

**Laboratory** Analube Lab, PCERE, 103, PD Patel Institute of Applied Science,  
Charotar University of Science & Technology (CHARUSAT), Changa,  
Gujarat

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

**Certificate Number** TC-7865

Page 1 of 2

**Validity** 26.09.2018 to 25.09.2020

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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**CHEMICAL TESTING**

I.	LUBRICANTS			
1.	<b>Gear Oil, Hydraulic Oil, Turbine Oil, Compressor Oil, Engine Oil, Transmission Oil</b>	Kinematic Viscosity at 40 °C	ASTM D 445	10 cSt to 100 cSt 100 cSt to 1000 cSt
		Kinematic Viscosity at 100 °C	ASTM D 445	1 cSt to 100 cSt
		Viscosity Index	ASTM D2270	80 to 400
		Total Acid Number (TAN)	ASTM D 664	0 to 15 mg KOH/gm
		Total Base Number (TBN)	ASTM D 4739	2 mg KOH/gm to 20 mg KOH/gm
		Water by Karl Fisher Apparatus	ASTM D 6304	10 mg/kg to 25,000 mg/kg
		Particle Count	ISO 4406	ISO 00 to ISO 28
		Spectroscopy- Elemental analysis	ASTM D 5185	-----
		Aluminum		6 mg/kg to 500 mg/kg
		Barium		0.5 mg/kg to 500 mg/kg
		Boron		4 mg/kg to 500 mg/kg
		Calcium		40 mg/kg to 500 mg/kg
		Chromium		1 mg/kg to 500 mg/kg
		Copper		2 mg/kg to 500 mg/kg
		Iron		2 mg/kg to 500 mg/kg
	Lead		10 mg/kg to 500 mg/kg	
	Magnesium		5 mg/kg to 500 mg/kg	
	Manganese		5 mg/kg to 500 mg/kg	
	Molybdenum		5 mg/kg to 500 mg/kg	
	Nickel		5 mg/kg to 500 mg/kg	
	Phosphorus		10 mg/kg to 500 mg/kg	
	Silicon		8 mg/kg to 500 mg/kg	
	Silver		0.5 mg/kg to 500 mg/kg	

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		Sodium		7 mg/kg to 500 mg/kg
		Tin		10 mg/kg to 500 mg/kg
		Titanium		5 mg/kg to 500 mg/kg
		Vanadium		1 mg/kg to 500 mg/kg
		Zinc		60 mg/kg to 500 mg/kg
		Cadmium		1 mg/kg to 500 mg/kg
		Antimony		5 mg/kg to 500 mg/kg
		Potassium		5 mg/kg to 500 mg/kg