

## Method Summary

### **Paar Oxygen Bomb Combustion for the Determination of Halogens**

**Governing SOP:** G-55

**Analyte:** Primarily Halogens

**Range:** ppm-%

<b>Procedure</b>	By this preparation method, an aliquot of sample, typically between 50 and 500 mg, is accurately weighed into a combustion capsule and then transferred to an oxygen bomb. Mineral oil is added to the sample as a combustion aid. The bomb is charged with 25 – 30 atmospheres of oxygen and then fired. Halogens are liberated during combustion and absorbed in a known volume of a solution of 1% hydrogen peroxide. The hydrogen peroxide acts as a reducing agent to ensure that any oxyhalides are reduced to the base salt form of the halogen, e.g. Cl <sup>-</sup> or Br <sup>-</sup> .
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## References

Parr Instrument Company, *Operating Instructions for the 1108 Oxygen Combustion Bomb*.

SATM D-808, *Standard Test Method for Chlorine in New and Used Petroleum Products (Bomb Method)*.

ASTM D-129, *Standard Test Method for Sulfur in Petroleum Products (General Bomb Method)*.

USEPA, SW846 Method 5050, *Bomb Preparation Method for Solid Waste*, Revision 0, 1994.