



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Standard Laboratories, Inc.
147 11th Avenue, Suite #100
South Charleston, WV 25303

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

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

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 08 July 2023
Certificate Number: L2179.06-1



This laboratory 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 (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standard Laboratories, Inc. - Division 30

147 11th Avenue, Suite #100
 South Charleston, WV 25303
 Jeremy Lutsy
 304-744-5472

TESTING

Valid to: **July 8, 2023**

Certificate Number: **L2179.06-1**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Total Moisture	ASTM D3302 ASTM D2961	Coal	Moisture Oven
Lab Moisture	ASTM D3173	Coal	Moisture Oven
Total Ash	ASTM D3174	Coal	Ash Furnace
Total Ash	ASTM D3174 MOD	Coal	Ash Furnace
Total Sulfur	ASTM D4239	Coal	Leco 144/832
Volatile Matter	ASTM D3175	Coal	Volatile Furnace
Fixed Carbon	ASTM D3172	Coal	
Gross Calorific (BTU/lb)	ASTM D5865	Coal	Leco Ac600
Sample Preparation	ASTM D2013	Coal	Crusher
Free Swelling Index	ASTM D720	Coal	Fsi Furnace
Oxidation	ASTM D5263	Coal	Spec 20
Dilatometer	ASTM D5515	Coal	Preiser 6100
Fluidity	ASTM D2639	Coal	Preiser 6200
Fineness Test of Pulverized Coal	ASTM D197	Coal	Screens/Rotap

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. L2179.06-1.



R. Douglas Leonard Jr., VP, PILR SBU



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Standard Laboratories, Inc. - Division 30

147 11th Avenue
South Charleston, WV 25303
Claudette Young
304-744-5472

TESTING

Valid to: **July 8, 2020**

Certificate Number: **L2179.06-1**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Total Moisture	ASTM D3302 ASTM D2961	Coal	
Lab Moisture	ASTM D3173	Coal & Coke	
Total Ash	ASTM D3174	Coal & Coke	
Total Ash	ASTM D3174 MOD	Coal	
Total Sulfur	ASTM D4239	Coal & Coke	
Volatile Matter	ASTM D3175	Coal	
Volatile Matter	ASTM D3175 MOD	Coke	
Fixed Carbon	ASTM D3172	Coal & Coke	
Gross Calorific (BTU/lb)	ASTM D5865	Coal	
Sample Preparation	ASTM D2013	Coal	
Free Swelling Index	ASTM D720	Coal	
Oxidation	ASTM D5263	Coal	
Dilatometer	ASTM D5515	Coal	
Fluidity	ASTM D2639	Coal	
Fineness Test of Pulverized Coal	ASTM D197	Coal	
CSR/CRI	ASTM D5341	Coke	

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Hardgrove Grindability Index	ASTM D409	Coal	
Sieve Analysis (Size Consist)	ASTM D4749	Coal	

Note:

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Satellite Site

147 11th Avenue
 South Charleston, WV 25303
 Claudette Young
 304-744-5472

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Total Moisture	ASTM D2961	Coal	
Sample Preparation	ASTM D2013	Coal	
Sample Preparation	ASTM D346	Coke	
Sieve Analysis (Size Consist)	ASTM D4749	Coal	
Sieve Analysis (Size Consist)	ASTM D293	Coke	
Tumbler Test	ASTM D3402	Coke	
Bulk Density	ASTM D291	Coal	

Note:

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Vice President



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Standard Laboratories, Inc.
1196 Whitman Run Road
Belington, WV 26250

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

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The current scope of accreditation can be verified at www.anab.org.

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R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 08 July 2023
Certificate Number: L2179.03-1



This laboratory 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 (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standard Laboratories, Inc. – Division 61

1196 Whitman Run Rd.
Belington, WV 26250
Rick Malcolm
304-457-4749

TESTING

Valid to: **July 8, 2023**

Certificate Number: **L2179.03-1**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
FSI	ASTM D 720	Coal	Preiser Electric Furnace
Residual Moisture	ASTM D 3173	Coal	Fisher Model 496
Ash	ASTM D 3174	Coal	Thermolyne 6000 Ashing Furnace
Sulfur	ASTM D 4239	Coal	Leco S632 & S832
Oxidation	ASTM D 5263	Coal	Hach DR 3900
BTU	ASTM D 5865	Coal	Leco AC 600
Thermogravimetric Analysis (TGA)	ASTM D 7582	Coal	Leco 701 & Leco 801
Volatile	ASTM D3175 Modified	Coal	Vulcan A550 Furnace
Total Moisture	ASTM D3302 Modified	Coal	Despatch Ovens
Sample Preparation	ASTM D2013	Coal	Holmes Equipment
Total Moisture	ASTM D2961	Coal	Despatch Ovens

Note:

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R. Douglas Leonard Jr., VP, PILR SBU

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Standard Laboratories, Inc. – Division 61

1196 Whitman Run Rd.
 Belington, WV 26250
 Rick Malcolm
 304-457-4749

TESTING

Valid to: **July 8, 2020**

Certificate Number: **L2179.03-1**

Chemistry

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
FSI	ASTM D 720	Coal	
Residual Moisture	ASTM D 3173	Coal	
Ash	ASTM D 3174	Coal	
Sulfur	ASTM D 4239	Coal	
Oxidation	ASTM D 5263	Coal	
BTU	ASTM D 5865	Coal	
Thermogravimetric Analysis (TGA)	ASTM D 7582	Coal	
Volatile	ASTM D3175 Modified	Coal	
Total Moisture	ASTM D3302 Modified	Coal	
Sample Preparation	ASTM D2013	Coal	
Total Moisture	ASTM D2961	Coal	

Note:

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Vice President



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Standard Laboratories, Inc.
1880 North Loop Drive
Casper, WY 82601

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

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The current scope of accreditation can be verified at www.anab.org.

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R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 08 July 2023
Certificate Number: L2179.04-1



This laboratory 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 (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standard Laboratories, Inc. – Division 70

1880 North Loop Drive
Casper, WY 82601
Mike Herndon
307-234-9957

TESTING

Valid to: **July 8, 2023**

Certificate Number: **L2179.04-1**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Ash in the Analysis Sample	ASTM D3174	Coal	Furnace
Calorific Value	ASTM D5865	Coal	Calorimeter
Carbon, Hydrogen and Nitrogen	ASTM D5373	Coal	Elemental Analyzer
Equilibrium Moisture	ASTM D1412	Coal	Waterbath Method
Free-Swelling Index	ASTM D720	Coal	Electric Method
Fusibility of Ash	ASTM D1857	Coal	Furnace
Grindability of Coal	ASTM D409/D409M (MOD)	Coal	Grindability Machine
Loss on Ignition	ASTM D7348	Coal	Oven/Furnace
Major and Minor Elements	ASTM D6349	Coal	ICP-OES, Mixed Acid Digestion
Mercury	ASTM D6722	Coal	Direct Combustion Analysis
Moisture in the Analysis Sample	ASTM D3173	Coal	Oven
Moisture (Total)	ASTM D3302/D3302M (MOD)	Coal	Commercial Method
Preparing Samples for Analysis	ASTM D2013/D2013M (MOD)	Coal	Crusher/Pulverizer
Sulfur (Total)	ASTM D4239	Coal	Furnace

Chemical

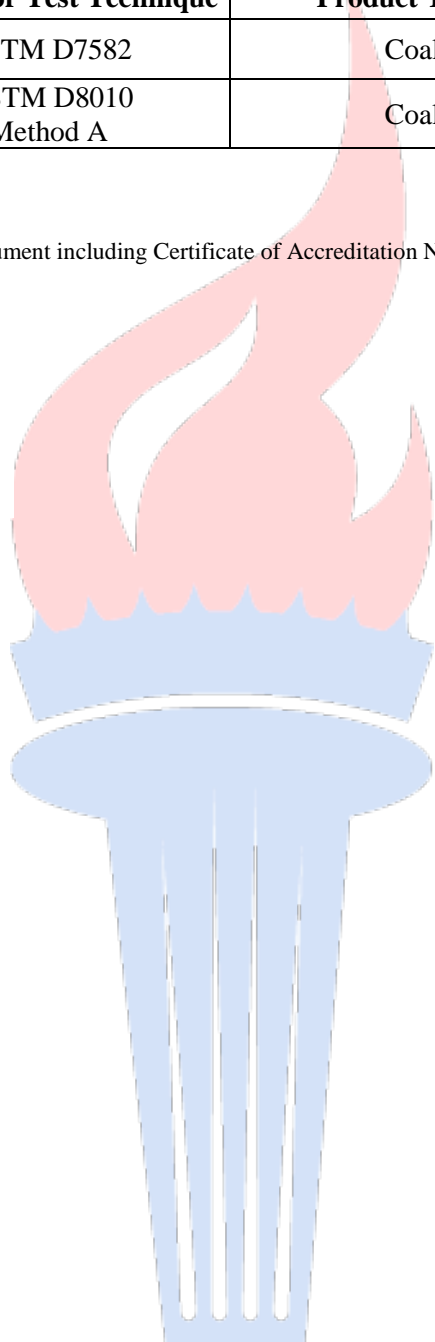
Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Volatile Matter	ASTM D7582	Coal	TGA
Water Soluble Alkali Content	ASTM D8010 Method A	Coal	ICP-OES

Note:

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R. Douglas Leonard Jr., VP, PILR SBU



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Standard Laboratories, Inc. – Division 70

1880 North Loop Drive
 Casper, WY 82601
 Mike Herndon
 307-234-9957

TESTING

Valid to: **July 8, 2020**

Certificate Number: **L2179.04-1**

Chemistry

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Ash in the Analysis Sample	ASTM D3174	Coal	
Calorific Value	ASTM D5865	Coal	
Carbon, Hydrogen and Nitrogen	ASTM D5373	Coal	
Chlorine, Total	ASTM D6721	Coal	
Equilibrium Moisture	ASTM D1412	Coal	
Forms of Sulfur	ASTM D2492	Coal	
Free-Swelling Index	ASTM D720	Coal	
Fusibility of Ash	ASTM D1857	Coal	
Grindability of Coal	ASTM D409/D409M (MOD)	Coal	
Loss on Ignition	ASTM D7348	Coal	
Major and Minor Elements	ASTM D6349	Coal	
Mercury	ASTM D6722	Coal	
Moisture in the Analysis Sample	ASTM D3173	Coal	
Moisture (Total)	ASTM D3302/D3302M	Coal	
Preparing Samples for Analysis	ASTM D2013/D2013M	Coal	

Chemistry

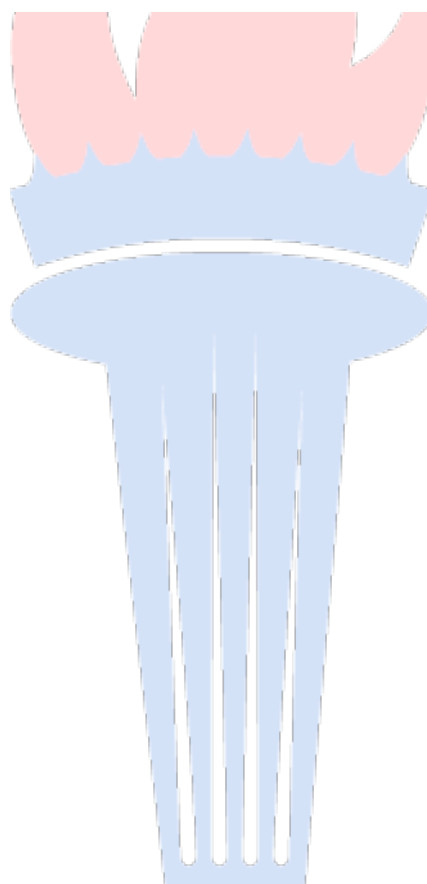
Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Sulfur (Total)	ASTM D4239	Coal	
Volatile Matter	ASTM D7582	Coal	
Water Soluble Alkali Content	ASTM D8010 Method A	Coal	

Note:

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Vice President





CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Standard Laboratories, Inc.
845 River King Drive
Freeburg, IL 62243

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

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The current scope of accreditation can be verified at www.anab.org.

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R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 08 July 2023
Certificate Number: L2179.02-1



This laboratory 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 (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standard Laboratories, Inc. – Division 75

8451 River King Drive
Freeburg, IL 62243
Tim Hutchison
618-539-5836

TESTING

Valid to: **July 8, 2023**

Certificate Number: **L2179.02-1**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Grindability of Coal	ASTM D409 ASTM D409M	Coal	Hardgrove Method
Free- Swell Index	ASTM D720	Coal	Gas Method
Equilibrium Moisture	ASTM D1412	Coal	Thermo-gravimetric
Single Stage Total Moisture	ASTM D2961	Coal	Thermo-gravimetric
Moisture in the Analysis Sample	ASTM D3173	Coal and Coke	Thermo-gravimetric
Total Moisture	ASTM D3302 ASTM D3302M	Coal	Thermo-gravimetric
Forms of Sulfur in Coal	ASTM D8214 MOD	Coal	ICP-OES
Sulfur Determination	ASTM D4239	Coal and Coke	High-Temperature Tube Furnace Combustion
Fusibility	ASTM D1857	Coal and Coke ash	Fusion Furnace
Sample Preparation	ASTM D2013 ASTM D2013M	Coal	Crusher, pulverizers, dividers
Ash in the Analysis Sample	ASTM D3174	Coal and Coke	Thermo-gravimetric
Volatile Matter	ASTM D3175	Coal and Coke	Thermo-gravimetric
Selenium Determination	ASTM D4606	Coal	Hydride Generation / Atomic Absorption Method
Carbon, Hydrogen and Nitrogen Determination	ASTM D5373	Coal and Coke	CHN Analyzer
Gross Calorific Value	ASTM D5865	Coal and Coke	Calorimetry

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Total Fluorine Determination	ASTM D8247	Coal	Oxidative Pyrohydrolytic Combustion and Ion Chromatography Detection
Determination of Major & Minor Elements ICP-OES	ASTM D6349	Coal and Coke	ICP-OES
Determination of Trace Elements ICP-MS	ASTM D6357 ASTM D6357 MOD	Coal and Coke	ICP-MS
Chlorine Determination	ASTM D6721	Coal	Oxidative Hydrolysis Microcoulometry
Total Mercury	ASTM D6722	Coal	Direct Combustion Analysis
Water Soluble Alkali Content	ASTM D8010	Coal	ICP-OES
Total, Combustible, and Carbonate Carbon	ASTM D6316 MOD	Coal Residue	CHN Analyzer
Determination of Boron	ASTM D8213	Coal	Microwave and ICP-MS

Note:

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R. Douglas Leonard Jr., VP, PILR SBU

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Standard Laboratories, Inc. – Division 75

8451 River King Drive
 Freeburg, IL 62243
 Tim Hutchison
 618-539-5836

TESTING

Valid to: **July 8, 2020**

Certificate Number: **L2179.02-1**

Chemistry

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Grindability of Coal	ASTM D409 ASTM D409M	Coal	
Free- Swell Index	ASTM D720	Coal	
Equilibrium Moisture	ASTM D1412	Coal	
Single Stage Total Moisture	ASTM D2961	Coal	
Moisture in the Analysis Sample	ASTM D3173	Coal and Coke	
Total Moisture	ASTM D3302 ASTM D3302M	Coal	
Forms of Sulfur in Coal	ASTM D2492 MOD	Coal	
Sulfur Determination	ASTM D4239	Coal and Coke	
Fusibility	ASTM D1857	Coal and Coke ash	
Sample Preparation	ASTM D2013 ASTM D2013M	Coal	
Ash in the Analysis Sample	ASTM D3174	Coal and Coke	
Volatile Matter	ASTM D3175	Coal and Coke	
Selenium Determination	ASTM D4606	Coal	
Carbon, Hydrogen and Nitrogen Determination	ASTM D5373	Coal and Coke	

Chemistry

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Gross Calorific Value	ASTM D5865	Coal and Coke	
Total Fluorine Determination	ASTM D5987	Coal and Coke	
Determination of Major & Minor Elements ICP-OES	ASTM D6349	Coal and Coke	
Determination of Trace Elements ICP-MS	ASTM D6357 ASTM D6357 MOD	Coal and Coke	
Chlorine Determination	ASTM D6721	Coal	
Total Mercury	ASTM D6722	Coal	
Water Soluble Alkali Content	ASTM D8010	Coal	
Total, Combustible, and Carbonate Carbon	ASTM D6316 MOD	Coal Residue	

Note:

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Vice President



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Standard Laboratories, Inc.
2601 South Verity Parkway
Middletown, OH 45044

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

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R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 08 July 2023
Certificate Number: L2179.05-1



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quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standard Laboratories, Inc. – Division 25

2601 South Verity Parkway
Middletown, Ohio 45044
Joy Wright
513-422-1088

TESTING

Valid to: **July 8, 2023**

Certificate Number: **L2179.05-1**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Total Moisture	ASTM D3302	Coal	Ovens/balances
Total Moisture	ISO 579	Coke	Ovens/balances
Lab Moisture	ASTM D3173	Coal, Coke	Ovens/balances
Total Ash	ASTM D3174	Coal, Coke	Furnaces/balances
Total Sulfur	ASTM D4239	Coal, Coke	Combustion/infrared detection
Volatile Matter	ASTM D3175 (MOD for Coke)	Coal, Coke	Furnaces/balances
Fixed Carbon	ASTM D3172	Coal, Coke	Calculation
Sieve Analysis	ASTM D4749; ASTM D293	Coal, Coke	Sieves/balances
Tumbler Test	ASTM D3402	Coke	Tumbler/sieves/balances
Bulk Density	ASTM D291	Coal	Cubic foot box/balance
Sample Preparation	ASTM D2013; ASTM D346	Coal, Coke	Shovels/rotary dividers
CSR / CRI	ASTM D5341	Coke	Furnace/tumbler/balance

Note:

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R. Douglas Leonard Jr., VP, PILR SBU

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Standard Laboratories, Inc. – Division 25

2601 South Verity Parkway
 Middletown, Ohio 45044
 Joy Wright
 513-422-1088

TESTING

Valid to: **July 8, 2020**

Certificate Number: **L2179.05-1**

Chemistry

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Total Moisture	ASTM D3302	Coal	
Total Moisture	ISO 579	Coke	
Lab Moisture	ASTM D3173	Coal, Coke	
Total Ash	ASTM D3174	Coal, Coke	
Total Sulfur	ASTM D4239	Coal, Coke	
Volatile Matter	ASTM D3175 (MOD for Coke)	Coal, Coke	
Fixed Carbon	ASTM D3172	Coal, Coke	
Sieve Analysis	ASTM D4749; ASTM D293	Coal, Coke	
Tumbler Test	ASTM D3402	Coke	
Bulk Density	ASTM D291	Coal	
Sample Preparation	ASTM D2013; ASTM D346	Coal, Coke	
CSR / CRI	ASTM D5341	Coke	

Note:

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 Vice President



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Standard Laboratories, Inc.
5144 Hwy 133, P.O. Box 542
Somerset, CO 81434

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

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R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 08 July 2023
Certificate Number: L2179.07-1



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quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standard Laboratories, Inc.

5144 Hwy 133, P.O Box 542
Somerset, CO 81434
Jane Kuta
970-929-5022

TESTING

Valid to: **July 8, 2023**

Certificate Number: **L2179.07-01**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Ash in the Analysis Sample	ASTM D7582	Coal	TGA-701
Calorific Value	ASTM D5865	Coal	Parr 6200 Calorimeter
Moisture in the Analysis Sample	ASTM D7582	Coal	TGA-701
Moisture (Total)	ASTM D3302 / D3302M	Coal	Drying Oven
Preparing Samples for Analysis	ASTM D2013 / D2013M	Coal	Crusher, pulverizers, dividers
Sulfur (Total)	ASTM D4239	Coal	Leco S-144 Combustion Method A
Volatile Matter	ASTM D7582	Coal	TGA-701

Note:

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R. Douglas Leonard Jr., VP, PILR SBU



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standard Laboratories, Inc.

5144 Hwy 133, P.O Box 542

Somerset, CO 81434

Jane Kuta

970-929-5022

TESTING

Valid to: July 8, 2020

Certificate Number: L2179.07-01

Chemistry

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Ash in the Analysis Sample	ASTM D7582	Coal	TGA-701
Calorific Value	ASTM D5865	Coal	Parr 6200 Calorimeter
Moisture in the Analysis Sample	ASTM D7582	Coal	TGA-701
Moisture (Total)	ASTM D3302 / D3302M	Coal	Drying Oven
Preparing Samples for Analysis	ASTM D2013 / D2013M	Coal	Crusher, pulverizers, dividers
Sulfur (Total)	ASTM D4239	Coal	Leco S-144 Combustion Method A
Volatile Matter	ASTM D7582	Coal	TGA-701

Note:

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Vice President





CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Standard Laboratories, Inc.
2005 Donna Drive
Ashland, KY 41102

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

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R. Douglas Leonard Jr., VP, PILR SBU

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quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Standard Laboratories, Inc. – Division 66

2005 Donna Drive
Ashland, KY 41102
Greg Webb

TESTING

Valid to: **July 8, 2023**

Certificate Number: **L2179.11-1**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Sample Preparation	ASTM D2013/D346	Coal or Coke	Crushers,Pulverizers,Scales
Total Moisture	ASTM D2961	Coal	Oven & Balance
Residual Moisture	ASTM D3173	Coal/Coke	Oven & Balance
Ash	ASTM D3174	Coal/Coke	Furnace & Balance
Sulfur	ASTM D4239	Coal/Coke	Leco 832 Sulfur Analyzer & Balance
Volatile Matter	ASTM D3175	Coal	Platinum crucible
Volatile Matter modified	ASTM D3175M	Coke	Quartz crucible
Gross Calorific Value	ASTM D5865	Coal/Coke	Calorimetry
Free Swelling Index	ASTM D720	Coal	Electric Furnace & Balance
Oxidation Index	ASTM D5263	Coal	Spectrophotometry
Sieve Analysis	ASTM D4749	Coal	Sieves & Balance
Sieve Analysis	ASTM D293	Coke	Sieves & Balance
Tumbler Test	ASTM D3402	Coke	Tumble Machine & Scales
Bulk Density	ASTM D291	Coal	Gravimetric & Scales
CSR/CRI	ASTM D5341	Coke	Thermogravimetric

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. L2179.11-1.



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