



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:

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

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

<sup>1</sup>In-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 6<sup>th</sup> day of September 2024.

A blue ink signature of Mr. Trace McInturff.

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.*