Sample Collection, Preservation, Storage and Transport Requirements for Field Laboratories Policy (NC WW/GW LCB 09/18/2024)

Although Chain-of-Custody (COC) forms are not specifically required by the North Carolina Laboratory Certification Branch administrative code, there is a requirement to document much of the information COC forms normally include. Please refer to the most recently promulgated Code of Federal Regulations for preservation and holding time requirements.

Any system which effectively maintains the required information below in a readily available format is acceptable. To improve legal defensibility of data, it is recommended that transfers of sample custody be documented, and preservation verification be included on this documentation.

Unless otherwise specified by the method or 40 CFR Part 136 Table II, reagents used for chemical preservation must be of sufficient concentration so as not to dilute samples by more than 1%. If this occurs, it must be documented and accounted for by the application of a dilution factor when calculating final sample results.

If samples are not analyzed within 15 minutes of collection, they must be transported in ice (i.e., surrounded by, not on top of). Sealed ice packs may not be used. Samples must be received at or below the required temperature or exhibit a downward trend from the temperature at the time of collection. The temperature of a temperature blank or representative sample from each cooler must be recorded upon receipt in the laboratory.

Basic documentation requirements include:

- 1. Facility identification (name or permit number);
- 2. Sample collector (printed name or signature required);
- 3. Date and time of each sample collection;
- 4. The parameter and/or analytical method to be performed (as stated in the permit where applicable);
- 5. Sample type (e.g., composite, grab, water, soil or sludge);
- 6. Sample identification (effluent, influent, upstream, downstream, monitoring well, pretreatment, etc.);
- Sample (or temperature blank) temperature at time of collection when required (i.e., to show a downward trend in temperature if transport time is too short to reach required preservation temperature);
- 8. Chemical and/or physical preservation/treatment(s) used where required (e.g., name of preservative, pH<2 S.U., pH>9 S.U., field filtration, TRC neutralization, etc.);
- 9. Sample storage refrigerator temperature for each day samples are placed into or removed from the refrigerator. Required documentation includes the date, temperature and name or initials of the responsible party.