

## Gas analyzer helps demonstrate benefits of healthy school journeys

Air quality monitoring instrumentation from Ashtead Technology has helped a group of students in California to undertake environmental testing as part of *Safe Routes to School Week*, a project designed to encourage more students to walk or bike to school.



Ashtead Technology contributed an advanced Thermo 49i O<sub>3</sub> Ozone Monitor to assist the students of Fisher Middle and Blossom Hill Elementary with studies to determine whether lower traffic levels outside schools during morning drop-off result in a measurable improvement in air quality.

Attention to air quality around schools has increased over recent years. For example, a recent study published in *Environmental Health Perspectives* concluded that children in schools located in high-traffic environments have a 45% increased risk of developing asthma in comparison with those in low-traffic areas.



When the students analyzed the results they discovered that ozone reached 12ppb with a typical amount of traffic outside the school, whereas this figure reduced to 5ppb when students were encouraged to find an alternative way to school.

Petroleum Hydrocarbons and other gases including O<sub>2</sub>, CO<sub>2</sub> and N<sub>2</sub> were also monitored and the students discovered that air quality was significantly improved during the *Safe Routes to School Week*.

Explaining the results of the study, Kirsten Cook, a 7<sup>th</sup> Grader at Fisher Middle School, said: “Once we had collated the ozone readings we were able to clearly see spikes in the ozone levels when more cars were idling in front of the school. It has been an interesting project to be involved in and I hope it will encourage more pupils to think about walking to school.”

Now available to rent from Ashtead Technology, the advanced 49i instrument utilizes UV photometric technology to measure the amount of ozone in the air from ppb levels up to 200ppm. Because the instrument has both sample and reference flowing at the same time a response time of 20 seconds can be achieved. The instrument also offers an Ethernet port as well as flash memory for increased data storage and field upgradability.



Larry Fisher, Ashtead Technology’s National Sales Manager for CEMs and Speciality Gases, explained the key benefits of the 49i: “This instrument is quite simply the best piece of equipment available on the market today for real-time ozone analysis. Providing instantaneous results, it is extremely easy to use and ideal for a variety of compliance monitoring and ambient air monitoring applications.”

For more information on any of Ashtead Technology’s extensive fleet of equipment, visit [www.ashtead-technology.com](http://www.ashtead-technology.com)

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