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SI.	Product / Material	Specific Test Performed	Test Method Specification	Range of Testing /	7
:	of Test		against which tests are	Limits of Detection	-
!	! !	1	performed	!	.;

BIOLOGICAL TESTING

I.	WATER	T	T	
1.	Drinking Water / Ground Water	Coliform	APHA 23 rd Edition 2017 9222B (9-82)	Qualitative: Present or absent
! !	! !	! !	IS-1622:1981 RA 2009	
:		E-coli	APHA 23 rd Edition 2017	Qualitative:
! ! L	! ! !	! ! *	9221G-2 (9-80)	Present or absent
! !	! !	! !	IS-1622:1981 RA 2009	
:		TBC	APHA 23 rd Edition 2017	1 cfu/ml to 300 cfu/ml
! ! !	 	! ! *	9215B (9-56)	! ! !
! ! ! :	 	! !	IS-1622:1981 RA 2009	
2.		Coliform	APHA 23 rd Edition 2017	Qualitative:
! ! L	Spa Water	! ! *	9222B (9-82)	Present or absent
! !	! !	! !	IS-1622:1981 RA 2009	
:		E-coli	APHA 23 rd Edition 2017	Qualitative:
! ! L	! ! !	! ! *	9221G-2 (9-80)	Present or absent
! !	! !	! !	IS-1622:1981 RA 2009	
! !		TBC	APHA 23 rd Edition 2017	1 cfu/ml to 300 cfu/ml
! ! L	! ! !	! ! *	9215B (9-56)	
! ! ! :	 	! !	IS-1622:1981 RA 2009	
•	ng Water,	Total coliforms	APHA 23 rd Edition 2017	< 1.8 to > 1600 MPN /
! ! 	d Water/ Surface	: : 	9221 B (9-69)	100 ml
<u>.</u>	Water &	Fecal coliforms	APHA 23 rd Edition 2017	< 1.8 to > 1600 MPN /
:	Swimming Pool &		, 	100 ml
! ! !	Spa	·	9221 E (9-77)	
! ! b = = = = = .	 	! !	IS-1622:1981 RA 2009	

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r		Fecal streptococcus	IS-1622:1981 RA 2009	< 1.8 to > 1600 MPN / 100 ml
II.	POLLUTION & ENVI	RONMENT		
1.	e Water	Total coliforms	APHA 23 rd Edition 2017 9221 B (9-69)	< 1.8 to > 1600 MPN / 100 ml
		Fecal coliforms	APHA 23 rd Edition 2017 9221 E (9-77)	< 1.8 to > 1600 MPN / 100 ml
i !		 	IS-1622:1981 RA 2009	
		Fecal strepto coccus	IS-1622:1981 RA 2009	< 1.8 to > 1600 MPN / 100 ml

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are	Range of Testing / Limits of Detection	-1
i 			performed	! !	į

CHEMICAL TESTING

I.	POLLUTION AND ENVIRONMENT			
1.	"Effluent" (Waste Water)	рН	APHA 4500-H⁺ B (4-95) 23 rd Edition 2017	2.0 to 12.0
		Conductivity	APHA 2510-B (2-58) 23 rd Edition 2017	2.0 µmhos/cm to 2000 µmhos/cm
		, ,	APHA 5220-B (5-18) 23 rd Edition 2017	5.0 mg/L to 50000 mg/L
		Biochemical Oxygen Demand	IS 3025 (Part 44): 1993 (RA 2014)	2.0 mg/L to 20000 mg/L
			APHA 5210-B (5-6) 23 rd Edition 2017	2.0 mg/L to 20000 mg/L
		Suspended Solids	APHA 2540-D (2-70) 23 rd Edition 2017	2.0 mg/L to 2000 mg/L
		Total Dissolved Solids	APHA 2540-C (2-69) 23 rd Edition 2017	2.0 mg/L to 2000 mg/L
r		Sulphates	APHA 4500- SO ₄ ²⁻ E (4-199) 23 rd Edition 2017	5.0 mg/L to 2000 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
r · · · · · · · · · · · · · · ·		Chlorides	APHA 4500-Cl ⁻ B (4-75) 23 rd Edition 2017	to 500 mg/L
		Total Ammoniacal Nitrogen	APHA 4500-NH $_3$ B (4-114) & C (4-116) 23rd Edition 2017	0.50 mg/L to 100 mg/L
II.	WATER	 		
i ! !	e Water, d Water,	рН	IS 3025 (Part 11): 1983 (RA 2017)	2.0 to 12.0
i ! !	ig Water, uction Water,	Conductivity	IS 3025 (Part 14): 1984 (RA 2013)	2.0 μmhos/cm to 2000 μmhos/cm
<u>:</u>	rial Water, on Water,	Chemical Oxygen Demand	IS 3025 (Part 58): 2006 (RA 2017)	5.0 mg/l to 500 mg/l
; ; ; ; ;	hing Pool Water & Packaged	Biochemical Oxygen Demand	IS 3025 (Part 44): 1993 (RA 2014)	2.0 mg/l to 200 mg/l
! ! ! ! !	Drinking Water		APHA 5210-B (5-6) 23 rd Edition 2017	2.0 mg/l to 200 mg/l
! ! ! ! ! !		Suspended Solids	IS 3025 (Part 17): 1984 (RA 2017)	2.0 mg/l to 100 mg/l
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2017)	2.0 mg/l to 1000 mg/l
	 	Sulphates	IS 3025 (Part 24): 1986 (RA 2014)	5.0 mg/l to 500 mg/l
 ! !		Chlorides	IS 3025 (Part 32): 1988 (RA 2014)	2.0 mg/l to 500 mg/l
, ! ! !		Total Ammoniacal Nitrogen	IS 3025 (Part 34): 1988 (RA 2014)	0.50 mg/l to 100 mg/l
r ' i i i i i i i i		Colour	APHA 2120-B (2-6) 23 rd Edition 17 IS 3025 (Part 4): 1983	5 Hazen Unit to 70 Hazen Unit

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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
		Turbidity	(RA 2017) APHA 2130-B (2-13) 23 rd Edition17 IS 3025 (Part 10): 1984 (RA 2017)	2 NTU to 400 NTU
		Alkalinity	APHA 2320-B (2-37) 23 rd Edition17 IS 3025 (Part 23): 1986 (RA 2014)	2 mg/l to 500 mg/l
		Residual Chlorine	APHA 4500-CI-B (4-63) 23 rd Edition17 IS 3025 (Part 26): 1986 (RA 2014)	0.5 mg/l to 7 mg/l
 1 1 1 1 1 1 1		Fluorides	APHA 4500-F ⁻ D (4-90) 23 rd Edition17 IS 3025 (Part 60): 2008 (RA 2013)	0.2 mg/l to 1.4 mg/l
		Hardness	APHA 2340-C (2-48) 23 rd Edition17 IS 3025 (Part 21): 2009 (RA 2014)	2 mg/l to 1200 mg/l
**************************************		Ca	APHA 3500-Ca B (3-69) 23 rd Edition17 IS 3025 (Part 40): 1991 (RA 2014)	1.0 mg/l to 400 mg/l
		Mg	APHA 3500-Mg B (3-86) 23 rd Edition17 IS 3025 (Part 46): 1994 (RA 2014)	1.0 mg/l to 97 mg/l
 	†	Phosphorus	APHA 4500-P C (4-161) 23 rd Edition17	0.2 mg/l to 10 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
r 7			IS 3025 (Part 31): 1988 (RA 2014)	
		Fe	APHA 3500-Fe B (3-80) 23 rd Edition 17 IS 3025 (Part 53): 2003 (RA 2014)	0.02 mg/l to 5 mg/l
		DO	APHA 4500-O C (4-146) 23 rd Edition17 IS 3025 (Part 38): 1989 (RA 2014)	0.5 mg/l to10 mg/l
		Boron	APHA 4500-B B (4-27) 23 rd Edition 17 IS 3025 (Part 57): 2005 (RA 2017)	0.05 mg/l to 4 mg/l
		Hexavalent Chromium	APHA 3500-Cr B (3-71) 23 rd Edition 17 IS 3025 (Part 52): 2003 (RA 2014)	0.2 mg/l to 1.0 mg/l
III.	POLLUTION AND E	NVIRONMENT		
1.	Waste Water (Effluents & Sewage)	Colour	APHA 2120-B (2-6) 23 rd Edition 17 IS 3025 (Part 4): 1983 (RA 2017)	5 Hazen unit to 70 Hazen unit
		Turbidity	APHA 2130-B (2-13) 23 rd Edition17 IS 3025 (Part 10): 1984 (RA 2017)	2 NTU to 400 NTU
		Alkalinity	APHA 2320-B (2-37) 23 rd	2 mg/l to 1000 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
			Edition17 IS 3025 (Part 23): 1986 (RA 2014)	
		Residual Chlorine	APHA 4500-CI-B (4-63) 23 rd Edition17 IS 3025 (Part 26): 1986 (RA 2014)	0.5 mg/l to 7 mg/l
		Fluorides	APHA 4500-F ⁻ D (4-90) 23 rd Edition17 IS 3025 (Part 60): 2008 (RA 2013)	0.2 mg/l to 1.4 mg/l
		Hardness	APHA 2340-C (2-48) 23 rd Edition17 IS 3025 (Part 21): 2009 (RA 2014)	2 mg/l to 1200 mg/l
		Ca	APHA 3500-Ca B (3-69) 23 rd Edition17 IS 3025 (Part 40): 1991 (RA 2014)	1.0 mg/l to 400 mg/l
		Mg	APHA 3500-Mg B (3-86) 23 rd Edition17 IS 3025 (Part 46): 1994 (RA 2014)	1.0 mg/l to 97 mg/l
		Phosphorus	APHA 4500-P C (4-161) 23 rd Edition17 IS 3025 (Part 31): 1988 (RA 2014)	0.2 mg/l to 10 mg/l
		Fe	APHA 3500-Fe B (3-80) 23 rd Edition 17 IS 3025 (Part 53): 2003 (RA 2014)	0.02 mg/l to 5 mg/l
		DO	APHA 4500-O C (4-146) 23 rd Edition17	0.5 mg/l to 10 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
	 	T	IS 3025 (Part 38): 1989 (RA 2014)	
		Boron	APHA 4500-B B (4-27) 23 rd Edition 17/IS 3025 (Part 57): 2005 (RA 2017)	0.05 mg/l to 4 mg/l
		Hexavalent Chromium	APHA 3500-Cr B (3-71) 23 rd Edition 17 IS 3025 (Part 52): 2003 (RA 2014)	0.2 mg/l to 1.0 mg/l
1.	ROCK	†	 	
1.	Clays & Soils	pH	IS 2720 (Part 26-1987, (RA2011)	1 to 13
	!	Conductivity	IS 14767:2000 (RA 2016)	0.2 μS/cm to 200 mS/cm
		Organic matter	IS 2720 (Part 22): 1972 (RA 2015)	0.031 % to 5.17 %
		Organic carbon	IS 2720 (Part 22): 1972 (RA 2015)	0.018 % to 3 %
		Water Content	IS 2720 (Part 2): 1973 (RA 2015)	1 % to 20 %
		Available Nitrogen	AESPL/LAB/SOP/S-06 Issue No-01, Issue date-02/05/18 Kjeldahl distillation	0.14 % to 19.6 %
		Available Phosphorus	AESPL/LAB/SOP/S-08 Issue No-01, Issue date-02/05/18 Colorimetric method	11 kg/ha to 140 kg/ha
	 	Potassium	AESPL/LAB/SOP/S-07	50 kg/ha to 1000 kg/ha

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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
			Issue No-01, Issue date-02/05/18 Flame photometric method	
		Chloride	AESPL/LAB/SOP/S-09 Issue No-01, Issue date-02/05/18 Argentometric Method	10 mg/kg to 700 mg/kg
		Water holding capacity	+	20 % to 90 %

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