



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT CLEVELAND
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CHEMICAL

Valid To: September 30, 2026

Certificate Number: 0100.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on metals:

<u>Test</u>	<u>Test Method(s)</u>
Combustion Analysis (C, S)	
Low Alloy Steel Base Alloys, Stainless Steel Base Alloys, Ni Base Alloys, Co Base Alloys, Ti Base Alloys Exclusions: S in Ti Base, S in Co Base	ASTM E1019, E1941, SOP 10.04 ¹
Inert Gas Fusion (N, O)	ASTM E1019, SOP 10.08 ¹
Low Alloy steel Base Alloys, Stainless Base Alloys Ni Base Alloys, Co Base Alloys, Cu Base Alloys	
Inert Gas Fusion (N, O)	
Ti Base Alloys	ASTM E1409, SOP 10.08 ¹
Inert Gas Fusion (H)	
Ti Base Alloys	ASTM E1447, SOP 10.09 ¹
Optical Emission / ICP	
Fe Base Alloys (Al, B, Co, Cr, Cu, Mn, Mo, Nb, Ni, P, Si, Ti, V, W)	ASTM D1976, E1479, SOP 10.30 ¹
Stainless Steel Base Alloys (Al, B, Co, Cr, Cu, Mn, Mo, Nb, Ni, P, Si, Ti, V, W)	ASTM D1976, E1479, SOP 10.30 ¹ , SOP 10.21 ¹
Al Base Alloys (Be, Cr, Cu, Fe, Mg, Mn, Ni, Pb, Si, Sn, Ti, V, Zn, Zr)	ASTM D1976, E1479, SOP 10.30 ¹ , SOP 10.20 ¹
Ni Base Alloys (Al, Co, Cr, Cu, Fe, Mn, Mo, Nb, P, Si, Ti, W, Zr)	ASTM D1976, E1479, E2594, SOP 10.30 ¹ , SOP 10.19 ¹
Co Base Alloys (Al, Cr, Cu, Fe, Mn, Mo, Nb, Ni, P, Si, Ti, V, W)	ASTM D1976, E1479, SOP 10.30 ¹ , SOP 10.24 ¹
Cu Base Alloys (Al, Be, Co, Cr, Fe, Mn, Ni, P, Pb, Si, Sn, Zn)	ASTM D1976, E1479, SOP 10.30 ¹ , SOP 10.23 ¹

<u>Test</u>	<u>Test Method(s)</u>
<i>Optical Emission / ICP cont'd</i>	
Ti Base Alloys (Al, Cr, Cu, Fe, Mn, Mo, Ni, Si, Sn, V, Zr)	ASTM D1976, E1479, E2371, SOP 10.30 ¹ , SOP 10.25 ¹
Mg Base Alloys (Al, Cr, Cu, Fe, Si, Mn, Ni, Pb, Sn, Zn, Zr)	ASTM D1976, E1479, SOP 10.30 ¹ , SOP 10.29 ¹
<i>Optical Emission / Spark</i>	
Low Alloy Steel Base Alloys (Al, B, C, Cr, Cu, Mn, Mo, Ni, P, S, Si)	ASTM E415, SOP 10.05 ¹
Stainless Steel Base Alloys (Al, C, Cr, Co, Cu, Mn, Mo, N, Nb, Ni, P, S, Si, Ti, V, W)	ASTM E1086, SOP 10.05 ¹
Al Base Alloys (Be, Bi, Cr, Cu, Fe, Mn, Mg, Ni, Pb, Si, Sn, Ti, V, Zn, Zr)	ASTM E1251, E607, SOP 10.05 ¹
Ni Base Alloys (Al, C, Co, Cr, Cu, Fe, Mo, Mn, Nb, P, Si, Ta, Ti, W, Zr)	SOP 10.05 ¹
Co Base Alloys (Al, C, Cr, Cu, Fe, Mo, Mn, Nb, Ni, P, S, Si, V, W)	SOP 10.05 ¹
<i>Graphite Furnace Atomic Absorption</i>	
Ni Base Alloys (Ag, Bi, Pb, Se, Te, Tl)	ASTM E1184, SOP 10.40 ¹
<i>Mass Spectroscopy / ICP</i>	
Ni Base Alloys (Ag, Al, As, B, Be, Bi, Ca, Cd, Co, Cr, Cu, Ga, Mg, Mn, Mo, Pb, Sb, Se, Sn, Te, Ti, Tl, Zn)	ASTM E2823, SOP 10.31 ¹

¹In-house test procedure.



Accredited Laboratory

A2LA has accredited

ELEMENT CLEVELAND

Cleveland, OH

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to *joint ISO-ILAC-IAF Communiqué dated April 2017*).



Presented this 6th day of September 2024.

A blue ink signature of Mr. Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0100.02
Valid to September 30, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.