

## Color Coded Surrogates FAQs

### **What do Color Coded Surrogates do?**

They act as an indicator that the surrogates have been added to the sample and the pH range of the sample is correct. This ensures that surrogates are added to all samples only once and no samples are missed by the analyst. It also ensures compliance to the pH range required by the extraction.

### **Why do the concentrations appear smaller than what I am used to?**

To obtain a good color change, a volume of 1mL is recommended. They are “point of use” standards and no dilutions are required. Simply add 1mL to each sample.

### **What is the range of the pH?**

Color transitions from red (acid) to yellow (basic/neutral) occur around a pH of 4. The analyst should use a test strip to verify that the pH for acid extractions is less than 2 and base/neutral extractions is above 12.

### **How does the surrogate react with an emulsification?**

Use normal methods to break emulsions. Stirring, shaking, addition of solvent, and/or the use of sodium sulfate will help. It is preferential to perform the acid extraction first. Emulsification does not typically occur under these circumstances.

### **What is the cost savings?**

Color coded surrogates are designed to save the laboratory time and money. It keeps you from having to perform extractions again due to human error. These surrogates require no dilutions, therefore eliminating an extra step and chance for a mistake.