

Tracer Detection Systems



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Engineered Solutions, Guaranteed Results.



Wasson-ECE Tracer Analysis System

The industry standard for low level perfluorinated tracer analysis.

Tracer tagging technology has become an increasingly popular method of finding leaks and tracing flow paths in high voltage cables, hazardous waste containers, interstate natural gas pipelines, and oil wells.

Wasson-ECE provides the industry standard in turn-key mobile tracer detection systems. The systems come fully configured with control and data analysis software that is interfaced with GPS mapping software. The mapping software allows the user to see a visual record of sampling location and leak status.

The system is tracer specific and configurable to most perfluorinated tracer compounds available. With femtoliter per liter (fL/L) sensitivity, the system automatically calibrates on the background ambient concentration of the tracer, allowing system alarms to be set relative to the background signal.

Designed to work efficiently in a mobile lab environment, the system is configured with removable exterior panels for quick access to all critical components for easy maintenance.

Fast multi-dimensional chromatography delivers near real time analysis. A sample is collected and delivered continuously to the detector once every 100 seconds. The analysis software compares the size of the peak to the baseline calibration and reports data status in two ways: a color coded data point is plotted on a GPS interfaced map and an audible alarm is sounded if a leak is detected.



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Near Real Time Analysis

Dual trap design allows for samples to be collected and desorbed continuously to the GC for analysis every 100 seconds. Obtaining rapid results allows the user to find leaks with greater accuracy.

User Friendly Software

Control software allows the user to operate the system with a minimum amount of training. The software utilizes a variety of data analysis techniques along with GPS integrated mapping software to assist in finding leaks.

Serviceability

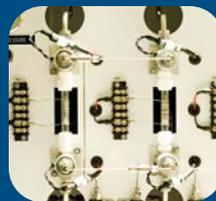
The system was designed from the ground up for serviceability. Instrument panels can be removed quickly and easily in confined spaces such as mobile labs. Serviceable items are mounted on the front of the instrument for routine maintenance.

Remote Support Capability

Using remote login technology, Wasson-ECE engineers are able to log-in to the system as needed to provide remote support using wireless WAN. This feature helps provide superior support in the field.

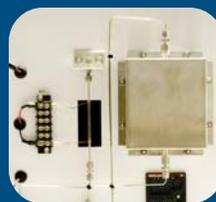
Reliability

Wasson-ECE has over 20 years of experience building gas chromatography instrumentation. Combine this with an Agilent GC and the level of reliability and quality is unsurpassed.



Dual Trap Design

Allows for rapid concentration and desorption to the detector.



Perfluoro Specificity

Interference is controlled through catalytic combustion of halogens other than perfluoronates.



Agilent 7890 GC

Provides field proven reliability and performance.



Feeder Oil Tedlar™ Bag Analysis

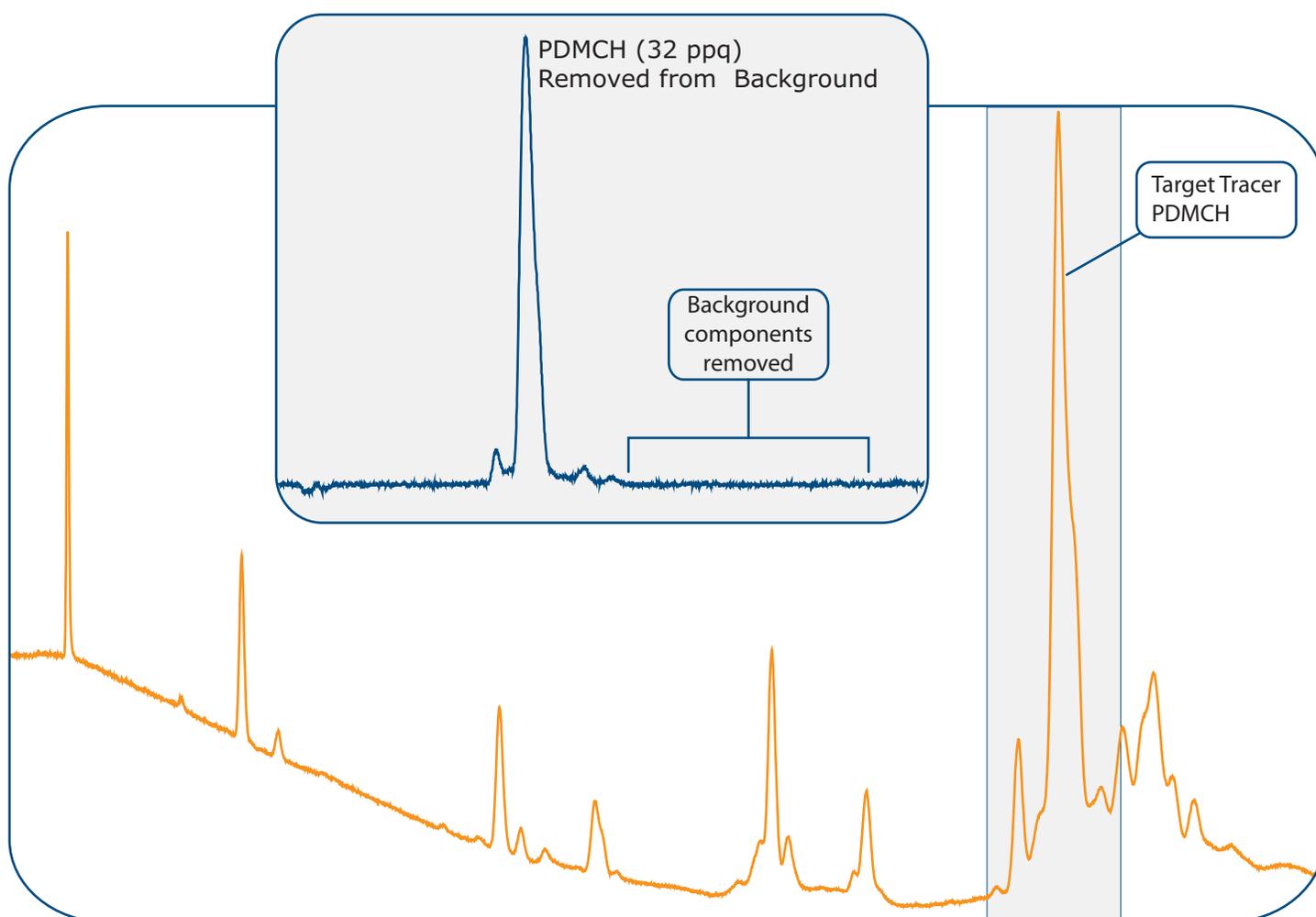
This optional upgrade enhances the analyzers effectiveness, allowing direct injection of feeder oil and sampling from Tedlar™ bags.

Advanced multi-dimensional chromatography and data analysis software improve selectivity and performance.

Multi-dimensional Chromatography

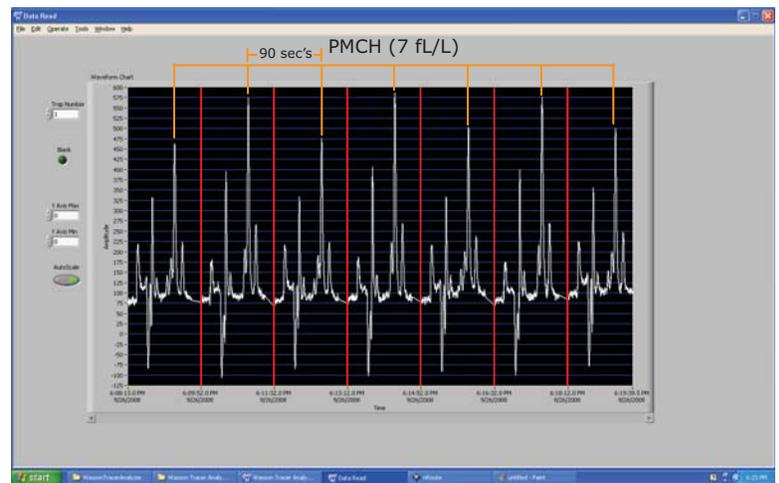
Ambient air contains many different compounds at levels much higher than most ambient tracer concentrations. In order to detect a specific tracer in this complex matrix, an analyzer must have the capability of being selective.

Multi-dimensional chromatography allows the Wasson-ECE system to be tuned to detect specific tracer components. Using a 'heart' cutting technique, samples are resolved on multiple columns to allow greater levels of specificity.



Advanced Selectivity Provides Flexibility

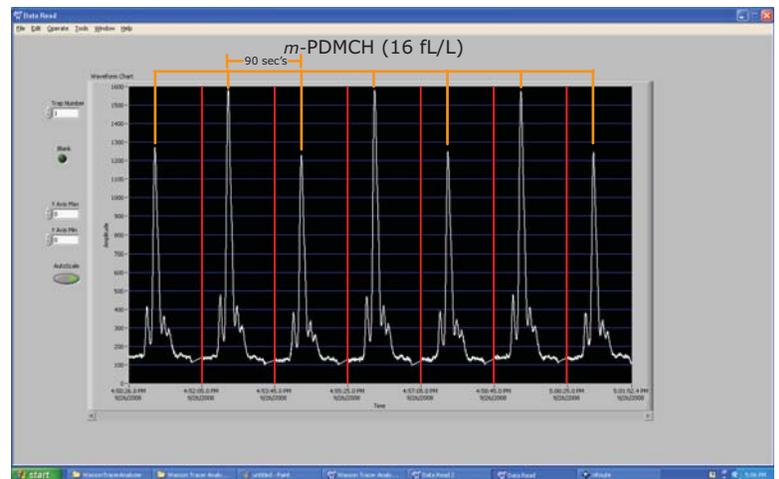
Multi-dimensional chromatography allows the Wasson-ECE Tracer analyzer to be flexible with the user's needs. With so many perfluorinated tracers to choose from, Wasson-ECE provides industry leading flexibility, allowing the user to choose which tracer meets their analytical requirements.



Real-time data analysis for the ambient concentration of perfluoromethylcyclohexane (PMCH). The tracer is detected every 100 seconds.

Real Time Analysis

The tracer of interest is continuously concentrated and desorbed to the detector every 100 seconds. Faster analysis times enables more accurate leak detection. Typically subsurface leaks can be detected in a mobile environment at speeds of 3 miles per hour.



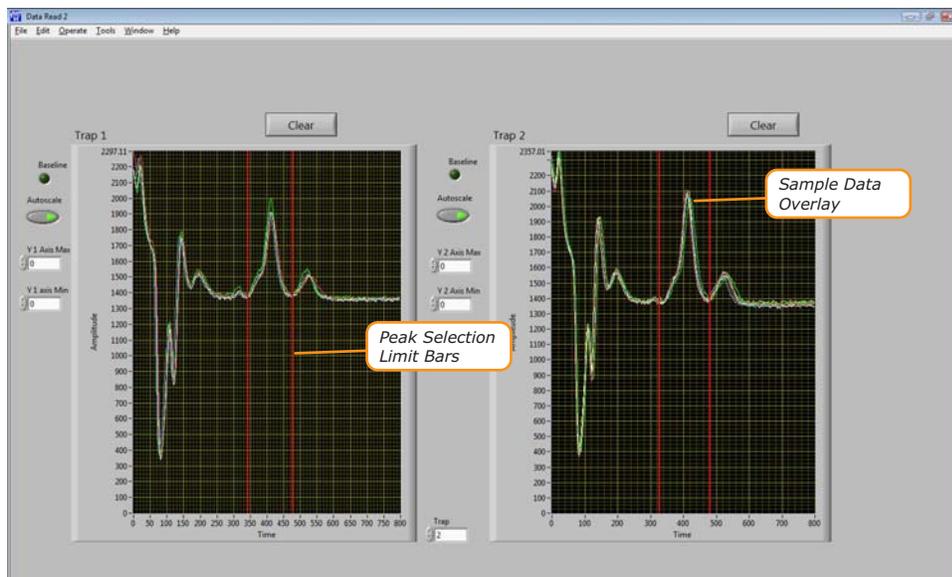
Real-time data analysis for the ambient concentration of meta-perfluorodimethylmethylcyclohexane (m-PDMCH). The tracer is detected every 100 seconds.

Signal Analysis and Peak Selection Software

The Wasson-ECE Tracer Concentrator comes with advanced software that allows the data to be used efficiently and accurately. The software provides an interface where the overlay of all samples can be analyzed, thus providing confidence in the system repeatability and a baseline reference for the ambient tracer concentration. When a leak is detected it is easy to see the change in peak area. Once the baseline response is set, the computer will automatically alarm the user if a leak is detected.

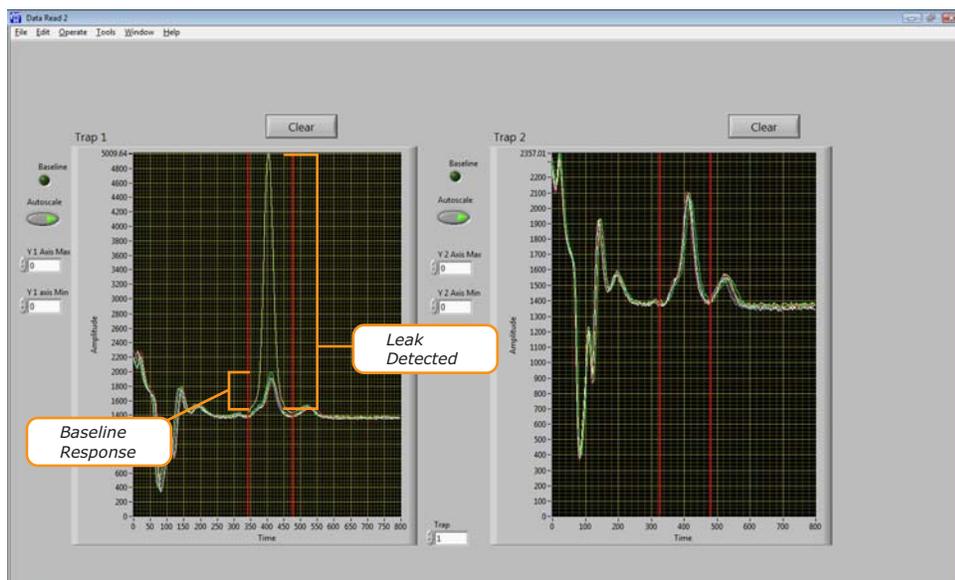
Data Overlay Analysis

All sample data is overlaid in a data read screen, which provides a quick reference to the baseline ambient concentration. The red vertical limit bars allow the user to set limit alarms on a specified peak.



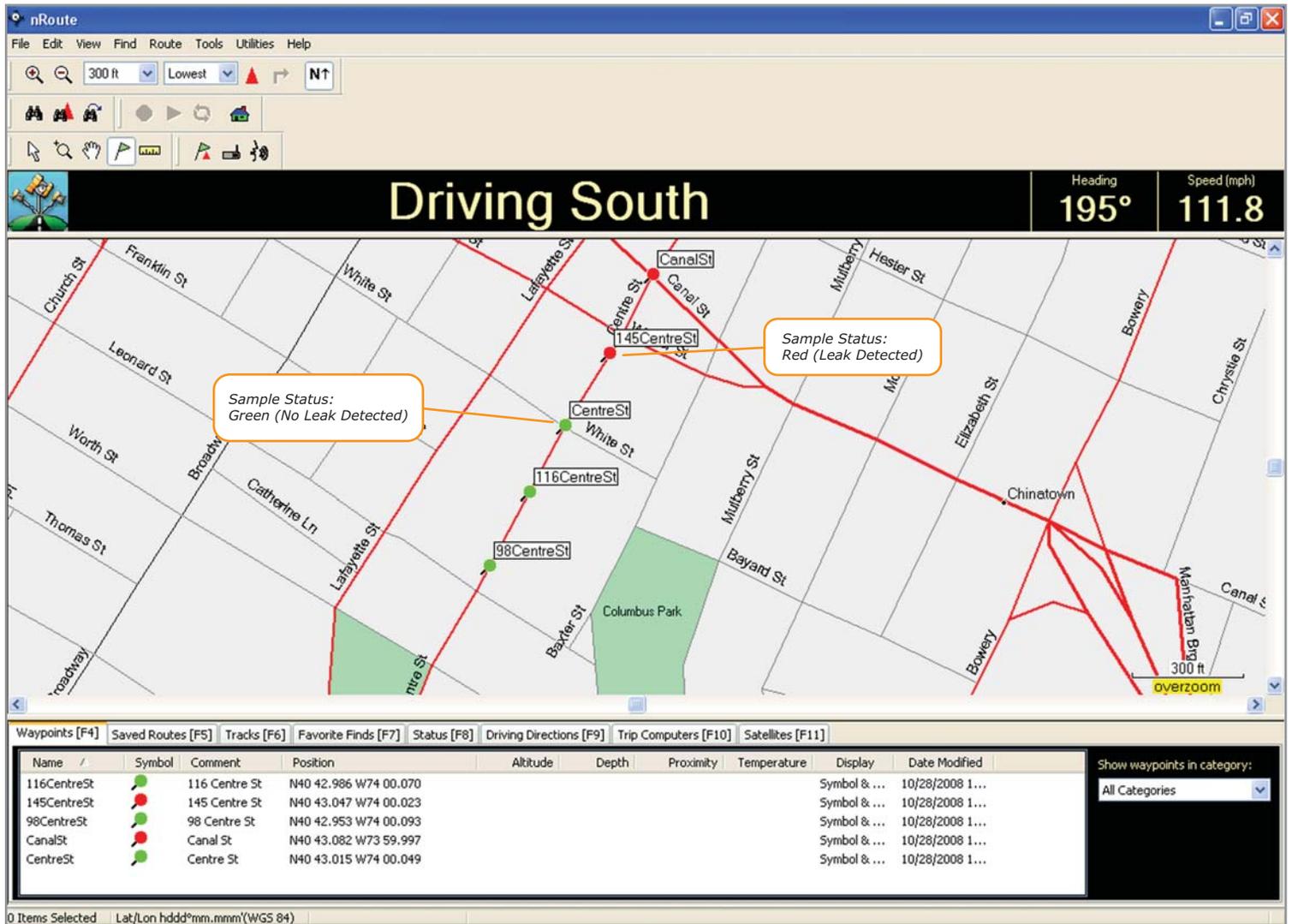
Leak Analysis

Users are not required to understand complicated software. Leaks are easy to spot when referenced to the real time data overlay.



GPS Integrated Data Analysis

The data analysis software is integrated with GPS mapping software. Every sample point is indicated on a detailed street map. The sample points are labeled red or green indicating the sample status. If the sample response is the same as the baseline ambient tracer concentration, the map marker is labeled green. If a larger response is detected than the baseline tracer concentration, the map marker is labeled red to indicate a leak. The mapping software increases leak detection accuracy and provides the user with a record of the sample status.



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