

Laboratory **S A Encon Private Limited, Gat No. 1373/1, A/p-Shirwal, Tal-Khandala, Dist. Satara, Maharashtra**

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

Certificate Number **TC-6786 (in lieu of T-3769 & T-3861)** Page 1 of 5

Validity **29.01.2018 to 28.01.2020** 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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BIOLOGICAL TESTING

I.	WATER			
1	Drinking Water	Standard Plate Count	IS 1622	≥ 10 cfu/ml
		Total Coliform	IS 1622	2 MPN to 1600 MPN / 100 ml
		E coli	IS 1622 (3.3.1)	Qualitative (Present/Absent/100 ml)
2.	Ground Water / Surface Water	Total Coliform	IS 1622	2 MPN to 1600 MPN / 100 ml
		E coli	IS 1622 (3.3.1)	Qualitative (Present/Absent)/100 ml
		Total Coliform	IS 1622	2 MPN to 1600 MPN / 100 ml
3.	Water from Water Purifier	Total Coliform	IS 1622	2 MPN to 1600 MPN / 100 ml
		E coli	IS 1622 (3.3.1)	Qualitative (Present/Absent)/100 ml
		Pseudomonas aeruginosa	APHA (23 rd Edition) 9213 F	1.8 MPN to ≥1600 MPN / 100 ml
4.	Water For Processed Food Industry	Standard Plate Count	IS 1622	≥ 10 cfu/ml
		Total Coliform	IS 1622	2 MPN to 1600 MPN / 100 ml
		E coli	IS 1622 (3.3.1)	Qualitative (Present/Absent)/100 ml
		Yeast & Mould	APHA (23 rd Edition) 9610 C	Qualitative (Present/Absent)/100 ml
		Standard Plate Count	IS 1622	≥ 10 cfu/ml
5.	Water For Industrial Purpose	Total Coliform	IS 1622	2 MPN to 1600 MPN / 100 ml
		E coli	IS 1622 (3.3.1)	Qualitative (Present/ Absent)/100 ml
		Detection & Enumeration of Faecal Streptococci	IS 1622 (3.4)	≥ 1 CFU/ 100 ml

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		Detection & Enumeration of Faecal coliform	IS 1622 (3.3.3)	2- 1600 MPN / 100 ml
		Salmonella spp.	IS 15187	Qualitative (Present/Absent/100 ml)
		Shigella spp.	IS 5887 (Part VII)	Qualitative (Present/Absent/100 ml)
		Staphyalococcus aureus	IS 5887 (Part II)	Qualitative (Present/Absent/100 ml)

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CHEMICAL TESTING

I.	WATER			
1.	Potable/ Surface/ Ground water	Colour	APHA (23 rd Edition) (2120 B)	1 Hazen to 500 Hazen
		pH	APHA (23 rd Edition) (4500 H+B)	4 to 12
		Conductivity	APHA (23 rd Edition) (2510 B)	1 µS/cm to 10,000 µS/cm
		Turbidity	APHA (23 rd Edition) (2130 B)	0.1 NTU to 200 NTU
		Total Dissolved Solids	APHA (23 rd Edition) (2540 C)	1 mg/L to 5000 mg/L
		Alkalinity as CaCO ₃	APHA (23 rd Edition) (2320 B)	1 mg/L to 1000 mg/L
		Total hardness as CaCO ₃	APHA (23 rd Edition) (2340 C)	1 mg/L to 2000 mg/L
		Calcium Hardness as CaCO ₃	APHA (23 rd Edition) (3500 Ca B)	1 mg/L to 1000 mg/L
		Magnesium Hardness as Mg	APHA (23 rd Edition) (3500 Mg B)	1 mg/L to 1000 mg/L
		Carbonate alkalinity as CaCO ₃	IS 3025 (Part 51)	1 mg/L to 1000 mg/L
		Bicarbonate alkalinity as CaCO ₃	IS 3025 (Part 51)	1 mg/L to 1000 mg/L
		Chloride as Cl	APHA (23 rd Edition) (4500 Cl ⁻ B)	1 mg/L to 2000 mg/L
		Residual free chlorine	APHA (23 rd Edition) (4500 Cl B)	1 mg/L to 25 mg/L
		Dissolved Silica as SiO ₂	APHA (23 rd Edition) (4500 SiO ₂ C)	0.1 mg/L to 100 mg/L
Dissolved Phosphate as PO ₄	APHA (23 rd Edition) (4500 P D)	0.1 mg/L to 100 mg/L		
Iron as Fe	APHA (23 rd Edition) (3500 Fe B)	0.01 mg/L to 100 mg/L		

Ashutosh Tatwawadi
Convenor

N. Venkateswaran
Program Director

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		Nitrate Nitrogen as NO ₃ -N	APHA (23 rd Edition) (4500 NO ₃ B)	0.1 mg/L to 100 mg/l
		Sulphate (as SO ₄ ²⁻)	APHA (23 rd Edition) (4500-SO ₄ ²⁻ E) (Pg No.4 -190)	1 mg/L to 40 mg/L
		Sulphate (as SO ₄ ²⁻)	IS 3025 (Part 24)	1 mg/L to 40 mg/L
		Acidity (as CaCO ₃)	IS 3025 (Part 22)	0.5 mg/L to 500 mg/L
		Fluoride (as F)	APHA (23 rd Edition) (4500- F - D) (Pg No. 4-87)	0.1 mg/L to 40 mg/L
		Boron (as B)	IS 3025 (Part 57)	0.1 mg/L to 1 mg/L
		Nitrate (as NO ₃)	IS 3025 (Part 34)	0.1 mg/L to 5 mg/L
		Nitrite (as NO ₂)	IS 3025 (Part 34)	2 µg/L to 25 µg/L
II.	POLLUTION & ENVIRONMENT			
1.	Waste Water – Effluent & Sewage	pH	APHA (23 rd Edition) (4500- H ⁺ B)	2 to 12
		Total Dissolved Solids	APHA (23 rd Edition) (2540 C)	1 mg/L to 10000 mg/L
		Total Suspended Solids	APHA (23 rd Edition) (2540 D)	1 mg/L to 10000 mg/L
		Dissolved Oxygen	APHA (23 rd Edition) (4500 O C)	0.1 mg/L to 10 mg/L
		Biochemical Oxygen Demand (5 days @ 20°C)	APHA (23 rd Edition) (5210 B)	2 mg/L to 50,000 mg/L
		Biochemical Oxygen Demand (3 days @ 27°C)	IS 3025 (Part 44)	2 mg/L to 50,000 mg/L
		Chemical Oxygen Demand	IS 3025 (Part 58)	4 mg/L to 1,00,000 mg/L
		Oil & Grease	IS 3025 (Part 39)	4 mg/L to 100 mg/L
		Chloride as Cl ⁻	APHA (23 rd Edition) (4500 Cl ⁻ B)	1 mg/L to 5000 mg/L

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		Total Phosphate as PO ₄	APHA (23 rd Edition) (4500- P D)	0.1 mg/L to 100 mg/L
		Sulphate (as SO ₄ ²⁻)	APHA (23 rd Edition) (4500-SO ₄ ²⁻ E) (Pg No.4 -190)	1 mg/L to 40 mg/L
		Boron (as B)	IS 3025 (Part 57)	0.1 mg/L to 1 mg/L
III.	ATMOSPHERIC POLLUTION			
1.	Ambient Air	Particulate Matter (PM ₁₀)	CPCB Guidelines-NAAQS monitoring & Analysis guidelines volume-1	5 µg/m ³ to 1000 µg/m ³
		Particulate Matter (PM _{2.5})	CPCB Guidelines-NAAQS monitoring & Analysis guidelines volume-1	5 µg/m ³ to 200 µg/m ³
		Sulphur Di oxide	CPCB Guidelines for Manual sampling & Analysis, 36, Vol 1.	4 µg/m ³ to 1000 µg/m ³
		Oxides of Nitrogen	CPCB Guidelines for Manual sampling & Analysis, 36, Vol 1.	3 µg/m ³ to 1000 µg/m ³
		Ozone	CPCB Guidelines for Manual sampling & Analysis, 36, Vol 1.	10 µg/m ³ to 200 µg/m ³
		Ammonia	CPCB Guidelines for Manual sampling & Analysis, 36, Vol 1.	10 µg/m ³ to 400 µg/m ³
2.	Noise Level Monitoring	Ambient noise	IS 9989	30 dB (A) to 130 dB (A)
		Noise emitted by Source	IS 4758	30 dB to 130 dB