

PASSIVE SAMPLERS FOR SAMPLING GROUNDWATER

Chris Schepcoff, Laboratory Director

ALS Environmental, 10450 Stancliff Road, Suite 210, Houston, TX 77099, +1 281 530 5656

Abstract – Information will be presented regarding the use of passive samplers for the collection of groundwater samples for contaminants of concern. Use of these samplers eliminates the collection and disposal of purge water, reduces sampling time, and, therefore, significantly reduces field-sampling costs. Method implementation is simple and there is excellent comparability of data to that from samples taken by conventional methods. Information will be provided regarding the five available passive samplers, including their applications and target analyte lists.

The passive samplers discussed will include Diffusion Samplers, where analytes reach and maintain equilibrium via diffusion through the membrane; Equilibrium Grab Samplers, which collect a whole-water sample instantaneously; and Accumulation Samplers, which rely on diffusion and sorption to accumulate analytes within the sampler.

Passive sampling techniques have generated much interest within environmental and regulatory communities due to their cost-effectiveness, ease of use, and excellent correlation of the data to that of samples gathered using conventional sampling technology.