

NC DEQ/DWR WASTEWATER/GROUNDWATER LABORATORY CERTIFICATION BRANCH

LABORATORY NAME:		CERT #:	
PRIMARY ANALYST:		DATE:	
NAME OF PERSON COMPLETING CHECKLIST (PRINT):			
SIGNATURE OF PERSON COMPLETING CHECKLIST:			

Parameter: **Specific Conductance (Conductivity)**
 Methods: **SM 2510 B-2021 & EPA 120.1, Rev. 1982**

Equipment:

Conductivity meter (type): _____	Conductivity standards (µmhos/cm): Value: _____ Exp: _____ Value: _____ Exp: _____ (if needed) Value: _____ Exp: _____
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PLEASE COMPLETE CHECKLIST IN INDELIBLE INK

Please mark Y, N or NA in the column labeled LAB to indicate the common lab practice and in the column labeled SOP to indicate whether it is addressed in the SOP.

	GENERAL	L A B	S O P	EXPLANATION
1	Is the SOP reviewed at least every 2 years? What is the most recent review/revision date of the SOP? [15A NCAC 02H .0805 (g) (4)] Date:			Quality assurance, quality control, and Standard Operating Procedure documentation shall indicate the effective date of the document and be reviewed every two years and updated if changes in procedures are made. Verify proper method reference. During review notate deviations from the approved method and SOP.
2	Are all review/revision dates and procedural edits tracked and documented? [15A NCAC 02H .0805 (g) (4)]			Each laboratory shall have a formal process to track and document review dates and any revisions made in all quality assurance, quality control and SOP documents.
3	Is there North Carolina data available for review?			If not, review PT data
4	Are the following items documented with each analysis? [15A NCAC 02H .0805 (g) (2)]			
	The method or SOP reference			
	Laboratory identification			
	Instrument identification			
	Sample collector			
	Signature or initials of the analyst			
	Date of sample collection			
	Time of sample collection			
	Date of sample analysis			
	Sample identification			
	Proper units of measure (µmhos/cm)			µmhos/cm = µS/cm
	Final value to be reported			
	Facility ID or Permit number [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			If different than the Laboratory ID
	Parameter analyzed [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			
	PRESERVATION and STORAGE	L A B	S O P	EXPLANATION
5	If not analyzed within 15 minutes, is the sample transported on ice and stored at ≤ 6°C, without freezing? [40 CFR Part 136.3, Table II and footnote 2]			
6	Is the sample analyzed within 28 days of collection? [40 CFR Part 136.3, Table II and footnote 2]			

PROCEDURE – Meter Calibration		L A B	S O P	EXPLANATION
7	Is the meter calibrated daily before sample analysis? [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			Use manufacturer instructions, but at least one standard must be used for calibration
8	What standard concentration is used for meter calibration? Standard:			
9	Are the following items documented with each calibration: [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			
	True value of the standard used for calibration			
	True value of the calibration verification check standard			
	Value obtained for the check standard			
	True value and value obtained for the post-analysis calibration verification(s), when applicable			
	Indication of when the post-analysis calibration verification was performed (e.g., time of analysis, end-of-day analysis, etc.)			
PROCEDURE – Sample Analysis		L A B	S O P	EXPLANATION
10	Is the conductivity cell thoroughly rinsed with one or more portions of sample before sample measurements? [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			
11	Are conductivity samples ever diluted? [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			Conductivity samples must not be diluted
QUALITY ASSURANCE		L A B	S O P	EXPLANATION
12	Is a second-source calibration verification check standard analyzed after meter calibration, before sample analysis? [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			
13	What is the true value of the check standard? Check standard value:			
14	Is the acceptance criterion for the calibration verification check standard $\pm 10\%$ of true value? [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			
15	Is the evaluation of the check standard clearly documented? [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			This may be accomplished by documenting the check standard acceptance range and measured value or $\pm 10\%$ acceptance and calculated percent recovery. A check box or Y/N (circle one) option may also be added for clarity. Bottom line: is the benchsheet documentation clear whether the check standard passed?
16	What corrective action is taken if the check standard does not meet the acceptance criterion? [15A NCAC 02H .0805 (g) (8)] Answer:			
17	Is a post-analysis calibration verification check standard analyzed at the end of the run any time the meter is transported by vehicle to another location after calibration? [NC WW/GW LCB Approved Procedure for the Analysis of Specific Conductance]			It is also recommended that a mid-day or a mid-batch calibration verification be performed when samples are analyzed over an extended period of time.

