



# Terra Core® Soil Sampling Instructions

## Soil Sample Collection Equipment

EPA 5035A recommends the use of hermetically sealed samplers or field preserved methanol vials for the collection of soil and sediment samples requiring analysis for VOCs (Volatile Organic Compounds).

In Canada this relates to the analysis of VOCs (including THMs, VPH and other volatile compounds), BTEX (Benzene, Toluene, Ethylbenzene and Xylenes) and, F1 (CCME Petroleum Hydrocarbons C6-C10).

Terra Core® sampling kits are available from ALS for purchase and are invoiced at the time orders are placed. This sampling device may also be purchased directly from the supplier (Please note that there is no option for refund for returned sampling supplies and equipment). If you wish to order sampling kits or wish to apply the cost of supplies to a particular project, please advise your Account Manager when you place your order.

## Sample Container and Kit Ordering Information

Sampling Option	Item	Description/Quantity	Cost (\$)
Complete Terra Core® Kit	Terra Core® Soil Sampler, tared vials with 10mL of Methanol, 125 mL glass soil jar	1 Sampler, 2 vials, 1 jar	\$5.00
Without Terra Core® Sampler	Tared vials with 10mL of Methanol + jar for moisture determination	2 vials, 1 jar	\$3.00

## Quality Assurance

- Each lot of pre-weighed, pre-preserved 40 mL vials is verified by ALS for tare weight accuracy, methanol volume, and purity.
- Each batch of methanol-preserved soil samples requires an additional set of vials pre-charged with methanol for a travel blank. The travel blank should not be opened in the field.
- Methanol is volatile, so please ensure the methanol vials are kept cool, upright and not subject to extreme temperature and humidity variations during storage and in the field.
- Methanol is regulated under the Transportation of Dangerous Goods Act (TDG). Limited Quantity labels must be placed on the outside of the cooler if shipping methanol vials by air or ground. TDG training requirements, as listed in the TDG Act, do not apply if the volume of each container is less than or equal to 1 L, each cooler or package is less than or equal to 30 kg, and total amount of dangerous goods in the shipment does not exceed 150 kg.
- Only use the methanol provided by the laboratory for sample preservation.

## SERVICE

- On-time data delivery and rapid TAT
- Experienced staff with expertise
- Available after-hours and weekends

## VALUE

- Instant access to data with Webtrieve™ and Webtrieve™ Mobile App
- Custom bottle kits with pre-printed labels and COCs

## RELIABILITY

- Technical experts that can answer your most difficult questions
- A real focus on quality and process control with a rigorous QA/QC program

## Get Connected!

Check out our helpful video about this service on our YouTube Channel!



Scan the QR Code with your smartphone or search for "ALS Environmental" on YouTube.

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## Sample Instructions

- Please check the black 10 mL fill line to ensure methanol volume is correct. Have your sample vials labeled and ready to go. It is very important that the vial is labeled with an appropriate pen as the addition of a label will change the tare weight of the vial and result in inaccurate weight determination. Use of an additional label would also result in slow sample processing and potential barcode reading errors.
- The Terra Core® is designed to deliver approximately 5 grams of typical mineral soil, but an alternative sampling device to deliver 5 gram aliquot of soil may be used.
- Different amounts of soil are required in order to meet all of the Alberta Tier 1 reporting guidelines. The table below should be used as a guideline:

Analytes of Interest	Soil Required (plugs)	Soil Type
BTEX F1	1	Typical mineral soil
BTEX F1	2	Peat
VOCs	2	Typical mineral soil

If you are unsure of the amount of soil required to meet your required reporting limits, please contact your ALS Account Manager.

- With the plunger of the Terra Core® seated in the handle, push the Terra Core® into the representative soil sample.
- Remove soil or debris from the outside of the Terra Core® sampler with a tissue. The soil plug should be squared-off to the lip of the sampler.
- Rotate the plunger that was seated in the handle top 90 degrees and place the mouth of the sampler into the 40 mL glass vial. Push down on the plunger to slowly release the plug of soil into the vial (avoid splashing the core into the methanol).
- Wipe any soil from the threads of the vial and tighten the cap on the vial securely to ensure no leakage.
- Sample into the second vial reusing the same plunger following the procedure above.
- Stand the 2 x 40 mL vials in the bubble wrap bags supplied and place in the cooler at 4°C. The vials must always be kept upright to ensure that there is no methanol lost.
- The holding time for field methanol preserved soil samples is 40 days.



- Collect a sample for moisture in the glass soil jar provided.
- Contact your ALS Account Manager or Technical Sales Representative with any questions.

## Complete Terra Core® Kit from ALS



Methanol Preservation Hold Time: 40 days

Cost: \$5.00 each kit

<sup>1</sup>Kit Includes:

- 2 x 40 mL pre-preserved, pre-weighed, pre-labeled glass vials
- 1 Terra Core® Sampler for a 5-gram sample core
- 1 x 125 mL glass soil jar for moisture

<sup>1</sup> \$5.00 will be billed in advance or charged to a project identified at the time of ordering for each kit ordered.

