

Laboratory **Hubert Enviro Care Systems Private Limited, 7/C-45, Baikampady Industrial Estate, Mangaluru, Karnataka**

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

Certificate Number **TC-7920 (in lieu of T-3180)**

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Validity **31.10.2018 to 30.10.2020**

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 Particulate Matter size < 10 µm (PM ₁₀)	IS 5182 (Part 23): 2006 (RA 2017) (Gravimetric)	10 µg/m ³ to 1000 µg/m ³
		Particulate Matter size < 2.5 µm (PM _{2.5})	HECS/AIR/SOP/002 Issue 02 dt. 13.06.2018	10 µg/m ³ to 1000 µg/m ³
		Oxides of Sulphur	IS 5182 (Part 2): 2001 (RA 2017) (Improved west and Geake method)	5 µg/m ³ to 1000 µg/m ³
		Nitrogen Oxides	IS 5182 (Part 6): 2006 (RA 2017) (Jacob and Hochheiser modified method)	6 µg/m ³ to 750 µg/m ³
		Ozone	HECS/AIR/SOP/005 Issue 02 dt. 13.06.	10 µg/m ³ to 19000 µg/m ³
		Ammonia	HECS/AIR/SOP/006 Issue 02 dt. 13.06.2018 as per	10 µg/m ³ to 19000 µg/m ³
2.	Stack Emission	Particulate Matter	IS 11255 (Part 1): 1985 (RA 2014)	5 mg/Nm ³ to 2000 mg/Nm ³
		Oxides of Sulphur	IS 11255 (Part 2): 1985 (RA 2014)	4 mg/Nm ³ to 2000 mg/Nm ³
		Nitrogen Dioxides	IS 11255 (Part 7): 2005 (RA 2017)	2 mg/Nm ³ to 400 mg/Nm ³
		Carbon Di oxide	IS 13270:1992 (RA 2014) Cl. 4 Orsat method	0.4 % to 18 %
		Oxygen	IS 13270:1992 (RA 2014) Cl. 4 Orsat method	0.4 % to 21 %
II.	POLLUTION AND ENVIRONMENT			
1.	Waste Water	Colour	IS 3025 (Part 4): 1983 (RA 2017)	2 Hazen to 100 Hazen

Ruchi Guntuku
Convenor

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		Conductivity at 25°C	IS 3025 (Part 14): 2013	2 µS/cm to 10,000 µS/cm
		pH at 25°C	IS 3025 (Part 11): 1983 (RA 2017)	2 to 12
		Temperature	IS 3025 (Part 9): 1983 (RA 2017)	15 °C to 60 °C
		Total Dissolved Solids (TDS)	IS 3025 (Part 16): 1984 (RA 2017)	2 mg/L to 5000mg/L
		Total Suspended Solids (TSS)	2540 D APHA 23 rd Edn., 2017	4 mg/L to 1000 mg/L
		Turbidity	IS 3025 (Part-10): 1984 (RA 2017)	0.1NTU to 100 NTU
		Dissolved Oxygen	IS 3025 (Part 38): 1989 (RA 2014)	0.2 mg/L to 8 mg/L
		Magnesium as Mg	IS 3025 (Part 46): 1994 (RA 2014)	2 mg/L to 1000 mg/L
		Total Iron as Fe	IS 3025 (Part 53): 2003 (RA 2014)	0.02 mg/L to 100 mg/L
		Oil and Grease	IS 3025 (Part 39): 2000 (RA 2014)	2 mg/L to 1000 mg/L
		Biological Oxygen Demand at 27 °C, 3 days	IS 3025 (Part 44): 1993 (RA 2014)	2 mg/L to 1000 mg/L
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006 (RA 2017)	4mg/L to 2000mg/L
III.	WATER			
1.	Surface, Ground, Drinking, Distilled, Raw, Treated and RO	Colour	IS 3025 (Part 4): 1983 (RA 2017)	1 to 50 HU
		Odour	IS 3025 (Part 5): 1983 (RA 2018)	Qualitative (Agreeable/Disagreeable)
		pH at 25 °C	IS 3025 (Part 11): 1983 (RA 2017)	1 to 12
		Conductivity at 25 °C	IS 3025 (Part 14): 2013	2 to 10000 µS/cm

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		Turbidity, NTU	IS 3025 (Part 10): 1984 (RA 2017)	0.1 NTU to 100 NTU
		Total Dissolved Solids (TDS)	IS 3025 (Part 16): 1984 (RA 2017)	2 mg/L to 1000 mg/L
		Calcium as Ca	IS 3025 (Part 40): 1991 (RA 2014)	2 mg/L to 1000 mg/L
		Magnesium as Mg	IS 3025 (Part 46): 1994 (RA 2014)	2 mg/L to 250 mg/L
		Total Iron	IS 3025 (Pt 53): 2003 (RA 2014)	0.02 mg/L to 10 mg/L
		Total Alkalinity	IS 3025 (Part 23): 1986 (RA 2014)	2 mg/L to 1000 mg/L
		Total hardness as CaCO ₃	IS 3025 (Part 21): 2009 (RA 2014)	2 mg/L to 1000 mg/L
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2014)	1 mg/L to 1000 mg/L
		Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 2014)	5 mg/L to 40 mg/L
		Hexavalent Chromium as Cr 6 ⁺	IS 3025 (Part 52): 2003 (RA 2014)	0.01 mg/L to 5 mg/L

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