PREPARATION OF TURBIDITY STANDARDS FOR VERIFICATION OF 1799-JP METER

Equipment required but not supplied:

- Polystyrene Turbidity Standard Solution, 100 NTU
- Volumetric Flasks, 50 mL & 100 mL, glass
- Pipettors or 1.0 & 5.0 mL Volumetric Pipets

Clean all glassware. Rinse three times with distilled or deionized water.

PROCEDURE

1. Fill a volumetric flask approximately half full with distilled water.
2. Use a pipettor or volumetric pipet to add the amount of Turbidity Standard Solution, specified below, to the volumetric flask.

<table>
<thead>
<tr>
<th>Final Concentration</th>
<th>Amount of 100 NTU Standard</th>
<th>Flask Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 NTU</td>
<td>1.00 mL</td>
<td>100mL</td>
</tr>
<tr>
<td>10.0 NTU</td>
<td>5.0 mL</td>
<td>50 mL</td>
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</tbody>
</table>

3. Slowly dilute to the line with distilled water. Mix thoroughly by gently inverting flask.

HINTS FOR METER VERIFICATION USING STANDARD TURBIDITY SOLUTION

1. Always mix the 100 NTU Turbidity Standard Solution to suspend the particles before preparing the dilutions. The particles will settle to the bottom of the container over time. Mix the 100 NTU Turbidity Standard Solution gently by inverting the container 10 – 15 times. **Do not shake vigorously.** This will result in bubbles and foaming in the solution.

2. The turbidity standards should be used within 2 minutes of preparation or should be mixed before using.

3. Rinse the vials with the standards before filling.
4. Use the same vial to calibrate the meter and read all standard turbidity solutions.

5. Always align the vial in the same way in the meter chamber. Example: Always position the vial with the white arrow (triangle) facing toward you.