



## Iron Total 0.3

Range(s): 0-0.300 ppm Fe

### Procedure

Note: When testing multiple samples simultaneously, a separate sample cell with an unreacted sample of the water tested must be used to zero the colorimeter. Please note that varying the test procedure from the original can affect the precision of the test.

Note: Glassware that has not been properly cleaned may contaminate the sample and affect test results. Clean glassware thoroughly before use with 10 mL of Dilute Hydrochloric Acid (R-1305J); then rinse thoroughly with DI Water (R-0833) or sample water.

1. Turn on the Colorimeter.
2. Select a test menu (ALL TESTS, RECENT TESTS, or FAVORITES) containing Iron Total 0.3 using ◀▶.
3. Select Iron Total 0.3 using ▲▼; then press ENTER ⊙.
4. Rinse and fill 25 mm sample cell to 10 mL mark with sample; then cap.
5. Insert sample cell into sample cell compartment. Align marks per User's Manual.
6. Select ZERO using ◀▶; then press ENTER ⊙. Zero will be displayed.
7. Remove sample cell from sample cell compartment; then remove cap.
8. Add 0.5 mL Iron Total 0.3 - Reagent A; then cap and swirl to mix thoroughly.
9. Select TIMER using ◀▶; then press ENTER ⊙.

10. Select START using ◀▶; then press ENTER ⊙. (A 5-minute [5:00] countdown will begin.)
11. When the timer beeps, select TIMER 2 using ▲▼.
12. Remove cap and add 1.0 mL Iron Total 0.3 - Reagent B; then cap and swirl to mix thoroughly.
13. Insert sample cell into sample cell compartment. Align marks.
14. Select START using ◀▶; then press ENTER ⊙. (A 5-minute [05:00] countdown will begin.) Immediately select AUTO using ◀▶; then press ENTER ⊙.
15. When the timer beeps, the instrument will read the sample and the result will be displayed.

### Interferences

Alkalinity, Total > 8 ppm – negative interference  
 Molybdate > 7 ppm – negative interference  
 Phosphate, all levels – negative interference  
 Phosphonate, all levels – negative interference  
 Polymer, all levels – negative interference

Silica, all levels – negative interference  
 Sulfate, all levels – negative interference  
 The following analytes were tested to the levels listed and found not to cause any interference up to the specified values:

Chloride – 1000 ppm  
 Copper – 1 ppm  
 Filming Amine – 5 ppm  
 Sulfite – 100 ppm

### Test Method

In the presence of iron, an indicator changes from red to blue. This color change is proportional to the concentration of iron in a sample.

**Estimated  
Detection Limit**

0.008 ppm Fe

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**Precision**

Using a single lot of reagent and a standard solution of 0.150 ppm Fe, an individual analyst obtained a standard deviation with the instrument of  $\pm 0.002$  ppm Fe.

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**Application**

This test is intended for Steam Condensates only.

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**Ordering Info**

**Reagent Pack**

K-8011 Iron Total 0.3

Formulated for exclusive use with Taylor's TTI® Colorimeter.

**Reagent Pack Components**

R-8011A Iron Total 0.3 - Reagent A

R-8011B Iron Total 0.3 - Reagent B

**Optional Reagents & Accessories**

R-0833 DI Water

R-1305J Dilute Hydrochloric Acid