



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

***Agricultural and Environmental Services Laboratories
(AESL), University of Georgia
2300-2400 College Station Road, Athens, GA 30602***

*(Hereinafter called the Organization) and hereby declares that Organization is accredited
in accordance with the recognized International Standard:*

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the
operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

***Environmental Testing
(As detailed in the supplement)***

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President/Operations Manager

Initial Accreditation Date:

January 11, 2018

Issue Date:

January 12, 2020

Expiration Date:

April 30, 2022

Accreditation No.:

91591

Certificate No.:

L20-12

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

*The validity of this certificate is maintained through ongoing assessments based on
a continuous accreditation cycle. The validity of this certificate should be
confirmed through the PJLA website: www.pjlab.com*



Certificate of Accreditation: Supplement

Agricultural and Environmental Services Laboratories (AESL), University of Georgia

2300-2400 College Station Road, Athens, GA 30602
Contact Name: Uttam Saha, Ph.D. Phone: 706-542-5350

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Environmental ^F	Drinking Water	Total Coliform & <i>E. Coli</i>	SM 9223B Colilert Procedure	(TC & EC) R.L.= 1 MPN/100 mL
		pH & Alkalinity	4500-pH-B SM 23020-B pH meter	4 pH to 10 pH (ALK) R.L. = 3 mg CaCO ₃ /L
		Minerals: Aluminum Boron Calcium Cadmium Chromium Copper Iron Magnesium Manganese Molybdenum Sodium Nickel Phosphorus Potassium Silicon Sulfur Zinc	EPA 200.7 ICP-OES	R.L. = 0.1 mg/L R.L. = 0.01 mg/L R.L. = 0.5 mg/L R.L. = 0.01 mg/L R.L. = 0.01 mg/L R.L. = 0.05 mg/L R.L. = 0.1 mg/L R.L. = 0.1 mg/L R.L. = 0.05 mg/L R.L. = 0.01 mg/L R.L. = 0.5 mg/L R.L. = 0.01 mg/L R.L. = 0.02 mg/L R.L. = 0.5 mg/L R.L. = 0.5 mg/L R.L. = 0.1 mg/L R.L. = 0.05 mg/L
		Nitrate & Nitrite	SM 4500-NO ₃ F, Flow Injection Analyzer	(NO ₂ & NO ₃) R.L.= 0.05 mg/L
		Anions: F ⁻ Cl ⁻ Br ⁻ PO ₄ ³⁻ SO ₄ ²⁻	EPA 300.0 IC	R.L. = 0.15 mg/L R.L. = 0.25 mg/L R.L. = 0.85 mg/L R.L. = 0.7 mg/L R.L. = 0.65 mg/L
		Trace Metals: Silver Arsenic Beryllium Cadmium Chromium Copper Nickel Lead Antimony Selenium Titanium Vanadium	EPA 200.5 ICP-OES	R.L. = 0.001 mg/L R.L. = 0.005 mg/L R.L. = 0.001 mg/L R.L. = 0.001 mg/L R.L. = 0.001 mg/L R.L. = 0.001 mg/L R.L. = 0.001 mg/L R.L. = 0.005 mg/L R.L. = 0.008 mg/L R.L. = 0.008 mg/L R.L. = 0.008 mg/L R.L. = 0.001 mg/L



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Environmental ^F	Soil	pH	EPA 9045D	4 pH to 10 pH
		Minerals: Calcium Magnesium Manganese Phosphorus Potassium Zinc	Mehlich 1 Method ICP-OES	R.L. = 2 mg/kg R.L. = 0.4 mg/kg R.L. = 0.2 mg/kg R.L. = 0.08 mg/kg R.L. = 2 mg/kg R.L. = 0.2 mg/kg
	Plant tissue	Minerals: Aluminum Boron Calcium Cadmium Chromium Copper Iron Lead Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Sodium Sulfur Zinc	EPA 3052 ICP-OES	R.L. = 10 mg/kg R.L. = 2 mg/kg R.L. = 20 mg/kg R.L. = 0.8 mg/kg R.L. = 1 mg/kg R.L. = 1.5 mg/kg R.L. = 6 mg/kg R.L. = 2 mg/kg R.L. = 50 mg/kg R.L. = 2 mg/kg R.L. = 1 mg/kg R.L. = 1 mg/kg R.L. = 15 mg/kg R.L. = 25 mg/kg R.L. = 20 mg/kg R.L. = 16 mg/kg R.L. = 2 mg/kg
Feed and Forage Analysis		Feed: Crude Fiber Crude Protein Moisture Content Crude Fat	Ankom Instrument AOCS: Ba6a-05 AOAC Method 990.03 AOAC Method 930:15 AOCS Am 5-04	R.L. = 1.75 % R.L. = 0.465 % R.L. = 0.261 % R.L. = 0.2 %
		Forage: Fiber – Neutral Detergent Fiber – Acid Detergent Crude Protein Moisture Content	Ankom Instrument AOAC Method 2002.04 AOAC Method 973.18 AOAC Method 990.03 NFTA Method 2.2.2.5	R.L. = 2.11 % R.L. = 1.36 % R.L. = 0.407 % R.L. = 0.261 %



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Environmental ^F	Feed and Forage Analysis	Minerals: Aluminum Calcium Copper Iron Magnesium Manganese Phosphorus Potassium Sodium Zinc	AOAC Method 985.01 ICP-OES	R.L. = 5 mg/kg R.L. = 10 mg/kg R.L. = 0.75 mg/kg R.L. = 3 mg/kg R.L. = 25 mg/kg R.L. = 1 mg/kg R.L. = 7.5 mg/kg R.L. = 12.5 mg/kg R.L. = 10 mg/kg R.L. = 1 mg/kg
		Forage Fiber – Neutral Detergent Fiber – Acid Detergent Crude Protein Moisture	NIR Instrument AAFCO 009.11 AAFCO 008.11 AAFCO 002.11 AAFCO 010.11	R.L. = 2 % R.L. = 1 % R.L. = 1 % R.L. = 0.2 %

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer ^F would mean that the laboratory performs this testing at its fixed location.