

QUALITY WORK INSTRUCTIONS (QWI) SULFUR ANALYSIS PROCEDURE OIL CONTENT – SATURATED ACETONE

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1.0 EQUIPMENT NEEDED

Acetone
Medium porosity crucible
500 ml flask
Flask stopper
Suction flask
Suction pump
Magnetic stir bar
Oven
Desiccator

2.0 PROCEDURE

- (1) Prepare sulfur saturated acetone by adding 10 grams of untreated sulfur to acetone in 500 ml flask. Stopper and agitate with magnetic stir bar for 15 minutes, then allow to settle.
- (2) Weigh a medium porosity crucible alone.
- (3) Add exactly 5 grams of sulfur sample into crucible. Record this total weight before test.
- (4) Pour 100 ml of sulfur-saturated acetone through the sulfur sample using slight suction while stirring lightly.
- (5) Place the crucible in an 80°C oven for one hour to dry.
- (6) Remove and cool in desiccator for 20 minutes.
- (7) Weigh to find total weight after test. Use the formula below to calculate % Oil.

$$\text{Oil \%} = \frac{(\text{Total weight before} - \text{Total weight after}) \times 100}{5\text{-gram original sample weight}}$$