AirZOne

Comprehensive Air Quality Services

ACTIVE VS. PASSIVE AIR SAMPLING

The following compares of several sampling methods typically used in vapor intrusion studies, VOC contamination investigations and IAQ.

Typical Sampling Methods for Airborne Compounds:

- Continuous measurements for generic non-specific substances (e.g., VOCs by PID)
- Grab sampling whole air samples (gas bags or canisters)
- Integrative whole air samples with flow controllers (canisters)
- Integrative active sampling methods (e.g. Thermal Desorption or Charcoal tubes for VOCs)
- Integrative Passive Samplers (e.g. 3M OVMs for VOCs)

TD Tubes, Summa Canisters and Charcoal Tubes

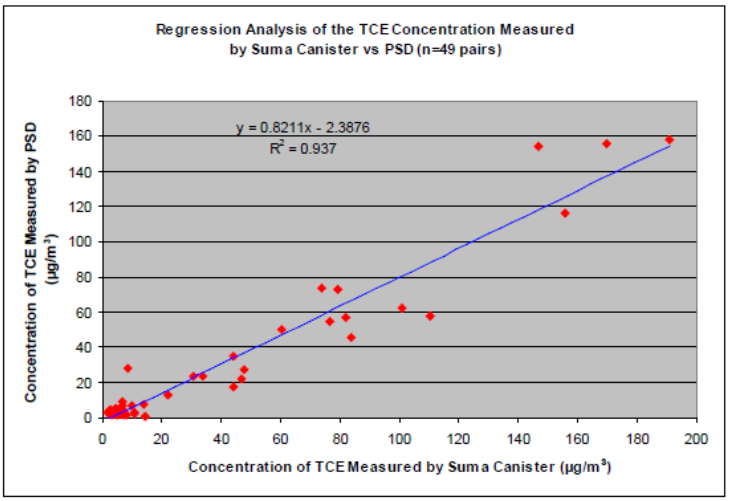
- Instantaneous or continuous monitors generally are expensive to buy, maintain & use.
- Active samplers provide non-specific data or need many different monitors to provide targeted information (separate ozone, nitrogen oxides & VOC analyzers).
- Can be noisy & require power or offer limited battery life.
- Require time consuming calibration procedures & not suitable for multi-residence or multi-area simultaneous sampling.

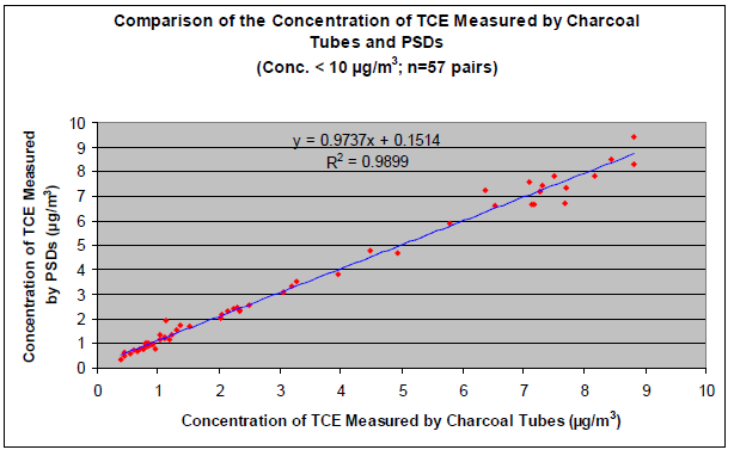
A Summa canister beside passive samplers.

Passive Sampling

- Can be used without power
- Disposable; not subject to contamination from multiple uses.
- No other equipment required. (Pumps, orifices or air flow calibrators).
- Very light and can be deployed rapidly to characterize large areas or multiple buildings.

Airzone One Ltd. 222 Matheson Boulevard East Mississauga, Ontario L4Z 1X1
Tel: (905) 890-6957 Fax: (905) 890-8629 Email: info@airzoneone.com Web: www.airzoneone.com





	Passive Sampling	*Charcoal Tubes/TD Tubes*	*Summa Canisters*
Preparation Required	NO	Calibration	Clean and Evacuate
Additional Equipment Required	NO	Pump and Orifice	Orifice
Accepted by the Ministry of the Environment	YES	YES	YES
24 Hour Turnaround Time	YES	YES/Difficult	NO
Disposable	YES	YES/NO	NO
Ability to Sample from 8 hours to 1 week	YES	NO	NO
Cost of Analysis	Typically Half of TD Tubes	-	-

Airzone One Ltd. 222 Matheson Boulevard East Mississauga, Ontario L4Z 1X1
Tel: (905) 890-6957 Fax: (905) 890-8629 Email: info@airzoneone.com Web: www.airzoneone.com