Laboratory		R. K. Consultants (Chemical Analysis Division), 17E/777, C.H.B., Jodhpur, Rajasthan				
Accreditation Standard		ISO/IEC 17025: 2005				
Disc	ipline		Chemical Testing	Chemical Testing		01.06.2015
Cert	ificate Number		T-2531		Valid Until	31.05.2017
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S.No.	Product / Material of Test	Spec	ific Test Performed	Test Method Specification against which tests are performed	Range of of Detection	Testing / Limits on
I.	WATER					
1.	Ground Water,	Colou	ır	IS 3025 (Part 4): 1983 (RA 2012)	1 Hazen to	100 Hazen Unit
	Surface Water, Potable water	Cond	uctivity	IS 3025 (Part 14): 1984 (RA 2006)	$2 \ \mu\text{S/cm}$ to	5000 µS/cm
		pH va	lue	IS 3025 (Part 11): 1983 (RA 2006)	1 to 14.0	
		Odou	r	IS 3025 (Part 5): 1983 (RA 2012)	Qualitative (Agreeable/	Disagreeable)
		Total	Suspended Solids	IS 3025 (Part 17): 1984 (RA 1996)	1 mg/l to 50	0 mg/l
		Total	Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006)	10 mg/l to 5	000 mg/l
		Temp	erature	IS 3025 (Part 9): 1984 (RA 2006)	Ambient 60	°C
		Turbi	dity	IS 3025 (Part 10): 1984 (RA 2006)	1 NTU to 10	000 NTU
		Alkal	inity	IS 3025 (Part 23): 1986 (RA 2009)	10 mg/l to 1	000 mg/l
		Chlor	ide	IS 3025 (Part 32): 1988 (RA 2009)	4 mg/l to 35	00 mg/l
		Calci	um	IS 3025 (Part 40): 1991 (RA 2009)	2 mg/l to 10	000 mg/l
		Fluor	ide	IS 3025 (Part 60): 2008	0.1 mg/l to	10 mg/l
		Total	Hardness	IS 3025 (Part 21): 2009	5 mg/l to 20	00 mg/l
		Magn	esium	IS 3025 (Part 46): 1994 (RA 2009)	1 mg/l to 25	0 mg/l
		Nitrat	e Nitrogen	IS 3025 (Part 34): 1988 (RA 2009)	1 mg/l to 30	00 mg/l

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Ground Water,	Potassium	IS 3025 (Part 45): 1993 (RA 2009)	0.25 mg/l to 200 mg/l
	Surface Water, Potable water	Sodium	IS 3025 (Part 45): 1993 (RA 2009)	1 mg/l to 3000 mg/l
		Sulphate	IS 3025 (Part 24): 1986 (RA 2009)	1 mg/l to 1000 mg/l
2.	Waste Water	Colour, Hue	IS 3025 (Part 4): 1983 (RA 2012)	Hue as per wave length
		Conductivity	IS 3025 (Part 14): 1984 (RA 2006)	2 $\mu$ S/cm to 5000 $\mu$ S/cm
		pH value	IS 3025 (Part 11): 1983 (RA 2006)	1 to 14
		Odour	IS 3025 (Part 5): 1983 (RA 2012)	Qualitative (Agreeable/Disagreeable)
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 1996)	1 mg/l to 1000 mg/l
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006)	10 mg/l to 5000 mg/l
		Temperature	IS 3025 (Part 9): 1984 (RA 2006)	Ambient 60 °C
		Turbidity	IS 3025 (Part 10): 1984 (RA 2006)	1 NTU to 1000 NTU
		Acidity	IS 3025 (Part 22): 1986 (RA 2009)	10 mg/l to 1000 mg/l
		Alkalinity	IS 3025 (Part 23): 1986 (RA 2009)	10 mg/l to 1000 mg/l
		Chemical Oxygen Demand (COD)	APHA (22 <sup>nd</sup> Edition) 5220B	4 mg/l to 2000 mg/l
		Chloride	IS 3025 (Part 32): 1988 (RA 2009)	4 mg/l to 3000 mg/l
		Dissolved Oxygen	IS 3025 (Part 38): 1989 (RA 2009)	0.1 mg/l to 10 mg/l

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	Waste Water	Fluoride	IS 3025 (Part 60): 2008	0.1 mg/l to 10 mg/l
		Total Hardness	IS 3025 (Part 21): 2009	5 mg/l to 1000 mg/l
		Iron	IS 3025 (Part 53): 2003(RA 2009)	0.01 mg/l to 10 mg/l
		Nitrate Nitrogen	IS 3025 (Part 34): 1988 (RA 2009)	1 mg/l to 300 mg/l
		Manganese	IS 3025 (Part 59): 2006 (RA 2012)	0.02 mg/l to 2.0 mg/l
		Oil & Grease	IS 3025 (Part 39): 1991 (RA 2009)	1 mg/l to 250 mg/l
		Phosphorous	IS 3025 (Part 31): 1988 (RA 2009)	0.02 mg/l to 100 mg/l
		Potassium	IS 3025 (Part 45): 1993 (RA 2009)	0.25 mg/l to 500 mg/l
		Sodium	IS 3025 (Part 45): 1993 (RA 2009)	1 mg/l to 3000 mg/l
		Sulphate	IS 3025 (Part 24): 1986 (RA 2009)	1 mg/l to 1000 mg/l
		Biochemical Oxygen Demand (BOD)	IS 3025 (Part 24): 1986 (RA 2009)	1 mg/l to 2000 mg/l
II.	BUILDING MAT	ERIALS		
1.	Soil	pH value (1:2 slurry)	IS 2720 (Part 26): 1987 (RA 2011)	1 to 14
		EC (1:2 suspension)	IS 14767: 2000 (RA 2010)	1 mS/cm to 400 mS/cm
		Water holding capacity	USDA, NRCS 3C1a Nov 2004	10 % to 80 %
		Moisture content	IS 2720 (Part 9): 1992 (RA 2011)	0.1 % to 60 %

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Soil	Texture	USDA, NRCS 3A1 Nov 2004	NA
		Potassium	USDA, NRCS 6Q2a Nov 2004	2 mg/kg to 1000 mg/kg
		Sodium (1:2)	USDA, NRCS 6P2a Nov 2004	2 meq/l to 1000 meq/l
		Calcium (1:2)	USDA, NRCS 6N1a Nov 2004	0.2 meq/l to 1000 meq/l
		Magnesium(1:2)	USDA, NRCS 601a Nov 2004	0.2 meq/l to 1000 meq/l
		Phosphorus	USDA, NRCS 4D5 Nov 2004	0.1 mg/kg to 100 mg/kg
		Nitrate Nitrogen (NO <sub>3</sub> -N) (1:2)	USDA, NRCS 6M1a/6M1b Nov 2004	0.1 meq/l to 5 meq/l
		Organic Carbon/Matter	IS 2720 (Part 22): 1972 (RA 2010)	0.01 % to 5 %
		Chloride (1:2)	USDA, NRCS 6K1a Nov 2004	0.1 meq/l to 1000 meq/l
III.	AIR, GASES & A'	TMOSPHERE		
1	Ambient Air	Respirable Suspended Particulate Matter (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 (RA 2012)	5 $\mu g/m^3$ to 1000 $\mu g/m^3$
		Oxides of Nitrogen	IS 5182 (Part 6): 2006 (RA 2012)	6 $\mu g/m^3$ to 750 $\ \mu g/m^3$
		Sulphur Dioxide	IS 5182 (Part 2): 2001 (RA 2012)	$2~\mu g/m^3$ to 750 $\mu g/m^3$
		Particulate Matter (PM <sub>2.5</sub> )	CPCB Guideline SOP No. RKC/A/09	5 $\mu g/m^3$ to 200 $\mu g/m^3$

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2.	Stack Emission	Particulate Matter	IS 11255 (Part 1): 1985 (RA 2012)	$4 \text{ mg/Nm}^3$ to $500 \text{ mg/Nm}^3$
		Oxides of Sulphur	IS 11255 (Part 2): 1985 (RA 2009)	5 mg/Nm <sup>3</sup> to 250 mg/Nm <sup>3</sup>
		Oxides of Nitrogen	IS 11255 (Part 7): 2006 (RA 2012)	5 mg/Nm <sup>3</sup> to 500 mg/Nm <sup>3</sup>
		$CO_2$	IS 13270: 1992 (RA 2003)	0.2 % to 20 %
		СО		0.2 % to 10 %
		O <sub>2</sub>		0.2 % to 20 %
3.	Noise Level & Measurement	Ambient & Source Noise	IS 9989: 1981 (RA 2001)	30 dB(A) to 130 dB(A)