



(A Constituent Board of Quality Council of India)



CERTIFICATE OF ACCREDITATION

ENVIRONMENTAL HEALTH AND SAFETY RESEARCH DEVELOPMENT CENTRE

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

No. 13/2, 1st Main Road, Industrial Town, Rajajinagar, Bangalore, Karnataka

in the field of

TESTING

Certificate Number

TC-5822 (In lieu of T-2392, T-2393).

Issue Date

24/05/2017

Valid Until

23/05/2019

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

N. Venkateswaran Program Director Anil Relia Chief Executive Officer





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SCOPE OF ACCREDITATION

Laboratory

Environmental Health and Safety Research Development Centre, No.

13/2, 1st Main Road, Industrial Town, Rajajinagar, Bangalore,

Karnataka

Accreditation Standard

ISO/IEC 17025: 2005

Certificate Number

TC-5822 (In lieu of T-2392 & T-2393)

Page 1 of 26

Validity

24.05.2017 to 23.05.2019

Last Amended on 12.01.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are	Range of Testing / Limits of Detection	
			performed		

BIOLOGICAL TESTING

1.	WATER			
1.	Drinking Water / Surface Water/ Ground Water	Total Coliforms	APHA (23 rd Edition) 9222 B:2017 IS 15185:2002 (RA 2009)	≥ 1 CFU/100 ml Present/Absent
		Thermo Tolerant (Faecal) Coliform	APHA (23 rd Edition) 9222 D:2017	≥ 1 CFU/100 ml Present/Absent
		E.coli	IS 15185 : 2002 (RA 2009)	≥ 1 CFU/100 ml Present/Absent
		Faecal streptococci (CFU / 100 ml)	APHA (23 rd Edition) 9230 C: 2017,IS: 15186-2002	≥ 1 CFU/100 ml Present/Absent
2.	Packaged Drinking Water and Natural Mineral Water	E.coli (in 250 ml)	IS 15185:2002 (RA 2009)	Qualitative (Present/Absent)/250 ml
		Total Coliforms (in 250 ml)	IS 15185:2002 (RA 2009)	Qualitative (Present/Absent)/250 ml
		Faecal streptococci (in 250 ml)	IS 15186:2002 ((RA 2009)	Qualitative (Present/Absent)/250 ml
		Staphylococcus aureus (in 250 ml)	IS 5887 (Part 2):1976(RA 2009)	Qualitative (Present/Absent)/250 ml
		Sulphite Reducing Anaerobes (in 50 ml)	IS 13428:2005 (ANNEX-C) (RA 2014)	Qualitative (Present/Absent)/50 ml
		Pseudomonas aeruginosa (in 250ml)	IS 13428:2005 (ANNEX-D) (RA 2014)	Qualitative (Present/Absent)/250 ml
		Aerobic Microbial Count 37°C for 24 hrs. and 22°C for 72 hrs.	IS 5402:2012	≥ 1 CFU/ml
		Yeast & Mould Count	IS 5403-1999 (RA 2009)	≥ 1 CFU/ml

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Salmonella (in 250ml)	IS 15187:2002 (RA 2009)	Qualitative (Present/Absent)/250 ml
		Shigella(in 250 ml)	IS 5887 (Part 7):1999 (RA 2009)	Qualitative (Present/Absent)/250 ml
		Vibrio cholera (in 250 ml)	IS 5887 (Part 5):1976 (RA 2009)	Qualitative (Present/Absent)/250 ml
		Vibrio parahaemolyticus (in 250 ml)	IS 5887 (Part 5):1976 (RA 2009)	Qualitative (Present/Absent)/250 ml
		MPN (Multiple Tube Fermentation Technique) for Total Coliforms, Faecal Coliforms and E. coli.	APHA (23 rd Edition) 9221 A,B,C,D,E : 2017	< 1.8 to > 1600 (MPN Index/100ml)
3.	Water /Waste Water/Surface Water	Bioassay method of evaluating acute toxicity of Industrial effluents and waste water	IS 6582:1971 (RA 2009)	0% to 100% (Pass/Fail)
		MPN (Multiple Tube Fermentation Technique) for Total Coliforms, Faecal Coliforms and E. coli.	APHA (23 rd Edition) 9221 A,B,C,D,E : 2017	< 1.8 to >1600 (MPN Index/100ml)

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CHEMICAL TESTING

1.	WATER			
1.	Packaged Drinking Water	Colour, Hazen	IS 3025(Part-4) :1983 (RA 2012)	1-20 color units
	and Natural Mineral Water	Odour	IS 3025(Part-5) :1983 (RA 2012)	Qualitative
		Taste	IS 3025(Part-8) :1984 (RA 2012)	Qualitative
		Turbidity	IS 3025(Part-10) :1984 (RA 2012)	1 NTU to 20NTU
		Total dissolved solids	IS 3025(Part-16) 1984 (RA 2012)	5 mg/l to 1000 mg/l
		pH	IS 3025(Part-11) 1983 (RA 2012)	4.0 to 9.0
		Nitrate (as NO ₃)	IS 3025(Part 34) :1988 (RA 2014)	0.5 mg/l to 50 mg/l
		Nitrite (as NO ₂)	IS 3025(Part 34) : 1988 (RA 2014)	0.01 mg/l to 1.0mg/l
		Fluoride(as F)	IS 3025(Part 60): 2008 (RA 2013)	0.05 mg/l to 1.5mg/l
		Chloride(as Cl)	IS 3025(Part 32) :1988 (RA 2014)	2 mg/l to 200mg/l
		Sulphate (as SO ₄)	IS 3025(Part 24) :1986 (RA 2014)	2 mg/l to 200 mg/l
		Alkalinity(as HCO ₃)	IS 3025(Part 23) : 1986 (RA 2014)	2 mg/l to 200mg/l
		Sodium(as Na)	IS 3025(Part 45) :1993 (RA 2014)	0.5 mg/l to 200mg/l
		Residual Free chlorine	IS 3025(Part 26) :1986 (RA 2014)	0.1 mg/l to 1.0mg/l

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		Phenolic compounds (as C ₆ H ₅ OH)	IS 3025(Part 43) :1992 (RA 2014)	0.01 mg/l to 1.0mg/l
		Anionic surface active agents (as MBAS)	IS 13428:2005 (RA 2014)(Annex K)	0.1 mg/l to 2.0mg/l
		Sulphide (as H₂S)	IS 3025(Part 29) :1986 (RA 2014)	0.2 mg/l to 5.0mg/l
		Borates(as B)	IS 13428:2005 (RA 2014) (Annex H)	0.1 mg/l to 5.0mg/l
		Barium (Ba)	IS 13428:2005 (RA 2014)(Annex F)	0.05 mg/l to 5.0mg/l
		Cyanide (as CN)	IS 3025(Part 27) :1986 (RA 2014)	0.01 mg/l to 1.0mg/l
		Calcium (as Ca)	IS 3025(Part 40) :1991 (RA 2014)	1 mg/l to 100mg/l
		Manganese (as Mn)	IS 3025(Part 46) :1994 (RA 2014)	1 mg/l to 100mg/l
		Polychlorinated Biphenyl(PCB)	IS 13428:2005 (RA 2014)(Annex M)	10μg/l to 100 μg/l
		Naphthalene	APHA 23 rd Edition 2017,	10μg/l to 100 μg/l
		Benzo(a)anthracene	6440	10μg/l to 100 μg/l
		Acenapthylene		10μg/l to 100 μg/l
		Chrysene		10µg/l to 100 µg/l
~~~		Acenaphthene		10μg/l to 100 μg/l
		Benzo(b)fluoranthene		10μg/l to 100 μg/l
		Fluorene	APHA 23 rd Edition 2017,	10μg/l to 100 μg/l
		Phenanthrene	6440	10μg/l to 100 μg/l
		Benzo(a)Pyrene		10μg/l to 100 μg/l
		Anthracene		10μg/l to 100 μg/l
		Dibenzo (a,h) anthracene		10μg/l to 100 μg/l
		Floranthene		10μg/l to 100 μg/l
		Indenol(1,2,3-cd)pyrene		10μg/l to 100 μg/l
		Pyrene		10μg/l to 100 μg/l

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		DiBenzo(ghi)Perylene		10μg/l to 100 μg/l
		Benzo(k)fluoranthene		10μg/l to 100 μg/l
		Malathion	USEPA 8141A , Rev 1, 1994	0.01mg/l to 1mg/l
		Ethion	USEPA 8141A , Rev 1, 1994	0.01mg/l to 1mg/l
		Alpha HCH	USEPA 508, Rev 3, 1989	0.01mg/l to 1mg/l
		2,4 DDE	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Chlorpyriphos	USEPA 525.2, Rev 2, 1995	0.01mg/l to 1mg/l
		Phorate sulfone	USEPA 8141A , Rev 1, 1994	0.01mg/l to 1mg/l
		Parathion methyl	USEPA 8141A , Rev 1, 1994	0.01mg/l to 1mg/l
		2,4 DDT	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Dieldrin	USEPA 525.2, Rev 2, 1995	0.01mg/l to 1mg/l
		Beta HCH	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Delta HCH	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		2,4 DDD	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Atrazine	USEPA 525.2, Rev 2, 1995	0.01mg/l to 1mg/l
		Alachlor	USEPA 525.2, Rev 2, 1995	0.01mg/l to 1mg/l
		4,4 DDD	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Aldrin	USEPA 525.2, Rev 2, 1995	0.01mg/l to 1mg/l
		Butachlor	USEPA 525.2, Rev 2, 1995	0.01mg/l to 1mg/l
		Isoprotoron	USEPA 532, Rev 1, 2000	0.01mg/l to 1mg/l
		2,4 D	USEPA 515.1, Rev 4, 1989	0.01mg/l to 1mg/l
		Lindane	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		4,4 DDE	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		4,4 DDT	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Endosulfan sulfate	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Alfa Endosulfan	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Beta Endosulfan	USEPA 508 Rev 3, 1989	0.01mg/l to 1mg/l
		Barium	IS 15302:2003 (RA 2009)	1 to 5.0 mg/l

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		Copper (as Cu)	IS 3025(Part-42):1992 (RA 2014)	0.05 mg/l to 10 mg/l
		Zinc (as Zn)	IS 3025(Part 49):1994 (RA 2014)	5 mg/l to 15 mg/l
		Silver (as Ag)	IS 13428:2005 (RA 2014) (Annex J)	0.05 to 5.0 mg/l
		Aluminum (as Al)	IS 15302:2003 RA 2009	1 mg/l to 60.0 mg/l
		Selenium (as Se)	IS 3025(Part 56):2003 (RA 2014)	0.01 mg/l to 1.0 mg/l
		Iron (as Fe)	IS 3025(Part 53):2003 (RA 2014)	0.1 mg/l to 10 mg/l
		Calcium (as Ca)	IS 3025(Part 40):1991 (RA 2014)	1 mg/l to100 mg/l
		Magnesium (as Mg)	IS 3025(Part 46):1994 (RA 2014)	0.5 mg/l to 100 mg/l
		Antimony (as Sb)	IS 15303:2003 (RA 2009)	0.05 mg/l to 5 mg/l
		Mercury (as Hg)	IS 3025(Part-48):1994 (RA 2014)	0.01 mg/l to 0.05 mg/l
		Cadmium (as Cd)	IS 3025(Part 41):1992 (RA 2014)	0.05 mg/l to 5.0 mg/l
		Arsenic (as As)	IS 3025(Part 37):1988 (RA 2014)	0.05 mg/l to 10.0 mg/l
		Lead (as Pb)	IS 3025(Part 47):1994 (RA 2014)	1 mg/l to 10 mg/l
		Chromium (as Cr)	IS 13428:2005 (RA 2014)(Annex J)& IS 3025 (Part 52): 2003 (RA 2009)	0.2 mg/l to 10.0 mg/l
		Nickel (as Ni)	IS 13428:2005 (RA 2014)(Annex L) & IS 3025 (Part 54) : 2003 (RA 2009)	0.07 mg/l to 10.0 mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Mineral Oil	IS 3025(Part 39):1991 (RA 2014)	1 mg/l to 50 mg/l
		Acidity	APHA 23 rd Edition, 2017 2310B	1 mg/l to 500 mg/l
		Alkalinity	APHA 23 rd Edition, 2017 2320B	1 mg/l to 1000 mg/l
		Ammonical Nitrogen	APHA 23 rd Edition, 2017 4500-NH ₃ ,B,C	1 mg/l to 50 mg/l
	24	Nitrate Nitrogen	APHA 23 rd Edition, 2017 4500-NO₃E	0.1 mg/l to 50 mg/l
2.	Potable Water	Nitrite Nitrogen	APHA 23 rd Edition, 2017 4500-NO₂B	0.01 mg/l to 1 mg/l
		TKN (Total Kjeldahl Nitrogen)	APHA 23 rd Edition, 2017 4500-N _{org} B	1 mg/l to 100mg/l
		Boron	APHA 23 rd Edition, 2017 4500-B B	0.02 mg/l to 1 mg/l
		Chloride	APHA 23 rd Edition, 2017 4500-Cl ⁻ B	1 mg/l to 1000mg/l
		Chlorine Residual	APHA 23 rd Edition, 2017 4500-Cl B	0.4 mg/l to 10 mg/l
		Chromium Hexavalent	APHA 23 rd Edition, 2017 3500-Cr B	0.02 mg/l to 1 mg/l
		Electrical Conductivity	APHA 23 rd Edition, 2017 2510 B	1 μs/cm to 2000 μs/cm
		Cyanide	APHA 23 rd Edition, 2017 4500-CN-E	0.02 mg/l to 10 mg/l
		Dissolved Oxygen (DO)	APHA 23 rd Edition, 2017 4500-0 B	0.1 mg/l to 14 mg/l
		Fluoride	APHA 23 rd Edition, 2017 4500-F D	0.02 mg/l to 100 mg/l
		Calcium	APHA 23 rd Edition, 2017 3500-Ca B	1 mg/l to 800 mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Total Hardness	APHA 23 rd Edition, 2017, 2340 C	1 mg/l to 1000 mg/l
		Iron	APHA 23 rd Edition, 2017 3500-Fe B	0.02 mg/l to 2.0 mg/l
		Magnesium	APHA 23 rd Edition, 2017 3500-Mg B	1 mg/l to 400 mg/l
		Oil and Grease	APHA 23 rd Edition, 2017 5520 B	5 mg/l to 100 mg/l
		рН	APHA 23 rd Edition, 2017 4500 H+ B	1 to 12
		Total Phosphate	APHA 23 rd Edition, 2017 4500-P D	0.02 mg/l to 2.0 mg/l
		Potassium	APHA 23 rd Edition, 2017 3500-K B	0.2 mg/l to 50 mg/l
		Silica	APHA 23 rd Edition, 2017 4500-SiO2 C	0.02 mg/l to 2.0 mg/l
		Sodium	APHA 23 rd Edition, 2017 3500-Na B	0.4 mg/l to 20 mg/l
		Total Dissolved Solids (TDS)	APHA 23 rd Edition, 2017 2540 C	5 mg/l to 2100 mg/l
		Sulphate	APHA 23 rd Edition, 2017 4500-SO ₄ ² -E	1 mg/l to 20 mg/l
		Sulphide	APHA 23 rd Edition, 2017 4500-S ² -F	1 mg/l to 10 mg/l
		Total Suspended Solids (TSS)	APHA 23 rd Edition, 2017 2540 D	5 mg/l to 50 mg/l
		Temperature	APHA 23 rd Edition, 2017 2550 B	2°C to 50°C
		Phenols	APHA 23 rd Edition, 2017 5530 C	0.02 mg/l to 1.0 mg/l
		Turbidity	APHA 23 rd Edition, 2017 2130 B	0.1 NTU to 50 NTU

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		Bromide	APHA 23 rd Edition, 2017 4500 Br-B	0.1 mg/l to 10 mg/l
		lodine	APHA 23 rd Edition, 2017 4500 I B	0.1 mg/l to 10 mg/l
		Colour, Hazen	IS 3025(Part-4) :1983 (RA 2012)	1 to 20 color units
		Odour	IS 3025(Part-5) :1983 (RA 2012)	Qualitative
		Taste	IS 3025(Part-8) :1984 (RA 2012)	Qualitative
		Sulphite	APHA 23 rd Edition, 2017 4500 SO32-B	2 mg/l to 15 mg/l
		Free Carbon Dioxide	APHA 23 rd Edition, 2017 4500 CO ₂ C	1 mg/l to 15 mg/l
		Ammonia	APHA 23 rd Edition, 2017 4500 NH ₃ F	0.2 mg/l to 1.0 mg/l
		Ortho/ Dissolved Phosphate	APHA 23 rd Edition, 2017 4500 P E	0.2 mg/l to 10 mg/l
		Nitrate Nitrogen	APHA 23 rd Edition, 2017 4500-NO ₃ B	0.2 mg/l to 7 mg/l
			IS 3025 Part-34:2014	0.1 mg/l to 50 mg/l
		Biological Oxygen Demand (BOD)	APHA 23 rd Edition, 2017 5210B	1 mg/l to 10 mg/l
		Total Nitrogen	APHA 23 rd Edition, 2017 4500 N C	0.2 mg/l to 50 mg/l
		Chemical Oxygen Demand (COD)	APHA 23 rd Edition, 2017 5220 C	3.2 to 40mg/l
		Zinc (as Zn)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004, (RA 2014)	0.003mg/l to 20 mg/l
		Copper (as Cu)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004, (RA 2014)	0.003mg/l to 10mg/l

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		Selenium (as Se)	APHA 23rd Edition, 2017 3120 B/3114 B & IS 3025 (Part 2): 2004, (RA 2014)	0.002mg/L to 10mg/l
		Nickel (as Ni)	APHA 23rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004, (RA 2014)	0.003mg/l to 10mg/l
		Iron (as Fe)	APHA 23rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2): 2004, (RA 2014)	0.003mg/l to 10mg/l
		Aluminium (as Al)	APHA 23rd Edition, 2017 3120 B/3111 D & IS 3025 (Part 2) : 2004, (RA 2014)	0.003 mg/l to 10mg/l
		Barium (as Ba)	APHA 23rd Edition, 2017 3120 B/3111 D & IS 3025 (Part 2) : 2004, (RA 2014)	0.003mg/l to 10 mg/l
		Lead (as Pb)	APHA 23rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2): 2004, (RA 2014)	0.002 mg/l to 10 mg/l
		Cadmium(as Cd)	APHA 23rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2): 2004 (RA 2014)	0.003mg/l to 10 mg/l
		Total Chromium(as Cr),	APHA 23rd Edition, 2017 3120 B & IS 3025 (Part 2) : 2004, (RA 2014)	0.003mg/l to 10mg/l
		Manganese(as Mn)	APHA 23rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2): 2004, (RA 2014)	0.003mg/l to 10mg/l
		Vanadium(as V)	APHA 23rd Edition, 2017 3120 B/3111 D & IS 3025 (Part 2): 2004, (RA 2014)	0.003mg/lto 10mg/l
		Mercury (as Hg)	APHA 23 rd Edition, 2017 3112 B& IS 3025 (Part-48)- 1994, (RA 2014)	0.001mg/l to 10mg/l

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		Molybdenum(as Mo)	APHA 23rd Edition, 2017 3120 B/3111 D & IS 3025 (Part 2) : 2004, (RA 2014)	0.002mg/l to 10mg/l
		Arsenic (as As)	APHA 23rd Edition, 2017 3120 B/3114 B & IS 3025 (Part 2) : 2004, (RA 2014)	0.002 mg/l to 10mg/l
		Silver(as Ag)	APHA 23rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004, (RA 2014)	0.003mg/l to 10mg/l
		Acidity	APHA 23 rd Edition, 2017 2310B	1 mg/l-10000 mg/l
		Alkalinity	APHA 23 rd Edition, 2017 2320B	1 mg/l to 10000 mg/l
		Ammonical Nitrogen	APHA 23 rd Edition, 2017 4500-NH ₃ ,B,C	1 mg/l to 1500 mg/l
		Nitrate Nitrogen	APHA 23 rd Edition, 2017 4500-NO ₃ E	0.1 mg/l to 50 mg/l
3.	Waste Water	Nitrite Nitrogen	APHA 23 rd Edition, 2017 4500-NO₂B	0.01 mg/l to 1 mg/l
		TKN (Total Kjeldahl Nitrogen)	APHA 23 rd Edition, 2017 4500-N _{org} B	1 mg/l to 2000 mg/l
		Biological Oxygen Demand (BOD)	APHA 23 rd Edition, 2017 5210B	3 mg/l to 1000 mg/l
		Boron	APHA 23 rd Edition, 2017 4500-B B	0.02 mg/l to 1 mg/l
		Chemical Oxygen Demand (COD)	APHA 23 rd Edition, 2017 5220B	4 mg/l to 15000 mg/l
		Chloride	APHA 23 rd Edition, 2017 4500-Cl⁻B	0.5 mg/l to 25000mg/l
		Chlorine Residual	APHA 23 rd Edition, 2017 4500-CI B	0.4 mg/l to 50 mg/l
		Chromium Hexavalent	APHA 23 rd Edition, 2017 3500-Cr B	0.02 mg/l to 1 mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Electrical Conductivity	APHA 23 rd Edition, 2017 2510 B	1 to 40000 μs/cm
		Cyanide	APHA 23 rd Edition, 2017 4500-CN-D	0.02 mg/l to 10 mg/l
		Dissolved Oxygen (DO)	APHA 23 rd Edition, 2017 4500-0 C	0.1 mg/l to 14 mg/l
		Fluoride	APHA 23 rd Edition, 2017 4500-F D	0.02 mg/l to 2.0 mg/l
		Calcium	APHA 23 rd Edition, 2017 3500-Ca	1 mg/l to 10000 mg/l
		Total Hardness	APHA 23 rd Edition, 2017 2340C	1 mg/l to 25000 mg/l
		Sludge Volume Index	APHA 23 rd Edition, 2017 2710 D	10 mg/l to 100mg/l
		Percent Sodium	QMA/SOP/W-42, IS 3025(P-23)-1986 (RA 2014), IS 3025(P-40)-1991 (RA 2014), IS 3025(P-46)-1994 (RA 2014), IS 3025(P-45)-1993 (RA 2014). Issue Date-30.06.2012 Issue Number-01	10 mg/l to 60mg/l
		Residual Sodium Carbonate	APHA 23 rd Edition, 2017- 2540E	0.1 mg/l to 10mg/l
		Sodium Absorption Ratio	APHA 23 rd Edition, 2017-	0.1 mg/l to 200mg/l
		Fixed Solids	2540E	5 mg/l to 1000mg/l
	***************************************	Volatile Solids	IS 3025 Part-34 :	5 mg/l to 1000mg/l
		Nitrate Nitrogen	(RA 2014)	0.1 mg/l to 50 mg/l
		Bromide	APHA 23 rd Edition, 2017 4500 Br-B	0.1 mg/l to 1.0 mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		lodine	APHA 23 rd Edition, 2017 4500 I B	0.1 mg/l to 10 mg/l
		Sulphite	APHA 23 rd Edition, 2017 4500 SO ₃ ² -B	2 mg/l to 30 mg/l
		Free Carbon Dioxide	APHA 23 rd Edition, 2017 4500 CO2 C	1 mg/l to 5000 mg/l
		Colour, Hazen	IS 3025(Part-4) :1983 (RA 2012)	1 to 20 color units
		Odour	IS 3025(Part-5) :1983 (RA 2012)	Qualitative
		Chemical Oxygen Demand (COD)	APHA 23 rd Edition, 2017 5220 C	3.2 mg/l to 1500mg/l
		Ammonia	APHA 23 rd Edition, 2017 4500 NH ₃ F	0.2 mg/l to 1000 mg/l
		Ortho/ Dissolved Phosphate	APHA 23 rd Edition, 2017 4500 P E	0.2 mg/l to 50 mg/l
		Total Nitrogen	APHA 23 rd Edition, 2017 4500 N C	0.2 mg/l to 500 mg/l
		Zinc (as Zn)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.003mg/l to 10mg/l
		Copper (as Cu)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2): 2004 (RA 2014)	0.003mg/l to 10mg/l
		Selenium (as Se)	APHA 23rd Edition, 2017 3120 B/3114 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.002mg/l to 10mg/l
		Nickel (as Ni)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.003mg/l to 10mg/l

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Iron (as Fe)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.003mg/l to 10mg/l
		Aluminium (as Al)	APHA 23rd Edition, 2017 3120 B/3111 D & IS 3025 (Part 2): 2004 (RA 2014)	0.005mg/l to 10mg/l
		Barium (as Ba)	APHA 23rd Edition, 2017 3120 B/3111 D & IS 3025 (Part 2): 2004 (RA 2014)	0.003mg/l to 10mg/l
		Lead (as Pb)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.002mg/l to 10mg/l
		Cadmium(as Cd)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.003mg/lto 10mg/l
		Total Chromium(as Cr)	APHA 23rd Edition, 2017 3120 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.003mg/l to 10mg/l
		Manganese(as Mn)	APHA 23 rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2): 2004 (RA 2014)	0.003mg/l to 10mg/l
		Vanadium(as V)	APHA 23rd Edition, 2017 3120 B/3111 D & IS 3025 (Part 2): 2004 (RA 2014)	0.003mg/l to 10mg/l
		Mercury (as Hg)	APHA 23 rd Edition, 2017 3112 B & IS 3025 (Part-48)- 1994 (RA 2014)	0.001mg/l to 10mg/l
		Molybdenum(as Mo)	APHA 23rd Edition, 2017 3120 B/3111 D & IS 3025 (Part 2) : 2004 (RA 2014)	0.002mg/l to 10mg/l
		Arsenic (as As)	APHA 23rd Edition, 2017 3120 B/3114 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.002mg/l to 10mg/l

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51.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Silver(as Ag)	APHA 23rd Edition, 2017 3120 B/3111 B & IS 3025 (Part 2) : 2004 (RA 2014)	0.003mg/l to 10mg/l
		Iron	APHA 23 rd Edition, 2017 3500-Fe B	0.02 mg/l to 2.0 mg/l
		Magnesium	APHA 23 rd Edition, 2017 3500-MgB	1 mg/l to 10000 mg/l
		Oil and Grease	APHA 23 rd Edition, 2017 5520 B	1 mg/l to 1000 mg/l
		рН	APHA 23 rd Edition, 2017 4500 H+ B	1 to 12
		Total Phosphate	APHA 23 rd Edition, 2017 4500-P D	0.02 mg/l to 2.0 mg/l
		Potassium	APHA 23 rd Edition, 2017 3500-K	0.2 mg/l to 20 mg/l
		Silica	APHA 23 rd Edition, 2017 4500-SiO ₂ C	0.02 mg/l to 2.0 mg/l
		Sodium	APHA 23 rd Edition, 2017 3500-Na B	0.4 mg/l to 40 mg/l
		Total Dissolved Solids (TDS)	APHA 22 nd Edition, 2012 2540C	5 mg/l to 10000 mg/l
		Sulphate	APHA 23 rd Edition, 2017 4500-SO ₄ ²⁻	1 mg/l to 40 mg/l
		Sulphide	APHA 23 rd Edition, 2017 4500-S ²⁻	1 mg/l to 100 mg/l
		Total Suspended Solids (TSS)	APHA 23 rd Edition, 2017 2540D	5 mg/l to 5000 mg/l
		Temperature	APHA 23 rd Edition, 2017 2550 B	1°C to 50°C
		Phenois	APHA 23 rd Edition, 2017 5530 C	0.02 mg/l to 1.0 mg/l
200		Turbidity	APHA 23 rd Edition, 2017 2130 B	0.1 NTU to 100 NTU

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		рН	IS:2720 (PART 26)-1987 (RA 2011)	1 to 12
		Electrical Conductivity	IS:14767:2000	1 µs/cm to 2000 µs/cm
		Organic Matter	IS 2720 (part XXII)1972 (RA 2015)	0.10% to 3.0%
II.	SOIL AND ROCK	Moisture Content	IS 2720(Part II)-1997 (RA 2015)	0.5% to 18%
1.	Soil	Organic Carbon	IS 2720 (Part XXII) 1972 (RA 2015)	0.1% to 5%
		Available Phosphorus	QMA/SOP/S-005, Based on Soil Testing Manual, Government of India, Jan, 2011,Issue Date-17.04.2013 Issue Number-01	10 kg/ha to 1000kg/ha
		Available Potassium	QMA/SOP/S-006, Based on Soil Testing Manual, Government of India, Jan, 2011,Issue Date-17.04.2013 Issue Number-01	5 mg/ha to 100mg/ha
		Sulphate	QMA/SOP/S-007, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013 Issue Number-01	0.05 mg/100g to 50mg/100g
		Exchangeable Calcium	QMA/SOP/S-008, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013 Issue Number-01	0.5 meq/L to 50meq/L
		Exchangeable Magnesium	QMA/SOP/S-008, Based on Soil Testing Manual,	0.5 meq/L to 20meq/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			Government of India, Jan, 2011. Issue Date- 17.04.2013,Issue Number-1	
		Available Nitrogen	QMA/SOP/S-009, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013, Issue Number-1	50 kg/ha to 600kg/ha
	•	Chloride	QMA/SOP/S-010, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013 Issue Number-01	0.5 mg/L to 20mg/L
		Sodium	QMA/SOP/S-011, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013, Issue Number-1	5 mg/100g to 100mg/100g
		Nitrate Nitrogen	QMA/SOP/S-012, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013,Issue Number-1	10 mg/100g to 150mg/100g
		Carbonate	QMA/SOP/S-013, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013 Issue Number-01	1 meq/L to 50 meq/L
		Bicarbonate	QMA/SOP/S-013, Based on Soil Testing Manual, Government of India, Jan,	1 meq/L to 200 meq/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			2011. Issue Date- 17.04.2013 Issue Number-01	
		Boron	QMA/SOP/S-014, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013,Issue Number-1	0.2 10mg/100g to 10mg/100g
		Bulk Density	QMA/SOP/S-015, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013 Issue Number-01	1 g/cm ³ to 2g/cm ³
		Particle Density	QMA/SOP/S-016, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013,Issue Number-1	1 g/cm ³ to 5g/cm ³
		Porosity	QMA/SOP/S-016, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013,Issue Number-1	10% to 50%
		% of Sand	QMA/SOP/S-017, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 30.07.2015 Issue Number-01	10% to 90%
		% of Silt	QMA/SOP/S-017, Based on Soil Testing Manual, Government of India, Jan,	5% to 70%

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
			2011. Issue Date- 30.07.2015,Issue Number-1	
		% of Clay	QMA/SOP/S-017, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 30.07.2015 Issue Number-01	5% to 70%
		Alkalinity	QMA/SOP/S-013, Based on Soil Testing Manual, Government of India, Jan, 2011. Issue Date- 17.04.2013 Issue Number-01	1 meq/L to 200 meq/L
		Naphthalene	QMA/SOP/GCMS-001	0.05mg/g to1 mg/gm
		Benzo(a)anthracene	Environmental Agency UK,	0.05mg/g to1 mg/gm
		Acenapthylene	2002. Issue Number 01	0.05mg/g to1 mg/gm
		Chrysene	Issue Date: 17.04.2013	0.05mg/g to1 mg/gm
		Acenaphthene		0.05mg/g to1 mg/gm
		Benzo(b)fluoranthene		0.05mg/g to1 mg/gm
		Fluorene		0.05mg/g to1 mg/gm
		Benzo(k)fluoranthene		0.05mg/g to1 mg/gm
		Phenanthrene		0.05mg/g to1 mg/gm
		Benzo(B)fluoranthene		0.05mg/g to1 mg/gm
		Benzo(a)Pyrene		0.05mg/g to1 mg/gm
		Anthracene		0.05mg/g to1 mg/gm
		Dibenzo(a,h)anthracene		0.05mg/g to1 mg/gm
		Floranthene		0.05mg/g to1 mg/gm
		Indenol(1,2,3-cd)pyrene		0.05mg/g to1 mg/gm
		Pyrene		0.05mg/g to1 mg/gm
	-	DiBenzo(ghi)Perylene		0.05mg/g to1 mg/gm

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Program Director





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SI,	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Malathion	USEPA	5 ng/g to 50 ng/g
		Ethion	8141A , Rev1,1994	5 ng/g to 50 ng/g
		Phorate-sulfoxide	515.2, Rev2, 1995	5 ng/g to 50 ng/g
		Alpha HCH	532, Rev 1, 2000, 525.2, Rev 2, 1995 508, Rev 3, 1989	5 ng/g to 50 ng/g
		2,4 DDE	USEPA	5 ng/g to 50 ng/g
		Chlorpyriphos	8141A, Rev1,1994	5 ng/g to 50 ng/g
		Parathion methyl	515.2, Rev2, 1995, 532,	5 ng/g to 50 ng/g
		2,4 DDT	Rev 1, 2000, 525.2, Rev 2,	5 ng/g to 50 ng/g
		Dieldrin	1995, 508, Rev 3, 1989	5 ng/g to 50 ng/g
		Beta HCH		5 ng/g to 50 ng/g
		Delta HCH		5 ng/g to 50 ng/g
		2,4 DDD		5 ng/g to 50 ng/g
		Atrazine		5 ng/g to 50 ng/g
		4,4 DDD		5 ng/g to 50 ng/g
		Aldrin		5 ng/g to 50 ng/g
		Butachlor		5 ng/g to 50 ng/g
		Isoprotoron		5 ng/g to 50 ng/g
		2,4 D		5 ng/g to 50 ng/g
		Lindane		5 ng/g to 50 ng/g
		4,4 DDE		5 ng/g to 50 ng/g
		4,4 DDT		5 ng/g to 50 ng/g
		Alachlor		5 ng/g to 50 ng/g
		Endosulfan sulfate		5 ng/g to 50 ng/g
		Alfa Endosulfan		5 ng/g to 50 ng/g
		Beta Endosulfan		5 ng/g to 50 ng/g
		Barium (as Ba)	EPA Method 3050B, Rev 2, 1996/& EHSRDC/AAS/AMV/017 (Issue Date: 06.01.2014)	50 mg/kg to 100 mg/kg

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31.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Copper (as Cu)	EPA Method 3050B, Rev 2,	5 mg/kg to 20 mg/kg
		Iron (as Fe)	1996/&	10mg/kg to 100 mg/kg
		Zinc (as Zn)	EHSRDC/AAS/AMV/017	5 mg/kg to 50 mg/kg
		Silver (as Ag)	(Issue Date: 06.01.2014)	5 mg/kg to 50 mg/kg
		Aluminum (as Al)		50 mg/kg to 100 mg/kg
		Selenium (as Se)		1 mg/kg to 10 mg/kg
		Calcium (as Ca)		1 mg/kg to100 mg/kg
		Antimony(as Sb)		5 mg/kg to 50 mg/kg
LAK		Mercury (as Hg)		1 mg/kg to 50 mg/kg
		Cadmium (as Cd)		5 mg/kg to 10 mg/kg
		Arsenic (asAs)		1 mg/kg to 10.0 mg/kg
		Lead (as Pb)		5 mg/kg to 50 mg/kg
		Chromium (as Cr)		20 mg/kg to 100 mg/kg
320		Nickel (as Ni)		7 mg/kg to 100 mg/kg
		Magnesium (as Mg)		0.5 mg/kg to 100 mg/kg
		Color	QMA/SOP/S-034, Munsell Color Chart. Issue Date-24.06.2017 Issue Number-01	
		Exchangeable Sodium Percentage	QMA/SOP/S-028, Based on Soil Testing Manual, Government of India, Jan, 2011 & FAO. Issue Date-19.11.2015 Issue Number-01	1% to 80%
		Nitrite	APHA 22 nd Edition 20124500-NO ₂ B	0.2 μg/g to 20 μg/g
		Total Soluble Solids	IS 2720 (Part-21):2016	0.2% to 20%
		Hydraulic Conductivity	IS 2720 (Part-21):2016	0.02 Cm/hr to 10Cm/hr
		Water Holding Capacity	QMA/SOP/S-018, Based on Soil Testing Manual, GOI, Jan, 2011, Issue Date- 17.04.2013,Issue Number-1	5% to 80%

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Cation Exchangeable Capacity	QMA/SOP/S-021, Based on Soil Testing Manual, Government of India, Jan, 2011 Issue Date-17.04.2013 Issue Number-01	1 meq/L to 99 meq/L
		Hexavalent Chromium	QMA/SOP/S-029, Based on EP Method 3060A Issue Date-19.11.2015 Issue Number-01	1 μg/g to 20 μg/g
		Total Nitrogen	QMA/SOP/S-029, Based on Soil Testing Manual, Government of India, Jan, 2011 Issue Date-17.10.2016 Issue Number-01	14% to 80%
		Cyanide	APHA 23 rd Edition	0.5 μg/g to 10 μg/g
		Zinc (as Zn)	EPA METHOD 3050 B	0.5mg/kg to 100mg/kg
		Copper (as Cu)	(Revised II 1996) &	0.5mg/kg to 100mg/kg
		Selenium (as Se)	EHSRDC/ICP-	1mg/kg to 50 mg/kg
		Nickel (as Ni)	OES/AMV/018	0.5mg/kg to 100mg/kg
		Iron (as Fe)	(Issue Date: 25.02.2017)	0.5mg/kg to 1000mg/kg
		Aluminium (as Al)		0.5mg/kg to 100mg/kg
		Barium (as Ba)		0.5mg/kg to 100mg/kg
		Lead (as Pb)		0.5mg/kg to 100mg/kg
		Cadmium(as Cd)		0.5mg/kg to 100mg/kg
		Total Chromium(as Cr)		0.5mg/kg to 100mg/kg
		Manganese(as Mn)		0.5mg/kg to 500 mg/kg
		Mercury (as Hg)		1mg/kg to 50mg/kg
		Arsenic (as As)		1 mg/kg to 50 mg/kg
		Molybdenum(as Mo)		0.5mg/kg to 50mg/kg

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
III.	ATMOSPHERIC PO	DLLUTION		
1.	Ambient Air Quality	Fluorene	IS 5182 (Part-12)-2004	1ng/m³ to 100ng/m³
		Benzo(k)fluoranthene	(RA 2014)	1ng/m ³ to 100ng/m ³
		Benzo(B)fluoranthene		1ng/m ³ to 100ng/m ³
		Phenanthrene		1ng/m ³ to 100ng/m ³
		Benzo(a)Pyrene	1	1ng/m ³ to 100ng/m ³
		Anthracene		1ng/m ³ to 100ng/m ³
		Dibenzo(a,h) Anthracene		1ng/m ³ to 100ng/m ³
		Floranthene		1ng/m³ to 100ng/m³
		Indenol(1,2,3-cd)pyrene		1ng/m ³ to 100ng/m ³
		Pyrene		1ng/m ³ to 100ng/m ³
		DiBenzo(ghi)Perylene		1ng/m ³ to 100ng/m ³
		Naphthalene	IS 5182 (Part-12)-2004	1ng/m ³ to 100ng/m ³
		Benzo(a)anthracene	(RA 2014)	1ng/m ³ to 100ng/m ³
		Acenaphthylene		1ng/m ³ to 100ng/m ³
-		Chrysene		1ng/m ³ to 100ng/m ³
		Acenaphthene	IS 5182 (Part-11)-2006 (RA 2012)	1ng/m ³ to 100ng/m ³
		Toluene		5μg/m ³ to 100μg/m ³
		O-Xylene		5μg/m³to 100μg/m³
		M-Xylene		5μg/m ³ to 100μg/m ³
		Benzene		5µg/m ³ to 100µg/m ³
		1,1,1,Trichloroethane		5μg/m ³ to 100μg/m ³
		Tetrachloroethene		5μg/m ³ to 100μg/m ³
		1,2Trichloroethane		5μg/m ³ to 100μg/m ³
		Bromoform		5μg/m ³ to 100μg/m ³
		Dibromochloromethane		5μg/m³to 100μg/m³
		Trans 1,3 dichloropropane		5μg/m ³ to 100μg/m ³
		Bromo dichloromethane		5µg/m³to 100µg/m³
		1,4Dichlorobenzene		5µg/m³to 100µg/m³

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#### **SCOPE OF ACCREDITATION**

Laboratory Environmental Health and Safety Research Development Centre, No.

13/2, 1st Main Road, Industrial Town, Rajajinagar, Bangalore,

Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5822 (In lieu of T-2392 & T-2393) Page 24 of 26

Validity 24.05.2017 to 23.05.2019 Last Amended on 12.01.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Barium (Ba)	EHSRDC/SOP/AAS/001	20µg/m³to 50µg/m³
		Mercury (as Hg)		20ng/m³ to 50ng/m³
		Cadmium (as Cd)		20μg/m ³ to 50μg/m ³
		Arsenic (as As)		6ng/m ³ to 50ng/m ³
		Lead (as Pb)		0.5µg/m ³ to 50µg/m ³
		Nickel (as Ni)		20ng/m³ to 50ng/m³
		Arsenic	EHSRDC/SOP/ICP- OES/023	2ng/m³ to 300ng/m³
		Lead		0.1μg/m ³ to 100μg/m ³
		Nickel	EHSRDC/SOP/AIR-005 NAAQMS/37/2012-2013	2ng/m³ to 300ng/m³
		Ammonia		0.2 μg/m³ to 400μg/m³
		Carbon Monoxide (CO)	IS 5182 (Part 10) : 1999 (RA 2014) IS 5182 (Part VI)-2006 (RA 2012) 1 st Rev.	1 ppm to 200ppm
		Nitrogen Dioxide	EHSRDC/SOP/AIR-016	6 μg/m³ to 80μg/m³
20000		Ozone	NAAQMS/37/2012-2013	1 ppm to 20 ppm
		PM 10	IS 5182 (Part 23)-2006 (RA 2012) USEPA 40 CFR(P 53)	1 μg/m³ to 100μg/m³
		PM 2.5	IS 5182 (Part II)-2001	1 μg/m³to 60μg/m³
		Sulphur Dioxide	(RA 2012)1 st REV	3 μg/m³to 80μg/m³
		Noise Level (L max,L min,Leq)	EHSRDC/SOP/AIR-010	30 dBA to 130 dBA
		Hydrogen Sulphide	IS : 5182 (Part 7)-1973 (RA 2014)	6 µg/m ³ to 600 µg/m ³
		Temperature	EHSRDC/SOP/Air/023, Issue No-01,Issue Date- 06.01.2017	10.0°C to 60.00°C
		Humidity	EHSRDC/SOP/Air/024 Issue No-01,Issue Date- 27.01.2017	upto 99.9%

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Certificate Number TC-5822 (In lieu of T-2392 & T-2393) Page 25 of 26

Validity 24.05.2017 to 23.05.2019 Last Amended on 12.01.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Oxygen	EHSRDC/SOP/Air/025 Issue No-01,Issue Date- 27.01.2017	upto 25%
		Air Velocity	EHSRDC/SOP/Air/026 Issue No-01,Issue Date- 27.01.2017	0.40 m/sec to 30.00 m/sec
		Carbon dioxide	EHSRDC/SOP/Air/022 Issue No-01,Issue Date- 06.01.2017	upto 2000ppm
		Velocity	IS 11255 Part 3-1985 R.2008	4 m/sec to 30 m/sec
		Volume of flue gas discharge	IS 11255 Part 3-1985 R.2008	150 Nm³/Hr to 150000 Nm³/Hr
		Particulate matter	IS 11255 Part 1-1985 R.2014	1 mg/Nm ³ to 150 mg/Nm ³
		Ammonia	IS 11255 P.6 1999 1 st Rev 2014	0.03 mg/Nm ³ to 5 mg/Nm ³
		Dust/Particulate Emissions	IS 11255 Part 1-1985 R.2014	0.01 kg/Hr to 0.5 kg/Hr
		Oxides of Nitrogen	IS 11255 Part 7-2005 R.2012	2 mg/Nm ³ to 400 mg/Nm ³
		Sulphur Dioxide	IS 11255 Part 2-1985 R.2014	> 3 mg/NM ³
		Hydrogen Sulphide	IS 11255 (Part 4): 2006 (RA 2012)	0.5 mg/Nm ³ to 101 mg/Nm ³
2.	Stack Emission	Acid Mist	USEPA Method 8	>1mg/Nm ³ and above
		Carbon monoxide	EHSRDC/SOP/AIR/029 Issue No-01,Issue Date- 06.01.2017	1 ppm to 8000 ppm
		Total Suspended Particulate matter	EHSRDC/SOP/Air/027 Issue No-01,Issue Date- 27.01.2017	0.5 μg/m³ to 10 μg/m³

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#### SCOPE OF ACCREDITATION

Laboratory

Environmental Health and Safety Research Development Centre, No.

13/2, 1st Main Road, Industrial Town, Rajajinagar, Bangalore,

Karnataka

**Accreditation Standard** 

ISO/IEC 17025: 2005

Certificate Number

TC-5822 (In lieu of T-2392 & T-2393)

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Validity

24.05.2017 to 23.05.2019

Last Amended on 12.01.2018

SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Sulphur dioxide	IS 5182 (Part 2)-2001 (RA 2012)	3 µg/m³ to 80 µg/m³
		Nitrogen dioxide	IS 5182 (Part 6)-2006 (RA 2012)	6 µg/m³to 80 µg/m³
		Ammonia	EHSRDC/SOP/AIR-005 NAAQMS/37/2012-2013	0.2 μg/m³to 400 μg/m³
		Hydrogen Sulphide	IS : 5182 (Part 7)-1973 (RA 2014)	6 μg/m³ to 600 μg/m³
		Carbon dioxide	EHSRDC/SOP/Air/022 Issue No-01,Issue Date- 06.01.2017	upto 2000ppm
		Temperature	EHSRDC/SOP/Air/023 Issue No-01,Issue Date- 06.01.2017	10.0 °C to 60.00 °C
		Humidity	EHSRDC/SOP/Air/024 Issue No-01,Issue Date- 27.01.2017	upto 99.9%
3.	Indoor Air Quality	Oxygen	EHSRDC/SOP/Air/025 Issue No-01,Issue Date- 27.01.2017	upto 25%
		Light Intensity	EHSRDC/SOP/Air/028 Issue No-01, Issue Date- 27.01.2017	200 Lux to 500000 Lux
		Air Velocity	EHSRDC/SOP/Air/026 Issue No-01, Issue Date- 27.01.2017	0.40 m/sec to 30.00 m/sec
		Carbon monoxide	IS 5182 (Part 23)-2006 (RA 2012)	1 ppm to 200 ppm
		Ozone	EHSRDC/SOP/AIR/016 NAAQMS/37/2012-2013	1 ppm to 20 ppm

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