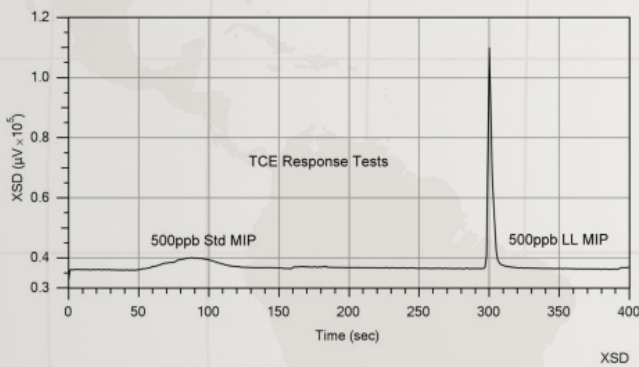


Low Level Membrane Interface Probe (LLMIP)

Low Level MIP (LL MIP) is a technology developed by Geoprobe Systems® that greatly increases the sensitivity (and therefore utility) of the MIP logging tool. The primary feature of LL MIP technology is that the carrier gas stream that sweeps the internal surface of the MIP membrane is pulsed. This results in an increase in the concentration of VOC contaminant delivered to the MIP detectors.

Low Level MIP can be performed with standard MIP probes, MiHpt probes or with MIP-CPT probes. To perform this method an operator will need to add the MP9000 Pulse Flow Controller along with an updated version of the FI6000 acquisition software to the current MIP system. The addition of the MP9000 to the system is simple and requires only the rearrangement of gas line connections. This controller can then be easily removed from the system to return to standard MIP logging. Switching between methods requires only a few minutes of time.



Comparison of 0.5ppm TCE response between standard (50-100s) and Low level (300s) MIP methods



The LL MIP method will greatly increase the sensitivity of a MIP system but the resulting detection limits are dependent on the sensitivity of the detectors. To achieve the lowest possible detection limits the probe and trunkline need to be new or verified clean with a system blank. The detectors also need to be fully current within their maintenance program and sensitivity should be tested prior to mobilization. Equipment that has been used to map high level contaminants will result in false positive results due to contaminant desorption from the membrane and return carrier gas line.