

# Explosives GC System

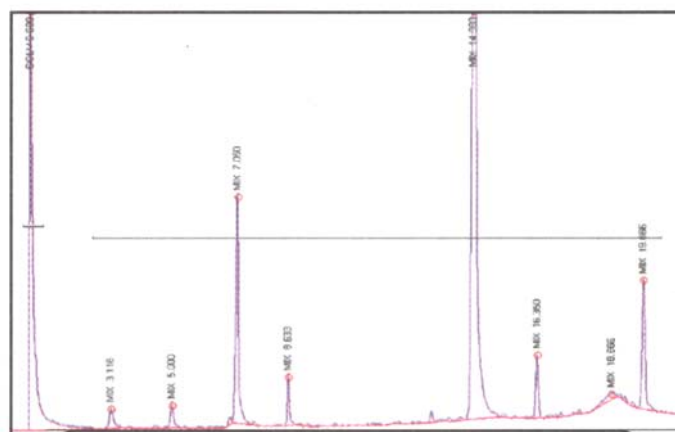


- *Thermionic Ionization Detector (TID)*
- *Heated Flash Vaporization Injector*
- *Built-in "whisper-quiet" Air Compressor*
- *1 channel PeakSimple Data System*
- *Can be run gasless in the field!*
- *15 meter Capillary Column*
- *...on the compact 8610C chassis*

The Explosives GC System from SRI combines a Heated Flash Vaporization Injector, a built-in "whisper-quiet" air compressor and a Thermionic Ionization Detector for detection of nitroaromatic explosives such as TNT, and nitramine explosives such as RDX (C<sub>4</sub>) and HMX.

If only the nitroaromatics are required, the GC will operate on the built-in air compressor's air alone, using air for both carrier gas and make-up gas. This GC is especially convenient for field monitoring, and screening of explosives-contaminated soil and water, as might be found in former military bases or practice ranges.

Unlike immunoassay or colorimetric detection methods which cannot discriminate the biodegraded transformation byproducts of TNT (2-amino-4, 6-dinitrotoluene, etc.) and which may not function well in the presence of high levels of interferences from other explosive compounds, the Explosives GC can separate and detect all the nitroaromatic compounds, even in the presence of interferences that would compromise other measurement techniques. For TNT and some other nitroaromatics, detection limits of 1ppb are routine. When the nitroamines must also be detected, nitrogen is used for the carrier gas, and air is used for TID makeup gas. Nitramine compounds like RDX exhibit lower response by a factor of 50.



This chromatogram shows a separation of a 10ppm explosives mix using an Explosives GC.

**ETV** Tested by the EPA's Environmental Technologies Verification (ETV) program for measuring explosives in soil!

Download the ETV report and verification statement at [www.epa.gov/etv/verifications/vcenter1-4.html](http://www.epa.gov/etv/verifications/vcenter1-4.html)  
Also, download "On-Site Characterization of Explosive Residues in Soils and on Range Scrap Using GC-TID Analysis" by Alan Hewitt of the US Army Corps of Engineers at [www.srigc.com](http://www.srigc.com)

8610-1117

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OPTIONS & UPGRADES: additional detectors with 4 channel serial or 6 channel USB PeakSimple data system, split/splitless and PTV injectors. (VOLTAGE: for 110VAC, use 8610-1117-1; for 220VAC, use 8610-1117-2)