

Scope of Accreditation for NABL 17025:2017

Laboratory Alchemie Gases & Chemicals Pvt. Ltd.
Discipline Chemical

Sn	Product / Materials	Specific tests performed	Test Method / Standard	Range of Testing/ Limits of detection	Uncertainty of Measurement (±) at Value
1	Gases / Natural Gas Mixtures	Nitrogen	IS 15130 (Part 5)	0.1%to 12 %	0.0350% @11.6055%
		Carbon Dioxide		0.05 % to 8 %	0.0090 % @4.5421%
		Methane		64% to 100%	0.0298% @64.4303%
		Ethane		0.1% to 14%	0.0606 % @13.9065%
		Propane	ISO 6974-5: 2014	0.05% to 8 %	0.0102 % @2.9714%
		Iso-Butane		0.01%to 1.2%	0.0098 % @1.2046%
		N-Butane		0.01%to1.2 %	0.0050 % @1.0205%
		Neo-Pentane		0.005% to 0.5%	0.0008 % @0.0521%
		Iso-Pentane		0.005% to 0.5%	0.0006 % @0.1591%
		N-Pentane		0.005% to 0.5%	0.0002 % @0.1081%
		N-Hexane		0.005%to 0.5%	0.0004 % @0.0569%
		2,2-Dimethylbutane	ISO 23874 : 2006	0.0001% to 0.1%	0.00005% @0.0004%
		2-Methylpentane		0.0001%to 0.1%	0.00015 % @0.0020%
		3-Methylpentane		0.0001%to 0.1%	0.00011 % @0.0015%
		N-Hexane		0.0001%to 0.5%	0.0011 % @0.0411%
		Benzene		0.0001%to 0.1%	0.0001 % @0.0021%
		N-Heptane		0.0001%to 0.1%	0.0001 % @0.0031%
		Toluene		0.0001%to 0.1%	0.0001 % @0.0010%
		N-Octane		0.0001% to 0.05%	0.0001% @0.0012%
		N-Nonane		0.0001%to 0.02%	0.0001 % @0.0021%
N-Decane		0.0001%to 0.01%	0.0001 % @0.0014%		
	Natural Gas Mixtures	Superior Calorific Value	IS 14504 : 1998	30MJ/Sm3 to 42 MJ/Sm3	0.01 MJ/Sm3 @38.94 MJ/Sm3
		Inferior Calorific Value	ISO 6976:2016	30MJ/Sm3 to 42 MJ/Sm3	0.009 MJ/Sm3 @35.18 MJ/Sm3
		Relative Density	GPA 2172 :2014	0.5000 Decimal to 0.9000 Decir	0.0003Decimal @0.58 Decimal
		Density		0.6000 kg/Sm3 to 1.200kg/Sm3	0.0003 kg/Sm3 @0.71 kg/Sm3
		Wobbe Index		42 MJ/Sm3 to 55 MJ/Sm3	0.7591 MJ/Sm3 @44.89 MJ/Sm3
		Net Heating value (For Real Gas)	ASTM D 3588 : 201	900 Btu/ft3to1200 Btu/ft3	0.2441tu/ft3@942.4741 Btu/ft3
		Gross Heating value (For Real Gas)		900 Btu/ft 3to1200 Btu/ft3	0.2701 Btu/ft3 1042.8438 Btu/ft3
		Net Heating value (For Ideal Gas)		900 Btu/ft3 to1200 Btu/ft3	0.2435Btu/ft3@940.1327Btu/ft3
		Gross Heating value (For Ideal Gas)		900 Btu/ft3 to1200 Btu/ft3	0.2694Btu/ft3@1040.2531 Btu/ft3
		2	Gas Mixture	Methane	ASTM D7833-14
Propane	ASTM D7833-14			0.005 % to 1.65 %	0.0029 % @0.5464%
					0.0008 % @0.1120%
Carbon Dioxide	ASTM D7833-14			0.05 % to 21.0 %	0.0130 % @4.8776%
Oxygen	ASTM D7833-14			1.0 % to 25.0 %	0.1044 % @20.4363%
					0.0004 % @0.1027%
Carbon Monoxide	ASTM D7833-14			0.005 % to 12.0 %	0.0319 % @6.1412%
Nitric Oxide	ASTM D3824-12			0.003 % to 0.4 %	0.0009 % @0.3162%
Helium	In-house Method			8.0 % to 10.0 %	0.0748 % @9.4987%
				In-house Method as per SOP/325/Lab/GCAS Current Issue 01, Dated 20/08/2019	