



SC DEPARTMENT of
**ENVIRONMENTAL
SERVICES**

Environmental Laboratory Certification Program

In accordance with the provisions of Regulation 61-81, entitled "State Environmental Laboratory Certification Regulations"

**DAVIS & BROWN INC
124 W MCIVER RD
FLORENCE, SOUTH CAROLINA 29501-1515**

is hereby certified to perform analyses as documented on the attached parameter list(s). This certification does not guarantee validity of the data generated, but indicates the laboratory's adherence to prescribed methodology, quality control, records keeping, and reporting procedures. This certificate is the property of S.C. DES and must be surrendered upon demand. This certificate is non-transferable and is valid only for the parameters and methodology listed on the attached parameter list(s).

Laboratory Director: WILLIAM SCOTT FIELDS
Certifying Authority: SC
Date of Issue: January 31, 2025
Date of Expiration: January 12, 2028
Certificate Number: 21117001

Program Manager
Office of Environmental Laboratory Certification

**SOUTH CAROLINA DEPARTMENT OF ENVIRONMENTAL SERVICES
ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM**

DAVIS & BROWN INC (Laboratory ID 21117)
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CLEAN WATER ACT

INORGANIC - DEMAND

BIOCHEMICAL OXYGEN DEMAND(BOD)	SM 5210 B-2016	5 DAY DO DEPLETION
CARBONACEOUS BOD	SM 5210 B-2016	5 DAY DO DEPLETION
CHEMICAL OXYGEN DEMAND (COD)	EPA 410.4 (1993)	SPECTROPHOTOMETRIC, MANUAL OR AUTOMATED
DISSOLVED OXYGEN	HACH 10360 (2011)	LUMINESCENCE BASED SENSOR
DISSOLVED OXYGEN	SM 4500-O G-2021	ELECTRODE
TOTAL ORGANIC CARBON (TOC)	SM 5310 B-2014	HIGH TEMPERATURE COMBUSTION (TOC)

INORGANIC - MINERAL

ALKALINITY	SM 2320 B-2021	TITRIMETRIC
CHLORIDE	EPA 300.0 (1993)	ION CHROMATOGRAPHY
HYDROGEN-ION CONC. (PH)	SM 4500-H B-2021	ELECTROMETRIC MEASUREMENT
SPECIFIC CONDUCTANCE	SM 2510 B-2021	CONDUCTANCE AT 25 DEGREES C
SULFATE	EPA 300.0 (1993)	ION CHROMATOGRAPHY

INORGANIC - MISCELLANEOUS

CYANIDE, TOTAL	EPA 335.4 (1993)	SEMI-AUTOMATED COLORIMETRY
OIL & GREASE	EPA 1664B (2010)	OIL & GREASE - HEM/SGT-HEM
PHENOLICS, TOTAL RECOVERABLE	EPA 420.1 (1978)	MANUAL DISTILLATION WITH COLORIMETRIC(4AAP)
RESIDUAL CHLORINE	SM 4500-CL G-2021	DPD COLORIMETRIC METHOD
SULFIDE	SM 4500-S2 F-2021	TITRIMETRIC (IODINE)
TEMPERATURE	SM 2550 B-2021	THERMOMETRIC

INORGANIC - NUTRIENT

AMMONIA-NITROGEN	SM 4500-NH3 B-2021	DISTILLATION
AMMONIA-NITROGEN	SM 4500-NH3 D-2021	ELECTRODE
KJELDAHL-NITROGEN	SM 4500-NH3 B-2021	DISTILLATION
KJELDAHL-NITROGEN	SM 4500-NH3 D-2021	ELECTRODE
NITRATE-NITROGEN	EPA 300.0 (1993)	ION CHROMATOGRAPHY
NITRITE-NITROGEN	EPA 300.0 (1993)	ION CHROMATOGRAPHY
PHOSPHORUS	SM 4500-P B(5)-2021	DIGESTION
PHOSPHORUS	SM 4500-P E-2021	ASCORBIC ACID (MANUAL SINGLE REAGENT)
TOTAL ORGANIC NITROGEN	EPA TKN-NH3-N	TOTAL KJELDAHL-N MINUS AMMONIA-N

INORGANIC - RESIDUE

RESIDUE, FILTERABLE (TDS)	SM 2540 C-2020	GRAVIMETRIC (180)
RESIDUE, NONFILTERABLE (TSS)	SM 2540 D-2020	GRAVIMETRIC 103-105

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INORGANIC - RESIDUE

RESIDUE, TOTAL (TS)	SM 2540 B-2020	GRAVIMETRIC 103-105
RESIDUE, VOLATILE (VS)	EPA 160.4 (1979)	GRAVIMETRIC (550)
TOTAL, FIXED & VOLATILE SOLIDS	SM 2540 G-2020	PERCENT SOLIDS FOR BIOSOLIDS

INORGANIC - TRACE METAL

ALUMINUM	EPA 200.7 (1994)	ICP/AES
ANTIMONY	EPA 200.7 (1994)	ICP/AES
ANTIMONY	SM 3113 B-2020	AA FURNACE
ARSENIC	EPA 200.7 (1994)	ICP/AES
ARSENIC	SM 3113 B-2020	AA FURNACE
BARIUM	EPA 200.7 (1994)	ICP/AES
BERYLLIUM	EPA 200.7 (1994)	ICP/AES
BORON	EPA 200.7 (1994)	ICP/AES
CADMIUM	EPA 200.7 (1994)	ICP/AES
CADMIUM	SM 3113 B-2020	AA FURNACE
CALCIUM	EPA 200.7 (1994)	ICP/AES
CHROMIUM	EPA 200.7 (1994)	ICP/AES
CHROMIUM	SM 3113 B-2020	AA FURNACE
CHROMIUM, HEXAVALENT	SM 3500-CR B-2020	COLORIMETRIC (DIPHENYLCARBAZIDE)
COBALT	EPA 200.7 (1994)	ICP/AES
COPPER	EPA 200.7 (1994)	ICP/AES
COPPER	SM 3113 B-2020	AA FURNACE
IRON	EPA 200.7 (1994)	ICP/AES
LEAD	EPA 200.7 (1994)	ICP/AES
LEAD	SM 3113 B-2020	AA FURNACE
MAGNESIUM	EPA 200.7 (1994)	ICP/AES
MANGANESE	EPA 200.7 (1994)	ICP/AES
MERCURY	EPA 245.1 (1994)	COLD VAPOR (MANUAL)
MOLYBDENUM	EPA 200.7 (1994)	ICP/AES
NICKEL	EPA 200.7 (1994)	ICP/AES
POTASSIUM	EPA 200.7 (1994)	ICP/AES
SAMPLING FOR LOW-LEVEL METALS	EPA 1669 (1996)	SAMPLING FOR LOW-LEVEL METALS
SELENIUM	EPA 200.7 (1994)	ICP/AES
SELENIUM	SM 3113 B-2020	AA FURNACE
SILVER	EPA 200.7 (1994)	ICP/AES
SILVER	SM 3113 B-2020	AA FURNACE
SODIUM	EPA 200.7 (1994)	ICP/AES
THALLIUM	EPA 279.2 (1978)	AA FURNACE
VANADIUM	EPA 200.7 (1994)	ICP/AES

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CLEAN WATER ACT

INORGANIC - TRACE METAL

ZINC

EPA 200.7 (1994)

ICP/AES

MICROBIOLOGY

BIOSOLIDS PREPARATION
E.COLI (MPN)
FECAL COLIFORM (MPN)
FECAL COLIFORM (MPN)

EPA/625/R-92/013 APP F
SM 9223 B-2016
COLILERT-18 (2010)
SM 9221-C E-2014

SLUDGE ANALYSIS PREPARATION
COLILERT/COLILERT-18
MULTIPLE WELL
MULTIPLE TUBE FERMENTATION

SAFE DRINKING WATER ACT

INORGANIC - DEMAND

TOTAL AND DISSOLVED ORGANIC CARBON

SM 5310 B-2022

HIGH TEMPERATURE COMBUSTION (TOC/DOC)

INORGANIC - MINERAL

ALKALINITY
CHLORIDE
FLUORIDE
HYDROGEN-ION CONC. (PH)
SPECIFIC CONDUCTANCE
SULFATE

SM 2320 B-2021
EPA 300.0 (1993)
SM 4500-F C-2021
SM 4500-H B-2021
SM 2510 B-2021
EPA 300.0 (1993)

TITRIMETRIC
ION CHROMATOGRAPHY
ELECTRODE (MANUAL)
ELECTROMETRIC MEASUREMENT
CONDUCTANCE AT 25 DEGREES C
ION CHROMATOGRAPHY

INORGANIC - MISCELLANEOUS

COLOR
CYANIDE, TOTAL
RESIDUAL CHLORINE
TEMPERATURE
TURBIDITY

SM 2120 B-2021
EPA 335.4 (1993)
SM 4500-CL G-2021
SM 2550 B-2021
EPA 180.1 (1993)

VISUAL - PLATINUM COBALT
SEMI-AUTOMATED COLORIMETRY
DPD COLORIMETRIC METHOD
THERMOMETRIC
NEPHELOMETRIC

INORGANIC - NUTRIENT

NITRATE-NITROGEN
NITRITE-NITROGEN
ORTHOPHOSPHATE

EPA 300.0 (1993)
EPA 300.0 (1993)
SM 4500-P E-2021

ION CHROMATOGRAPHY
ION CHROMATOGRAPHY
ASCORBIC ACID (MANUAL SINGLE REAGENT)

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SAFE DRINKING WATER ACT

INORGANIC - RESIDUE

RESIDUE, FILTERABLE (TDS)

SM 2540 C-2020

GRAVIMETRIC (180)

INORGANIC - TRACE METAL

ALUMINUM
 ANTIMONY
 ARSENIC
 BARIUM
 BERYLLIUM
 CADMIUM
 CADMIUM
 CALCIUM
 CHROMIUM
 COPPER
 COPPER
 IRON
 LEAD
 MAGNESIUM
 MANGANESE
 MERCURY
 NICKEL
 SELENIUM
 SILVER
 SILVER
 SODIUM
 ZINC

EPA 200.7 (1994)
 SM 3113 B-2020
 SM 3113 B-2020
 EPA 200.7 (1994)
 EPA 200.7 (1994)
 EPA 200.7 (1994)
 SM 3113 B-2020
 EPA 200.7 (1994)
 EPA 200.7 (1994)
 EPA 200.7 (1994)
 SM 3113 B-2020
 EPA 200.7 (1994)
 SM 3113 B-2020
 EPA 200.7 (1994)
 EPA 200.7 (1994)
 EPA 245.1 (1994)
 EPA 200.7 (1994)
 SM 3113 B-2020
 EPA 200.7 (1994)
 SM 3113 B-2020
 EPA 200.7 (1994)
 EPA 200.7 (1994)

ICP/AES
 AA FURNACE
 AA FURNACE
 ICP/AES
 ICP/AES
 ICP/AES
 AA FURNACE
 ICP/AES
 ICP/AES
 ICP/AES
 AA FURNACE
 ICP/AES
 AA FURNACE
 ICP/AES
 ICP/AES
 COLD VAPOR (MANUAL)
 ICP/AES
 AA FURNACE
 ICP/AES
 AA FURNACE
 ICP/AES
 ICP/AES

MICROBIOLOGY

HETEROTROPHIC BACTERIA
 TOTAL COLIFORM/E.COLI
 TOTAL COLIFORM/E.COLI(MPN)

SM 9215 B-2022
 SM 9223 B-2016
 SM 9223 B-2016

POUR PLATE METHOD
 COLILERT/COLILERT-18
 COLILERT/COLILERT-18

SOLID & HAZARDOUS WASTES

INORGANIC - DEMAND

TOTAL ORGANIC CARBON (TOC)

EPA 9060A (2004)

CARBONACEOUS ANALYZER

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SOLID & HAZARDOUS WASTES

INORGANIC - HAZARDOUS WASTE CHARACTERISTICS

TCLP - BOTTLE EXTRACTION

EPA 1311 (1992)

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

INORGANIC - MINERAL

CHLORIDE
 HYDROGEN-ION CONC. (PH)
 HYDROGEN-ION CONC. (PH)
 SULFATE

EPA 9056A (2007)
 EPA 9040C (2004)
 EPA 9045D (2004)
 EPA 9056A (2007)

ION CHROMATOGRAPHY
 ELECTROMETRIC
 SOIL AND WASTE
 ION CHROMATOGRAPHY

INORGANIC - MISCELLANEOUS

PAINT FILTER LIQUIDS TEST

EPA 9095B (2004)

FILTRATION

INORGANIC - NUTRIENT

NITRATE-NITROGEN
 NITRITE-NITROGEN

EPA 9056A (2007)
 EPA 9056A (2007)

ION CHROMATOGRAPHY
 ION CHROMATOGRAPHY

INORGANIC - TRACE METAL

ALUMINUM
 ANTIMONY
 ANTIMONY
 ARSENIC
 ARSENIC
 BARIUM
 BERYLLIUM
 BORON
 CADMIUM
 CADMIUM
 CALCIUM
 CHROMIUM
 CHROMIUM
 COBALT
 COPPER
 IRON
 LEAD
 LEAD
 MAGNESIUM
 MANGANESE

EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 7010 (2007)
 EPA 6010D (2018)
 EPA 7010 (2007)
 EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 7010 (2007)
 EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 7010 (2007)
 EPA 6010D (2018)
 EPA 6010D (2018)
 EPA 6010D (2018)

ICP/AES
 ICP/AES
 GRAPHITE FURNACE AA SPECTROPHOTOMETRY
 ICP/AES
 GRAPHITE FURNACE AA SPECTROPHOTOMETRY
 ICP/AES
 ICP/AES
 ICP/AES
 ICP/AES
 GRAPHITE FURNACE AA SPECTROPHOTOMETRY
 ICP/AES
 ICP/AES
 ICP/AES
 ICP/AES
 ICP/AES
 GRAPHITE FURNACE AA SPECTROPHOTOMETRY
 ICP/AES
 ICP/AES

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SOLID & HAZARDOUS WASTES

INORGANIC - TRACE METAL

MERCURY
METALS DIGESTION
METALS DIGESTION
METALS DIGESTION
METALS DIGESTION
METALS DIGESTION
MOLYBDENUM
NICKEL
POTASSIUM
SELENIUM
SELENIUM
SILVER
SILVER
THALLIUM
VANADIUM
ZINC

EPA 7470A (1994)
EPA 3005A (1992)
EPA 3010A (1992)
EPA 3015A (2007)
EPA 3020A (1992)
EPA 3051A (2007)
EPA 6010D (2018)
EPA 6010D (2018)
EPA 6010D (2018)
EPA 6010D (2018)
EPA 7010 (2007)
EPA 6010D (2018)
EPA 7010 (2007)
EPA 7010 (2007)
EPA 6010D (2018)
EPA 6010D (2018)

COLD VAPOR TECHNIQUE LIQUID
AQUEOUS ACID DIGESTION TOTAL OR DISSOLVED METALS FLAA OR ICP
AQUEOUS ACID DIGESTION TOTAL METALS FLAA OR ICP
AQUEOUS MICROWAVE ACID DIGESTION TOTAL METALS FLAA OR ICP
AQUEOUS ACID DIGESTION TOTAL METALS GFAA
NON-AQUEOUS MICROWAVE ACID DIGESTION
ICP/AES
ICP/AES
ICP/AES
ICP/AES
GRAPHITE FURNACE AA SPECTROPHOTOMETRY
ICP/AES
GRAPHITE FURNACE AA SPECTROPHOTOMETRY
GRAPHITE FURNACE AA SPECTROPHOTOMETRY
ICP/AES
ICP/AES