



NOTE: If you have any additional questions regarding installation and retrieval, please call (302) 266-2428 or email: [environmentalpm@agisurveys.net](mailto:environmentalpm@agisurveys.net)

## GENERAL

Air sampling with the AGI Universal Sampler (Sampler) includes, but is not limited to, sampling indoor, outdoor, and crawlspace air. The sampling supports vapor intrusion investigations, air monitoring in the workplace, and outdoor “fenceline” monitoring. Air in shipping containers, storage drums, or other like containers can also be sampled by Sampler.

The procedure for sample collection consists of suspending the AGI Universal Sampler from a fixed element, which allows for air circulation around the Sampler. The Sampler can be tacked directly to a ceiling, exposed floor joist in a basement or crawlspace, or, for example, attached to an outdoor sign. Installation and retrieval is minimally disruptive, leaving virtually no evidence the sampling took place. The Sampler requires no energy to operate, produces no sound, and therefore, is non-disruptive during sampling. For Chain of Custody and sample tracking, each Sampler is identified with a unique serial number placed directly on the Sampler and on a barcode placed on the sample jar lid.

Placement of the Sampler in the breathing zone can be accomplished by tying the Sampler to a sufficient length of string, and attaching the string to the ceiling or joist, if there is no other suitable fixed element (e.g., bookshelf or desk lamp) located in the breathing zone.

Care should be taken to avoid placing the Sampler in the vicinity of obvious contaminant sources unless this is the sampling objective.

For indoor (including crawlspace) air sampling, we recommend conducting an inventory survey, and recording occupant activities, obvious sources of contamination, type of heating and air conditioning, and other potential contributors to the quality of the indoor air. We suggest downloading the New York State Department of Health Indoor Air Questionnaire and Building Inventory form.<sup>1</sup> A copy of this form can also be found in Appendix G: Indoor Air Sampling Questionnaire, from the Interstate Technology & Regulatory Council's Vapor Intrusion Pathway: A Practical Guideline,<sup>2</sup> which is also an excellent source of information on vapor intrusion investigations. This form can also be used for outdoor air sampling.

Prior to starting the actual sampling with the AGI Universal Sampler:

- familiarize yourself with the latest knowledge on conducting an indoor air study,
- conduct the indoor air quality inventory as described above (also applies to outdoor air sampling),
- decide on where to collect the air samples as part of the sampling plan,
- ensure the occupants understand that air sampling is taking place and not to interfere.

The following items are provided by AGI:

- Cardboard shipping container(s), partitioned box(es) containing individually numbered AGI Samplers - (DO NOT DISCARD SHIPPING CONTAINER OR PARTITIONED BOXES),
- string,
- Chain of Custody and Installation/Retrieval Log (may be sent electronically),
- custody seals,
- these instructions.

### STORAGE

AGI Universal Samplers are carefully cleaned, sealed, and stored after manufacturing. They must remain sealed in their vials in the shipping boxes until deployment and after retrieval. DO NOT store near potential sources of organic vapors such as petroleum fuels and exhaust, solvents, adhesives, paints, etc.

### REQUIRED TOOLS/SUPPLIES

Additional tools (supplied by the customer) required for installation may include:

- sterile, disposable (surgical) gloves,
- scissors or knife to cut string,
- push pins, tacks, small nails, hammer.

### TRIP BLANKS

An additional number (specified) of AGI Universal Samplers are included as trip blanks. The customer selects which Samplers to be used and treated as trip blanks, and notes this on the Chain of Custody and Installation/Retrieval Log. These Samplers remain unopened, travel to and from the site during installation and retrieval, while in storage away from AGI's facility, and in transit to/from AGI's facility.

### AGI UNIVERSAL SAMPLER INSTALLATION

- Select the Sampler to be treated as trip blanks.
- Decide how to affix the Samplers to collect air samples, and have necessary equipment ready.
- If string will be used, cut desired length and have ready to tie to Sampler loop.
- Wearing clean surgical gloves, remove Sampler from the numbered jar and re-seal the jar. The barcode on the jar lid should correspond with the serial number on the Sampler - please verify.
- Attach the Sampler to the sample location by using push pins, nails, or similar. If string is used, tie the string to the Sampler loop and then affix to the location.
- Indicate the Sampler number, date and time of installation and any pertinent comments on the installation/retrieval log. Write the Sampler serial number on the site map adjacent to the sample location.
- To minimize sample location errors, it is preferable to record the AGI Universal Sampler serial number on the site map. However, if another sample numbering system is used, information relating the sample number system to the AGI Universal Sampler serial numbers must be provided either on the Installation and Retrieval Log, or in a separate table.
- Following Sampler installation, the Samplers selected as trip blanks should be kept in the sample box provided and stored as described above (STORAGE) until sampler retrieval.

### AGI UNIVERSAL SAMPLER RETRIEVAL

- Following the exposure period, identify and check each location using the site map and serial numbers.
- Remove the Sampler, cut and dispose of the string if used, verify the Sampler serial number, and place the entire Sampler into its labeled jar and secure the lid.
- Complete the Sampler retrieval date and time on the Installation/Retrieval log.
- **Use caution when screwing down the lid on the sample jars. Clean any debris from the threads of the jar and lid, and make sure no part of the Sampler is pinched between the jar and lid. Be sure the seal is tight. Over-tightening may cause breakage.**
- **Affix a custody seal to the side of the jar and jar lid. Do not cover the barcode with the seal.**
- Place the jar in the supplied partitioned box.
- Record any other pertinent information and observations.

### REFERENCES

- 1 – New York State Department of Health Indoor Air Quality Questionnaire and Building Inventory, <http://www.health.ny.gov/environmental/indoors/air/docs/questionnaire.pdf>
- 2 – ITRC (Interstate Technology & Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology & Regulatory Council, Vapor Intrusion Team, [www.itrcweb.org](http://www.itrcweb.org).

**PACKAGING FOR RETURN**

- Place boxes with Samplers back into outer shipping container using appropriate packing materials to protect fragile contents.
- Do not use Styrofoam "peanuts" as packing material. Bubble packing is acceptable.
- Label box to indicate fragile contents.
- There is no need to return the shipment in coolers with ice.

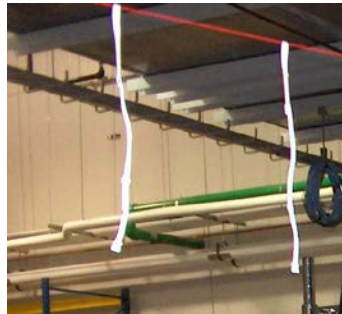
- Return the AGI Universal Samplers and necessary paperwork (preferably by overnight courier) to:  
Amplified Geochemical Imaging, LLC  
210 Executive Drive, Suite 1  
Newark, DE 19702-3335  
Phone: (302) 266-2428  
Attn: NOTIFY LAB IMMEDIATELY UPON DELIVERY!!

- Email the Installation and Retrieval Log directly to AGI.

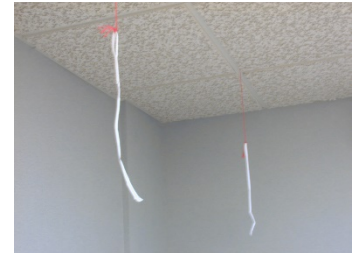
**IMPORTANT:** Samples should not be shipped for weekend or holiday delivery.



Residential basement



Manufacturing warehouse



Office conference room



Residential crawlspace



Commercial building basement, two AGI Universal Samplers Suspended, Summa can on floor; heating oil tank and workbench

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