

Laboratory **Advanced Environmental Laboratory, Tamil Nadu Pollution Control Board, No. 76, Anna Salai, Guindy, Chennai, Tamil Nadu**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6873**

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Validity **07.02.2018 to 06.02.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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CHEMICAL TESTING

I.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	Respirable Suspended Particulate Matter (PM ₁₀)	IS 5182: (Part 23)	5 µg/m ³ to 1,000 µg/m ³
		Sulphur Dioxide (as SO ₂)	IS 5182: (Part 2)	4 µg/m ³ to 200 µg/m ³
		Oxides of Nitrogen (as NO _x)	IS 5182: (Part 6)	5 µg/m ³ to 500 µg/m ³
2.	Stack Emission	Particulate Matter	IS 11255: (Part 1)	5 mg/Nm ³ to 5000 mg/Nm ³
		Sulphur Dioxide (as SO ₂)	USEPA CTM /034, Rev.no. 7	10 mg/Nm ³ to 4000 mg/Nm ³
		Oxides of Nitrogen (as NO _x)	USEPA CTM /030, Rev.no. 7	10 mg/Nm ³ to 2000 mg/Nm ³
		Gaseous Emission	IS 11255: (Part 3)	1000 Nm ³ /hr to 500000 Nm ³ /hr
		Temperature	IS 11255: (Part 3)	30 °C to 800°C
		Velocity	IS 11255: (Part 3)	3 m/sec to 50 m/sec
3.	Sound Level (Industrial Ambient Noise)	Sound level (Leq)	IS : 9989	30 dB(A) to 130dB(A)
II.	WATER			
1.	Ground Water, Lake Water, River Water	pH Value @25°C	APHA 23 rd Edn- 4500H ⁺ B	2 Unit to 12 Unit
		Conductivity @25°C	APHA 23 rd Edn - 2510 B	1 µS/cm to 50000µS/cm
		Total Suspended Solids @105°C	APHA 23 rd Edn- 2540 D	4 mg/L to 1000 mg/L
		Total Dissolved solids @180°C	APHA 23 rd Edn- 2540 C	4 mg/L to 50,000 mg/L
		Chloride as Cl	APHA 23 rd Edn- 4500 -Cl - B	2 mg/L to 20,000 mg/L

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		Sulphate as SO ₄	APHA 23 rd Edn-4500-SO ₄ ²⁻ E	2 mg/L to 5,000 mg/L
		Oil & grease	APHA 23 rd Edn- 5520 B	2 mg/L to 50 mg/L
		Bio chemical oxygen demand (3 days @ 27°C)	IS 3025 (Part 44)	2 mg/L to 50 mg/L
		Chemical Oxygen Demand (Open Reflux method)	IS 3025 (Part – 58)	4 mg/L to 500 mg/L
		Ammonical nitrogen as NH ₃ -N	APHA 23 rd Edn- 4500 -NH ₃ C	2 mg/L to 50 mg/L
		Total Kjeldhal Nitrogen as N	APHA 23 rd Edn- 4500 -Norg B	2 mg/L to 100 mg/L
		Nitrite nitrogen as NO ₂ -N	APHA 23 rd Edn- 4500 -NO ₂ ⁻ B	0.1 mg/L to 10 mg/L
		Nitrate nitrogen as NO ₃ -N	APHA 23 rd Edn- 4500 -NO ₃ -B	1.0 mg/L to 100 mg/L
		Phosphate as PO ₄	APHA 23 rd Edn- 4500 P-E	0.5 mg/L to 100 mg/L
		Total Volatile Solids @550°C	APHA 23 rd Edn- 2540 E	10 mg/L to 5000 mg/L
		Total fixed Solids@550°C	APHA 23 rd Edn- 2540 E	10 mg/L to 5000 mg/L
		Phenolic Compounds as C ₆ H ₅ OH	APHA 23 rd Edn- 5530 C	0.1 mg/L to 5.0 mg/L
		Fluoride as F ⁻	APHA 23 rd Edn- 4500 F B D	0.1 mg/L to 10 mg/L
		Alkalinity as CaCO ₃	APHA 23 rd Edn- 2320 B	1 mg/L to 1000 mg/L
		Acidity as CaCO ₃	APHA 23 rd Edn- 2310 B	1 mg/L to 1000 mg/L
		Total Hardness as CaCO ₃	APHA 23 rd Edn- 2340 C	5 mg/L to 1000 mg/L
		Calcium hardness as CaCO ₃	APHA 23 rd Edn-3500- Ca B	5 mg/L to 500 mg/L
		Magnesium hardness as CaCO ₃	APHA 23 rd Edn-3500- Mg B	5 mg/L to 500 mg/L
		Calcium as Ca	APHA 23 rd Edn- 3500- Ca B	5 mg/L to 300 mg/L
		Magnesium as Mg	APHA 23 rd Edn-3500-Mg B	5 mg/L to 300 mg/L
		Sodium as Na	APHA 23 rd Edn-3500-Na B	5 mg/L to 1000 mg/L
		Potassium as K	APHA 23 rd Edn-3500-K B	5 mg/L to 500 mg/L

Iti Saxena
Convenor

Alok Jain
Program Director

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		Hexavalent Chromium as Cr ⁶⁺	APHA 23 rd Edn-3500-Cr B	0.05 mg/L to 5.0 mg/L
		Total Chromium as Cr	APHA 23 rd Edn-3500-Cr B	0.05 mg/L to 5.0 mg/L
		Dissolved Oxygen	APHA 23 rd Edn-4500-O C	1 mg/L to 8 mg/L
III.	POLLUTION AND ENVIRONMENT			
1.	Raw & Treated Water	pH Value @25°C	APHA 23 rd Edn-4500 H ⁺ B	2 Unit to 12 Unit
		Conductivity @25°C	APHA 23 rd Edn-2510 B	1 µS/cm to 50000µS/cm
		Total Suspended Solids@105°C	APHA 23 rd Edn- 2540 D	4 mg/L to 10000 mg/L
		Total Dissolved solids @180°C	APHA 23 rd Edn- 2540 C	4 mg/L to 50,000 mg/L
		Chloride as Cl	APHA 23 rd Edn- 4500 Cl ⁻ B	2 mg/L to 50,000 mg/L
		Sulphate as SO ₄	APHA 23 rd Edn-4500 - SO ₄ ²⁻ E	2 mg/L to 5,000 mg/L
		Oil & grease	APHA 23 rd Edn-5520 B	2 mg/L to 1000 mg/L
		Bio chemical oxygen demand (3 days @ 27°C)	IS 3025 (Part 44)	2 mg/L to 50000 mg/L
		Chemical Oxygen Demand	IS 3025 (Part 58)	4 mg/L to 1,00,000 mg/L
		Ammonical nitrogen as NH ₃ -N	APHA 23 rd Edn- 4500 -NH ₃ C	2 mg/L to 500 mg/L
		Total Kjeldhal Nitrogen	APHA 23 rd Edn- 4500 -Norg B	2 mg/L to 200 mg/L
		Nitrite nitrogen as NO ₂ -N	APHA 23 rd Edn- 4500 -NO ₂ ⁻ B	0.1 mg/L to 10 mg/L
		Phosphate as PO ₄	APHA 23 rd Edn-4500-P E	0.5 mg/L to 100 mg/L
		Total Volatile Solids@550°C	APHA 23 rd Edn-2540 E	10 mg/L to 5000 mg/L
		Total fixed Solids@550°C	APHA 23 rd Edn-2540 E	10 mg/L to 5000 mg/L
		Phenolic Compounds as C ₆ H ₅ OH	APHA 23 rd Edn-5530 C	0.1 mg/L to 20 mg/L

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		Fluoride as F	APHA 23 rd Edn-4500 F B,D	0.1 mg/L to 50 mg/L
		Alkalinity as CaCO ₃	APHA 23 rd Edn- 2320 B	1 mg/L to 5000 mg/L
		Acidity as CaCO ₃	APHA 23 rd Edn- 2310- B	1 mg/L to 5000 mg/L
		Total Hardness as CaCO ₃	APHA 23 rd Edn- 2340 C	5 mg/L to 10000 mg/L
		Calcium hardness as CaCO ₃	APHA 23 rd Edn-3500- Ca B	5 mg/L to 5000 mg/L
		Magnesium hardness as CaCO ₃	APHA 23 rd Edn-3500-Mg B	5 mg/L to 5000 mg/L
		Calcium as Ca	APHA 23 rd Edn-3500-Ca B	5 mg/L to 3000 mg/L
		Magnesium as Mg	APHA 23 rd Edn-3500-Mg B	5 mg/L to 3000 mg/L
		Sodium as Na	APHA 23 rd Edn-3500-Na B	5 mg/L to 5000 mg/L
		Potassium as K	APHA 23 rd Edn-3500-K B	5 mg/L to 5000 mg/L
		Hexavalent Chromium as Cr ⁶⁺	APHA 23 rd Edn-3500-Cr B	0.05 mg/L to 100 mg/L
		Total Chromium as Cr	APHA 23 rd Edn-3500-Cr B	0.05 mg/L to 100 mg/L
		Dissolved Oxygen	APHA 23 rd Edn-4500-O C	1 mg/L to 8 mg/L
		% Sodium	AEL-CHN/SOP/W28 Issue No/Date:. 01/14.07.2014.	1% to 95%

Iti Saxena
Convenor

Alok Jain
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