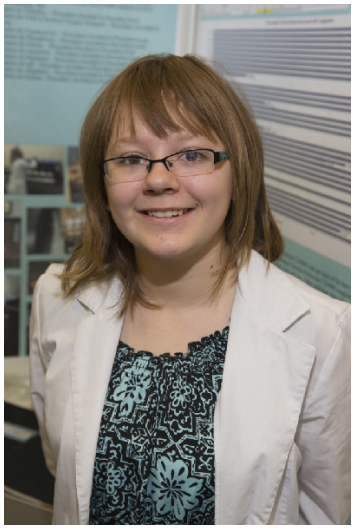
CWSF 2016 - Montreal, Quebec



Chloe Reitlo

Can Coagulants Reduce Heavy Metals in Leachate?

Challenge: Environment
Category: Junior
Region: Northern Manitoba
City: Flin Flon, MB
School: École McIsaac School
Abstract: Leachate was collected from the Flin Flon Waste Disposal Grounds and treated using the coagulation, flocculation, and filtration process. Coagulants compared were Cleartech CE5050 Polymer and Aluminum Chloride Hydroxide CTI4900. Tests done for comparison were total heavy metals, turbidity, COD, conductivity, phosphorus, nitrate, ammonia, hardness, pH, alkalinity, and sulfate. Could this process reduce dangerous pollutants like heavy metals before they are released into water systems?

Biography

My name is Chloe. I'm in grade 8 at École McIsaac School in Flin Flon, Manitoba. I like to play sports, hang out with my friends and walk my dog, Weston. My favorite sports are badminton, golf, curling, and volleyball. I play the piano and oboe. My favorite subjects are Math, Science, and Band. This year, I tested to see if heavy metals could be removed from leachate using coagulants. Heavy metals are testing high in water systems where I live. We need a method of safely removing them before these dangerous levels, affecting our water system and aquatic life, start affecting our health. I'm really looking forward to participating in CWSF again this year. It was so much fun last year!

Awards	Value
Excellence Award - Junior - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - $1000 Entrance Scholarship Sponsor: Western University	$1 000
Total	$1 000