

ENTECH SOIL GAS SAMPLING UTILIZING CHAMELEON AND GAS SHROUD



ENTECH CHAMELEON AND GAS SHROUD SUPERIOR TRACER GAS SOLUTION

HELIUM CANNOT BE CONFIRMED AS A TRACER GAS IN THE LAB BY US EPA METHOD TO-15

A superior alternative is 1,1-Difluoroethane (DFE, or Dustoff) in Helium

- Inexpensive and readily available.
- Helium cylinders can be spiked at 2PPM with DFE so normal Helium leak detectors can be used in the field, and DFE can be analyzed in the canister during laboratory analysis.
- A 2PPM DFE cylinder can be obtained inexpensively from a supplier uncertified, and need only be analyzed once by the lab to determine the true concentration of DFE. A sampling company can obtain the cylinder and send one canister of the cylinder (100%) to the lab.
- One full size cylinder should be enough to fill a normal shroud (Entech's Shroud) 600-800 times to 20% Helium, so at about \$500-700, that is \$1 per sampling event.
- 2PPM DFE in Helium, when filling a shroud to 20% Helium, will result in 400 PPB DFE in the shroud, and then a 5% leak would result in 20 PPB in the canister, which is easily measured by the lab.
- DFE will not dissolve in wet soil like Isopropyl Alcohol, and is not naturally occurring like Butane, making it far more reliable than these other two tracers that have been used in the past.
- DFE in Helium represents the best tracer gas solution to date for validating the accurate sampling of VOCs in soil gas, and it is Entech's recommendation that all shroud monitoring be done using this 2 component tracer in the future (Helium + DFE)