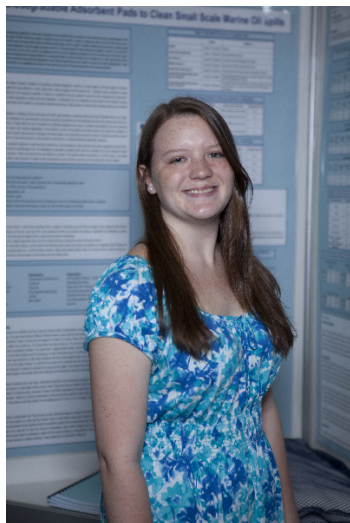


CWSF 2013 - Lethbridge, Alberta



Vicki Kleu

Fully Biodegradable Adsorbent Pads to Clean Small Scale Marine Oil Spills

Challenge: Innovation

Category: Senior

Region: Vancouver Island

City: Victoria, BC

School: Lambrick Park Secondary

Abstract: A reusable and fully biodegradable pad was built to adsorb spilled outboard motor oil in our harbors. The pad, currently being patented, adsorbs nearly fifty times its weight in motor oil and 90 to 95% of this oil can be easily wrung out. An additional 3 to 5% of the oil could be washed out of the pad using a canola oil rinse.

Biography

My name is Vicki Kleu. I am a grade 11 student from Victoria, BC. I've lived in Canada for six years. My South African accent, though still present, is now mingled with a Canadian drawl. This is my fifth year participating in science fair and my third time attending the CWSF. I now spend more waking hours in a lab during science fair season than in my own house. When not in the lab, I can be found actively engaged in leadership projects or in the dance studio. Though my career choices are pointing me toward oncology or cardiology, I am also passionate about the health of our oceans. This year I successfully produced a reuseable and fully biodegradable pad capable of adsorbing fifty times its weight in spilled outboard motor oil. Currently I am patenting my work and hoping to make the pads readily available to marinas throughout the world.

Awards

Value

Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$300
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$8 800