

## CWSF 2012 - Charlottetown, Prince Edward Island



### Hailey Verbonac

#### Rubens Tube.

**Challenge:** Energy

**Category:** Intermediate

**Region:** Beaufort-Delta

**City:** Inuvik, NT

**School:** Samuel Hearne Secondary School

**Abstract:** A Rubens tube produces standing waves. The standing wave pushes the propane out of the holes at different rates, and when it is lit, the flames feeding on the propane will mirror the wave. I built a Rubens tube 1.3m long with 126 holes each spaced 1cm apart; it produced 6 standing waves at different frequencies when sound at volume of 30 was played.

#### Biography

My name is Hailey Verbonac, and I am currently in grade 10 and attend Samuel Hearne Secondary School in Inuvik, NWT. I speak both English and French and I am Métis. I have been interested in biology, chemistry and physics for a long time, and I plan to acquire a degree in biochemistry in the future. My project on Rubens tubes was inspired by my love of music and fire.