

**Laboratory** Environmental Testing and Pollutant Analysis Lab- Yuva Enviro Experts, 231/A, Platinum Plaza, Satya Marg, Judges Bunglow Cross Road, Bodakdev, Ahmedabad, Gujarat

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

**Certificate Number** TC-7770

Page 1 of 5

**Validity** 30.08.2018 to 29.08.2020

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
<b><u>CHEMICAL TESTING</u></b>				
<b>I.</b>	<b>WATER</b>			
<b>1.</b>	<b>Bore Well Water/ Ground Water/ Surface Water/ Drinking Water</b>	Total Acidity	APHA (23 <sup>rd</sup> Edition): 2017 2310 B	4 mg/L to 1000 mg/L
		Total Alkalinity	APHA (23 <sup>rd</sup> Edition): 2017 2320 B	4 mg/L to 1000 mg/L
		Total Hardness	APHA (23 <sup>rd</sup> Edition): 2017 2340 C	10 mg/L to 2000 mg/L
		Calcium Hardness	APHA (23 <sup>rd</sup> Edition): 2017 3500 Ca B	10 mg/L to 2000 mg/L
		Calcium as Ca	APHA (23 <sup>rd</sup> Edition): 2017 3500 Ca B	5 mg/L to 2000 mg/L
		Magnesium Hardness	APHA (23 <sup>rd</sup> Edition): 2017 3500 Mg B	5 mg/L to 2000 mg/L
		Magnesium as Mg	APHA (23 <sup>rd</sup> Edition): 2017 3500 Mg B	5 mg/L to 2000 mg/L
		Chloride	APHA (23 <sup>rd</sup> Edition): 2017 4500 B	10 mg/L to 5000 mg/L
		Chemical Oxygen Demand (COD)	APHA (23 <sup>rd</sup> Edition): 2017 5220 B Open reflux Method	4 mg/L to 250 mg/L
		Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 (RA 2014)	2 mg/L to 100 mg/L
		Dissolved Oxygen (DO)	IS 3025 (Part 38): 1989 (RA 2014)	0.1 mg/L to 10 mg/L
		Sulphate	APHA (23 <sup>rd</sup> Edition): 2017 4500 SO <sub>4</sub> <sup>-2</sup> E Turbidimetric method	1 mg/L to 400 mg/L
		Colour	APHA (23 <sup>rd</sup> Edition): 2017 2120 B	1 Pt-Co unit to 500 Pt-Co units
	pH	IS 3025 (Part 11): 1983 (RA 2017)	4 to 12	

**Laboratory** Environmental Testing and Pollutant Analysis Lab- Yuva Enviro Experts, 231/A, Platinum Plaza, Satya Marg, Judges Bunglow Cross Road, Bodakdev, Ahmedabad, Gujarat

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

**Certificate Number** TC-7770

Page 2 of 5

**Validity** 30.08.2018 to 29.08.2020

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
		Temperature	APHA (23 <sup>rd</sup> Edition): 2017 2550 B	12 °C to 60 °C
		Total Solids (TS)	IS 3025 (Part 15): 1984 (RA 2014)	2 mg/L to 5000 mg/L
		Total Dissolved Solids (TDS)	IS 3025 (Part 16): 1984 (RA 2017)	2 mg/L to 5000 mg/L
		Total Suspended Solids (TSS)	IS 3025 (Part 17): 1984 (RA 2017)	2 mg/L to 200 mg/L
		Electrical Conductivity	APHA (23 <sup>rd</sup> Edition): 2017 2510 B	1µs/cm to 2 ms/cm
		Sodium	APHA (23 <sup>rd</sup> Edition): 2017 3500-Na B	1 mg/L to 1000 mg/L
		Potassium	APHA (23 <sup>rd</sup> Edition): 2017 3500-K B	1 mg/L to 1000 mg/L
		Turbidity	APHA (23 <sup>rd</sup> Edition): 2017 2130 B	1 NTU to 250 NTU
<b>II.</b>	<b>POLLUTION AND ENVIRONMENT</b>			
<b>1.</b>	<b>Waste Water (Sewage/ Effluent)</b>	Acidity	APHA (23 <sup>rd</sup> Edition): 2017 2310 B	10 mg/L to 5000 mg/L
		Alkalinity	APHA (23 <sup>rd</sup> Edition): 2017 2320 B	10 mg/L to 5000 mg/L
		Total Hardness	APHA (23 <sup>rd</sup> Edition): 2017 2340 C	10 mg/L to 2000 mg/L
		Calcium Hardness	APHA (23 <sup>rd</sup> Edition): 2017 3500 Ca B	5 mg/L to 2000 mg/L
		Calcium as Ca	APHA (23 <sup>rd</sup> Edition): 2017 3500 Ca B	2 mg/L to 2000 mg/L
		Magnesium Hardness	APHA (23 <sup>rd</sup> Edition): 2017 3500 Mg B	2 mg/L to 2000 mg/L
		Magnesium as Mg	APHA (23 <sup>rd</sup> Edition): 2017 3500 Mg B	1 mg/L to 2000 mg/L
		Chloride	APHA (23 <sup>rd</sup> Edition): 2017 4500 B	10 mg/L to 10000 mg/L

**Laboratory** Environmental Testing and Pollutant Analysis Lab- Yuva Enviro Experts, 231/A, Platinum Plaza, Satya Marg, Judges Bungalow Cross Road, Bodakdev, Ahmedabad, Gujarat

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

**Certificate Number** TC-7770

Page 3 of 5

**Validity** 30.08.2018 to 29.08.2020

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 Oxygen Demand (COD)	APHA (23 <sup>rd</sup> Edition): 2017 5220 B Open Reflux method	4 mg/L to 50000 mg/L
		Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 (RA 2014)	2 mg/L to 10000 mg/L
		Dissolved Oxygen (DO)	IS 3025 (Part 38): 1989 (RA 2014)	0.1 mg/L to 10 mg/L
		Ammonical Nitrogen	APHA (23 <sup>rd</sup> Edition): 2017 4500 NH <sub>3</sub> C	0.5 mg/L to 1500 mg/L
		Oil and Grease	IS 3025 (Part 39): 1991 (RA 2014)	1 mg/L to 100 mg/L
		Sulphate	APHA (23 <sup>rd</sup> Edition): 2017 4500 SO <sub>4</sub> <sup>-2</sup> E Gravimetric Method	40 mg/L to 5000 mg/L
		Colour	APHA (23 <sup>rd</sup> Edition): 2017 2120 B	1 Pt-Co unit to 500 Pt-Co units
		pH	IS 3025 (Part 11): 1983 (RA 2002)	2 to 14.00
		Temperature	APHA (23 <sup>rd</sup> Edition): 2017 2550 B	12 °C to 70 °C
		Total Solids (TS)	IS 3025 (Part 15): 1984 (RA 2014)	2 mg/L to 20000 mg/L
		Total Dissolved Solids (TDS)	IS 3025 (Part 16): 1984 (RA 2017)	2 mg/L to 20000 mg/L
		Total Suspended Solids (TSS)	IS 3025 (Part 17): 1984 (RA 2017)	2 mg/L to 2500 mg/L
		Sodium	APHA (23 <sup>rd</sup> Edition): 2017 3500-Na B	1 mg/L to 1000 mg/L
		Potassium	APHA (23 <sup>rd</sup> Edition): 2017 3500-K B	1 mg/L to 1000 mg/L
<b>2.</b>	<b>Solid Waste</b>	pH	IS 2720 (Part 26): 1987	1 to 14.00
		Volatile Solids	IS 10158:1982	1 % to 60 %
		Fixed Solids	IS 10158:1982	1 % to 100 %
		Oil and Grease	USEPA 9071B	0.5 mg/kg to 200 mg/kg

**Laboratory** Environmental Testing and Pollutant Analysis Lab- Yuva Enviro Experts, 231/A, Platinum Plaza, Satya Marg, Judges Bunglow Cross Road, Bodakdev, Ahmedabad, Gujarat

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

**Certificate Number** TC-7770

Page 4 of 5

**Validity** 30.08.2018 to 29.08.2020

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
		Moisture Content	IS 2720 (Part 2): 1973	0.05 % to 80 %
<b>III.</b>	<b>ATMOSPHERIC POLLUTION</b>			
<b>1.</b>	<b>Ambient Air</b>	Respirable suspended particulate matter, PM <sub>10</sub>	IS 5182 (Part 23): 2006 (RA 2017)	10 µg/m <sup>3</sup> to 1000 µg/m <sup>3</sup>
		Particulate matter, PM <sub>2.5</sub>	SOP/OPN/34 Issue No.: 03 Issue Date: 21/5/2018 Based on CPCB Guidelines for measurement of Ambient Air pollutants	10 µg/m <sup>3</sup> to 1000 µg/m <sup>3</sup>
		Sulfur Dioxide	IS 5182 (Part 2): 2001 (RA 2017)	15 µg/m <sup>3</sup> to 1050 µg/m <sup>3</sup>
		Oxides of Nitrogen	IS 5182 (Part 6): 2006 (RA 2017)	6 µg/m <sup>3</sup> to 750 µg/m <sup>3</sup>
<b>2.</b>	<b>Stack Emission</b>	Particulate Matter	IS 11255 (Part 1): 1985 (RA 2014)	1 mg/Nm <sup>3</sup> to 5000 mg/Nm <sup>3</sup>
		Sulfur Dioxide	IS 11255 (Part 2): 1985 (RA 2014)	1 mg/Nm <sup>3</sup> to 500 mg/Nm <sup>3</sup>
		Oxides of Nitrogen	IS 11255 (Part 7): 2005 (RA 2017)	2 mg/Nm <sup>3</sup> to 400 mg/Nm <sup>3</sup>
		Ammonia	IS 11255 (Part 6): 1999 (RA 2014)	1 mg/Nm <sup>3</sup> to 100 mg/Nm <sup>3</sup>

Laboratory Environmental Testing and Pollutant Analysis Lab- Yuva Enviro Experts, 231/A, Platinum Plaza, Satya Marg, Judges Bungalow Cross Road, Bodakdev, Ahmedabad, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7770

Page 5 of 5

Validity 30.08.2018 to 29.08.2020

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
<b><u>CHEMICAL TESTING</u></b>				
<b>AT-SITE</b>				
III.	<b>ATMOSPHERIC POLLUTION</b>			
1.	<b>Ambient Noise (excluding vibration)</b>	Noise Level	IS 9989: 1981 (RA 2008)	30 dB (A) to 130 dB (A)
	<b>Source Noise Level (excluding vibration) emitted by Diesel Generation set</b>	Noise Level	IS 4758: 1968 (RA 2017)	30 dB (A) to 130 dB (A)