NORTH CAROLINA WASTEWATER/GROUNDWATER LABORATORY CERTIFICATION APPROVED PROCEDURE FOR FIELD ANALYSIS OF SETTLEABLE SOLIDS

This document provides an approved procedure for the Field volumetric analysis of Settleable Solids per 15A NCAC 2H .0805 (g) (3). The procedures in this document, in addition to all requirements of the EPA-approved method found in 40 CFR Part 136.3, must be met.

HOLDING TIME:

- Samples must be analyzed within 48 hours of collection (40 CFR Part 136 Table II).
- Samples must be stored above freezing and ≤ 6°C, if not analyzed immediately.

GENERAL INFORMATION:

- Collect a minimum of 1 liter of sample.
- Ensure the Imhoff Cone is clean and dry prior to analysis.

ANALYSIS:

- Pour exactly 1 liter of well mixed sample into the Imhoff Cone and allow the sample to settle for 45 minutes.
- After 45 minutes gently stir on the sides of the cone or gently spin the cone.
- Allow to settle for another 15 minutes.
- Measure the volume of residue in the bottom of the cone in ml/L. Subtract pockets of liquid from the final volume of residue reported. Results, which fall below the lowest graduation on the Imhoff Cone (this is generally in the 0.1 to 1.0 ml/L range), must be reported as less than that value. For example, if the lowest graduation is 0.1 ml, then results which fall below 0.1 ml must be reported as "<0.1 ml/L" when 1 liter of sample is analyzed.

DOCUMENTATION:

The following must be documented in indelible ink whenever sample analysis is performed.

1. Date and time of sample collection.
2. Date and time of sample analysis (must document start and end times) to verify the 48 hour holding and the 1 hour settling times are met.
3. 45 minute stir time (use of a check box is acceptable).
4. Sample site including facility name and location, ID, etc.
5. Collector's/analyst's name or initials.
6. Volume of sample analyzed.
7. All data must be reported in ml/L.
8. Parameter analyzed.
9. Data qualifier(s), when applicable.

Refer to *Quality Assurance Policies for Field Laboratories* (at http://portal.ncdenr.org/web/wq/lab/cert/field/policy) for additional quality assurance and quality control requirements.

Ref: Standard Methods 2540 F - 1997.