

Laboratory **J.M. Enviro Studies Pvt. Ltd. (Laboratory Division), Plot No. E-71,
First Floor, Sector-26, GIDC, Gandhinagar, Gujarat**

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

Certificate Number **TC- 6463 (in lieu of T-2720)**

Page 1 of 7

Validity **29.11.2017 to 28.11.2019**

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.	WATER			
1.	Ground Water Surface Water Potable Water	Color	IS 3025 (Part 4) APHA, 22 nd Edition/2120 -B	5.0 CU to 500 CU
		Turbidity	IS 3025 (Part 10) APHA, 22 nd Edition/2130-B	1.0 NTU to 100 NTU
		Total dissolved solids	IS 3025 (Part 16) APHA, 22 nd Edition /2540-C	10 mg/l to 10000 mg/l
		Total Suspended solids	IS 3025 (Part 17) APHA, 22 nd Edition /2540-D	2.0 mg/l to 1000 mg/l
		Total solids	IS 3025 (Part 15) APHA, 22 nd Edition /2540-B	10 mg/l to 10000 mg/l
		pH	IS 3025 (Part 11) APHA, 22 nd Edition/4500- H ⁺ B	1 to 12
		Electrical Conductivity	IS 3025 (Part 14) APHA, 22 nd Edition /2510-B	10 μ s/cm to 1900 μ s/cm 1 ms/cm to 100 ms/cm
		Total Hardness as CaCO ₃	IS 3025 (Part 21) APHA, 22 nd Edition /2340-C	5 mg/l to 2000 mg/l
		Iron as Fe	IS 3025 (Part 53) APHA, 22 nd Edition /3500- Fe- B	1.0 mg/l to 50 mg/l
		Calcium Hardness as CaCO ₃	IS 3025 (Part 40) APHA, 22 nd Edition /3500- Ca- B	5.0 mg/l to 1000 mg/l
		Calcium as Ca	IS 3025 (Part 40) APHA, 22 nd Edition /3500- Ca- B	5.0 mg/l to 1000 mg/l
		Magnesium Hardness as CaCO ₃	IS 3025 (Part 46) APHA, 22 nd Edition/3500- Mg-B	5.0 mg/l to 1000 mg/l

**Pooja Singh
Convenor**

**N. Venkateswaran
Program Director**

Laboratory

J.M. Enviro Studies Pvt. Ltd. (Laboratory Division), Plot No. E-71,
First Floor, Sector-26, GIDC, Gandhinagar, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

TC- 6463 (in lieu of T-2720)

Page 2 of 7

Validity

29.11.2017 to 28.11.2019

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) APHA, 22 nd Edition/3500-Mg-B	5.0 mg/l to 1000 mg/l
		Ammonical Nitrogen as NH ₃ -N	IS 3025 (Part 34) APHA, 22 nd Edition/4500-NH ₃ -B, C	2.0 mg/l to 100 mg/l
		Total Kjeldahl Nitrogen as N	IS 3025 (Part 34) APHA, 22 nd Edition/ 4500-N _{org} -A,B	2.0 mg/l to 100 mg/l
		Chloride as Cl	IS 3025 (Part 32) APHA, 22 nd Edition / 4500 Cl ⁻ B	5.0 mg/l to 5000 mg/l
		Sulphate as SO ₄	IS 3025 (Part 24) APHA, 22 nd Edition/4500-SO ₄ ²⁻ -4500- SO ₄ ²⁻	5.0 mg/l to 2000 mg/l
		Residual Chlorine	IS 3025 (Part 26) APHA, 22 nd Edition/4500-Cl-B	1.0 mg/l to 10 mg/l
		Phosphate as PO ₄	IS 3025 (Part 31) APHA, 22 nd Edition/4500-PD	1.0 mg/l to 50 mg/l
		Reactive Silica as SiO ₂	IS 3025 (Part 35) APHA, 22 nd Edition/4500-C	0.5 mg/l to 5 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23) APHA, 22 nd Edition /2320-B	2.0 mg/l to 1000 mg/l
		Acidity as CaCO ₃	IS 3025 (Part 22) APHA, 22 nd Edition/2310-B	4.0 mg/l to 1000 mg/l
		Boron as B	IS 3025 (Part 57) APHA, 22 nd Edition/4500-B-C	1.0 mg/l to 10 mg/l
		Fluoride as F ⁻	IS 3025 (Part 60) APHA, 22 nd Edition/4500-F-B, D	0.3 mg/l to 10 mg/l

Pooja Singh
Convenor

N. Venkateswaran
Program Director

Laboratory **J.M. Enviro Studies Pvt. Ltd. (Laboratory Division), Plot No. E-71,
First Floor, Sector-26, GIDC, Gandhinagar, Gujarat**

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

Certificate Number **TC- 6463 (in lieu of T-2720)**

Page 3 of 7

Validity **29.11.2017 to 28.11.2019**

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
		Dissolved Oxygen (DO)	IS 3025 (Part 38) APHA, 22 nd Edition/4500-B & C	1.0 mg/l to 10.0 mg/l
		Sodium as Na	IS 3025 (Part 45) APHA, 22 nd Edition/3500-Na -B	10 mg/l to 500 mg/l
		Potassium as K	IS 3025 (Part 45) APHA, 22 nd Edition/3500-K B	10 mg/l to 500 mg/l
		Nitrate as NO ₃ ⁻	IS 3025 (Part 34) Chromotropic Acid Method	1.0 mg/l to 50 mg/l
		Hexavalent Chromium as Cr ⁺⁶	IS 3025(Part 52) APHA,22 nd Edition/3500 Cr B	0.1 mg/l to 5 mg/l
II.	POLLUTION & ENVIRONMENT			
1.	Waste Water/ Effluent/ Sewage/ Raw Water & Process Treated Water	Color	IS 3025 (Part 4) APHA, 22 nd Edition/ 2120 - B	5 CU to 500 CU
		Turbidity	IS 3025 (Part 10) APHA, 22 nd Edition/2130-B	1 NTU to 100 NTU
		Total dissolved solids	IS 3025 (Part 16) APHA, 22 nd Edition/2540-C	10 mg/l to 10,000 mg/l
		Total Suspended solids	IS 3025 (Part 17) APHA, 22 nd Edition/ 2540-D	2 mg/l to 1000 mg/l
		Total solids	IS 3025 (Part 15) APHA, 22 nd Edition/ 2540-B	10 mg/l to 10,000 mg/l
		pH	IS 3025 (Part 11) APHA, 22 nd Edition/4500-H ⁺ B	1 to 12
		Electrical Conductivity	IS 3025 (Part 14) APHA, 22 nd Edition/2510-B	10 µS/cm to 100 mS/cm
		Total Hardness as CaCO ₃	IS 3025 (Part 21) APHA, 22 nd Edition/2340-C	5 mg/l to 2000 mg/l

Laboratory J.M. Enviro Studies Pvt. Ltd. (Laboratory Division), Plot No. E-71,
First Floor, Sector-26, GIDC, Gandhinagar, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC- 6463 (in lieu of T-2720)

Page 4 of 7

Validity 29.11.2017 to 28.11.2019

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
		Iron as Fe	IS 3025 (Part 53) APHA, 22 nd Edition/3500-Fe- B	1 mg/l to 50 mg/l
		Calcium Hardness as CaCO ₃	IS 3025 (Part 53) APHA, 22 nd Edition/3500-Ca- B	1 mg/l to 1000 mg/l
		Calcium as Ca	IS 3025 (Part 40) APHA, 22 nd Edition/3500-Ca- B	1 mg/l to 1000 mg/l
		Magnesium Hardness as CaCO ₃	IS 3025 (Part 40) APHA, 22 nd Edition/3500-Mg- B	1 mg/l to 1000 mg/l
		Magnesium as Mg	IS 3025 (Part 46) APHA, 22 nd Edition/3500-Mg-B	1 mg/l to 1000 mg/l
		Ammonical Nitrogen as NH ₃ -N	IS 3025 (Part 34) APHA, 22 nd Edition/4500-NH ₃ -B, C	1 mg/l to 100 mg/l
		Total Kjeldahl Nitrogen as N	IS 3025 (Part 34) APHA, 22 nd Edition/4500-N _{org} -A, B	1 mg/l to 100 mg/l
		Chloride as Cl	IS 3025 (Part 32) APHA, 22 nd Edition/4500 Cl- B	1 mg/l to 5000 mg/l
		Sulphate as SO ₄	IS 3025 (Part 24) APHA, 22 nd Edition/4500-SO ₄ ²⁻ E/ 4500- SO ₄ ²⁻	10 mg/l to 2000 mg/l
		Residual Chlorine	IS 3025 (Part 26) APHA, 22 nd Edition /4500-Cl-B	1 mg/l to 10 mg/l
		Phosphate as PO ₄	IS 3025 (Part 31) APHA, 22 nd Edition/4500PD	0.1 mg/l to 100 mg/l

Pooja Singh
Convenor

N. Venkateswaran
Program Director

Laboratory J.M. Enviro Studies Pvt. Ltd. (Laboratory Division), Plot No. E-71,
First Floor, Sector-26, GIDC, Gandhinagar, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC- 6463 (in lieu of T-2720)

Page 5 of 7

Validity 29.11.2017 to 28.11.2019

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
		Reactive Silica as SiO ₂	IS 3025 (Part 35) APHA, 22 nd Edition/ 4500-C	0.5 mg/l to 5 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23) APHA, 22 nd Edition/2320-B	2 mg/l to 1000 mg/l
		Acidity as CaCO ₃	IS 3025 (Part 22) APHA, 22 nd Edition /2310-B	4 mg/l to 1000 mg/l
		Boron as B	IS 3025 (Part 57) APHA, 22 nd Edition/4500-B -C	0.5 mg/l to 10 mg/l
		Fluoride as F ⁻	IS 3025 (Part 60) APHA, 22 nd Edition/4500-F - B, D	0.3 mg/l to 10 mg/l
		Dissolved Oxygen (DO)	IS 3025 APHA, 22 nd Edition /4500-B & C	1.0 mg/l to 10.0 mg/l
		Sodium as Na	IS 3025 (Part 45) APHA, 22 nd Edition/3500-Na -B	10 mg/l to 500 mg/l
		Potassium as K	IS 3025 (Part 45) APHA, 22 nd Edition/3500-K B	10 mg/l to 500 mg/l
		Nitrate as NO ₃ ⁻	IS 3025 (Part 34) Chromotrographic Acid Method	1.0 mg/l to 50 mg/l
		Hexa valent Chromium as Cr ⁺⁶	IS 3025(Part 52) APHA, 22 nd Edition/3500 Cr B	0.1 mg/l to 10 mg/l
		Bio Chemical Oxygen Demand @ 27 °C for 3 Days	IS 3025 (Part 44) APHA, 22 nd Edition/5210- B	2 mg/l to 10000 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58) APHA, 22 nd Edition / 5220-C	4 mg/l to 30000 mg/l
		Oil & Grease	IS 3025 (Part 39) APHA, 22 nd Edition /5520 B	1 mg/l to 100 mg/l

Pooja Singh
Convenor

N. Venkateswaran
Program Director

Laboratory **J.M. Enviro Studies Pvt. Ltd. (Laboratory Division), Plot No. E-71,
First Floor, Sector-26, GIDC, Gandhinagar, Gujarat**

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

Certificate Number **TC- 6463 (in lieu of T-2720)**

Page 6 of 7

Validity **29.11.2017 to 28.11.2019**

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
2.	Soil	Organic matter	IS 2720 (Part 22)	2 % to 30%
		Organic Carbon	IS 2720 (Part 22)	2 % to 30%
		Bulk Density	IS 2720 (Part 8)	1 gm/cc to 3.0 gm/cc
		Potassium as K	JMESPL/LAB/SOIL-SOP/02 Issue No.:04 Issue Date:05/09/2017	0.5 mg/kg to 500 mg/kg
		Available Chloride as Cl ⁻	JMESPL/LAB/SOIL-SOP/01 Issue No.:04 Issue Date:05/09/2017	2.0 mg/kg to 1000 mg/kg
		Available Calcium as Ca	JMESPL/LAB/SOIL-SOP/03 Issue No.:04 Issue Date:05/09/2017	5 mg/kg to 1000 mg/kg
		Available Magnesium as Mg	JMESPL/LAB/SOIL-SOP/03 Issue No.:04 Issue Date:05/09/2017	5 mg/kg to 1000 mg/kg
		pH	IS 2720(Part – 26)	1 to 12
		Electrical Conductivity	IS 14767	1 µS/cml to 100 mS/cm
		Available Nitrogen as N	IS 14684	5 kg/hac to 100 kg/hac
III.	ATMOSPHERIC POLLUTION			
1.	Stack Emission	Particulate Matter as PM	IS 11255 (Part – 1)	1 mg/Nm ³ to 500 mg/Nm ³
		Sulphur Dioxide as SO ₂	IS – 11255 (Part – 2)	5 mg/Nm ³ to 100 mg/Nm ³
		Oxides of Nitrogen as NO _x	IS – 11255 (Part – 7)	5 mg/Nm ³ to 100 mg/Nm ³
2.	Ambient Air	Particulate Matter (size less than 10 µm) as PM 10	IS 5182 (P-23)	2 µg/m ³ to 500 µg/m ³
		Particulate Matter (size less than 2.5 µm) as PM 2.5	JMESPL/LAB/AIR-SOP/01 Issue No.:04 Issue Date:05/09/2017	2 µg/m ³ to 200 µg/m ³
		Sulphur Dioxide as SO ₂	IS: 5182,(Part-2)	5 µg/m ³ to 100 µg/m ³
		Nitrogen Dioxide as NO ₂	IS: 5182, (P-6)	5 µg/m ³ to 100 µg/m ³

Laboratory J.M. Enviro Studies Pvt. Ltd. (Laboratory Division), Plot No. E-71,
First Floor, Sector-26, GIDC, Gandhinagar, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC- 6463 (in lieu of T-2720)

Page 7 of 7

Validity 29.11.2017 to 28.11.2019

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
<u>CHEMICAL TESTING</u>				
AT-SITE				
III.	ATMOSPHERIC POLLUTION			
1.	Ambient Noise Monitoring	Noise level (Ambient)Leq	IS 9989	30 dB(A)to 130 dB(A)