ambient Air
Sampling Location	: Near Cemetery Road Santhome Signal (AAQ-1)
Category of Area/Zone	: Residential Area
Sampling Plan/Procedure	: ESIPL/SOP/C-AA/01
Ambient Temperature during the sampling (Average)	: 30.3°C
Relative Humidity during the sampling (Average)	: 66%
Time and Hours of sampling	: 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>5</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	60	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	16	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	9.8	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	24	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>5</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

(R.Sivakumar)

.....End of page 1.....



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal.

(S.Periyasamy)  
Authorized Signatory

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## Test Report

Report No.: ESIPL/EMS/2020/09/766

Page 2 of 2

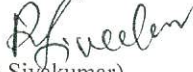
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>§</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>§</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/767  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1082  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Air  
 Sampling Location : Near Forshore Estate Bus Stand (AAQ-2)  
 Category of Area/Zone : Residential Area  
 Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
 Ambient Temperature during the sampling (Average) : 30.3°C  
 Relative Humidity during the sampling (Average) : 66%  
 Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	51	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	19	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	10.3	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	21	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

.....End of page 1.....

Verified by

(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



(S.Periyasamy)  
Authorized Signatory

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(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/09/767

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>S</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>S</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/768  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1083  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Air  
 Sampling Location : Near Chettinad Palace (AAQ-3)  
 Category of Area/Zone : Residential Area  
 Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
 Ambient Temperature during the sampling (Average) : 30.3°C  
 Relative Humidity during the sampling (Average) : 66%  
 Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	41	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	12	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	7	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	17	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

.....End of page 1.....

Verified by

(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



(S.Periyasamy)  
Authorized Signatory

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## Test Report

Report No.: ESIPL/EMS/2020/09/768

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



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## Test Report

Page 1 of 2

Report No.	: ESIPL/EMS/2020/09/769	Date of Sampling	: 28.09.2020
Customer Name	: M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaipuram Chennai – 600 028.	Date of Registration	: 29.09.2020
Project Address	: Eco-restoration of Adyar River (2000 -4800m) Chainage from Thiru. Vi. Ka. Bridge to 400m upstream of Kottupuram Bridge, Chennai.	Sample Code	: E-1084
		Test Commenced on	: 29.09.2020
		Test Completed on	: 05.10.2020
		Report Issuing Date	: 05.10.2020

Sample Description	: Ambient Air
Sampling Location	: Near M.G.R.Janaki College Backside Gate (AAQ-4)
Category of Area/Zone	: Silence Zone
Sampling Plan/Procedure	: ESIPL/SOP/C-AA/01
Ambient Temperature during the sampling (Average)	: 30.3°C
Relative Humidity during the sampling (Average)	: 66%
Time and Hours of sampling	: 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	54	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	15	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	8.8	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	20	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

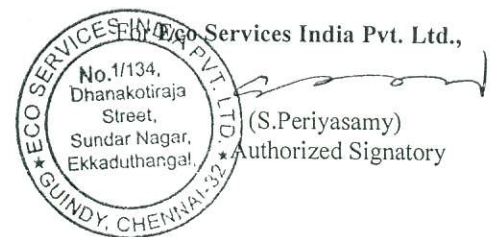
BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

(R.Sivakumar)

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## Test Report

Report No.: ESIPL/EMS/2020/09/769

Page 2 of 2

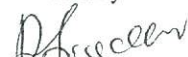
S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)

For Eco Services India Pvt. Ltd.,



  
(S.Periyasamy)  
Authorized Signatory

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/770  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1085  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Air  
 Sampling Location : Near Kotturpuram Canal Ground (AAQ-5)  
 Category of Area/Zone : Residential Area  
 Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
 Ambient Temperature during the sampling (Average) : 30.3°C  
 Relative Humidity during the sampling (Average) : 62%  
 Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	51	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	14	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	8.1	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	24	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

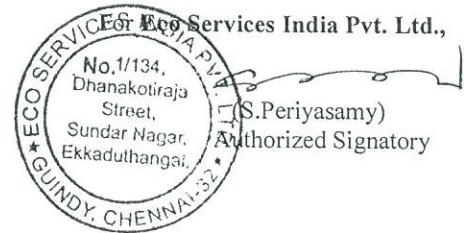
BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

(R.Sivakumar)

.....End of page 1.....



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/09/770

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/771  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1086  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Air  
 Sampling Location : YMCA–Near Cosmopolitan Club Golf Link (AAQ-6)  
 Category of Area/Zone : Residential Area  
 Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
 Ambient Temperature during the sampling (Average) : 30.3°C  
 Relative Humidity during the sampling (Average) : 66%  
 Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	44	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	13	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	7.7	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	21	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

*R. Sivakumar*  
(R.Sivakumar)

.....End of page 1.....



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/09/771

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.

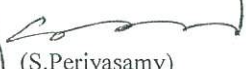
.....End of Report.....

Verified by

  
(R.Sivakumar)



Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/772  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1087  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Air  
 Sampling Location : Near Madha Temple Saidapet (AAQ-7)  
 Category of Area/Zone : Residential Area  
 Sampling Plan/Procedure : ESIPL/SOP/C-AA/01  
 Ambient Temperature during the sampling (Average) : 30.3°C  
 Relative Humidity during the sampling (Average) : 66%  
 Time and Hours of sampling : 24 Hrs

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>s</sup>
01	Particulate Matter (Size Less than 10 µm) in µg/m <sup>3</sup>	IS :5182 Part 23-2006-(RA 2017)	62	100
02	Particulate Matter (Size Less than 2.5 µm) in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/03	20	60
03	Sulphur dioxide in µg/m <sup>3</sup>	IS :5182 Part 2-2001-(RA 2017)	9.4	80
04	Oxides of Nitrogen in µg/m <sup>3</sup>	IS :5182 Part 6-2006-(RA 2017)	26	80
05	Ozone in µg/m <sup>3</sup>	IS:5182 Part 9-1974-(RA 2014)	BDL(DL: 5.0 µg/m <sup>3</sup> )	180
06	Carbon Monoxide in mg/m <sup>3</sup>	NIOSH -6604:1996	BDL(DL:1.14 mg/m <sup>3</sup> )	2.0
07	Ammonia in µg/m <sup>3</sup>	ESIPL/SOP/C-AA/07	BDL(DL: 5.0 µg/m <sup>3</sup> )	400

BDL - Below Detection Limit; DL - Detection Limit

<sup>s</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18th November 2009.

Verified by

(R.Sivakumar)

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(LABORATORY DIVISION)

## Test Report

Report No.: ESIPL/EMS/2020/09/772

Page 2 of 2

S.No.	Parameters	Test Method	Result	NAAQ STANDARD <sup>S</sup>
08	Lead in $\mu\text{g}/\text{m}^3$	IS :5182 Part 22-2004	BDL(DL:0.001 $\mu\text{g}/\text{m}^3$ )	1.0
09	Benzene in $\mu\text{g}/\text{m}^3$	IS:5182 Part 11-2006	BDL(DL:1.0 $\mu\text{g}/\text{m}^3$ )	5.0
10	Benzo alpha Pyrene in $\text{ng}/\text{m}^3$	IS:5182 Part 12-2004	BDL(DL:0.8 $\text{ng}/\text{m}^3$ )	1.0
11	Arsenic in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:1.0 $\text{ng}/\text{m}^3$ )	6.0
12	Nickel in $\text{ng}/\text{m}^3$	USEPA IO 3.2	BDL(DL:3.0 $\text{ng}/\text{m}^3$ )	20.0

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. <sup>S</sup> Air (Prevention and Control of Pollution) Act 1981, National Ambient Air Quality Standards, CPCB Notification dated 18<sup>th</sup> November 2009.
3. The above parameters from serial No.08 to 12 not covered in our NABL Scope and subcontracted to other Laboratory.


.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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## Test Report

Report No. : ESIPL/EMS/2020/09/773  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : “Eco-restoration of Adyar River (2000-4800m)  
 Chainage From Thiru.Vi.ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1088  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Noise in dB(A) Leq  
 Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
 Sampling Period : 24 Hrs  
 Sample Location : Near Cemetry Road Santhome Signal  
 Category of Area/Zone : Residential Area

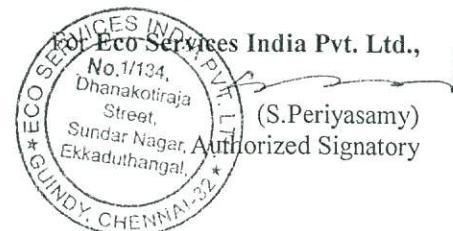
Time of monitoring	(NQ – 1) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	56.8	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	57.4		
8.00 - 9.00	58.2		
9.00 - 10.00	59.5		
10.00 - 11.00	60.8		
11.00 - 12.00	62.7		
12.00 - 13.00	63.8		
13.00 - 14.00	64.4		
14.00 - 15.00	66.8		
15.00 - 16.00	67.5		
16.00 - 17.00	64.2		
17.00 - 18.00	62.1		
18.00 - 19.00	60.5		
19.00 - 21.00	58.2		
21.00 - 21.00	57.4		
21.00 - 22.00	56.2		
22.00 - 23.00	55.5		
23.00 - 24.00	53.8		
0.00 - 1.00	50.1		
1.00 - 2.00	49.4		
2.00 - 3.00	51.9		
3.00 - 4.00	53.8		
4.00 - 5.00	55.4		
5.00 - 6.00	56.2		
<b>Average Noise of Day dB(A) Lequivalent</b>	<b>62.3</b>		
<b>Average Noise of Night Day dB(A) Lequivalent</b>	<b>53.6</b>		

The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)



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## Test Report

Report No. : ESIPL/EMS/2020/09/775  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : “Eco-restoration of Adyar River (2000-4800m)  
 Chainage From Thiru.Vi.ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1090  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Noise in dB(A) Leq  
 Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
 Sampling Period : 24 Hrs  
 Sample Location : Near Chettinad Palace  
 Category of Area/Zone : Residential Area

Time of monitoring	(NQ – 3) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	54.5	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	55.8		
8.00 - 9.00	56.9		
9.00 - 10.00	58.2		
10.00 - 11.00	59.4		
11.00 - 12.00	60.8		
12.00 - 13.00	61.4		
13.00 - 14.00	63.3		
14.00 - 15.00	62.2		
15.00 - 16.00	60.8		
16.00 - 17.00	59.4		
17.00 - 18.00	60.7		
18.00 - 19.00	58.4		
19.00 - 21.00	57.5		
21.00 - 21.00	56.7		
21.00 - 22.00	55.0		
22.00 - 23.00	53.6		
23.00 - 24.00	51.6		
0.00 - 1.00	49.8		
1.00 - 2.00	47.4		
2.00 - 3.00	47.9		
3.00 - 4.00	49.7		
4.00 - 5.00	51.1		
5.00 - 6.00	52.9		
<b>Average Noise of Day dB(A) Lequivalent</b>	<b>59.3</b>		
<b>Average Noise of Night Day dB(A) Lequivalent</b>	<b>50.4</b>		

The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by  
  
 (R.Sivakumar)

For Eco Services India Pvt. Ltd.,  
 No.1/134,  
 Dhanakotiraja  
 Street,  
 Sundar Nagar,  
 Ekkaduthangal,  
 Guindy, Chennai - 600 032  
 (S.Periyasamy)  
 Authorized Signatory

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### Test Report

Report No.	: ESIPL/EMS/2020/09/776	Date of Sampling	: 28.09.2020
Customer Name	: M/s. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai Raja Annamalaipuram Chennai – 600 028.	Date of Registration	: 29.09.2020
Project Address	: “Eco-restoration of Adyar River (2000-4800m) Chainage From Thiru.Vi.ka. Bridge to 400m upstream of Kottupuram Bridge, Chennai.	Sample Code	: E-1091
		Test Commenced on	: 29.09.2020
		Test Completed on	: 05.10.2020
		Report Issuing Date	: 05.10.2020
Sample Description	:	Ambient Noise in dB(A) Leq	
Sampling Plan/Procedure	:	ESIPL/SOP/C- NL/01	
Sampling Period	:	24 Hrs	
Sample Location	:	Near M.G.R.Janaki College Backside Gate	
Category of Area/Zone	:	Silence Zone	

Time of monitoring	(NQ – 4) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	48.6	Day Time Level = 50 dB(A) Leq	Night time Level = 40 dB(A) Leq
7.00 - 8.00	50.1		
8.00 - 9.00	52.8		
9.00 - 10.00	53.5		
10.00 - 11.00	55.7		
11.00 - 12.00	56.8		
12.00 - 13.00	55.4		
13.00 - 14.00	57.1		
14.00 - 15.00	55.3		
15.00 - 16.00	56.0		
16.00 - 17.00	55.4		
17.00 - 18.00	56.9		
18.00 - 19.00	56.4		
19.00 - 21.00	53.4		
21.00 - 21.00	51.6		
21.00 - 22.00	49.1		
22.00 - 23.00	47.8		
23.00 - 24.00	46.1		
0.00 - 1.00	44.7		
1.00 - 2.00	41.9		
2.00 - 3.00	40.2		
3.00 - 4.00	39.7		
4.00 - 5.00	43.5		
5.00 - 6.00	45.4		
<b>Average Noise of Day dB(A) Lequivalent</b>	<b>54.5</b>		
<b>Average Noise of Night Day dB(A) Lequivalent</b>	<b>43.7</b>		

\*The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)

Eco Services India Pvt. Ltd.,  
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 Dhanakotiraja  
 Street,  
 Sundar Nagar,  
 Ekkaduthangal,  
 (S.Periyasamy)  
 Authorized Signatory

**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise requested by the customer. § The test/s marked with \* symbol does not come under the scope of our NABL accreditation.

**Registered Office & Laboratory:**

No.1/134, Dhanakotiraja Street, Sundar Nagar, Ekkaduthangal, Guindy, Chennai – 600 032, Tamil Nadu, India  
 Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

## Test Report

Report No. : ESIPL/EMS/2020/09/777  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : “Eco-restoration of Adyar River (2000-4800m)  
 Chainage From Thiru.Vi.ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1092  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Noise in dB(A) Leq  
 Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
 Sampling Period : 24 Hrs  
 Sample Location : Near Kotturpuram Canal Ground (AAQ-5)  
 Category of Area/Zone : Residential Area

Time of monitoring	(NQ – 5) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	53.9	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	54.3		
8.00 - 9.00	55.8		
9.00 - 10.00	57.6		
10.00 - 11.00	60.1		
11.00 - 12.00	62.7		
12.00 - 13.00	62		
13.00 - 14.00	63.4		
14.00 - 15.00	64.1		
15.00 - 16.00	62.7		
16.00 - 17.00	63.3		
17.00 - 18.00	62.6		
18.00 - 19.00	64.1		
19.00 - 21.00	63.2		
21.00 - 21.00	61.7		
21.00 - 22.00	59.6		
22.00 - 23.00	57.3		
23.00 - 24.00	55.9		
0.00 - 1.00	54.1		
1.00 - 2.00	52.6		
2.00 - 3.00	49.8		
3.00 - 4.00	46.9		
4.00 - 5.00	48.6		
5.00 - 6.00	51.9		
Average Noise of Day dB(A) Lequivalent			
Average Noise of Night Day dB(A) Lequivalent			
	61.5		
	52.3		

The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



Certificate No.  
TC-5664

Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

## Test Report

Report No. : ESIPL/EMS/2020/09/778  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : “Eco-restoration of Adyar River (2000-4800m)  
 Chainage From Thiru.Vi.ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1093  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Noise in dB(A) Leq  
 Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
 Sampling Period : 24 Hrs  
 Sample Location : YMCA–Near Cosmopolitan Club Golf Link  
 Category of Area/Zone : Residential Area

Time of monitoring	(NQ –6) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	51.4	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	53.9		
8.00 - 9.00	56.7		
9.00 - 10.00	58.3		
10.00 - 11.00	60.5		
11.00 - 12.00	62.7		
12.00 - 13.00	61.5		
13.00 - 14.00	60.8		
14.00 - 15.00	62.7		
15.00 - 16.00	63.3		
16.00 - 17.00	61.7		
17.00 - 18.00	60.2		
18.00 - 19.00	59.8		
19.00 - 21.00	58.2		
21.00 - 21.00	57.6		
21.00 - 22.00	55.4		
22.00 - 23.00	53.8		
23.00 - 24.00	51.6		
0.00 - 1.00	49.4		
1.00 - 2.00	48.6		
2.00 - 3.00	47.3		
3.00 - 4.00	50.8		
4.00 - 5.00	51.7		
5.00 - 6.00	52.5		
<b>Average Noise of Day dB(A) Lequivalent</b>	<b>59.9</b>		
<b>Average Noise of Night Day dB(A) Lequivalent</b>	<b>50.6</b>		

<sup>s</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.

.....End of Report.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



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TC-5664

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## Test Report

Report No. : ESIPL/EMS/2020/09/779  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : "Eco-restoration of Adyar River (2000-4800m)  
 Chainage From Thiru.Vi.ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
 Date of Registration : 29.09.2020  
 Sample Code : E-1094  
 Test Commenced on : 29.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ambient Noise in dB(A) Leq  
 Sampling Plan/Procedure : ESIPL/SOP/C- NL/01  
 Sampling Period : 24 Hrs  
 Sample Location : Near Madha Temple Saidapet  
 Category of Area/Zone : Residential Area

Time of monitoring	(NQ -7) Result in dB(A)	Noise Level Standard	
6.00 - 7.00	55.9	Day Time Level = 55 dB(A) Leq	Night time Level = 45 dB(A) Leq
7.00 - 8.00	56.7		
8.00 - 9.00	58.3		
9.00 - 10.00	59.7		
10.00 - 11.00	60.3		
11.00 - 12.00	61.7		
12.00 - 13.00	59.8		
13.00 - 14.00	57.5		
14.00 - 15.00	60.4		
15.00 - 16.00	62.7		
16.00 - 17.00	63.8		
17.00 - 18.00	64.5		
18.00 - 19.00	63.9		
19.00 - 21.00	65.2		
21.00 - 21.00	63.4		
21.00 - 22.00	62.7		
22.00 - 23.00	59.8		
23.00 - 24.00	57.5		
0.00 - 1.00	55.4		
1.00 - 2.00	53.5		
2.00 - 3.00	50.4		
3.00 - 4.00	51.3		
4.00 - 5.00	52.6		
5.00 - 6.00	52.4		
<b>Average Noise of Day dB(A) Lequivalent</b>	<b>61.8</b>		
<b>Average Noise of Night Day dB(A) Lequivalent</b>	<b>53.9</b>		

<sup>s</sup>The Noise Pollution (Regulation and Control) Rules 2000-Ambient Air Quality Standards in Respect of Noise.  
 .....End of Report.....

Verified by

(R.Sivakumar)

For Eco/Services India Pvt. Ltd.,  
 No.1/134,  
 Dhanakotiraja  
 Street,  
 Sundar Nagar,  
 Ekkaduthangal, Chennai-600 032.  
 (S.Periyasamy)  
 Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

## (LABORATORY DIVISION)



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### Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/745		Date of Sampling : 28.09.2020
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST		Date of Registration : 28.09.2020
Dr.D.G.S. Dinakaran Salai		Sample Code : E-1060
Raja Annamalaipuram		Test Commenced on : 28.09.2020
Chennai – 600 028.		Test Completed on : 05.10.2020
Project Address : Eco-restoration of Adyar River (2000 -4800m)		Report Issuing Date : 05.10.2020
Chainage from Thiru. Vi. Ka. Bridge to 400m		
upstream of Kottupuram Bridge, Chennai.		

Sample Description	: Surface Water
Sampling Location	: Near Cemetry Road Santhome Signal - Adyar River
Sampling Plan/Procedure	: ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.2
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	11
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	4.5
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.66
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	35215
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	19720
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	42
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	144
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	41
12	Salinity in g/hour	By Calculation	19.9
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	6
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	6
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	2.3
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	15.2
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.8
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	3.3
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	288
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	720
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	10819
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	342
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	1291
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	6021
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	231

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/745

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



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Certificate No.  
TC-5664

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## Test Report

<b>Report No.</b> : ESIPL/EMS-M/2020/09/745 <b>Customer Name</b> : M/S. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai, <b>Project Address</b> : Raja Annamalai puram, Chennai-28 : Eco-Restoration of Adyar River(2000- 4800m) Chain from Thiru.Vi.Ka.Bridge to 400m Upstream of Kotturpuram Bridge, Chennai	<b>Date of Sampling</b> : 28.09.2020 <b>Date of Registration</b> : 28.09.2020 <b>Sample Code</b> : E-1060 <b>Test Commenced on</b> : 28.09.2020 <b>Test Completed on</b> : 04.10.2020 <b>Report Issuing Date</b> : 05.10.2020
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<b>Sample Description</b>	: Surface Water
<b>Sampling Location</b>	: Near Cemetery Road Santhome Signal - Adyar River
<b>Sampling Method</b>	: IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



*(Signature)*  
Dr.D.Loganathan)  
Authorized Signatory

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/746  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1061  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Surface Water  
 Sampling Location : Near Forshore Estate Bus Stand - Adyar River  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.1
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	18
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38 (Reaff.2009)	4.3
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.53
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	42416
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	23753
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	29
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	84.1
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	65
12	Salinity in g/hour	By Calculation	23.6
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	5.3
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	4.5
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.4
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	12.3
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.6
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.34
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	248
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	959
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	13102
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	268
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	1728
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	7126
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	312

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/746

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.07
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,

  
(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



Certificate No.  
TC-5664

Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

## Test Report

Report No.	: ESIPL/EMS-M/2020/09/746	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST	Date of Registration	: 28.09.2020
Project Address	Dr.D.G.S. Dinakaran Salai,	Sample Code	: E-1061
	Raja Annamalai puram, Chennai-28	Test Commenced on	: 28.09.2020
	: Eco-Restoration of Adyar River(2000- 4800m)	Test Completed on	: 04.10.2020
	Chain from Thiru.Vi.Ka.Bridge to 400m	Report Issuing Date	: 05.10.2020
	Upstream of Kotturpuram Bridge, Chennai		

Sample Description	:	Surface Water
Sampling Location	:	Near Foreshore Estate Bus Stand - Adyar River
Sampling Method	:	IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.

*[Signature]*  
 No.1/134  
 Dhanakotiraja Street, (Dr.D.Loganathan)  
 Sundar Nagar, Authorized Signatory  
 Ekkaduthangal  
 CHENNAI  
 GUINDY, CHENNAI

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/747  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1062  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Surface Water  
 Sampling Location : Near Chettinad Palace - Adyar River  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.5
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	9
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	2
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.16
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	13383
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	7495
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	48
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff.2012)	192
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	26
12	Salinity in g/hour	By Calculation	7
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	4.06
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	2.8
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	BDL(DL:1.0)
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	6.9
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.3
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.2
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	168
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	282
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	3890
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	488
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	462
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	2012
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	186

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



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(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/747

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.05
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



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## Test Report

Report No.	: ESIPL/EMS-M/2020/09/747	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai,	Date of Registration	: 28.09.2020
Project Address	: Raja Annamalai puram, Chennai-28 : Eco-Restoration of Adyar River(2000- 4800m) Chain from Thiru.Vi.Ka.Bridge to 400m Upstream of Kotturpuram Bridge, Chennai	Sample Code	: E -1062
		Test Commenced on	: 28.09.2020
		Test Completed on	: 04.10.2020
		Report Issuing Date	: 05.10.2020

Sample Description : Surface Water

Sampling Location : Near Chettinad Palace - Adyar River

Sampling Method : IS 1622 : 1981 Reaff 2014

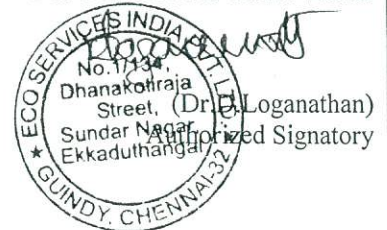
S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/748  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1063  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Surface Water  
 Sampling Location : Near M.G.R.Janaki Collage Backside Gate - Adyar River  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.3
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	12
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	1.2
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.71
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	21188
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	11865
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	45
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	208
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	37
12	Salinity in g/hour	By Calculation	9.2
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	7.5
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	4.5
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	13.2
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.6
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	2
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	156
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	355
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	5112
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	427
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	581
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	4516
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	712

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



NPO Eco Services India Pvt. Ltd.,  
 1/134, Dhanakotiraja Street,  
 Sundar Nagar, Ekkaduthangal,  
 Guindy, Chennai - 600 032, Tamil Nadu, India  
 S.Periyasamy  
 Authorized Signatory

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(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/748

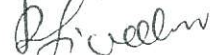
Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.06
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R.Sivakumar)



No. 1134, Dhanakotiraja Street,  
Sundar Nagar,  
Ekkaduthangal  
(S.Periyasamy)  
Authorized Signatory

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## Test Report

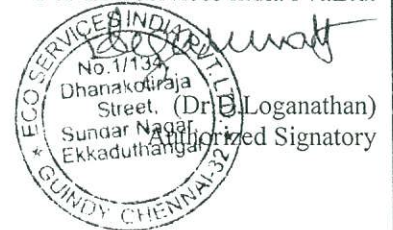
Report No.	: ES IPL/EMS-M/2020/09/748	Date of Sampling	: 28.09.2020	
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST	Date of Registration	: 28.09.2020	
Project Address	Dr.D.G.S. Dinakaran Salai,	Sample Code	: E-1063	
	Raja Annamalai puram, Chennai-28	Test Commenced on	: 28.09.2020	
: Eco-Restoration of Adyar River(2000- 4800m) Chain from Thiru.Vi.Ka.Bridge to 400m Upstream of Kotturpuram Bridge, Chennai		Test Completed on	: 04.10.2020	
		Report Issuing Date	: 05.10.2020	
Sample Description	: Surface Water			
Sampling Location	: Near M.G.R Janaki Arts College, Back Side Gate - Adyar River			
Sampling Method	: IS 1622 : 1981 Reaff 2014			
S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

I. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/749  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1064  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Surface Water  
 Sampling Location : Kotturpuram - Adyar River  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	10
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.4
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	25
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	1.3
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.76
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	3378
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1892
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	26
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	184.3
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	65
12	Salinity in g/hour	By Calculation	1.4
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	8.2
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	6.5
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2003)	1.1
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	16
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.7
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.6
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	109
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	65
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	782
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	253
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	94.4
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	501
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	76

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/749


Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.08
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**


1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
..... End of Report.....

Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

  
(S.Periyasamy)  
Authorized Signatory

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**Registered Office & Laboratory:**

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



Certificate No.  
TC-5664

Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

## Test Report

Report No.	: ESIPL/EMS-M/2020/09/749	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai,	Date of Registration	: 28.09.2020
Project Address	: Raja Annamalai puram,Chennai-28 Eco-Restoration of Adyar River(2000- 4800m) Chain from Thiru.Vi.Ka.Bridge to 400m Upstream of Kotturpuram Bridge, Chennai	Sample Code	: E -1064
		Test Commenced on	: 28.09.2020
		Test Completed on	: 04.10.2020
		Report Issuing Date	: 05.10.2020
Sample Description	: Surface Water		
Sampling Location	: Kotturpuram - Adyar River		
Sampling Method	: IS 1622 : 1981 Reaff 2014		

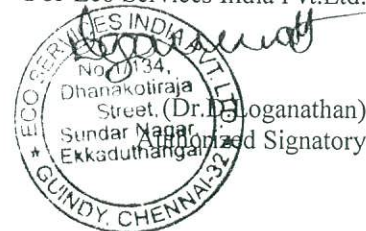
S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	Faecal coliform	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

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Certificate No.  
TC-5684

Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/750  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1065  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Surface Water  
 Sampling Location : Near YMCA – Cosmopolitan Club Golf Link - Adyar River  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	10
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.3
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	6
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	BDL(DL:1.0)
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.54
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	3401
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1905
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	31.5
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	134
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	14
12	Salinity in g/hour	By Calculation	1.1
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	6.3
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	3.1
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2003)	BDL(DL:1.0)
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	9
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.8
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.5
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	88
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	51
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	630
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	525
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	93
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	386
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	128

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/750

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....

Verified by

  
(R. Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



Certificate No.  
TC-5664

Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

## Test Report

Report No.	: ESIPL/EMS-M/2020/09/750	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai,	Date of Registration	: 28.09.2020
Project Address	: Raja Annamalai puram, Chennai-28 : Eco-Restoration of Adyar River(2000- 4800m) Chain from Thiru.Vi.Ka.Bridge to 400m Upstream of Kotturpuram Bridge, Chennai	Sample Code	: E -1065
		Test Commenced on	: 28.09.2020
		Test Completed on	: 04.10.2020
		Report Issuing Date	: 05.10.2020

Sample Description	: Surface Water
Sampling Location	: Near YMCA - Cosmopolitan Club Golf Link -Adyar River
Sampling Method	: IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.

*(Signature)*  
D.D.Loganathan  
Authorized Signatory  
No.1/134,  
Dhanakotiraja Street,  
Sundar Nagar,  
Ekkaduthangal  
GUINDY, CHENNAI-32

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(LABORATORY DIVISION)



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## Test Report

Page 1 of 2

Report No. : ES IPL/EMS/2020/09/751  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1066  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Surface Water  
 Sampling Location : Saidapet - Adyar River  
 Sampling Plan/Procedure : ES IPL/SOP/CA/WSA/01

S. No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour	IS 3025: Part 4 (Reaff.2006)	10
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.1
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Objectionable
04	Turbidity in NTU	IS 3025 : Part 10 (Reaff.2002)	7.2
05	Dissolved Oxygen in mg/l	IS 3025 : Part 38(Reaff.2009)	BDL(DL:1.0)
06	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.44
07	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	2330
08	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1305
09	Biochemical Oxygen Demand as BOD in mg/l	IS 3025:Part 44 (Reaff.2009)	24
10	Chemical Oxygen Demand as COD in mg/l	IS 3025 : Part 58 (Reaff 2012)	128
11	Total Suspended Solids as TSS in mg/l	IS 3025 : Part 17 (Reaff.2012)	16
12	Salinity in g/hour	By Calculation	0.6
<b>Nutrients Parameters:</b>			
13	Ammonia as NH <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	14.2
14	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	5.1
15	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	1
16	Total Nitrogen as N in mg/l	IS 3025 : Part 34 (Reaff.2009)	20
17	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	1.4
18	Total Phosphorus as P in mg/l	IS 3025 : Part 31 (Reaff.2009)	2.3
<b>Major Ions Parameters:</b>			
19	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	70.5
20	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	36
21	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	314
22	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	NIL
23	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	547
24	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	46
25	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	183
26	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	93

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/751

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
27	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
28	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
29	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
30	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.01)
31	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.05
32	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.0005)
33	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.30 to 33 not covered in our NABL Scope and subcontracted to other Laboratory.  
.....End of Report.....


Verified by

  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal

  
(S.Periyasamy)  
Authorized Signatory

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(LABORATORY DIVISION)



Accredited in accordance with ISO/IEC 17025:2017 by NABL (A Constituent Board of Quality Council of India)

## Test Report

Report No.	: ESIPL/EMS-M/2020/09/751	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST	Date of Registration	: 28.09.2020
Project Address	Dr.D.G.S. Dinakaran Salai,	Sample Code	: E -1066
	Raja Annamalai puram, Chennai-28	Test Commenced on	: 28.09.2020
	: Eco-Restoration of Adyar River(2000- 4800m)	Test Completed on	: 04.10.2020
	Chain from Thiru.Vi.Ka.Bridge to 400m	Report Issuing Date	: 05.10.2020
	Upstream of Kotturpuram Bridge, Chennai		

Sample Description : Surface Water

Sampling Location : Saidapet Bridge - Adyar River

Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	APHA 23 <sup>rd</sup> Edition - 9221-B	MPN/100ml	> 1600
02	<i>Faecal coliform</i>	APHA 23 <sup>rd</sup> Edition -9221-F	MPN/100ml	> 1600

**Note:**

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/752  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1067  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ground Water  
 Sampling Location : MRC Nagar - Near Sun TV Office  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	25.8
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.53
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	3461
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1994
07	Salinity in g/hour	By Calculation	1.03
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	4.7
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.9
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	167
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	92
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	574
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	517
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	201
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	373
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	46.6

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal

(S.Periyasamy)

Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/752

Page 2 of 2

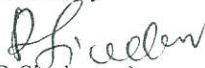
S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	0.14
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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**Registered Office & Laboratory:**

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



Certificate No.  
TC-5664

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## Test Report

Report No.	: ESIPL/EMS-M/2020/09/752	Date of Sampling	: 28.09.2020	
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai,	Date of Registration	: 28.09.2020	
Project Address	: Raja Annamalai puram,Chennai-28 Eco-Restoration of Adyar River(2000- 4800m) Chain from Thiru.Vi.Ka.Bridge to 400m Upstream of Kotturpuram Bridge, Chennai	Sample Code	: E -1067	
		Test Commenced on	: 28.09.2020	
		Test Completed on	: 04.10.2020	
		Report Issuing Date	: 05.10.2020	
Sample Description	:	Ground Water		
Sampling Location	:	MRC Nagar- Near SUN TV Office		
Sampling Method	:	IS 1622 : 1981 Reaff 2014		
S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	70
02	<i>Faecal coliform</i>	IS 1622 : 1981 Reaff 2014	MPN/100ml	6

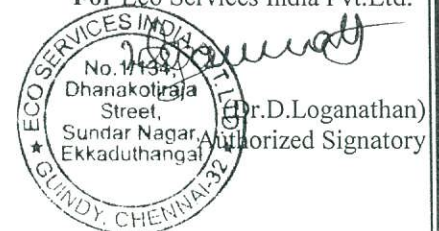
**Note:**

Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/753  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1068  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ground Water  
 Sampling Location : Forshore Estate Bus Depot Ticket Counter  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.2
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	10149
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	5785
07	Salinity in g/hour	By Calculation	4.49
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	8.5
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	38.8
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.2
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	300
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	187
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	2489
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	683
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	293
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	1618
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	202

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

No.1/134,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,

(S.Periyasamy)  
Authorized Signatory

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## Test Report

Report No. ESIPL/EMS/2020/09/753

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>Toxic Metals Parameters:</b>			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

*R. Sivakumar*

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

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Sundar Nagar,  
Ekkaduthangal,

*S. Periyasamy*  
Authorized Signatory

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## Test Report

Report No.	: ESIPL/EMS-M/2020/09/753	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST	Date of Registration	: 28.09.2020
Project Address	Dr.D.G.S. Dinakaran Salai,	Sample Code	: E -1068
	Raja Annamalai puram,Chennai-28	Test Commenced on	: 28.09.2020
	: Eco-Restoration of Adyar River(2000- 4800m)	Test Completed on	: 04.10.2020
	Chain from Thiru.Vi.Ka.Bridge to 400m	Report Issuing Date	: 05.10.2020
	Upstream of Kotturpuram Bridge, Chennai		

Sample Description : Ground Water

Sampling Location : Foreshore Estate Bus Depot Ticket Counter

Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	220
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	33

**Note:** Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/754  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1069  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ground Water  
 Sampling Location : Indian Bank Training Centre R.A. Puram  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.1
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.32
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	1920
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1101
07	Salinity in g/hour	By Calculation	0.43
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	2.3
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.39
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	91
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	48
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	240
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	434
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	95
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	156
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	19.5

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



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## Test Report

Report No. ESIPL/EMS/2020/09/754

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	0.51
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	0.05
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



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## Test Report

Report No.	: ESIPL/EMS-M/2020/09/754	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST	Date of Registration	: 28.09.2020
Project Address	Dr.D.G.S. Dinakaran Salai,	Sample Code	: E-1069
	Raja Annamalai puram, Chennai-28	Test Commenced on	: 28.09.2020
	: Eco-Restoration of Adyar River(2000- 4800m)	Test Completed on	: 04.10.2020
	Chain from Thiru.Vi.Ka.Bridge to 400m	Report Issuing Date	: 05.10.2020
	Upstream of Kotturpuram Bridge, Chennai		

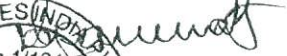
Sample Description	: Ground Water
Sampling Location	: Indian Bank Training Center - R.A. Puram
Sampling Method	: IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	80
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	7

**Note:** Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification  
1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.

  
D.D. Loganathan  
Authorized Signatory  
No. 1/134,  
Dhanakotiraja Street,  
Sundar Nagar, Ekkaduthangal  
GUINDY, CHENNAI-32

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/755  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1070  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ground Water  
 Sampling Location : HP Petrol Bunk (Near M.G.R.Janaki College)  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26.2
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	6.6
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	5578
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	3176
07	Salinity in g/hour	By Calculation	2.34
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	3.42
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	BDL(DL:0.1)
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	227
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	148
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	1300
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	195
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	340
17	Sodium as Na in mg/l	IS 3025 : Part 45 (Reaff.2009)	845
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	106

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



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## Test Report

Report No. ESIPL/EMS/2020/09/755

Page 2 of 2

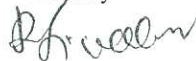
S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	BDL(DL:0.1)
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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## Test Report

Report No.	: ESIPL/EMS-M/2020/09/755	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST	Date of Registration	: 28.09.2020
Project Address	Dr.D.G.S. Dinakaran Salai,	Sample Code	: E-1070
	Raja Annamalai puram, Chennai-28	Test Commenced on	: 28.09.2020
	: Eco-Restoration of Adyar River(2000- 4800m)	Test Completed on	: 04.10.2020
	Chain from Thiru.Vi.Ka.Bridge to 400m	Report Issuing Date	: 05.10.2020
	Upstream of Kotturpuram Bridge, Chennai		

Sample Description : Ground Water

Sampling Location : HP Petrol Bank-Near M.G.R Janaki Arts College

Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	110
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	7

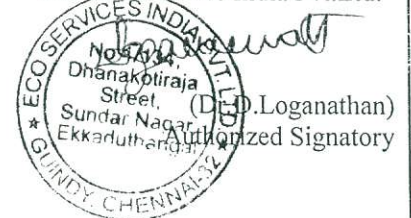
**Note:**

Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)



Certificate No.  
TC-5664

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/756  
 Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
 Dr.D.G.S. Dinakaran Salai  
 Raja Annamalaipuram  
 Chennai – 600 028.  
 Project Address : Eco-restoration of Adyar River (2000 -4800m)  
 Chainage from Thiru. Vi. Ka. Bridge to 400m  
 upstream of Kottupuram Bridge, Chennai.  
 Date of Sampling : 28.09.2020  
 Date of Registration : 28.09.2020  
 Sample Code : E-1071  
 Test Commenced on : 28.09.2020  
 Test Completed on : 05.10.2020  
 Report Issuing Date : 05.10.2020

Sample Description : Ground Water  
 Sampling Location : Kotturpuram – Bharathi Avenue  
 Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	26
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.12
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	2091
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	1193
07	Salinity in g/hour	By Calculation	0.47
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	3.12
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.4
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	104
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	50
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	262
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	464
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	98
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	170
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	21

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)

ECO SERVICES INDIA PVT. LTD.,  
 No.1/134,  
 Dhanakotiraja  
 Street,  
 Sundar Nagar,  
 Ekkaduthangal,  
 CHENNAI - 600 032  
 (S.Periyasamy)  
 Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. ESIPL/EMS/2020/09/756

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	0.61
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



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## Test Report

Report No.	: ES IPL/EMS-M/2020/09/756	Date of Sampling	: 28.09.2020
Customer Name	: M/S. CHENNAI RIVERS RESTORATION TRUST	Date of Registration	: 28.09.2020
Project Address	Dr.D.G.S. Dinakaran Salai,	Sample Code	: E -1071
	Raja Annamalai puram, Chennai-28	Test Commenced on	: 28.09.2020
	: Eco-Restoration of Adyar River(2000- 4800m)	Test Completed on	: 04.10.2020
	Chain from Thiru.Vi.Ka.Bridge to 400m	Report Issuing Date	: 05.10.2020
	Upstream of Kotturpuram Bridge, Chennai		

Sample Description : Ground Water

Sampling Location : Kotturpuram - Bharathi Avenue

Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	140
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	9

**Note:** Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.  
No.1/134  
Dhanakotiraja  
Street  
Sundar Nagar  
Ekkaduthangal  
D. Loganathan  
Authorized Signatory

ECO SERVICES INDIA PVT. LTD.  
GUINDY, CHENNAI-32

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## Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/757	Date of Sampling : 28.09.2020
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST	Date of Registration : 28.09.2020
Dr.D.G.S. Dinakaran Salai	Sample Code : E-1072
Raja Annamalaipuram	Test Commenced on : 28.09.2020
Chennai – 600 028.	Test Completed on : 05.10.2020
Project Address : Eco-restoration of Adyar River (2000 -4800m)	Report Issuing Date : 05.10.2020
Chainage from Thiru. Vi. Ka. Bridge to 400m	
upstream of Kottupuram Bridge, Chennai.	

Sample Description : Ground Water
Sampling Location : YMCA Nandanam – Govt. Form
Sampling Plan/Procedure : ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	25.9
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	6.83
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	12963
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	7389
07	Salinity in g/hour	By Calculation	6.23
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	10.48
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff.2009)	30.47
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	0.12
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	235
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	310
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	3449
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	586
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	246
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	2242
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	280

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

*R. Sivakumar*  
(R.Sivakumar)



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## Test Report

Report No. ES IPL/EMS/2020/09/757

Page 2 of 2

S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	0.16
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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## Test Report

<b>Report No.</b> : ESIPL/EMS-M/2020/09/757 <b>Customer Name</b> : M/S. CHENNAI RIVERS RESTORATION TRUST Dr.D.G.S. Dinakaran Salai, Raja Annamalai puram, Chennai-28 <b>Project Address</b> : Eco-Restoration of Adyar River(2000- 4800m) Chain from Thiru.Vi.Ka.Bridge to 400m Upstream of Kotturpuram Bridge, Chennai	<b>Date of Sampling</b> : 28.09.2020 <b>Date of Registration</b> : 28.09.2020 <b>Sample Code</b> : E -1072 <b>Test Commenced on</b> : 28.09.2020 <b>Test Completed on</b> : 04.10.2020 <b>Report Issuing Date</b> : 05.10.2020
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<b>Sample Description</b>	: Ground Water
<b>Sampling Location</b>	: YMCA Nandanam - Govt. Form
<b>Sampling Method</b>	: IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	130
02	<i>Faecal coliform</i>	IS 1622 : 1981 Reaff 2014	MPN/100ml	11

**Note:** Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification  
 1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt Ltd.  
 No. 1/134,  
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 Street,  
 Sundar Nagar, (D.G.S. Loganathan)  
 Ekkaduthangal, Authorized Signatory  
 \* GUINDY, CHENNAI-32 \*

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### Test Report

Page 1 of 2

Report No. : ESIPL/EMS/2020/09/758		Date of Sampling : 28.09.2020
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST		Date of Registration : 28.09.2020
Dr.D.G.S. Dinakaran Salai		Sample Code : E-1073
Raja Annamalaipuram		Test Commenced on : 28.09.2020
Chennai – 600 028.		Test Completed on : 05.10.2020
Project Address : Eco-restoration of Adyar River (2000 -4800m)		Report Issuing Date : 05.10.2020
Chainage from Thiru. Vi. Ka. Bridge to 400m		
upstream of Kottupuram Bridge, Chennai.		

Sample Description :	Ground Water
Sampling Location :	Saidapet - Near Little Mount Church
Sampling Plan/Procedure :	ESIPL/SOP/CA/WSA/01

S.No.	Parameter (Characteristic)	Method of Test	Test Result
<b>General Parameters:</b>			
01	Colour in Hazen	IS 3025: Part 4 (Reaff.2006)	BDL(DL:5)
02	Temperature in °C	IS 3025 : Part 9 (Reaff.2006)	25.8
03	Odour	IS 3025 Part 5 (Reaff; 2002)	Unobjectionable
04	pH @ 25°C	IS 3025 : Part 11 (Reaff.2013)	7.04
05	Electrical Conductivity @ 25°C in µmhos/cm	IS 3025 : Part 14 (Reaff.2013)	1547
06	Total Dissolved Solids in mg/l	IS 3025 : Part 16 (Reaff.2009)	882
07	Salinity in g/hour	By Calculation	0.41
<b>Nutrients</b>			
08	Nitrite as NO <sub>2</sub> in mg/l	IS 3025 : Part 34 (Reaff.2009)	BDL(DL:1)
09	Nitrate as NO <sub>3</sub> in mg/l	IS 3025: Part 34 (Reaff:2009)	3.33
10	Inorganic Phosphate as PO <sub>4</sub> in mg/l	IS 3025 : Part 31 (Reaff.2009)	BDL(DL:0.1)
<b>Major Ions:</b>			
11	Calcium as Ca in mg/l	IS 3025 : Part 40(Reaff.2009)	49
12	Magnesium as Mg in mg/l	IS 3025: Part 46 (Reaff.2009)	35
13	Chloride as Cl in mg/l	IS 3025 : Part 32 (Reaff.2009)	228
14	Carbonate as CO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	Nil
15	Bicarbonate as HCO <sub>3</sub> in mg/l	IS 3025: Part 51 (Reaff.2012)	293
16	Sulphate as SO <sub>4</sub> in mg/l	IS 3025 : Part 24 (Reaff.1992)	82
17	Sodium as Na in mg/l	IS 3025 : Part 45 ( Reaff.2009)	148
18	Potassium as K in mg/l	IS 3025 : Part 45 (Reaff.2009)	19

BDL: Below Detection Limit

.....End of Page 1.....

Verified by

(R.Sivakumar)



For Eco Services India Pvt. Ltd.,

(S.Periyasamy)  
Authorized Signatory

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# ECO SERVICES INDIA PVT. LTD.

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## Test Report

Report No. ESIPL/EMS/2020/09/758

Page 2 of 2

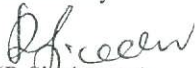
S.No.	Parameter (Characteristic)	Method of Test	Test Result
Toxic Metals Parameters:			
19	Chromium as Cr in mg/l	IS 3025: Part 52(Reaff.2009)	BDL(DL:0.1)
20	Nickel as Ni in mg/l	IS 3025:Part 54 (Reaff.2009)	BDL(DL:0.1)
21	Iron as Fe in mg/l	IS 3025:Part 53 (Reaff.2009)	1.89
22	Arsenic as As in mg/l	APHA 22 <sup>nd</sup> Edition 3500 As	BDL(DL:0.05)
23	Lead as Pb in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Pb	BDL(DL:0.05)
24	Mercury as Hg in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Hg	BDL(DL:0.01)
25	Cadmium as Cd in mg/l	APHA 22 <sup>nd</sup> Edition 3500 Cd	BDL(DL:0.05)

**Note:**

1. BDL - Below Detection Limit; DL - Detection Limit
2. The above parameters from serial No.22 to 25 not covered in our NABL Scope and subcontracted to other Laboratory.

.....End of Report.....

Verified by

  
(R.Sivakumar)



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## Test Report

Report No. : ESIPL/EMS-M/2020/09/758 Date of Sampling : 28.09.2020  
Customer Name : M/S. CHENNAI RIVERS RESTORATION TRUST Date of Registration : 28.09.2020  
Dr.D.G.S. Dinakaran Salai, Sample Code : E -1073  
Project Address : Raja Annamalai puram, Chennai-28 Test Commenced on : 28.09.2020  
: Eco-Restoration of Adyar River(2000- 4800m) Test Completed on : 04.10.2020  
Chain from Thiru.Vi.Ka.Bridge to 400m Report Issuing Date : 05.10.2020  
Upstream of Kotturpuram Bridge, Chennai

Sample Description : Ground Water  
Sampling Location : Saidapet - Near Little Mount Church  
Sampling Method : IS 1622 : 1981 Reaff 2014

S.No	Parameter (Characteristic)	Method of Test	Unit	Test Result
01	Total Coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	80
02	Faecal coliform	IS 1622 : 1981 Reaff 2014	MPN/100ml	7

**Note:** Bureau of Indian Standards IS 10500 – 2012, Drinking Water-Specification

1. MPN – Most Probable Number.

.....End of Page.....

For Eco Services India Pvt.Ltd.



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# ECO SERVICES INDIA PVT. LTD.

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## Test Report

Report No. : ESIPL/EMS/2020/09/759  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
Date of Registration : 28.09.2020  
Sample Code : E-1074  
Test Commenced on : 28.09.2020  
Test Completed on : 05.10.2020  
Report Issuing Date : 05.10.2020

Sample Description : Soil-1  
Sampling Location : Near Cementry Road Santhome Signal River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff.2011)	8.12
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.59
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	69
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.029
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	2.1
	b. Percent Silt	FAO United Nations Rome,2007	69
	c. Percent Sand	FAO United Nations Rome,2007	28
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.9
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	26
13	Iron as Fe in mg/kg	EPA METHOD	84

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)

  
For Eco Services India Pvt. Ltd.,  
Dhanakotiraja  
Street,  
Sundar Nagar,  
Ekkaduthangal,  
Guindy, CHENNAI-3  
(S.Periyasamy)  
Authorized Signatory

**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

**Registered Office & Laboratory:**

No.1/134, Dhanakotiraja Street, Sundar Nagar, Ekkaduthangal, Guindy, Chennai – 600032, Tamil Nadu, India  
Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/09/760  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
Date of Registration : 28.09.2020  
Sample Code : E-1075  
Test Commenced on : 28.09.2020  
Test Completed on : 05.10.2020  
Report Issuing Date : 05.10.2020

Sample Description : Soil-2  
Sampling Location : Near Forshore Estate Bus Stand River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

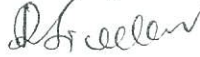
S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	7.34
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.62
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	75
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjheldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.027
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	11
	b. Percent Silt	FAO United Nations Rome,2007	55
	c. Percent Sand	FAO United Nations Rome,2007	33
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	1.9
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	34
13	Iron as Fe in mg/kg	EPA METHOD	96

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

**Registered Office & Laboratory:**

No.1/134, Dhanakotiraja Street, Sundar Nagar, Ekkaduthangal, Guindy, Chennai – 600032, Tamil Nadu, India  
Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/09/761  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Date of Sampling : 28.09.2020  
Date of Registration : 28.09.2020  
Sample Code : E-1076  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Test Commenced on : 28.09.2020  
Test Completed on : 05.10.2020  
Report Issuing Date : 05.10.2020

Sample Description : Soil-3  
Sampling Location : Near Chettinad Palace River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01


S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.4
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.92
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	78
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.023
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	4.5
	b. Percent Silt	FAO United Nations Rome,2007	41
	c. Percent Sand	FAO United Nations Rome,2007	54
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.77
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	30
13	Iron as Fe in mg/kg	EPA METHOD	77

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



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**Registered Office & Laboratory:**

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/09/762  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Date of Sampling : 28.09.2020  
Date of Registration : 28.09.2020  
Sample Code : E-1077  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Test Commenced on : 28.09.2020  
Test Completed on : 05.10.2020  
Report Issuing Date : 05.10.2020

Sample Description : Soil-4  
Sampling Location : Near M.G.R.Janaki Collage Backside Gate River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

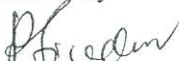
S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.8
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.49
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	59
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.025
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	2.8
	b. Percent Silt	FAO United Nations Rome,2007	38
	c. Percent Sand	FAO United Nations Rome,2007	59
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	1.25
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	34
13	Iron as Fe in mg/kg	EPA METHOD	96


**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)

  
For Eco Services India Pvt. Ltd.,  
(S.Periyasamy)  
Authorized Signatory

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/09/763  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Date of Sampling : 28.09.2020  
Date of Registration : 28.09.2020  
Sample Code : E-1078  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.  
Test Commenced on : 28.09.2020  
Test Completed on : 05.10.2020  
Report Issuing Date : 05.10.2020

Sample Description : Soil-5  
Sampling Location : Kotturpuram River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01


S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.5
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.63
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	68
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.03
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	7.6
	b. Percent Silt	FAO United Nations Rome,2007	64
	c. Percent Sand	FAO United Nations Rome,2007	28
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.89
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	27
13	Iron as Fe in mg/kg	EPA METHOD	85

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

**Registered Office & Laboratory:**

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/09/764  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
Date of Registration : 28.09.2020  
Sample Code : E-1079  
Test Commenced on : 28.09.2020  
Test Completed on : 05.10.2020  
Report Issuing Date : 05.10.2020

Sample Description : Soil-6  
Sampling Location : Near YMCA – Cosmopolitan Club Golf Link River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff:2011)	6.5
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.73
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	52
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldhal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.028
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	3.7
	b. Percent Silt	FAO United Nations Rome,2007	79
	c. Percent Sand	FAO United Nations Rome,2007	17
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.75
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	32
13	Iron as Fe in mg/kg	EPA METHOD	89

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

(R.Sivakumar)



**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

**Registered Office & Laboratory:**

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Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in





# ECO SERVICES INDIA PVT. LTD.

(LABORATORY DIVISION)

## Test Report

Report No. : ESIPL/EMS/2020/09/765  
Customer Name : M/s. CHENNAI RIVERS RESTORATION TRUST  
Dr.D.G.S. Dinakaran Salai  
Raja Annamalaipuram  
Chennai – 600 028.  
Project Address : Eco-restoration of Adyar River (2000 -4800m)  
Chainage from Thiru. Vi. Ka. Bridge to 400m  
upstream of Kottupuram Bridge, Chennai.

Date of Sampling : 28.09.2020  
Date of Registration : 28.09.2020  
Sample Code : E-1080  
Test Commenced on : 28.09.2020  
Test Completed on : 05.10.2020  
Report Issuing Date : 05.10.2020

Sample Description : Soil-7  
Sampling Location : Saidapet River Bank  
Sampling Plan/Procedure : ESIPL/SOP/CA/SS/01

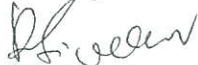
S.No.	Test Parameters	Method	Results
01	pH @ 25°C	IS 2720 Part 26:(Reaff.2011)	7.30
02	Organic Matter in %	IS 2720 Part 22: (Reaff.2010)	0.69
03	Phosphorous as P in mg/g	ESIPL/SOP/C-S/11	62
04	Chromium as Cr in mg/kg	EPA METHOD	BDL(DL:0.05)
05	Oil and Grease in mg/100g	ESIPL/SOP/C-S/24	BDL(DL:1)
06	Nitrate (Total Kjeldal Nitrogen) as N in %	IS 14684:1999 (Reaff.2008)	0.025
07	Sediment Texture		
	a. Percent Clay	FAO United Nations Rome,2007	7.5
	b. Percent Silt	FAO United Nations Rome,2007	23
	c. Percent Sand	FAO United Nations Rome,2007	69
08	Sodium Adsorption Ratio (SAR) in meq/l	FAO United Nations Rome,2007	0.75
09	Mercury as Hg in mg/kg	EPA METHOD	BDL(DL:0.3)
10	Nickel as Ni in mg/kg	EPA METHOD	BDL(DL:0.1)
11	Lead as pb in mg/kg	EPA METHOD	BDL(DL:0.1)
12	Zinc as Zn in mg/kg	EPA METHOD	37
13	Iron as Fe in mg/kg	EPA METHOD	106

**Note:**

1. BDL: Below Detection Limit; DL: Detection Limit
2. The above parameters from serial No.08 to 13 not covered in our NABL Scope.
3. EPA: Environmental Protection Agency

.....End of Report.....

Verified by

  
(R.Sivakumar)



**Note:** § This report relates only to the particular sample submitted for test. § Any correction not attested shall invalidate this report. § This report shall not be reproduced in full or part without our written approval. § The test samples will not be retained for more than 7 days from the date of issue of test report unless otherwise agreed with the customer.

**Registered Office & Laboratory:**

No.1/134, Dhanakotiraja Street, Sundar Nagar, Ekkaduthangal, Guindy, Chennai – 600032, Tamil Nadu, India  
Phone: (044) 30683067/43102232 E-mail: info@ecoservices.in, Web: www.ecoservices.in



## **Annexure - X**

**Acknowledgment copy - Compliance Report on  
the Stipulated Conditions of CRZ Clearance  
submitted to Regional Division CPCB, Chennai**

# CRRT

## CHENNAI RIVERS RESTORATION TRUST

(Wholly owned by Government of Tamil Nadu)

23<sup>rd</sup> December, 2020

To,  
The Regional Director  
Central Pollution Control Board, Regional Division Chennai,  
77-A, South Avenue Road, Ambattur Industrial Estate,  
Ambattur Taluk, Thiruvallur District,  
Chennai - 600 058

Dear Sir,

**Sub:** Submission of Compliance Report on the Stipulated Conditions of CRZ Clearance –  
Reg.

**Ref:** CRZ Clearance. F. No. 11-26 / 2019-IA.III / dt. 22.10.2019.

We wish to inform you that we have obtained CRZ Clearance for Proposed Phase –  
III Eco-restoration of Adyar River (2000-4800m) Chainage from Thiru.Vi.Ka. Bridge to  
400m upstream of Kottupuram Bridge in Chennai, Tamil Nadu. As per the conditions  
stipulated in the CRZ clearance, we are submitting herewith the Compliance Report on the  
stipulated conditions of CRZ Clearance (Hard Copy & Soft Copy in CD).

The receipt of this letter may kindly be acknowledged.

Thanking you.

Authorized Signatory  
Name: Dr.V.Kalaiarasan  
Designation: Project Officer  
Mobile No: 9444855751  
Landline No: 044-24614523  
Email ID: [po.crirt@gmail.com](mailto:po.crirt@gmail.com)

ET002459409IN IVR:6984002459409  
SPP BIFL HUB ST, THOMAS MOUNT <600016>  
Counter No:6,24/12/2020,15:55  
To:THE RGNL DR,CENTRAL POLLU CH  
PIN:600058, Ambattur Indl Estate SO  
From:CHENNAI RIV,ADYAR  
Wt:1187gms  
Amt:59.00(Cash)Tax:9.00  
<Track on [www.indiapost.gov.in](http://www.indiapost.gov.in)>



Project Officer  
CRRT

Enclosure: Compliance Report on the Stipulated Conditions of CRZ Clearance (Hard Copy  
& Soft Copy in CD).



## **Annexure - XI**

**Acknowledgment copy - Compliance Report on  
the Stipulated Conditions of CRZ Clearance  
submitted to the member Secretary, TNPCB,  
Chennai**

# CRRT CHENNAI RIVERS RESTORATION TRUST

(Wholly owned by Government of Tamil Nadu)

23<sup>rd</sup> December, 2020

To  
The Member Secretary,  
Tamilnadu Pollution Control Board,  
76, Mount Road, Guindy  
Chennai – 600 032

Dear Sir,

**Sub:** Submission of Compliance Report on the Stipulated Conditions of CRZ Clearance  
– Reg.

**Ref:** CRZ Clearance. F. No. 11-26 / 2019-IA.III / dt. 22.10.2019.

We wish to inform you that we have obtained CRZ Clearance for Proposed Phase – III Eco-restoration of Adyar River (2000-4800m) Chainage from Thiru.Vi.Ka. Bridge to 400m upstream of Kottupuram Bridge in Chennai, Tamil Nadu. As per the conditions stipulated in the CRZ clearance, we are submitting herewith the Compliance Report on the stipulated conditions of CRZ Clearance (Hard Copy & Soft Copy in CD).

The receipt of this Letter may kindly be acknowledged.

Thanking you.

  
Project Officer  
CRRT

Authorized Signatory  
Name: Dr.V.Kalaiarasan  
Designation: Project Officer  
Mobile No: 9444855751  
Landline No: 044-24614523  
Email ID: [po.crrt@gmail.com](mailto:po.crrt@gmail.com)



Enclosure: Compliance Report on the Stipulated Conditions of CRZ Clearance (Hard Copy & Soft Copy in CD).