

Laboratory Central Laboratory, Telangana State Pollution Control Board,
Paryavarana Bhavan, A-III, Industrial Estate, Sanathnagar, Hyderabad,
Telangana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7123

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Validity 13.04.2018 to 12.04.2020

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.	WATER			
1.	Ground Water & Surface Water	pH at 25 °C	4500-H ⁺ B, APHA	4 to 12
		Conductivity at 25 °C	2510 B, APHA	1 to 5000 (µS/cm)
		Turbidity	2130 B, APHA	5 NTU to 500 NTU
		Colour	2120 B, APHA	1 to 500 Colour Units
		Total Alkalinity as CaCO ₃	2320 B, APHA	2 mg/l to 2000 mg/l
		Total Hardness as CaCO ₃	2340 C, APHA	2 mg/l to 5000 mg/l
		Calcium as Ca	3500-Ca B, APHA	5 mg/l to 2000 mg/l
		Magnesium as Mg	3500-Mg B, APHA	5 mg/l to 1000 mg/l
		Sodium as Na	3500-Na B, APHA	1 mg/l to 1500 mg/l
		Potassium as K	3500-K B, APHA	1 mg/l to 500 mg/l
		Phosphorous as P	4500-P B, D APHA	0.1 mg/l to 100 mg/l
		Sulphide as S ²⁻	4500 -S ²⁻ D, APHA	1 mg/l to 100 mg/l
		Total Kjeldahl Nitrogen (TKN)	4500-N _{org} B, APHA	5 mg/l to 1000 mg/l
		Nitrate as NO ₃	4500 -NO ₃ B, APHA	0.1 mg/l to 100 mg/l
		Nitrite as NO ₂	4500-NO ₂ B, APHA	0.1 mg/l to 100 mg/l
		Total Suspended Solids	2540 - D, APHA	5 mg/l to 1000 mg/l
		Total Dissolved Solids (TDS)	2540 C, APHA	10 mg/l to 20000 mg/l
		Fixed Solids ignited at 550°C	2540 E, APHA	10 mg/l to 5000 mg/l
		Chlorides as Cl ⁻	4500-Cl ⁻ B, APHA	10 mg/l to 5000 mg/l
		Sulphate as SO ₄ ²⁻	4500-SO ₄ ²⁻ B, APHA	4 mg/l to 5000 mg/l
	Fluorides as F	4500-F ⁻ D, APHA	0.1 mg/l to 20 mg/l	
	Oil & Grease	5520 -B, APHA	5 mg/l to 1000 mg/l	
	Chemical Oxygen Demand (COD)	5220 B, APHA	10 mg/l to 500 mg/l	

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		Biochemical Oxygen Demand (BOD) 3 days at 27°C	IS 3025 (Part 44)	2 mg/l to 300 mg/l
		Biochemical Oxygen Demand (BOD) 5 days @20°C	5210B, APHA	2 mg/l to 300 mg/l
		Ammonical nitrogen as NH ₃ -N	4500-NH ₃ C, F, APHA	5 mg/l to 500 mg/l
		Phenolic compounds as C ₆ H ₅ OH	5530 D, APHA	0.1 mg/l to 10 mg/l
		Total chromium as Cr	3111 D, APHA	0.2 mg/l to 50 mg/l
		Hexavalent Chromium as Cr ⁶⁺	3500-Cr B, APHA	0.1 mg/l to 30 mg/l
		Boron	4500-B B, APHA	0.1 mg/l to 100 mg/l
		Lead as Pb	3111 B, APHA	0.2 mg/l to 10 mg/l
		Nickel as Ni	3111 B, APHA	0.1 mg/l to 10 mg/l
		Copper as Cu	3111 B, APHA	0.1 mg/l to 10 mg/l
		Cadmium as Cd	3111 B, APHA	0.1 mg/l to 10 mg/l
		Mercury as Hg	3112 B, APHA	0.01 mg/l to 1.0 mg/l
		Zinc as Zn	3111 B, APHA	0.1 mg/l to 100mg/l
		Arsenic as As	3113 B, APHA / 3114 B	0.02 mg/l to 1.0 mg/l
		Barium as Ba	3113 B, APHA	0.1 mg/l to 100 mg/l
II.	POLLUTION & ENVIRONMENT			
1.	Waste Water, Industrial Effluents	pH at 25°C	4500-H+ B, APHA	4 to 12
		Conductivity at 25°C	2510 B, APHA	5 to 50,000 (µS/cm)
		Turbidity	2130 B, APHA	0.1 NTU to 1000 NTU
		Colour	2120 B, APHA	(400 to 700 nm) Hue
		Total Alkalinity as CaCO ₃	2320 B, APHA	2 mg/l to 5000 mg/l
		Total Hardness as CaCO ₃	2340 C, APHA	1 mg/l to 10000 mg/l

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		Calcium as Ca	3500-Ca B, APHA	1 mg/l to 5000 mg/l
		Magnesium as Mg	3500-Mg B, APHA	1 mg/l to 2500 mg/l
		Sodium as Na	3500-Na B, APHA	1mg/l to 5000 (mg/l)
		Potassium as K	3500-K B, APHA	1 mg/l to 1000 mg/l
		Phosphorous as P	4500-P B,D, APHA	0.1 mg/l to 100 mg/l
		Sulphide as S ²⁻	4500 -S ²⁻ D, APHA	1 mg/l to 100 mg/l
		Total Kjeldahl Nitrogen (TKN)	4500-Norg B, APHA	1 mg/l to 1000 mg/l
		Nitrate as NO ₃	4500-NO3 B, APHA	0.1 mg/l to 1000 mg/l
		Nitrite as NO ₂	4500-NO ₂ B, APHA	0.1 mg/l to 1000 mg/l
		Total Suspended Solids	2540 -D, APHA	5mg/l to 5000 mg/l
		Total Dissolved Solids	2540 C, APHA	10mg/l to 80,000 mg/l
		Fixed Solids ignited at 550°C	2540 E, APHA	10mg/l to 50,000 mg/l
		Chlorides as Cl ⁻	4500-Cl- B, APHA	10mg/l to 50,000 mg/l
		Sulphates as SO ₄ ²⁻	4500-SO ₄ , APHA	4mg/l to 5000 mg/l
		Fluorides as F	4500-F B, D, APHA	0.1 mg/l to 50 mg/l
		Oil & grease	5520 -B, APHA	5 mg/l to 1000 mg/l
		Chemical Oxygen Demand (COD)	5220 B, APHA	10mg/l to 1,00,000 mg/l
		Biochemical Oxygen Demand (BOD) 3 days at 27°C	IS 3025 (Part 44)	2mg/l to 50,000 mg/l
		Ammonical nitrogen as NH ₃ -N	4500-NH ₃ C, F, APHA	0.1 mg/l to 500 mg/l
		Phenolic compounds as C ₆ H ₅ OH	5530 D, APHA	0.1 mg/l to 10 mg/l
		Total chromium as Cr	3111 D, APHA	0.2 mg/l to 1000 mg/l
		Hexavalent Chromium as Cr ⁶	3500-Cr B, APHA	0.1 mg/l to 100 mg/l
		Boron	4500-B B, APHA	0.1 mg/l to 100 mg/l
		Lead as Pb	3111 B, APHA	0.2 mg/l to 100 mg/l

Pooja Singh
Convenor

Alok Jain
Program Director

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		Nickel as Ni	3111 B, APHA	0.1 mg/l to 100 mg/l
		Copper as Cu	3111 B, APHA	0.1 mg/l to 100 mg/l
		Cadmium as Cd	3111 B, APHA	0.1 mg/l to 10 mg/l
		Mercury as Hg	3112 B, APHA	0.01 mg/l to 10 mg/l
		Zinc as Zn	3111 B, APHA	0.1 mg/l to 100 mg/l
		Arsenic as As	3113 B, APHA / 3114 B	0.02 mg/l to 10 mg/l
		Cyanide as CN ⁻	4500-CN -E, APHA	0.1 mg/l to 10 mg/l
2.	Hazardous Waste, Solid Waste, Sludge and Soil (Total)	Acid digestible elements		
		Lead as Pb	USEPA 3050 B / 3051A / 7000B	20 mg/kg to 5000 mg/kg
		Nickel as Ni	USEPA 3050 B / 3051A / 7000B	10 mg/kg to 5000 mg/kg
		Copper as Cu	USEPA 3050 B / 3051A / 7000B	10 mg/kg to 5000 mg/kg
		Cadmium as Cd	USEPA 3050 B / 3051A / 7000B	10 mg/kg to 5000 mg/kg
		Mercury as Hg	USEPA 3051A / 7471B	1 mg/kg to 5000 mg/kg
		Zinc as Zn	USEPA 3050 B / 3051A / 7000B	10 mg/kg to 5000 mg/kg
		Arsenic as As	USEPA 3051A / 7061A	2 mg/kg to 1000 mg/kg
		Chromium as Cr	USEPA 3050 B / 3051A / 7000B	20 mg/kg to 5000 mg/kg
		Barium as Ba	USEPA 3050 B / 3051A / 7000B	10 mg/kg to 5000 mg/kg
		Hexavalent Chromium as Cr ⁶⁺	USEPA 3060A / 7196 A	5 mg/kg to 5000 mg/kg
		TCLP Extract Elements		
		Lead as Pb	USEPA 1311 / 7000B	0.2 mg/l to 100 mg/l
		Cadmium as Cd	USEPA 1311 / 7000B	0.1 mg/l to 10 mg/l
		Mercury as Hg	USEPA 1311 / 7471B	0.01 mg/l to 10 mg/l
		Barium as Ba	USEPA 1311 / 7000B	0.1 mg/l to 100 mg/l
		Arsenic as As	USEPA 1311 / 7061A	0.02 mg/l to 10 mg/l
	Chromium as Cr	USEPA 1311 / 7000B	0.2 mg/l to 100 mg/l	

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III.	ATMOSPHERIC POLLUTION			
1.	Ambient air	Respirable Particulate Matter (PM ₁₀)	IS 5182 (Part 23)	5 µg/m ³ to 1000 µg/m ³
		Particulate Matter size less than 2.5 microns (PM _{2.5})	USEPA Quality Assurance Hand Book, Vol. II, Part II, Quality Assurance guidance Document 2.12	5 µg/m ³ to 500 µg/m ³
		Sulphur Dioxide (SO ₂)	IS 5182 (Part 2)	4 µg/m ³ to 1000 µg/m ³
		Oxides of Nitrogen (NO ₂)	IS 5182 (Part 6)	9 µg/m ³ to 750 µg/m ³
		Lead as Pb (in Particulate Phase)	IS 5182 (Part 22)	0.1 µg/m ³ to 10 µg/m ³
		Ammonia as NH ₃	CL/TSPCB/SOP/AIR/04; Version No.02, Issue date: 02.01.2015	20 µg/m ³ to 700 µg/m ³
2.	Stack Emission	Particulate Matter	IS 11255 (Part 1)	10 mg/Nm ³ to 5000 mg/Nm ³
		Sulphur Dioxide (SO ₂)	IS 11255 (Part 2)	3 mg/Nm ³ to 3000 mg/Nm ³
		Oxides of Nitrogen (NO ₂)	CL/TSPCB/SOP/SM1/05) Version No.01, Issue date: 06.02.2017	5 mg/Nm ³ to 2000 mg/Nm ³
		Carbon dioxide (CO ₂)	CL/TSPCB/SOP /SM2/06), Version No.01, Issue date: 06.02.2017	0 to 14%