



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Sarah Wilcox	Project Number J1199
Project Title Ozone Ogone	
Abstract	
Objectives/Goals The ozone will be 100% in 2060	
Methods/Materials Computer, large balloon, laser, wireless sensor, Helium, Weather patterns, old data charts, lunar chart, scientific assessment of Ozone Depletion: 2010 Methods: Contact with a doctor that studies Ozone. Observe testing of Ozone. Prepare balloon what is going to be let go. Get computers in lab ready. Bring balloon outside. Release the balloon into the sky. Balloon will pop at 80,000 meters. Laser test: Turn on computer to record ozone laser information. Wear safety goggles Turn on laser and shoot beams. Once intake is completed observe two slopes of the laser.	
Results Ozone dropped drastically from 1988 to 1994, and in 1994 the ozone was the thinnest if ever was, 86.4 DUs. The ozone recovered at 155.2 DUs in 2002, but then dropped again to 96 DUs in 2006. This shows that the ozone is constantly changing and is very hard to predict when the ozone will be at 100%. In 2010 the ozone started to thicken steadily all the way through 2013, and it is hypothesized that the ozone will continue to thicken steadily and become healthier.	
Conclusions/Discussion My science question was can I discover what year the ozone hole will be recovered. My hypothesis is that the ozone will be 100% recovered by 2060. I learned that the ozone being destroyed by CFC gases, DU#s is the measurement of ozone thickness, lasers are used to gather data on the ozone, balloons are used to carry tiny machines up into the atmosphere. I learned that scientists discovered that the ozone was being destroyed in the 1980#s due to large amounts of CFC#s. I also learned that scientists shoot two lasers up into the sky where the lasers are either absorbed into the ozone or bounced back to the scientists. Using lasers is not the only way to gather data, one can use balloons! By tying a machine to the balloon	
Summary Statement I used past and present research, data, and information to predict when the ozone holes will be fully recovered.	
Help Received Dr. Thierry Leblanc allowed me to observe him while he conducted his measurements using balloons and lasers, answered many questions via phone and email. Russell Wilcox, my father, drove me to Table Mountain Research Center, and took pictures. Mrs. Rodriguez helped me create a question and interpret	