DANATI FIRE & SAFETY IMPROVES INVESTIGATION TIME WITH TIGER VOC DETECTOR

Danati Fire and Safety is a leading investigator of fires and explosions covering Southern Africa. Their first professional fire investigation was performed in 2003, and they perform an average of 250 investigations a year covering vehicles, structures and shipping vessels. The growth of Danati Fire and Safety can be attributed to verbal recommendations between insurance companies and loss adjusters in South Africa. A small number of private individuals may contact Danati Fire and Safety for private investigations either to counter a negative insurance claim or to simply satisfy their own curiosity.

After firefighters extinguish a fire, an investigation is launched to determine the origin and cause of the incident. Investigations are carried out using a systematic approach combined with knowledge of basic fire science. For a fire to occur, there must be fuel, oxygen and an ignition source, which must be in the specific proportions. There is a very definite science to investigating fires, and experience really counts here. The fire scene must be carefully evaluated and documented to locate the source of the fuel and possible ignition sources. Potential causes will be ruled in or out depending on the evidence presented by the fire scene, burn patterns, and physical remains. Frequently, samples are taken and sent away for evaluation, which can be a lengthy and costly process.

Danati was first introduced to the ION Science Tiger by Impact Instruments and chose the Tiger over other similar products due to its lower cost, portability and technological superiority, as well as the excellent customer service provided by Lynda and her team at Impact Instruments.

Danati's Lead Fire Investigator, Danny Joubert, has said, "The instrument is extremely sensitive and will almost always give some level of reading when it is exposed to fire debris. Having done so on numerous occasions, I can honestly say that there are many positive aspects to the Tiger VOC detector.

"It must be understood that this instrument does not provide a definitive test for the presence of a specific accelerant or ignitable fluid. What it does do is indicate where higher than usual concentrations of VOCs may be present, and this will then prompt the investigator to take appropriate samples for laboratory testing, as per the NFPA 921 guidelines. Without the VOC detector, the average investigator can only rely on an interpretation of burn patterns and their sense of smell to detect the possible presence of a VOC.

"The Tiger adds a new dimension, and has allowed a far more thorough screening of

debris to take place whilst the investigator is moving through the scene.

"The unit is very sensitive, allowing the investigators to disregard debris that might otherwise have been collected and subjected to expensive laboratory testing. Certified for use in explosive atmospheres, with high levels of sensitivity and resistance to interference from humidity or contamination, the Tiger is the only handheld instrument of its kind in South Africa, so it has allowed Danati bragging rights, which is always a morale booster!"

The biggest success of the Tiger for Danati related to a supermarket fire that was initially believed to be caused by an electrical surge following a period where the electricity was shut down.

The instrument was started up, and the investigator entered the building. The Tiger immediately gave a reading, turning left, the readings dropped, and walking further into the premises caused the instrument to give an alarm. This was the first audible alarm that the instrument had given, and the readings were extremely high. Standard human olfactory sensing could not detect anything above the normal stench of a three-day-old fire scene in a supermarket. Using the Tiger, the source of the alarm was found, and samples were taken. The samples were sent to a laboratory, and the intentional nature of the fire was put beyond any question.

The instrument shortened the investigation time considerably, and it was also noted that two other investigation firms were in attendance; their reaction to the Tiger was a combination of awe and jealousy.

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