

# **CERTIFICATE OF ACCREDITATION**

### **The ANSI National Accreditation Board**

Hereby attests that

#### Alpha Resources, LLC 3090 Johnson Road Stevensville, MI 49127

Fulfills the requirements of

## ISO 17034:2016

In the field of

### **REFERENCE MATERIAL PRODUCER**

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at <u>www.anab.org</u>.





R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 04 January 2022 Certificate Number: AR-1920

This reference material producer is accredited in accordance with the recognized International Standard ISO 17034:2016. This accreditation demonstrates technical competence for a defined scope and the operation of a reference material producer quality management system.



#### SCOPE OF ACCREDITATION TO ISO 17034:2016

#### Alpha Resources, LLC

3090 Johnson Road, Stevensville, MI 49127 Michelle Glass Phone: 269-465-5559 mglass@alpharesources.com www.alpharesources.com

#### **REFERENCE MATERIAL PRODUCER**

Valid to: January 4, 2022

Certificate Number: AR-1920

Chemical

Sub-Category of Reference Material	ILAC RM Category	Class or Type of Reference Materials Produced (Include Range Where Applicable)	Methods or Techniques Used in the RMP Laboratory (if Appropriate)
A1 Metals	A1.1 Ferrous	Solids, Chips, Powders Single and Multi-Element Analysis (Aluminum- Zirconium) Steels Carbon steels Low alloy steels High alloy steels Cast steels Specialty steels Irons White cast irons Ductile irons Gases in metals	ASTM E1019 ARI-LAB-621 ASTM E1019 ARI-LAB-622 ASTM E1019/1447 Modified ARI-LAB-623 Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
	A1.2 Nonferrous	Solids, Chips, Powders Single and Multi-Element Analysis (Aluminum- Zirconium)	ASTM E1941 ARI-LAB-621 ASTM E1409 ARI-LAB-622 ASTM E1447 ARI-LAB-623



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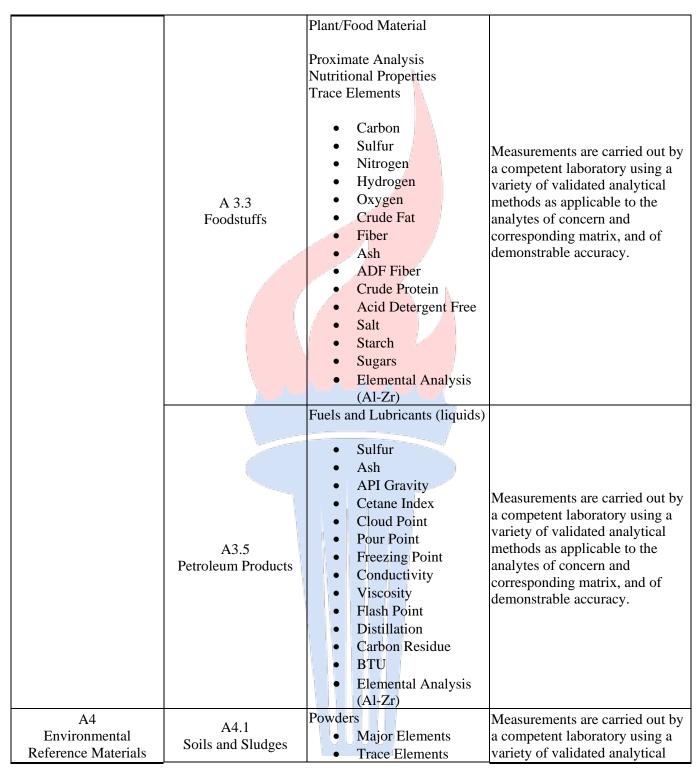


		<ul> <li>Tin base alloys</li> <li>Brasses</li> <li>Bearing alloys</li> <li>Titanium base alloys</li> <li>Zirconium base alloys</li> <li>Carbide alloys</li> <li>Gases in metals</li> </ul>	Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
	A2.1 Ores and Minerals	Powders Mineral content and Multi- Element Analysis (Aluminum-Zirconium)	Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
A2 Inorganic Reference Materials	A2.5 Solid fuels	Powders Coal Coke Ash, BTU, MAFBTU, Vol. Matter, Fixed Carbon, Forms of Sulfur, Ash deformation, Mineral content, Multi- Elemental Analysis (Aluminum-Zirconium)	ASTM D4239 ARI-LAB-616 ASTM D 7582 ARI-LAB-633 Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
A3 Organic Reference Materials	A3.1 Pure Organic Compounds	Neat Compounds for Elemental Analysis Carbon Hydrogen Nitrogen Sulfur Oxygen Chlorine Bromine Flourine	Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.



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	A4.2 Ashes	Powders Major Elements Trace Elements	methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
C5 Reference Materials for Thermodynamic Properties	C5.1 Calorimetry	BTU's Benzoic Acid Tablet Benzoic Acid Powder	ASTM D 240 ARI-LAB-618
	C5.10 Thermal Analysis Standards	LOI (Loss on Ignition)/Ash • Blended solid • Powder	ASTM C25 ARI-LAB-620
		LOI (Loss on Ignition)/Ash • Solid Fuels	ASTM D 7582 ARI-LAB-633
		Thermal Decomposition	ARI-LAB-624

Notes:

1. Please contact the RMP organization for more information on CRM uncertainty values, Ucrm values, and other specific lot values. Some of this information may also be available on the RMP's website.

2. This scope is formatted as part of a single document including Certificate of Accreditation No. AR-1920.



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