

Laboratory Mantec Environmental Laboratory, D-36, Sector-06, Noida, Gautam Budh Nagar, Uttar Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6440 (in lieu of T-1417)

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Validity 11.09.2017 to 10.09.2019

Last Amended on 17.10.2017

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/ PM 10	CPCB/NAAQMS/25/2003-04/JULY/IS 5182 (Part 23)	05 µg/m ³ to 1000 µg/m ³
		Suspended Particulate Matter	IS 5182 (Part 4): 2005	05 µg/m ³ to 1000 µg/m ³
		Sulphur Dioxide	IS 5182 (Part 2): 2001	04 µg/m ³ to 1050 µg/m ³
		Nitrogen Dioxide	IS 5182 (Part 6): 2006	06 µg/m ³ to 750 µg/m ³
		Ammonia	CPCB Guidelines, Vol-1 (May 2011)/ MEL/SOP / Issue No. 01 & Issue Date 18.10.2014	1 µg/m ³ to 1000 µg/m ³
		Ozone	IS 5182 (Part 9) Chemical Method	10 µg/m ³ to 2000 µg/m ³
		Carbon Mono-oxide	NDIR Method IS 5182 (Part 10): 1999 (RA 2003)	0 to 200 ppm
		Particulate Matter 2.5	CPCB Guidelines, Vol-1 (May 2011)	03 µg/m ³ to 1000 µg/m ³
2.	Ambient Noise	Noise Levels Leq	IS 9876:1981	34 dB(A) to 134 dB(A)
II.	WATER			
1.	Drinking Water , Surface Water, Ground Water	pH	IS 3025 (Part 11): 1983 (RA 2012)	4 to 10
		Conductivity	IS 3025 (Part 14): 1984 (RA 2013)	2 µmhos/cm to 2000 µmhos/cm
		Alkalinity	IS 3025 (Part 23): 1986 (RA 2014)	1 mg/l to 1000 mg/l
		Chloride	IS 3025 (Part 32): 1988 (RA 2014)	2 mg/l to 1500 mg/l

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		Total Hardness	IS 3025 (Part 21): 2009 (RA 2014)	1 mg/l to 1000 mg/l
		Total Dissolved Solid	IS 3025 (Part 15): 1984 (RA 2014)	1 mg/l to 5000 mg/l
		Sodium	IS 3025 (Part 45): 1993 (RA 2014) Flame Photometer	1 to 50 mg/l
		Potassium	IS 3025 (Part 45): 1993 Flame Photometer (RA 2014)	1 mg/l to 50 mg/l
		Sulphate	IS 3025 (Part 24): 1986 (RA 2014)	1 mg/l to 100 mg/l
		Phosphate	IS 3025 (Part-31): 1988 (RA 2014)	0.1 mg/l to 50 mg/l
		Nitrogen	IS 3025 (Part 34): 1988 (RA 2014)	1 mg/l to 50 mg/l
		Temperature °C	IS 3025 (Part 9): 1984 (RA 2006)	Ambient to 50
		Dissolved Oxygen	IS 3025 (Part 38): 1989 (RA 2014)	0.1 to 10 mg/l
		Colour	IS 3025 (Part 4): 1883 (RA 2012)	1 Hazen to 5000 Hazen
		Turbidity	IS 3025 (Part 10): 1984 (RA 2014)	1 NTU to 1000 NTU
		Calcium	IS 3025 (Part 40): 1991 (RA 2014)	1 mg/l to 1000 mg/l
		Magnesium	IS 3025 (Part 46): 1994 (RA 2014)	1 mg/l to 1000 mg/l
		Nitrite Nitrogen (NO ₂ -N)	IS 3025 (Part 34): 1988 (RA 2009)	0.01 mg/l to 2000 mg/l
		Colour	IS 3025 (Part 4): 1983 (RA 2012)	1 Hazen to 500 Hazen
		Turbidity	IS 3025 (Part 10): 1984 (RA 2014)	1 NTU to 1000 NTU

Rozina
Convenor

N. Venkateswaran
Program Director

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		Calcium	IS 3025 (Part 4): 1991 (RA 2014)	1 mg/l to 1000 mg/l
		Magnesium	IS 3025 (Part 46): 1994 (RA 2014)	1 mg/l to 1000 mg/l
		Free Residual Chlorine	IS 3025 (Part 26): 1988	0.1 mg/l to 10 mg/l
		Anionic detergents	Annex K of IS 13428 (RA 2014)	0.05 mg/l to 50 mg/l
		Fluoride	IS 3025 (Part 60): 2008 (RA 2013)	0.02 mg/l to 20 mg/l
		Silica	IS 3025 (Part 35): 1988 (RA 2014)	0.1 mg/l to 50 mg/l
		Boron	IS 3025 (Part 57): 2005 (RA 2010)	0.02 mg/l to 10 mg/l
		Phenolic Compounds	IS 3025 (Part 43): 1992 (RA 2014)	0.001 mg/l to 50 mg/l
		Manganese	IS 3025 (Part 59): 2006 (RA 2012)	0.01 mg/l to 20 mg/l
		Hexavalent Chromium	IS 3025 (Part 52): 2003 (RA 2014)	0.01 mg/l to 10 mg/l
		Mercury	IS 3025 (Part 48): 1994 (RA 2014)	0.01 mg/l to 10 mg/l
		Iron	IS 3025 (Part 53): 2003 (RA 2014)	0.01 mg/l to 20 mg/l
2.	Waste Water	pH	IS 3025 (Part-11): 1983 (RA 2012)	2 to 12
		Alkalinity	IS 3025 (Part 23): 1986 (RA 2014)	1 mg/l to 1000 mg/l
		Total Dissolved Solid	IS 3025 (Part 15): 1984 (RA 2014)	1 mg/l to 5000 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006 (RA 2012)	50 mg/l to 5000 mg/l
		Sodium	IS 3025 (Part 45): 1993 (RA 2014) Flame Photometer	1 mg/l to 100 mg/l

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		Potassium	IS 3025 (Part 45): 1993 (RA 2014) Flame Photometer	1 mg/l to 100 mg/l
		Sulphate	IS 3025 (Part 24): 1986 (RA 2014)	1 mg/l to 100 mg/l
		Phosphate	IS 3025 (Part 31): 1988 (RA 2014)	0.1 mg/l to 25 mg/l
		Nitrate	IS 3025 (Part 34): 1988 (RA 2014)	1 mg/l to 100 mg/l
		Acidity	IS 3025 (Part 22): 2003	1 mg/l to 100 mg/l
		Temperature °C	IS 3025 (Part 9): 1984 (RA 2006)	Ambient to 60
		Dissolved Oxygen	IS 3025 (Part 38): 1989 (RA 2014)	0.1 mg/l to 10 mg/l
		Biochemical Oxygen Demand	IS 3025 (Part 44): 1993 (RA 2014)	3 mg/l to 1000 mg/l
		Oil & Grease	IS 3025 (Part 39): 2003	0.4 mg/l to 100 mg/l
		Total Suspended Solid	IS 3025 (Part 17): 2006	2.0 mg/l to 300 mg/l
		Calcium	IS 3025 (Part 40): 2003	1 mg/l to 1000 mg/l
		Nitrite Nitrogen (NO ₂ -N)	IS 3025 (Part 34): 2009	0.01 mg/l to 200 mg/l
		Ammonia (as Total Ammonia-N)	IS 3025 (Part 34): 2009	0.2 mg/l to 100 mg/l
		Silica	IS 3025 (Part 35): 2003	0.01 mg/l to 100 mg/l
		Boron	IS 3025 (Part 57): 2005	0.02 mg/l to 10 mg/l
		Phenolic Compounds	IS 3025 (Part 43): 2003	0.1 mg/l to 50 mg/l
		Hexavalent Chromium	IS 3025 (Part 52): 2003	0.01 mg/l to 25 mg/l
		Mercury	IS 3025 (Part 48): 2003	0.001 mg/l to 20 mg/l
		Iron	IS 3025 (Part 53)	0.01 mg/l to 50 mg/l