



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> <b>Hayley E. Swantek</b>	<b>Project Number</b> <b>J0823</b>
<b>Project Title</b> <b>Oil Spill Clean-up: Moving or Removing Oil?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of my investigation into oil spill clean-up was to find the best method of clean-up. My definition of best method included: removal of the greatest percentage of oil from the water, the complete removal of the pollution as opposed to just moving it, allowing the oil to be salvaged, that it is environmentally benign, and works the fastest. I believe that using a clumping agent and then skimming will prove to be the best method.</p> <p><b>Methods/Materials</b> The methods that were tested in this experiment were the ones most commonly used. They were: burning, flushing, chemical dispersants/ clumping agents, skimming, bioremediation, and joint methods. The materials used were: distilled water with sea salt added, low gravity crude petroleum, a clumping agent, pure alcohol, a large plastic container, a metal bucket, a metal skimmer, petroleum eating bacteria, a type of paint stripping pad manufactured by 3M, 4 one gallon glass jars, measuring beakers, measuring spoons, and syringes.</p> <p><b>Results</b> The results overwhelming proved that skimming with a stripping pad material was by far the best method. It removed approximately 98% of the oil leaving behind a mere film on the top of the water. No water was taken out of the test area, only the oil, which was then transferred into a container where it could be used as it had originally been intended.</p> <p><b>Conclusions/Discussion</b> Through this project I proved my hypothesis wrong but achieved my objective when I most unexpectedly came across my best method, skimming with a stripping pad. I believe if the major oil spill companies today would try this environmentally benign skimming material when responding to a spill, that the spill would be a much less tragic occurrence.</p>	
<b>Summary Statement</b> My project is about finding the most effective and enviornmentally benign method to clean up an oil spill.	
<b>Help Received</b> Dad got a peteroleum sample for me and took me shopping for other supplies. Mom helped by proofreading my written materials.	