This certificate is granted and awarded by the authority of the Nadcap Management Council to:

Westmoreland Mechanical Testing and Research, Inc.

221 Westmoreland Drive
Youngstown, PA 15696
United States

This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in www.eAuditNet.com on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:

Materials Testing

Certificate Number: 3445178573
Expiration Date: 30 April 2020

Joseph G. Pinto
Executive Vice President and Chief Operating Officer

SCOPE OF ACCREDITATION

Materials Testing

Westmoreland Mechanical Testing and Research, Inc.
221 Westmoreland Drive
Youngstown, PA 15696

This certificate expiration is updated based on periodic audits. The current expiration date and scope of accreditation are listed at: www.eAuditNet.com - Online QML (Qualified Manufacturer Listing).

In recognition of the successful completion of the PRI evaluation process, accreditation is granted to this facility to perform the following:

AC7101/1 Rev F - Nadcap Audit Criteria for Materials Testing Laboratories – General Requirements for All Laboratories (to be used on/after 14 Sept 2014)

AC7101/2 Rev D - Nadcap Audit Criteria for Materials Test Laboratories – Chemical Analysis (to be used on audits on/after 22 March 2015)

(F) Atomic or Optical Emission Spectroscopy (AES or OES)
- (F2) Atomic Emission Spectroscopy – Inductively Coupled Plasma (ICP–OES/AES)
- (F3) Atomic Emission Spectroscopy – Spark/Arc (S/A–OES)

(G) Elemental Analysis (Combustion or Fusion)
- (G1) – Carbon
- (G2) – Hydrogen
- (G3) – Nitrogen
- (G4) – Oxygen
- (G5) – Sulfur

(V) Mass Spectrometry

(W) Atomic Absorption
- (W2) Graphite Furnace (GFAA)

Specify the Alloy Base for Accreditation
- Al Base
- Co Base
- Cu Base
- Fe Base
- Ni Base
- Ti Base

AC7101/3 Rev C - Nadcap Audit Criteria for Materials Test Laboratories – Mechanical Testing (to be used on/after 28 August, 2011)

(A) Room Temperature Tensile
(A1) Room Temperature Tensile with Elastic (Young's) Modulus
(B) Elevated Temperature Tensile
(C) Stress Rupture
(CT) Compression Testing
(KR) Curve (Resistance to Fracture) Testing
(N) Impact
(O) High Cycle Fatigue
(P) Fracture Toughness
(XA) Creep
(XE) Crack Propagation/Crack Growth Testing
(XN) Bend Testing
(Y) Low Cycle Fatigue

AC7101/4 Rev F - Nadcap Audit Criteria for Materials Test Laboratories – Metallography and Microindentation Hardness (to be used on/after 14 August, 2016)

(L0) Metallographic Evaluation
(L1) Microindentation (Interior)
(L10) Near Surface Examinations – Carburization / Decarburization
(L11) Grain Size
(L2) Near Surface Examinations – Alloy Depletion
(L3) Near Surface Examinations – Oxidation/Corrosion
(L4) Near Surface Examinations – Casting (Mold) Reactions Layers
(L5) Near Surface Examinations – Microindentation (Surface–Case Depth)
(L6) Near Surface Examinations – Nitriding
(L7) Near Surface Examinations – IGA, IGO
(L8) Near Surface Examinations – Alpha Case: Wrought Titanium
(L9) Near Surface Examinations – Alpha Case: Cast Titanium
(XL) Macro Examination

AC7101/5 Rev D - Nadcap Audit Criteria for Materials Test Laboratories – Hardness Testing (Macro) (to be used on audits on/after 22 March 2015)

(M1) Brinell Hardness
(M2) Rockwell Hardness
(M3) Vickers Hardness

AC7101/6 Rev C - Nadcap Audit Criteria for Materials Test Laboratories – Corrosion (to be used on/after 28 August, 2011)

(Q) Corrosion (General)

(Q1) Stress Corrosion

AC7101/7 Rev D - Nadcap Audit Criteria for Materials Test Laboratories – Mechanical Testing Specimen Preparation (to be used on audits on/after 15 May 2016)

(Z) Standard Specimen Machining
(Z1) Low Stress Grinding
(Z2) Low Stress Grinding and Polishing
(Z3) Cast Specimens
(Z4) Special Preparation

AC7101/9 Rev B - Nadcap Audit Criteria for Materials Test Laboratories – Specimen Heat Treating (to be used on/after 28 August, 2011 and before 15 January 2017)

AC7101/11 Rev C - Nadcap Audit Criteria for Materials Test Laboratories – Fastener Testing (to be used on audits on/after 25 October 2015)

(10) Stress Rupture
(11) Fatigue
(13) Shear Strength – Double Shear
(14) Stress Durability – Internal Threads
(15) Torque – TensionAxial
(18) Tensile Test – Elevated TempTensile
(40L10) Metallography – Decarburization / Carburization
(40L2) Metallography – Alloy Depletion
(40L25) Metallography – Grain Size
(40L3) Metallography – Oxidation / Corrosion
(40L7) Metallography – IGA / IGO
(40L8) Metallography –Alpha Case: Wrought Titanium
(5) Stress Durability – External Threads
(6–L5) Hardness – Microindentation Hardness
(6–M2) Hardness – Rockwell
(6–M3) Hardness – Vickers
(8–A) Tensile Test – Axial Tensile
(8–P) Tensile Test – Proof Load (nuts / screws)
(8–W) Tensile Test – Wedge Tensile
(Q) Corrosion – Salt Spray
(QF) Corrosion – Copper Sulfate

ISO/IEC - Currently accredited by an ILAC approved source

Lab Type - Lab Type

Independent

This certificate is granted and awarded by the authority of the Nadcap Management Council to:

Westmoreland Mechanical Testing and Research, Inc.

14 Bayhill Drive
Latrobe, PA 15650
United States

This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in www.eAuditNet.com on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:

Materials Testing

Certificate Number: 11237178572
Expiration Date: 30 April 2020

Joseph G. Pinto
Executive Vice President and Chief Operating Officer

SCOPE OF ACCREDITATION

Materials Testing

Westmoreland Mechanical Testing and Research, Inc.
14 Bayhill Drive
Latrobe, PA 15650

This certificate expiration is updated based on periodic audits. The current expiration date and scope of accreditation are listed at: www.eAuditNet.com - Online QML (Qualified Manufacturer Listing).

In recognition of the successful completion of the PRI evaluation process, accreditation is granted to this facility to perform the following:

AC7101/1 Rev F - Nadcap Audit Criteria for Materials Testing Laboratories – General Requirements for All Laboratories (to be used on/after 14 Sept 2014)

AC7101/3 Rev C - Nadcap Audit Criteria for Materials Test Laboratories – Mechanical Testing (to be used on/after 28 August, 2011)
(C) Stress Rupture
(XA) Creep

AC7101/7 Rev D - Nadcap Audit Criteria for Materials Test Laboratories – Mechanical Testing Specimen Preparation (to be used on audits on/after 15 May 2016)
(Z) Standard Specimen Machining
(Z1) Low Stress Grinding

AC7101/9 Rev C - Nadcap Audit Criteria for Materials Test Laboratories – Specimen Heat Treating (to be used on/after15 January 2017)

ISO/IEC - Currently accredited by an ILAC approved source

Lab Type - Lab Type
Independent