

Laboratory Environment Protection Training & Research Institute, 91/4,
Gachibowli, Hyderabad, Telangana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7709 (in lieu of T-0612 & T-1451)

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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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BIOLOGICAL TESTING

I.	WATER			
1.	Potable Water, Domestic Water, Treated Water, Domestic water	Total Coliforms	APHA 23 rd Edition 2017, 9221 B	<1.8 to>1600 MPN Index/100 ml
		Fecal Coliforms	APHA 23 rd Edition 2017, 9221 E	<1.8 to>1600 MPN Index/100 ml
		Escherichia coli	APHA 23 rd Edition 2017, 9221 F	Qualitative (Presence or Absence)/ 100 ml
		Heterotrophic plate count (Standard plate count)	APHA 23 rd Edition 2017, 9215 B	≥1 CFU/ml
		Fecal Streptococcal bacteria	APHA 23 rd Edition 2017, 9230 B	<1.8 to>1600 MPN Index/100 ml
		Salmonella	APHA 23 rd Edition 2017, 9260 B	Qualitative (Presence or Absence)/ 100 ml
II.	ENVIRONMENT AND POLLUTION			
1.	Industrial Waste water	Total Coliforms	APHA 23 rd Edition 2017, 9221 B	<1.8 to>1600 MPN Index/100 ml
		Fecal Coliforms	APHA 23 rd Edition 2017, 9221 E	<1.8 to>1600 MPN Index/100 ml
		Escherichia coli	APHA 23 rd Edition 2017, 9221 F	Qualitative (Presence or Absence)/ 100 ml
		Heterotrophic plate count (Standard plate count)	APHA 23 rd Edition 2017, 9215 B	≥1 CFU/ml
		Fecal Streptococcal bacteria	APHA 23 rd Edition 2017, 9230 B	<1.8 to>1600 MPN Index/100 ml
		Salmonella	APHA 23 rd Edition 2017, 9260 B	Qualitative(Presence or Absence)/ 100 ml

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CHEMICAL TESTING

I.	WATER			
1.	Ground water and Surface water	pH	APHA 23rd Edition, 4500-H+B: 2017, (Electrometric)	4 to 12
		Electrical Conductivity	APHA 23rd Edition, 2510.B: 2017, (Electrochemical)	1 µmho/cm to 10000 µmhos/cm
		Colour	APHA 23rd Edition, 2120. B: 2017, (Visual Comparison)	5 Hazen to 100 Hazen
		Turbidity	APHA 23rd Edition, 2130. B: 2017, (Nephelometric)	0.1 NTU to 100 NTU
		Total Dissolved Solids	APHA 23rd Edition, 2540. C: 2017, (Gravimetric)	5 mg/l to 5000 mg/l
		Total Alkalinity as CaCO ₃	APHA 23rd Edition, 2320. B: 2017, (Titrimetric)	5 mg/l to 2500 mg/l
		Total Hardness as CaCO ₃	APHA 23rd Edition, 2340. C: 2017, (Complexometric)	5 mg/l to 5000 mg/l
		Calcium as Ca	APHA 23rd Edition, 3500-Ca.B: 2017, (Complexometric)	5 mg/l to 2000 mg/l
		Magnesium as Mg	APHA 23rd Edition, 3500-Mg.B: 2017, (Complexometric)	5 mg/l to 1000 mg/l
		Chloride as Cl ⁻	APHA 23rd Edition, 4500-Cl.B: 2017, (Argentometric)	10 mg/l to 5000 mg/l
		Sulfate as SO ₄ ²⁻	APHA 23rd Edition, 4500-SO ₄ ²⁻ .C: 2017, (Gravimetric)	5 mg/l to 500 mg/l
			APHA 23rd Edition, 4500-SO ₄ ²⁻ .E: 2017 (Turbidimetric)	1 mg/l to 200 mg/l

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		Nitrite as NO ₂	APHA 23rd Edition, 4500-NO ₂ .B: 2017, (Colorimetric)	0.01 mg/l to 2 mg/l
		Nitrate as NO ₃ -	APHA 23rd Edition, 4500-NO ₃ .B: 2017, (Spectrophotometric)	0.1 mg/l to 100 mg/l
		Fluoride as F	APHA 23rd Edition, 4500-F.C: 2017, (Selective Electrode)	0.1 mg/l to 10 mg/l
			APHA 23rd Edition, 4500-F.D: 2017, (SPADNS)	0.01 mg/l to 10 mg/l
		Cyanide as CN	(Selective Electrode) APHA 23rd Edition, 4500-CN.F: 2017, (Selective Electrode)	0.05 mg/l to 10 mg/l
		Hexavalent Chromium as Cr ⁺⁶	APHA 23rd Edition, 3500-Cr ⁺⁶ .B: 2017, (Colorimetric)	0.05 mg/l to 10 mg/l
		Total Phosphate as PO ₄	APHA 23rd Edition, 4500-P.D: 2017, (Spectrophotometric)	0.05 mg/l to 10mg/l
		Chemical Oxygen Demand	APHA 23rd Edition, 5220-B: 2017, (Open Reflux)	5 mg/l to 250 mg/l
		Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 (Part 44):1993 (RA 1999)	1 mg/l to 100 mg/l
		Aluminium as Al	APHA 23rd Edition, 2017,-3120-B (ICP-OES)	0.04 mg/l to 5 mg/l
		Antimony as Sb	APHA 23rd Edition, 2017,-3120-B (ICP-OES)	0.05 mg/l to 3 mg/l
		Arsenic as As	APHA 23rd Edition, 2017,-3120-B(ICP-OES)	0.05 mg/l to 3 mg/l
		Barium as Ba	APHA 23rd Edition, 2017,-3120-B(ICP-OES)	0.03 mg/l to 3 mg/l
		Boron as B	APHA 23rd Edition, 2017,-3120-B(ICP-OES)	0.04 mg/l to 5 mg/l

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		Cadmium as Cd	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.03 mg/l to 3 mg/l
		Calcium as Ca	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.3 mg/l to 5 mg/l
		Chromium as Cr	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.03 mg/l to 3 mg/l
		Cobalt as Co	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.04 mg/l to 5 mg/l
		Copper as Cu	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.04 mg/l to 5 mg/l
		Iron as Fe	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.03 mg/l to 5 mg/l
		Lead as Pb	APHA 23RD Edition, 2017,-3120-B(ICP-OES)	0.04 mg/l to 3 mg/l
		Lithium as Li	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.03 mg/l to 3 mg/l
		Magnesium as Mg	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.2 mg/l to 5 mg/l
		Manganese as Mn	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.03 mg/l to 5 mg/l
		Molybdenum as Mo	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.04 mg/l to 3 mg/l
		Nickel as Ni	APHA 23rd Edition, 2017, 3120-B(ICP-OES)	0.03 mg/l to 3 mg/l
		Potassium as K	APHA 23rd Edition, 2017,- 3120-B(ICP-OES) APHA 23rd Edition, 2017,-3500K- B (By Flame Photometry)	0.1 mg/l to 5 mg/l 1 mg/l to 5000 mg/l
		Selenium as Se	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.04 mg/l to 3 mg/l
		Silica as SiO ₂	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.04 mg/l to 3 mg/l
		Silver as Ag	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.03 mg/l to 3 mg/l

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		Sodium as Na	APHA 23rd Edition, 2017,- 3120-B(ICP-OES) APHA 23rd Edition, 2017,- 3500Na-B (By Flame Photometry)	0.05 mg/l to 5 mg/l 1 mg/l to 5000 mg/l
		Vanadium as V	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.03 mg/l to 3 mg/l
		Zinc as Zn	APHA 23rd Edition, 2017,- 3120-B(ICP-OES)	0.03 mg/l to 100 mg/l
2.	Distilled Water	pH	APHA 23rd Edition, 4500- H+B: 2017, (Electrometric)	Upto 14
		Electrical Conductivity	APHA 23rd Edition, 2510. B: 2017, (Electrochemical)	1 µmho/cm to 50 µmhos/cm
		Total Solids	APHA 23rd Edition, 2540. B: 2017, (Gravimetric)	5 mg/l to 50 mg/l
		Reactive Silica as SiO ₂	APHA 23rd Edition, 4500- SiO ₂ .C: 2017, (Spectrophotometric)	0.1 mg/l to 5 mg/l
II.	POLLUTION AND ENVIRONMENT			
1.	Industrial Waste Water and Liquid Effluents	pH	APHA 23rd Edition, 4500- H+B: 2017, (Electrometric)	1 to 14
		Electrical Conductivity	APHA 23rd Edition, 2510. B: 2017, (Electrochemical)	1 µmho/cm to 40000 µmhos/cm
		Colour	APHA 23rd Edition, 2120. D: 2017, (Spectrometric method)	5 CU to 100 CU
		Turbidity	APHA 23rd Edition, 2130. B: 2017, (Nephelometric)	0.1 NTU to 100 NTU
		Total Suspended Solids	APHA 23rd Edition, 2540. D: 2017, (Gravimetric)	5 mg/l to 1000 mg/l
		Total Dissolved Solids	APHA 23rd Edition, 2540. C: 2017, (Gravimetric)	5 mg/l to 20000 mg/l

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		Oil & Grease	APHA 23rd Edition, 5520-B: 2017, (Partition-Gravimetric)	1 mg/l to 200 mg/l
		Ammonical Nitrogen as N	APHA 23rd Edition, 4500-NH ₃ C : 2017, (Titrimetric)	5 mg/l to 2000 mg/l
		Total Kjeldahl Nitrogen as N	APHA 23rd Edition, 4500-N _{org} .B: 2017, (Macro-Kjeldahl)	5 mg/l to 3000 mg/l
		Biochemical Oxygen Demand (5 days at 20°C)	APHA 23rd Edition, 5210-B: 2017, (Titrimetric)	3 mg/l to 5000 mg/l
		Biochemical Oxygen Demand (3 days at 27°C)	IS 3025 (Part 44):1993 (RA 1999)	3 mg/l to 5000 mg/l
		Chemical Oxygen Demand	APHA 23rd Edition, 5220-B: 2017, (open reflux)	10 mg/l to 50000 mg/l
		Arsenic as As	APHA 23rd Edition, 3113-As.D: 2017, (AAS-HVG)	0.1 mg/l to 5 mg/l
		Mercury as Hg	APHA 23rd Edition: 2017,	0.01 mg/l to 20 mg/l
		Lead as Pb	APHA 23rd Edition, 3111-Pb. B: 2017, (AAS)	0.1 mg/l to 5 mg/l
		Cadmium as Cd	APHA 23rd Edition, 3111-Cd. B: 2017, (AAS)	0.5 mg/l to 5 mg/l
		Hexavalent Chromium as Cr ⁺⁶	APHA 23rd Edition, 3500-Cr. B: 2017, (Spectrophotometric)	0.05 mg/l to 10 mg/l
		Total Chromium as Cr	APHA 23rd Edition, 3111-Cr. B: 2017, (AAS)	0.2 mg/l to 10 mg/l
		Copper as Cu	APHA 23rd Edition, 3111-Cu. B: 2017, (AAS)	0.05 mg/l to 10 g/L
		Zinc as Zn	APHA 23rd Edition, 3111-Zn. B: 2017, (AAS)	0.05 mg/l to 10 mg/l
		Nickel as Ni	APHA 23rd Edition, 3111-Ni.B: 2017, (AAS)	0.3 mg/l to 10 mg/l
		Cobalt as Co	APHA 23rd Edition, 3111-Co.B: 2017, (AAS)	0.1 mg/l to 10 mg/l

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		Iron as Fe	APHA 23rd Edition, 3111-Fe.B: 2017, (AAS)	0.3 mg/l to 5 mg/l
		Manganese as Mn	APHA 23rd Edition, 3111-Mn.B: 2017, (AAS)	0.1 mg/l to 10 mg/l
		Cyanide as CN ⁻	APHA 23rd Edition, 4500-CN.F: 2017, (Selective Electrode)	0.05 mg/l to 10 mg/l
		Chloride as Cl ⁻	APHA 23rd Edition, 4500 Cl.B: 2017, (Argentometric)	10 mg/l to 5000 mg/l
		Fluoride as F ⁻	APHA 23rd Edition, 4500-F.C: 2017, (Selective Electrode)	0.1 mg/l to 10 mg/l
		Total Phosphate as PO ₄	APHA 23rd Edition, 4500-P.D: 2017, (Spectrophotometric)	0.1 mg/l to 1000 mg/l
		Sulfate as SO ₄ ²⁻	APHA 23rd Edition, 4500-SO ₄ ²⁻ .C: 2017, (Gravimetric)	5 mg/l to 1000 mg/l
			APHA 23rd Edition, 4500-SO ₄ ²⁻ .E: 2017, (Turbidimetric)	1 mg/l to 200 mg/l
		Sulfide as S ²⁻	APHA 23rd Edition, 4500-S ²⁻ .F&D: 2017, (Titrimetric)	1 mg/l to 100 mg/l
		Phenolic Compounds as C ₆ H ₅ OH	APHA 23rd Edition, 5530-D: 2017, (Direct Photometric)	0.1 mg/l to 10 mg/l
		Aluminium as Al	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 5 mg/l
		Antimony as Sb	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.05 mg/l to 3 mg/l
		Arsenic as As	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.05 mg/l to 3 mg/l
		Barium as Ba	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.03 mg/l to 3 mg/l

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		Boron as B	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 5 mg/l
		Cadmium as Cd	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.03 mg/l to 3 mg/l
		Calcium as Ca	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.3 mg/l to 5 mg/l
		Chromium as Cr	APHA 23rd Edition, 3120-B:2017, (ICP-OES)	0.04 mg/l to 3 mg/l
		Cobalt as Co	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 5 mg/l
		Copper as Cu	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 5 mg/l
		Iron as Fe	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 5 mg/l
		Lead as Pb	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 3 mg/l
		Lithium as Li	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 3 mg/l
		Magnesium as Mg	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.2 mg/l to 5 mg/l
		Manganese as Mn	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 5 mg/l
		Molybdenum as Mo	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 3 mg/l
		Nickel as Ni	APHA 23rd Edition, 3120-B: 2017, (ICP-OES)	0.04 mg/l to 3 mg/l
		Potassium as K	APHA 23rd Edition, 3120-B: 2017, (By Flame Photometry) APHA 23rd Edition, 3500K-B: 2017,	1.1 mg/l to 5 mg/l 1 mg/l to 5000 mg/l
		Selenium as Se	APHA 23rd Edition, 3120-B: 2017,(ICP-OES)	0.04 mg/l to 3 mg/l

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		Silica as SiO ₂	APHA 23rd Edition, 3120-B: 2017,(ICP-OES)	0.04 mg/l to 3 mg/l
		Silver as Ag	APHA 23rd Edition, 3120-B: 2017,(ICP-OES)	0.03 mg/l to 3 mg/l
		Sodium as Na	APHA 23rd Edition, 3120-B: 2017,(ICP-OES) APHA 23rd Edition, 3500-Na-B: 2017,	0.05 mg/l to 5 mg/l 1 mg/l to 5000 mg/l
		Vanadium as V	APHA 23rd Edition, 3120-B: 2017,(ICP-OES)	0.04 mg/l to 3 mg/l
		Zinc as Zn	APHA 23rd Edition, 3120-B: 2017,(ICP-OES)	0.04 mg/l to 100 mg/l
2.	Solid Waste/ Hazardous Solid Waste	pH	EPA-SW-846-9045.C	1 to 14
		Arsenic as As	EPA-SW-846-7000.B/7062	5 mg/kg to 50 mg/kg
		Cadmium as Cd	EPA-SW-846-7000.B/7130	5 mg/kg to 50 mg/kg
		Chromium as Cr	EPA-SW-846-7000.B/7190	5 mg/kg to 50 mg/kg
		Hexavalent Chromium as Cr ⁺⁶	EPA-SW-846-7000.B/7196	5 mg/kg to 100 mg/kg
		Cobalt as Co	EPA-SW-846-7000.B/7200	5 mg/kg to 50 mg/kg
		Copper as Cu	EPA-SW-846-7000.B/7210	5 mg/kg to 50 mg/kg
		Iron as Fe	EPA-SW-846-7000.B/7380	5 mg/kg to 100 mg/kg
		Lead as Pb	EPA-SW-846-7000.B/7420	5 mg/kg to 50 mg/kg
		Manganese as Mn	EPA-SW-846-7000.B/7460	5 mg/kg to 100 mg/kg
		Nickel as Ni	EPA-SW-846-7000.B/7520	5 mg/kg to 100 mg/kg
		Zinc as Zn	EPA-SW-846-7000.B/7950	5 mg/kg to 100 mg/kg
		Carbon	SOP-142	0.013 % to 100 %
		Hydrogen	ISSUE No.03	0.066 % to 100 %
		Nitrogen	Date:11.12.2013	0.01 % to 100 %
		Sulphur	(By CHNS Analyzer)	0.083 % to 100 %
	Aluminium as Al	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg	
	Antimony as Sb	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg	
	Arsenic as As	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg	
	Barium as Ba	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg	
	Boron as B	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg	

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		Cadmium as Cd	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Calcium as Ca	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Chromium as Cr	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Cobalt as Co	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Copper as Cu	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Iron as Fe	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Lead as Pb	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Lithium as Li	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Magnesium as Mg	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Manganese as Mn	EPA-SW-846-6010B 1998	5 mg/kg to 100 mg/kg
		Mercury as Hg	EPA-SW-846-7471	5 mg/kg to 20 mg/kg
		Molybdenum as Mo	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Nickel as Ni	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Potassium as K	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Selenium as Se	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Silica as SiO ₂	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Silver as Ag	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Sodium as Na	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Vanadium as V	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Zinc as Zn	EPA-SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Electrical Conductivity	IS 14767:2000	1 µS/cm to 4000 µS/cm
		Moisture content	IS 15106:2002, IS 11465-1993	1 % to 80 %
		Organic matter	IS 2720 (Part XXII) 1972 (RA 1978 & 1995)	0.5 % to 20 %
3.	Metals in TCLP Extract	Arsenic as As	APHA 23rd Edition, 2017,- 3120-B(ICP-OES) USEPA- 1311 TCLP, 1992-Extraction method	0.05 mg/l to 3 mg/l
		Cadmium as Cd		0.03 mg/l to 3 mg/l
		Chromium as Cr		0.04 mg/l to 3 mg/l
		Copper as Cu		0.04-5 mg/l
		Iron as Fe		0.03 mg/l to 5 mg/l
		Lead as Pb		0.04 mg/l to 3 mg/l
		Manganese as Mn		0.03 mg/l to 5 mg/l
Nickel as Ni	0.04 mg/l to 3 mg/l			

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4.	Soils	pH	IS 2720 (Part XXVI) 1987 (RA 1997)	1 to 14
		Electrical Conductivity	IS 14767:2000	1 μ S/cm to 1000 μ S/cm
		moisture content	IS 15106:2002, IS 11465-1993	1 % to 80 %
		organic matter	IS 2720 (Part XXII) 1972 (RA 1978 & 1995)	0.5 % to 20%
		Cation Exchange Capacity	IS 2720 (Part XXIV) 1976 (RA 1995)	5 meq to 50 meq
		soluble Sulphates (gravimetric)	IS 2720 (Part XXVII) 1977 (RA 1995)	5 mg/kg to 1000 mg/kg
		Soluble Sulphates	IS 2720 (Part XXVII) 1977 (RA 1995) (Turbidometry)	5 mg/kg to 1000 mg/kg
		Total Soluble Solids	IS 2720 (Part XXI) 1977 (RA 1995)	5 mg/kg to 20000 mg/kg
		Chlorides	SOP-309 ISSUE-04, Date:17.11.2017	5 mg/kg to 500 mg/kg
		Fluorides	SOP-310 ISSUE-04, Date:17.11.2017	0.1 mg/kg to 1000 mg/kg
		Total Kjeldahl Nitrogen	IS 14684:1999	5 mg/kg to 500 mg/kg
		Ammonical Nitrogen, Nitrite, Nitrate and Nitrogen	IS 14684:1999	5 mg/kg to 50 mg/kg
		Aluminium as Al	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Antimony as Sb	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Arsenic as As	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Barium as Ba	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Boron as B	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Cadmium as Cd	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Calcium as Ca	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Chromium as Cr	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Cobalt as Co	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Copper as Cu	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Iron as Fe	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Lead as Pb	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Lithium as Li	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Magnesium as Mg	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Manganese as Mn	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Mercury as Hg	EPA SW-846-7471	5 mg/kg to 20 mg/kg
		Molybdenum as Mo	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Nickel as Ni	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Potassium as K	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Selenium as Se	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Silica as SiO ₂	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Silver as Ag	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Sodium as Na	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Vanadium as V	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
		Zinc as Zn	EPA SW-846-6010B/3050B	5 mg/kg to 100 mg/kg
III.	RESIDUES IN WATER			
1.	Pesticide residue	Organo-Chlorine Pesticides		
		Lindane	APHA 23rd Edition, 2017, 23rd Edn. 6410-B GCMS/MS Or USEPA 8081B:2007	0.01 µg/L to 50 µg/L
		BHC (alpha)		
		BHC (beta)		
		BHC (delta)/γ BHC		
		Heptachlor		
		Heptachlor epoxide		
		Dieldrin		
		Aldrin		
		Chlordane		
		Endosulphan		
		Endosulphan Sulphate		
		Endrin		
		Endrin Aldehyde		

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		p,p-DDT,2,4,DDT or 4,4, DDT		
		p,p-DDE		
		p,p-DDD		
		B. Organo-Phosphorous Pesticides		
		Chloropyriphos	USEPA-8141B:2007	0.5 µg/L to 5 µg/L
		Dimethoate		
		Ethion		
		Malathion		
		Methyl Parathion		
		Phorate		
2.	Poly Chlorinated Biphenyls (PCB's) in Water	Aroclor-1016,1232,1248,1260,1221,1242,1254	USEPA-8082A:2007	0.1 µg/L to 1000 µg/L for all parameters
IV.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	Suspended Particulate Matter	EPTRI SOP 602 Issue:03 Date:11.12.2013	5 µg/m ³ to 2000 µg/m ³
		Particulate Matter-PM _{2.5} µ	EPTRI-SOP-616, Issue:03 Date:11.12.2013 Based on CPCB Manual, NAAQS Guidelines Volume-I.	5 µg/m ³ to 1000 µg/m ³
		Respirable suspended Particulate matter (PM ₁₀)	IS 5182 (Part 23):2006	5 µg/m ³ to 1000 µg/m ³
		Sulphur Dioxide	IS 5182 (Part 2):2001	4 µg/m ³ to 1000 µg/m ³
		Nitrogen Oxides	IS 5182 (Part-6):2006	9 µg/m ³ to 740 µg/m ³
		Carbon Monoxide	EPTRI SOP 619, Issue:03 Date:11.12.2013 (Electro chemical Sensor Based Method)	1 mg/m ³ to 100 mg/m ³

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		Ammonia	EPTRI SOP 609, Issue:03 Date:11.12.2013 Based on Method:401, AWMA	20 µg/m ³ to 700 µg/m ³
		Ozone	EPTRI SOP 618, Issue:03 Date:11.12.2013 Based on Method:411, AWMA, KI Method	5 µg/m ³ to 200 µg/m ³
		Trace Metals collected on Filters		
		Arsenic as As	EPTRI SOP 619, Issue:03 Date:11.12.2013 Based on Method:822, AWMA/EPA Method- IO 3.4.1999	1.4 ng/m ³ to 50 ng/m ³
		Nickel as Ni		1.4 ng/m ³ to 50 ng/m ³
		Lead as Pb		1.4 µg/m ³ to 50 µg/m ³
2.	Stack Monitoring	Suspended Particulate Matter	IS 11255 (Part 1), 1985 (RA 2003)	10 mg/Nm ³ to 1500 mg/Nm ³
		Sulphur Dioxide	IS 11255 (Part 2):1985	25 mg/Nm ³ to 15000 mg/Nm ³
		Oxides of Nitrogen	IS 11255 (Part 7):2005	10 mg/Nm ³ to 1000 mg/Nm ³
		Oxygen	SOP-620, Issue:03	5 % to 22 %
		Carbon Monoxide	Date:11.12.2013 (Flue Gas Analyzer)	1 mg/Nm ³ to 10000 mg/Nm ³
		Carbon Dioxide		1% to 15 %