

Laboratory	Alpha Laboratory Services, NH-27, Shapar (Veraval) Dist. Rajkot, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	05.08.2016
Certificate Number	T-3064	Valid Until	04.08.2018
Last Amended on	07.11.2016	Page	1 of 4

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	METALS & ALLOYS			
1.	Carbon & Low Alloy Steel	C	ASTM E-415: 2015	0.020 % to 1.200 %
		Si		0.020 % to 1.900 %
		Mn		0.100 % to 2.000 %
		P		0.005 % to 0.085 %
		S		0.005 % to 0.250 %
		Cr		0.020 % to 3.500 %
		Mo		0.010 % to 1.200 %
		Ni		0.020 % to 4.000 %
		Cu		0.005 % to 0.500 %
		Al		0.005 % to 0.075 %
		Ti		0.001 % to 0.200 %
2.	Stainless Steel	C	ASTM E-1086: 2014	0.005 % to 0.250 %
		Si		0.100 % to 1.500 %
		Mn		0.100 % to 2.000 %
		P		0.003 % to 0.150 %
		S		0.003 % to 0.065 %
		Cr		10.00 % to 30.00 %

Laboratory	Alpha Laboratory Services, NH-27, Shapar (Veraval) Dist. Rajkot, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	05.08.2016
Certificate Number	T-3064	Valid Until	04.08.2018
Last Amended on	07.11.2016	Page	2 of 4

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	Stainless Steel	Mo	ASTM E-1999: 2011	0.010 % to 6.500 %
		Ni		2.000 % to 35.00 %
		Cu		0.050 % to 3.500 %
		Al		0.010 % to 0.100 %
		Co		0.050 % to 0.400 %
		Nb		0.010 % to 0.500 %
		W		0.040 % to 0.200 %
		N		0.010 % to 0.500 %
	Cast Iron	C		2.000 % to 4.500 %
		Cr		0.030 % to 0.500 %
		Cu		0.015 % to 0.750 %
		Mn		0.030 % to 1.800 %
		Mo		0.010 % to 0.200 %
		Ni		0.020 % to 0.200 %
		P		0.005 % to 0.400 %
		Si		1.000 % to 3.500 %
		S		0.005 % to 0.950 %
		Sn		0.050 % to 0.150 %

Laboratory	Alpha Laboratory Services, NH-27, Shapar (Veraval) Dist. Rajkot, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	05.08.2016
Certificate Number	T-3064	Valid Until	04.08.2018
Last Amended on	07.11.2016	Page	3 of 4

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
4.	Cast Iron	Ti	BS EN 15079: 2015	0.005 % to 0.050 %
		V		0.005 % to 0.200 %
	Copper & Its Alloys	Si		0.005 % to 1.000 %
		Mn		0.010 % to 2.500 %
		P		0.005 % to 0.100 %
		Ni		0.400 % to 5.000 %
		Al		0.010 % to 13.00 %
		Sn		0.010 % to 15.00 %
		Pb		0.010 % to 15.00 %
		Zn		0.100 % to 40.00 %
		Fe		0.020 % to 5.000 %
5.	Nickel & Its Alloys	C	ALS/AM-02/Rev. 000/ Dated. 23.01.2014	0.010 % to 0.200 %
		S		0.002 % to 0.040 %
		P		0.003 % to 0.050 %
		Mn		0.080 % to 1.000 %
		Si		0.100 % to 1.500 %
		Cr		0.080 % to 27.00 %
		Mo		2.000 % to 20.00 %

Laboratory	Alpha Laboratory Services, NH-27, Shapar (Veraval) Dist. Rajkot, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	05.08.2016
Certificate Number	T-3064	Valid Until	04.08.2018
Last Amended on	07.11.2016	Page	4 of 4

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Nickel & Its Alloys	Al		0.060 % to 0.500 %
		Cu		0.100 % to 35.00 %
		W		0.030 % to 6.500 %
		Fe		2.000 % to 35.00 %
		Nb		0.100 % to 5.500 %
		Ti		0.030 % to 1.200 %
		Co		0.070 % to 0.500 %
		V		0.010 % to 0.800 %
-X-X-X-X-X-X-X-X-X-X-X-X-				