



"Analysis Done Right, On Time"

December 16, 2015

Bug Bottles for SRBs

Summary:

Testing for bacterial presence performed by Oilfield Labs of America closely follows the prescribed methodologies prescribed in API RP 38. This method used to test for the presence of SRBs. A special anaerobic culture medium and 10 mL serum bottles are used to add nine mL of medium. is dispensed into each bottle. Iron in the form of a small nail, wire or powder is added to each bottle. The bottles are sealed with special rubber "stoppers" and metal foil covers and then sterilized.

Procedure:

To test for SRB's, the bottles are inoculated in a series by the following procedure:

- One ml of a water sample from the system being tested is injected into the first of six serum bottles prepared as above. The water is injected through the stopper by means of a disposable pre-sterilized syringe. The bottle is shaken vigorously and the syringe is discarded.
- One ml of solution is withdrawn from the first bottle with a disposable pre-sterilized syringe and injected into the second bottle. The second bottle is shaken vigorously and the syringe is discarded.
- One ml of solution is withdrawn from the second bottle with a disposable pre-sterilized syringe and injected into the third bottle. The third bottle is shaken vigorously and the syringe is discarded. Quality Assurance:

This process is continued until all the bottles have been inoculated.

The bottles are then incubated for at least 28 days at a temperature within 5°C (9°F) of that of the water at the time of sampling. Development of a black color denotes the precipitation of iron sulfide and thus the presence of sulfate reducing bacteria. (Bottles which turn black within 2 hours are not to be considered positive since this will probably be due to the presence of sulfide ion in the water sample.) The number of SRB's in the original water sample is indicated by the number of bottles which become black.