

Laboratory **General Analytical Laboratory, #16, 17th Cross, 13th Main,
Mallechwaram, Bangalore, Karnataka**

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

Certificate Number **TC-5457**

Page 1 of 6

Validity **16.03.2018 to 15.03.2020**

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
-----	----------------------------	-------------------------	---	--

CHEMICAL TESTING

I.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	Respirable Suspended Particulate Matter (PM ₁₀)	IS 5182 (Part 23): 2006 (RA - 2012)	5 µg/m ³ to 1000 µg/m ³
		Sulphur Dioxide (as SO ₂)	IS 5182 (Part 2): 2001 (RA - 2012)	5 µg/m ³ to 1000 µg/m ³
		Nitrogen dioxide (as NO ₂)	IS 5182 (Part 6): 2006. (RA - 2012)	7 µg/m ³ to 750µg/m ³
2.	Stack Emission	Particulate matter	IS 11255(Part 1):1985 (RA -2014)	5 mg/Nm ³ to 500 mg/Nm ³
		Sulphur Dioxide (as SO ₂)	IS 11255(Part 2):1985 (RA -2014)	5 mg/Nm ³ to 1000 mg/Nm ³
		Oxides of nitrogen (as NO _x)	IS 11255 (Part 7): 2005. (RA -2012)	5 mg/Nm ³ to 1000 mg/Nm ³
3.	Ambient Noise Level	Leq, Lmin, Lmax	IS 9989 -1981 (RA 2008)	34 dB to 134 dB
4.	Light illumination	Lux	GAL/04-Air Issue No. 01 Issue date.01.08.2014	1 Lux to 2000 Lux
II.	WATER			
1.	Drinking Water, Borewell water, Water from purifiers	pH	IS 3025 (Part 11):1983 (RA 2012)	3 to 12
		Turbidity	IS 3025 (Part 10):1984. (RA 2012)	0.1 NTU to 100 NTU
		Conductivity	IS 3025 (Part 14):1984 (RA 2013)	1 µS/cm to 10000 µS/cm
		Total Hardness as CaCO ₃	IS 3025 (Part 21):2009 (RA 2014)	5 mg/L to 1000 mg/L
		Calcium as Ca	IS 3025 (Part 40):1991 (RA 2014)	5 mg/L to 500 mg/L

Laboratory **General Analytical Laboratory, #16, 17th Cross, 13th Main,
Mallechwaram, Bangalore, Karnataka**

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

Certificate Number **TC-5457**

Page 2 of 6

Validity **16.03.2018 to 15.03.2020**

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
		Magnesium as Mg	IS 3025 (Part 46):1994 (RA 2014); APHA, 23 rd Edition 3500-Mg B.	5 mg/L to 200 mg/L
		Chlorides as Cl	IS 3025 (Part 32):1988 (RA 2014)	5 mg/L to 1000 mg/L
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23):1986 (RA 2014)	5 mg/L to 500 mg/L
		Sulfates as SO ₄	IS: 3025 (Part 24):1986 (RA 2014)	1 mg/L to 200 mg/L
		Odour	IS 3025(Part 5): 1983 (RA 2012)	Qualitative (Agreeable/Disagreeable)
		Colour	IS 3025(Part 4): 1983 (RA 2012)-Visual Comparison Method	1 Hazen to 100 Hazen
		Free residual chlorine.	IS 3025(Part 26): 1984 (RA 2014)-Iodometric Method	1 mg/L to 100 mg/L
		Nitrate as NO ₃	IS 3025(Part 34): 1988 (RA 2014)-Chromo tropic acid Method	1.0 mg/L to 100 mg/L
		Nitrite as NO ₂	IS 3025(Part 34): 1988 (RA 2014)-Spectrophotometric method	0.1 mg/L to 20 mg/L
		Total Dissolved solids	IS 3025(Part 16): 1984 (RA 2012)	5 mg/L to 10000 mg/L
		Total Suspended solids	IS 3025(Part 17): 1984 (RA 2012)	5 mg/L to 1000 mg/L
		Total Solids	IS 3025 (Part 15):1983 (RA 2012)	5 mg/L to 10000 mg/L
		Total Acidity	IS 3025(Part 22): 1986 (RA 2014)	5 mg/L to 1000 mg/L
		Aluminum as Al	IS 3025(Part 55): 2003 (RA 2014)-Eriochromcyanine-R Method	0.1 mg/L to 20 mg/L

Laboratory

General Analytical Laboratory, #16, 17th Cross, 13th Main,
Malleshwaram, Bangalore, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5457

Page 4 of 6

Validity 16.03.2018 to 15.03.2020

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
		Free residual chlorine	IS 3025(Part 26): 1984 (RA 2014)	1 mg/L to 100 mg/L
		Nitrate as NO ₃	IS 3025(Part 34): 1988 (RA 2014) Chromo tropic acid method	1.0 mg/L to 100 mg/L
		Nitrite as NO ₂	IS 3025(Part 34): 1988 (RA 2014) Spectrophometer method	0.1 mg/L to 20 mg/L
		Total dissolved solids	IS 3025(Part 16): 1984 (RA 2012)	5 mg/L to 10000 mg/L
		Total suspended solids	IS 3025(Part 17): 1984 (RA 2012)	5 mg/L to 1000 mg/L
		Total solids	IS 3025 (Part 15):1983 (RA 2012)	5 mg/L to 10000 mg/L
		Total Acidity	IS 3025(Part 22): 1986 (RA 2014)	5 mg/L to 1000 mg/L
		Aluminium as Al	IS 3025(Part 55): 2003 (RA 2014) Erio chromocyanine-R method	0.1 mg/L to 20 mg/L
		Fluoride as F	APHA 23 nd Edition 4500-F'D	0.1 mg/L to 20mg/L
		Boron as B	APHA 23 nd Edition 4500-B B	0.1 mg/L to 20 mg/L
		Phosphate PO ₄	IS 3025 (Part 31):1988, (RA 2014) Stannous chloride method	0.1 mg/L to 50 mg/L
		Sodium as Na	IS 3025 (Part 45):1993, (RA 2012)	5 mg/L to 500 mg/L
		Potassium as K	IS3025(Part 45):1993, (RA 2012)	5 mg/L to 500 mg/L
		Zinc as Zn	IS3025(Part 49):1994, (RA 2014)	0.1 mg/L to 50 mg/L
		Dissolved Oxygen	IS 3025 (Part 38):1989 (RA 2014)	1 mg/L to 8 mg/L
		Ammonical Nitrogen	IS3025(Part 34):1988 (RA 2014)	1 mg/L to 5000 mg/L

Ajay Kumar Sharma
Convenor

N. Venkateswaran
Program Director

Laboratory **General Analytical Laboratory, #16, 17th Cross, 13th Main,
Mallechwaram, Bangalore, Karnataka**

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

Certificate Number **TC-5457**

Page 5 of 6

Validity **16.03.2018 to 15.03.2020**

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
		Total Kjeldhal Nitrogen	IS3025(Part 34):1988 (RA 2014)	1 mg/L to 5000 mg/L
		Biochemical oxygen demand	IS3025(Part 44):1993 (RA 2014)	1 mg/L to 5000 mg/L
		Chemical oxygen demand	IS 302(Part 58):2006, (RA 2014)	4 mg/L to 10000 mg/L
		pH Value	IS3025(Part 11):1983 (RA 2012)	3 to 12
		Conductivity	IS3025(Part 14):1984 (RA 2013)	1 µs/cm to 50000 µs/cm
		Total Hardness as CaCO ₃	IS 3025(Part 21):2009 (RA 2014)	1 mg/L to 5000 mg/L
		Calcium as Ca	IS:3025 (Part 40):1991 (RA 2014)	1 mg/L to 3000 mg/L
		Magnesium as Mg	IS 3025(Part 46): 1994 (RA 2014); APHA, 23 rd Edition 3500-Mg B.	1 mg/L to 2000 mg/L
		Chloride as Cl	IS3025 (Part 32):1988 (RA 2014)	5 mg/L to 5000 mg/L
		Oil and grease	IS:3025(Part 39):1984, (RA 2014)	1 mg/L to 500 mg/L
		Sulphate as SO ₄	IS:3025(Part 24):1986 (RA 2014)	1 mg/L to 1000 mg/L
		Total alkalinity as CaCO ₃	IS:3025(Part 23):1986 (RA 2014)	1 mg/L to 2500 mg/L
		Turbidity	IS3025(Part 10):1984. (RA 2012)	1 NTU to 100 NTU
		Residual sodium carbonate	IS 11624:1986, (RA 2009)	1 Mg/L to 50 Mg/L
		Precent Sodium	IS 2488(Part 04):1974	1 % to 50%
		Sodium absorption ratio	IS 11624:1986, (RA 2009)	1 to 20
		Copper as Cu	IS 3025(Part 42):1994, (RA 2012) AAS Method	0.05 mg/L to 20 mg/L

Laboratory **General Analytical Laboratory, #16, 17th Cross, 13th Main,
Malleshwaram, Bangalore, Karnataka**

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

Certificate Number **TC-5457**

Page 6 of 6

Validity **16.03.2018 to 15.03.2020**

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
		Lead as Pb	IS 3025(Part 47):1994, (RA 2014) AAS Method	0.2 mg/L to 20 mg/L
		Manganese as Mn	IS3025(Part 59):1994, (RA 2012) AAS Method	0.1 mg/L to 20 mg/L
		Nickel as Ni	IS3025(Part 54):1994, (RA 2014) AAS Method	0.1 mg/L to 20 mg/L
		Iron as Fe	IS3025(Part 53):2003, (RA 2014) AASMethod	0.2 mg/L to 50 mg/L
		TotalChromium as Cr	IS 3025(Part 52):2003, (RA 2014)	0.2 mg/L to 20 mg/L

Ajay Kumar Sharma
Convenor

N. Venkateswaran
Program Director