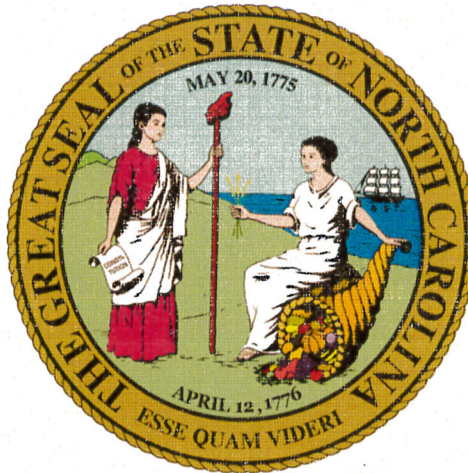


# DIVISION OF WATER RESOURCES LABORATORY CERTIFICATION BRANCH

*In accordance with the provisions of N.C.G.S. 143-215.3 (a) (1), 143-215.3 (a)(10) and NCAC 2H.0800:*



# 2019

## Rogers & Callcott Engineers Inc.

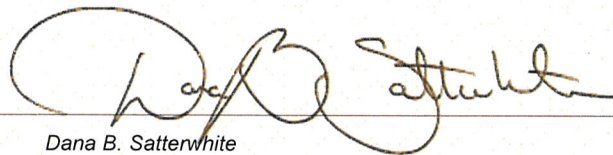
*Is hereby certified to perform environmental analysis as listed on Attachment I and report monitoring data to DEQ for compliance with NPDES effluent, surface water, groundwater, and pretreatment regulations.*

*By reference 15A NCAC 2H .0800 is made a part of this certificate.*

*This certificate does not guarantee validity of data generated, but indicates the methodology, equipment, quality control procedures, records, and proficiency of the laboratory have been examined and found to be acceptable.*

*This certificate shall be valid until 12/31/2019*

Certificate No. 27



Dana B. Satterwhite

# North Carolina Wastewater/Groundwater Laboratory Certification

## Certified Parameters Listing

Lab Name: Rogers & Callcott Engineers Inc.  
 Address: P.O. Box 5655  
 Greenville, SC 29606

Certificate Number: 27  
 Effective Date: 1/1/2019  
 Expiration Date: 12/31/2019  
 Date of Last Amendment: 12/20/2018

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

<b>CERTIFIED PARAMETERS</b>
-----------------------------

<p><b>INORGANIC</b></p> <p>ALKALINITY                  SM 2320 B-2011 (Aqueous)</p> <p>BACTERIA - COLIFORM FECAL                  IDEXX Colilert @18 (MPN) (Aqueous)                  SM 9221C E-2006 (MPN) (Aqueous)                  SM 9221C E-2006 (MPN) 24hr 503 (Non-Aqueous)</p> <p>BACTERIA - E. coli                  IDEXX Colilert® (24 hr) (MPN) (Aqueous)</p> <p>BOD                  SM 5210 B-2011 (Aqueous)</p> <p>CHLORIDE                  EPA 300.0, Rev. 2.1, 1993 (Aqueous)                  EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)                  SW-846 9056 A (Aqueous)                  SW-846 9056 A (Non-Aqueous)</p> <p>CHLORINE, TOTAL RESIDUAL                  SM 4500 Cl G-2011 (Aqueous)</p> <p>COD                  EPA 410.4, Rev. 2.0, 1993 (Aqueous)</p> <p>COLOR, ADMI                  SM 2120 E-1993 (ADMI) (Aqueous)</p> <p>COLOR, PC                  SM 2120 B-2011 (PtCo) (Aqueous)</p> <p>CONDUCTIVITY                  SM 2510 B-2011 (Aqueous)                  SW-846 9050 A (Aqueous)</p> <p>CYANIDE                  SW-846 9014 (Total) (Colorimetric) (Aqueous)                  SW-846 9014 (Total) (Colorimetric) (Non-Aqueous)                  SM 4500 CN<sup>-</sup> E-2011 (Total) (Aqueous)</p> <p>DISSOLVED OXYGEN                  SM 4500 O G-2011 (Aqueous)</p> <p>FLUORIDE                  EPA 300.0, Rev. 2.1, 1993 (Aqueous)</p>	<p>EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)</p> <p>SW-846 9056 A (Aqueous)                  SW-846 9056 A (Non-Aqueous)</p> <p>HARDNESS TOTAL                  SM 2340 B-2011 (Ca EPA 200.7, Rev. 4.4, 1994 + Mg EPA 200.7, Rev. 4.4, 1994) (Aqueous)</p> <p>IGNITABILITY                  SW-846 1010 A (Pensky-Martens) (Aqueous)</p> <p>INORGANIC PHENOLS                  EPA 420.1, Rev. 1978 (Aqueous)                  SW-846 9065 (Aqueous)</p> <p>LEACHATE PROCEDURE                  SW-846 1311 Metals (Aqueous)                  SW-846 1311 Metals (Non-Aqueous)                  SW-846 1311 Organics (Aqueous)                  SW-846 1311 Organics (Non-Aqueous)</p> <p>MBAS                  SM 5540 C-2011 (Aqueous)</p> <p>NITROGEN, AMMONIA                  EPA 350.1, Rev. 2.0, 1993 (Aqueous)</p> <p>NITROGEN, NITRATE                  EPA 300.0, Rev. 2.1, 1993 (Aqueous)                  EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)                  SW-846 9056 A (Aqueous)                  SW-846 9056 A (Non-Aqueous)</p> <p>NITROGEN, NITRITE                  SM 4500-NO<sub>2</sub><sup>-</sup> B-2011 (Automated) (Aqueous)                  EPA 300.0, Rev. 2.1, 1993 (Aqueous)                  EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)                  SW-846 9056 A (Aqueous)                  SW-846 9056 A (Non-Aqueous)</p> <p>NITROGEN, NO<sub>3</sub> + NO<sub>2</sub>                  SM 4500 NO<sub>3</sub><sup>-</sup> H-2011 (Aqueous)</p> <p>NITROGEN, TOTAL KJELDAHL                  EPA 351.2, Rev. 2.0, 1993 (Aqueous)</p> <p>OIL &amp; GREASE</p>
--	--

# North Carolina Wastewater/Groundwater Laboratory Certification

## Certified Parameters Listing

Lab Name: Rogers & Callcott Engineers Inc.  
Address: P.O. Box 5655  
Greenville, SC 29606

Certificate Number: 27  
Effective Date: 1/1/2019  
Expiration Date: 12/31/2019  
Date of Last Amendment: 12/20/2018

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

### CERTIFIED PARAMETERS

EPA 1664 Rev. B (Aqueous)	SM 4500 S <sup>2-</sup> F-2011 (Aqueous)
ORGANIC CARBON, TOTAL	TEMPERATURE
SM 5310 B-2011 (Combustion) (Aqueous)	SM 2550 B-2010 (Aqueous)
SW-846 9060 A (Combustion) (Aqueous)	TURBIDITY
PAINT FILTER LIQUIDS	EPA 180.1, Rev. 2.0, 1993 (Aqueous)
SW-846 9095B	VECTOR ATTRACTION REDUCTION
pH	Option 1: Reduction in Volatile Solids
SM 4500 H+B-2011 (Aqueous)	Option 4: Specific Oxygen Uptake Rate
SW-846 9040 C (Aqueous)	<b>METAL</b>
SW-846 9045 D (Non-Aqueous)	ALUMINUM
PHOSPHATE, ORTHO	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SM 4500 P E-2011 (Aqueous)	SW-846 6010 D (Aqueous)
PHOSPHORUS, TOTAL	SW-846 6010 D (Non-Aqueous)
SM 4500 P E-2011 (Aqueous)	ANTIMONY
EPA 200.7, Rev. 4.4 (1994) (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)	SW-846 6010 D (Non-Aqueous)
RESIDUE, DISSOLVED 180 C	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SM 2540 C-2011 (Aqueous)	SW-846 6020 B (Aqueous)
RESIDUE, SETTLEABLE	ARSENIC
SM 2540 F-2011 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
RESIDUE, SUSPENDED	SW-846 6010 D (Aqueous)
SM 2540 D-2011 (Aqueous)	SW-846 6010 D (Non-Aqueous)
RESIDUE, TOTAL	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SM 2540 B-2011 (Aqueous)	SW-846 6020 B (Aqueous)
RESIDUE, VOLATILE	BARIUM
SM 2540 G-2011 (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SILICA	SW-846 6010 D (Aqueous)
SM 4500 SiO <sub>2</sub> C-2011 (Aqueous)	SW-846 6010 D (Non-Aqueous)
SULFATE	SW-846 6020 B (Aqueous)
EPA 300.0, Rev. 2.1, 1993 (Aqueous)	BERYLLIUM
EPA 300.0, Rev. 2.1, 1993 (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 9056 A (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 9056 A (Non-Aqueous)	SW-846 6010 D (Non-Aqueous)
SULFIDE	EPA 200.8, Rev. 5.4, 1994 (Aqueous)

This certification requires maintenance of an acceptable quality assurance program, use of approved methodology, and satisfactory performance on evaluation samples. Laboratories are subject to civil penalties and/or decertification for infractions as set forth in 15A NCAC 2H.0807.

# North Carolina Wastewater/Groundwater Laboratory Certification

## Certified Parameters Listing

Lab Name: Rogers & Callcott Engineers Inc.  
 Address: P.O. Box 5655  
 Greenville, SC 29606

Certificate Number: 27  
 Effective Date: 1/1/2019  
 Expiration Date: 12/31/2019  
 Date of Last Amendment: 12/20/2018

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

<b>CERTIFIED PARAMETERS</b>
-----------------------------

SW-846 6020 B (Aqueous) <b>BORON</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) <b>CADMIUM</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) EPA 200.8, Rev. 5.4, 1994 (Aqueous) SW-846 6020 B (Aqueous) <b>CALCIUM</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) <b>CHROMIUM HEXAVALENT</b> SM 3500-Cr-B-2011 (Aqueous) SW-846 7196 A (Aqueous) SW-846 7196 A (Non-Aqueous) <b>CHROMIUM TOTAL</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) EPA 200.8, Rev. 5.4, 1994 (Aqueous) SW-846 6020 B (Aqueous) <b>COBALT</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) EPA 200.8, Rev. 5.4, 1994 (Aqueous) SW-846 6020 B (Aqueous) <b>COPPER</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous) SW-846 6020 B (Aqueous) <b>IRON</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) EPA 200.8, Rev. 5.4, 1994 (Aqueous) SW-846 6020 B (Aqueous) <b>LEAD</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) EPA 200.8, Rev. 5.4, 1994 (Aqueous) SW-846 6020 B (Aqueous) <b>LITHIUM</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) <b>MAGNESIUM</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) EPA 200.8, Rev. 5.4, 1994 (Aqueous) <b>MANGANESE</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous) SW-846 6010 D (Aqueous) SW-846 6010 D (Non-Aqueous) EPA 200.8, Rev. 5.4, 1994 (Aqueous) SW-846 6020 B (Aqueous) <b>MERCURY</b> EPA 245.1, Rev. 3.0, 1994 (Aqueous) SW-846 7470 A (Aqueous) SW-846 7471 B (Non-Aqueous) <b>MOLYBDENUM</b> EPA 200.7, Rev. 4.4, 1994 (Aqueous)
---	---

# North Carolina Wastewater/Groundwater Laboratory Certification

## Certified Parameters Listing

Lab Name: Rogers & Callcott Engineers Inc.  
Address: P.O. Box 5655  
Greenville, SC 29606

Certificate Number: 27  
Effective Date: 1/1/2019  
Expiration Date: 12/31/2019  
Date of Last Amendment: 12/20/2018

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

### CERTIFIED PARAMETERS

SW-846 6010 D (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)	SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	THALLIUM
SW-846 6020 B (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
NICKEL	SW-846 6010 D (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 6010 D (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6010 D (Non-Aqueous)	SW-846 6020 B (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	TIN
SW-846 6020 B (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
POTASSIUM	SW-846 6010 D (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 6010 D (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6010 D (Non-Aqueous)	TITANIUM
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)	SW-846 6010 D (Aqueous)
SELENIUM	SW-846 6010 D (Non-Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)	VANADIUM
SW-846 6010 D (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6020 B (Aqueous)	SW-846 6010 D (Non-Aqueous)
SILVER	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6020 B (Aqueous)
SW-846 6010 D (Aqueous)	ZINC
SW-846 6010 D (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6020 B (Aqueous)	SW-846 6010 D (Non-Aqueous)
SODIUM	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6020 B (Aqueous)
SW-846 6010 D (Aqueous)	<b>ORGANIC</b>
SW-846 6010 D (Non-Aqueous)	BASE NEUTRAL/ACID, ORGANICS
SW-846 6020 B (Aqueous)	EPA 625.1 (Aqueous)
STRONTIUM	SW-846 8270 E (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 8270 E (Non-Aqueous)

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Rogers & Callcott Engineers Inc.  
Address: P.O. Box 5655  
Greenville, SC 29606

Certificate Number: 27  
Effective Date: 1/1/2019  
Expiration Date: 12/31/2019  
Date of Last Amendment: 12/20/2018

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

**CERTIFIED PARAMETERS**

PESTICIDES, ORGANOCHLORINE

- EPA 608.3 (Aqueous)
- SW-846 8081 B (Aqueous)
- SW-846 8081 B (Non-Aqueous)

POLYCHLORINATED BIPHENYLS (PCBs)

- EPA 608.3 (Aqueous)
- SW-846 8082 A (Aqueous)
- SW-846 8082 A (Non-Aqueous)
- SW-846 8082 A (Oil)

PURGEABLE, ORGANICS

- EPA 624.1 (Aqueous)
- SW-846 8260 D (Aqueous)
- SW-846 8260 D (Non-Aqueous)