

Laboratory	Nakshatra Enviro Services, 66/40, Heera Path, Mansarovar, Jaipur, Rajasthan		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	09.12.2016
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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
I.	ATMOSPHERIC POLLUTION			
1.	Ambient Air Quality Monitoring	Suspended Particulate Matter	IS 5182 (Part 4) : 2005	10 µg/m ³ to 2000 µg/m ³
		Particulate Matter (PM ₁₀)	IS 5182 (Part 23) : 2006	10 µg/m ³ to 2000 µg/m ³
		Particulate Matter (PM _{2.5})	NES/SOP/Air/01, Issue No. 01, Rev. No. 03, Rev. date 01-09-2016	10 µg/m ³ to 2000 µg/m ³
		Sulphur Dioxide (SO ₂)	IS 5182 (Part 2) : 2001	6 µg/m ³ to 1050 µg/m ³
		Oxides of Nitrogen (NO ₂)	IS 5182 (Part 6) : 2004	6 µg/m ³ to 740 µg/m ³
		Carbon Mono Oxide (CO)	NES/ AIR/ TP/06, Issue No. 01, Rev. No. 03, Rev. date 01-09-2016	10 µg/m ³ to 2000 µg/m ³
2.	Stack Emission Monitoring	Particulate Matter	IS 11255 (Part 1) : 2001	10 mg/m ³ to 2000 mg/m ³
		Sulphur Dioxide (SO ₂)	IS 11255 (Part 2) : 2003	2 mg/m ³ to 500 mg/m ³
		Oxides of Nitrogen (NO _x)	IS 11255 (Part 7) : 2005	2 mg/m ³ to 500 mg/m ³
		CO ₂	IS 13270 : 2003	0.2 % to 20 %
		CO	IS 13270 : 2003	0.2 % to 10 %
		O ₂	IS 13270 : 2003	0.2 % to 20 %
3.	Ambient Noise Level Measurement	Noise Level	IS 9989 : 2003	30 Leq dB to 130 Leq dB

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II.	SOIL AND ROCK			
1.	Soil	pH Value	IS 2720 (Part 26) : 2007	2.0 to 12.0
		Electrical Conductivity	IS 14767 : 2000	15 μ S to 5000 μ S
		Calcium carbonate	IS 2720 (Part 23) : 1976 (RA 2010)	1 % to 20 %
		Sodium	IS 9497 : 1980 (RA 2010)	0.1 % to 20 %
		Potassium	IS 9497 : 1980 (RA 2010)	0.02 % to 10 %
		Total Nitrogen (TKN)	IS 14684 : 1999 (RA 2005)	0.1 % to 20 %
		Organic Matter	IS 2720 (Part 22) : 2001	0.5 % to 30 %
		Sulphate	IS 2720 (Part 27) : 1977 (RA 2005)	0.1 % to 10 %
		Specific Gravity	IS 2720 (Part 3/Sec 1) : 1980 (RA 2002)	2 to 4
		Water Content	IS 2720 (Part 2) (RA 2002)	0.5 % to 50 %
		Total Soluble Solids	IS 2720 (Part 21) (RA2006)	0.1 % to 2 %

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III. WATER				
1.	Drinking Water/ Surface Water	pH Value	IS 3025 (Part 11) : 2002	2.0 to 12.0
		Color	IS 3025 (Part 4) : 2002	1 Hazen to 500 Hazen
		Turbidity	IS 3025 (Part 10) : 2002	1 NTU to 100 NTU
		Total Residue	IS 3025 (Part 15):1984 (RA 2009)	5 mg/l to 1000 mg/l
		Total Dissolve Solid	IS 3025 (Part 16) : 2006	5 mg/l to 1000 mg/l
		Total Suspended Solid	IS 3025 (Part 17):1984 (RA 2012)	5 mg/l to 1000 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21) : 2009	10 mg/l to 500 mg/l
		Calcium as Ca ²⁺	IS 3025 (Part 40) : 2003	2 mg/l to 100 mg/l
		Magnesium as Mg ²⁺	IS 3025 (Part 46) : 2003	1 mg/l to 100 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23) : 2003	0.5 mg/l to 1000 mg/l
		Chloride as Cl ⁻	IS 3025 (Part 32) : 2003	0.5 mg/l to 1000 mg/l
		Sulphate as (SO ₄) ⁻²	IS 3025 (Part 24) : 2003	2 mg/l to 200 mg/l
		Nitrate	IS 3025 (Part 34) : 2003	1 mg/l to 200 mg/l
		Iron as Fe ⁺²	IS 3025 (Part 53) : 2003	0.01 mg/l to 1 mg/l
		Fluoride as F ⁻	IS 3025 (Part 60) : 2008	0.1 mg/l to 10 mg/l

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	Drinking Water/ Surface Water	Sodium	IS 3025 (Part 45) : 2003	1 mg/l to 50 mg/l
		Acidity	IS 3025 (Part 22) : 2003	0.5 mg/l to 100 mg/l
		Residual Free Chlorine	IS 3025 (Part 26) : 2003	0.1 mg/l to 10 mg/l
		Specific Conductance	IS 3025 (Part 14) : 2013	0.01 µs/cm to 1000 µs/cm
		Potassium	IS 3025 (Part 45) : 2003	1 mg/l to 100 mg/l
		Oil & Grease	IS 3025 (Part 39) : 2003	1 mg/l to 50 mg/l
		Total Chromium as Cr	IS 3025 (Part 52): 2003	0.04 mg/l to 5.0 mg/l
		Nitrite as NO ₂ -N	IS 3025 (Part 34): 1988 (RA 2003)	0.2 mg/l to 10.0 mg/l
		Phosphate (as P)	IS 3025(Part 31): 1988 (RA 2003)	0.01 mg/l to 100 mg/l
		Bio chemical Oxygen Demand	IS 3025 (Part 44): 1993 (RA 2009)	1 mg/l to 2000 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58) (RA 2006)	4 mg/l to 5000 mg/l
		Dissolved Oxygen	IS 3025 (Part 38) :1989 (RA 2003)	0.1 mg/l to 10 mg/l
2.	Construction Water	Acidity (100 ml sample of water)	IS 3025 (Part 22) : 2003	0.1 ml to 100 ml
		Alkalinity (100 ml sample of water)	IS 3025 (Part 23) : 2003	0.1 ml to 130 ml

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	Construction Water	Organic Matter	IS 3025 (Part 18) : 2003	5 mg/l to 2000 mg/l
		Inorganic Matter	IS 3025 (Part 18) : 2003	5 mg/l to 3000 mg/l
		Sulphate as SO ₃	IS 3025 (Part 24) : 2003	1 mg/l to 400 mg/l
		Chlorides	IS 3025 (Part 32) : 2003	0.5 mg/l to 2000 mg/l
		Total Suspended Matter	IS 3025 (Part 17) : 2000	5 mg/l to 2000 mg/l
		pH	IS 3025 (Part 11) : 2000	2.0 to 12.0
IV.	POLLUTION & ENVIRONMENT			
1.	Waste Water (Effluent/Sewage)	pH Value	IS 3025 (Part 11) : 2002	1.5 to 12.0
		Turbidity	IS 3025 (Part 10) : 2002	1 NTU to 100 NTU
		Total Solids	IS 3025 (Part 15) : 1993	10 mg/l to 1000 mg/l
		Total Dissolve Solid	IS 3025 (Part 16) : 2006	10 mg/l to 1000 mg/l
		Total Suspended Solid	IS 3025 (Part 17) : 2000	10 mg/l to 1000 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21) : 2009	10 mg/l to 500 mg/l
		Chloride as Cl ⁻	IS 3025 (Part 32) : 2003	5 mg/l to 1000 mg/l
		Sulphate as (SO ₄) ⁻²	IS 3025 (Part 24) : 2003	2 mg/l to 200 mg/l
		Nitrate	IS 3025 (Part 34) : 2003	1 mg/l to 300 mg/l
		Iron as Fe ⁺²	IS 3025 (Part 53) : 2003	0.1 mg/l to 5 mg/l
	Fluoride as F ⁻	IS 3025 (Part 60) : 2008	0.1 mg/l to 10 mg/l	

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	Waste Water (Effluent/Sewage)	Sodium	IS 3025 (Part 45) : 2003	1 mg/l to 300 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58) : 2006	10 mg/l to 2000 mg/l
		Biological Oxygen Demand	IS 3025 (Part 44) : 1996	1 mg/l to 800 mg/l
		Oil & Grease	IS 3025 (Part 39) : 2003	1 mg/l to 800 mg/l
		Potassium as k ⁺	IS 3025 (Part 45) 1993 (RA 2003)	1 mg/l to 1000 mg/l
		Hexavalent Chromium as Cr ⁺⁶	IS 3025 (Part 52): 2003	0.02 mg/l to 50 mg/l
		Total Chromium as Cr	IS 3025 (Part 52): 2003	0.1 mg/l to 10 mg/l
		Nitrite as NO ₂ -N	IS 3025 (Part 34): 1988 (RA 2003)	1 mg/l to 50 mg/l
		Ammonical Nitrogen	IS 3025 (Part 34): 1988 (RA 2003)	1.0 mg/l to 100 mg/l
		Total Kjeldahl Nitrogen as N	4500-NT Subscript B APHA 22nd Edition- 2012	1.0 mg/l to 200 mg/l
		Phosphate (as P)	IS 3025 (Part 31): 1988 (RA 2003)	0.1 mg/l to 50 mg/l
		Calcium as CaCO ₃	IS 3025 (Part 40) : 2003 (RA 2009)	2 mg/l to 1000 mg/l
		Magnesium as CaCO ₃	IS 3025 (Part 46) : 2003	2 mg/l to 1000 mg/l
		Total Alkalinity	IS 3025 (Part 23): 1986 (RA 2003)	2 mg/l to 2000 mg/l

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	Waste Water (Effluent/Sewage)	Dissolved Oxygen	IS 3025 (Part 38) : 1989 (RA 2003)	0.1 mg/l to 10 mg/l
		Potassium as K	IS 3025 (Part 45) : 2003	1 mg/l to 100 mg/l
V.	ORES & MINERALS			
1.	Lime Stone/ Dolomite/ Calcite	Loss on Ignition	IS 1760 (Part 1): 1991 (RA 2001)	1.0 % to 50.0 %
		Silica as SiO ₂	IS 1760 (Part 2): 1991 (RA 2001)	0.1 % to 30.0 %
		Calcium Oxide as CaO	IS 1760 (Part 3): 1992 (RA 2001)	0.5 % to 56.0 %
		Magnesium Oxide as MgO	IS 1760 (Part 3): 1992 (RA 2001)	0.5 % to 45.0 %
		Ferric Oxide as Fe ₂ O ₃	IS 1760 (Part 3): 1992 (RA 2001)	0.2 % to 15.0%
		Alumina as Al ₂ O ₃	IS 1760 (Part 3): 1992 (RA 2001)	0.05 % to 25.0%
2.	Iron Ore	Silica as SiO ₂	IS 1493 (Part I): 1981 (RA 2001)	0.5 % to 50.0 %
		Alumina as Al ₂ O ₃	IS 1493 (Part I): 1981 (RA 2001)	0.5 % to 15.0 %
		Ferric Oxide as Fe ₂ O ₃	IS 1493 (Part I): 1981 (RA 2001)	10.0 % to 98.0 %

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3.	Feldspar	Loss on Ignition	IS 9749 : 2007	0.1 % to 20 %
		Silica as SiO ₂	IS 9749 : 2007	1 % to 75 %
		Calcium Oxide as CaO	IS 9749 : 2007	0.1 % to 10.0 %
		Magnesium Oxide as MgO	IS 9749 : 2007	0.1 % to 10.0 %
		Potassium Oxide	IS 9749 : 2007	0.4 % to 20.0 %
		Sodium Oxide	IS 9749 : 2007	0.4 % to 20.0 %
		Alumina as Al ₂ O ₃	IS 9749 : 2007	0.1 % to 40.0 %
4.	Quartz/Silica	Loss on Ignition	IS 1917 (Part 1): 1991 (RA 2001)	0.5 % to 10.0 %
		Silica as SiO ₂	IS 1917 (Part 3): 1992 (RA 2005)	15.0 % to 99.0 %

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