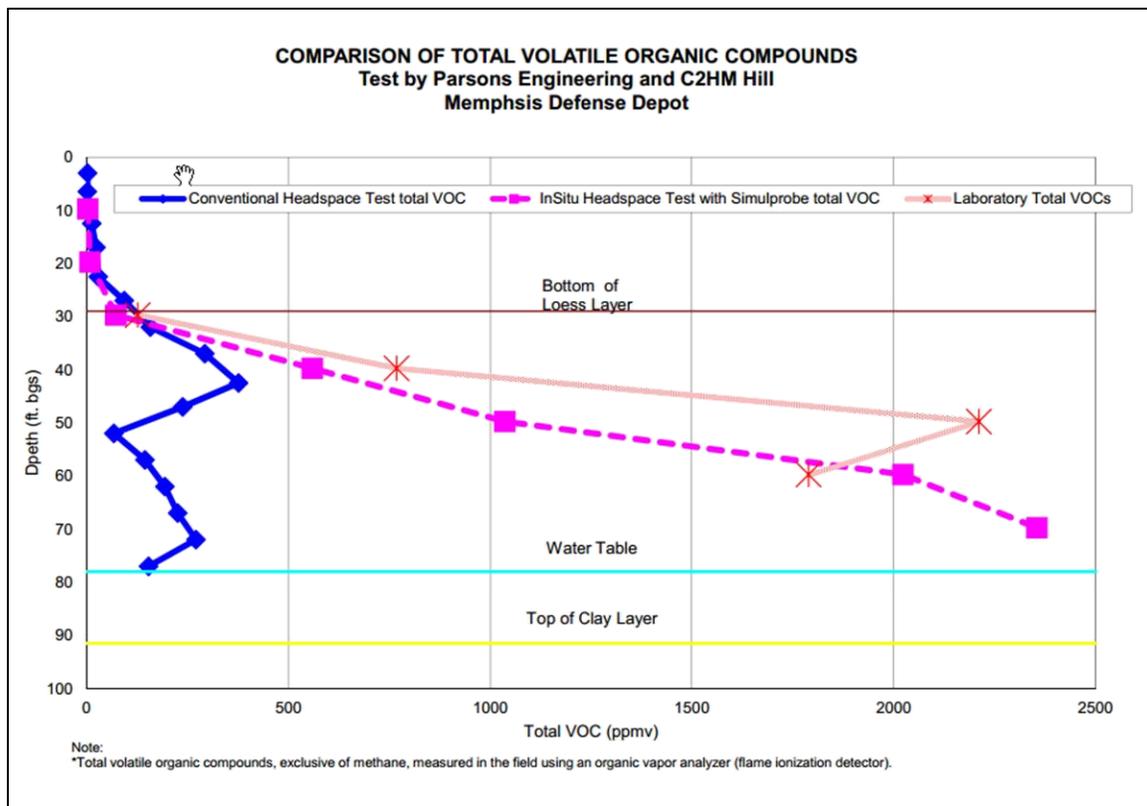


The In Situ Headspace Test

Achieve faster and far more accurate soil gas field data using Simulprobe soil and soil-gas technology

BESST’s simultaneous soil and soil-gas probes (Mini Probe, Maxi Probe, Crust Buster) offer the ability to perform the In Situ Headspace Test while drilling wells or exploratory boreholes, enhancing data quality while saving time and money. The In Situ Headspace Test uses BESST’s probe technology to take the soil-gas sample from soil that is still “in place” downhole, as contrasted with the conventional ex situ headspace test which must first transport the soil to the surface and then allow it to off gas. Because conventional headspace tests must take the time to transport the material, as well as allow the sample to be exposed to surface temperatures and other environmental factors, sample integrity for VOCs is severely degraded. *The immediacy of the In Situ test reduces sample collection time and cost, while also dramatically improving field data quality, often by a scale of 1-2 orders of magnitude.*



The Test:

1. Deploy BESST Simulprobe technology downhole to desired sample depth with an air-line running to the surface. Hammer the probe into the ground and retract the top, opening the intake.
2. A vacuum pump is used to purge the air-line until parameters are stabilized.
3. Connect a vacuum box is connected to the air-line and a sample is collected in a Tedlar bag marked "SAMPLE". This gas sample comes directly from the formation.
4. A field meter such as a PID or OVA meter is inserted through the bag's valve to take a concentration field reading.



Figure 2 - Connecting the vacuum pump to the air-line of the Simulprobe.



Figure 3 - A sample in a Tedlar bag is retrieved and ready to take a reading from using a PID meter (lower left).