

Semi-volatiles from Tap Water

Immobilized Liquid Extraction (ILE) Caps may be utilized to quantifiably extract semi-volatile contaminants from drinking, ground or waste water. A 100 mL tap water sample was spiked with a mix of semi-volatile compounds, each at a concentration of 5 µg/L. A 100µl aliquot of methylene chloride was added to the sample to accelerate and enhance partitioning into the immobilized solvent (polymer). The sample vessel was sealed with a PDMS ILE Cap, inverted, and agitated for 1 hour to allow sufficient partitioning. Analytes which partitioned into the immobilized phase were desorbed into 100µl acetone by directly exposing the immobilized phase to the solvent for 30 minutes. The sample was analyzed by an HP-5971 GC/MS in scan mode with a 30m x 0.25mm i.d. x 0.25µm VB-5 column.

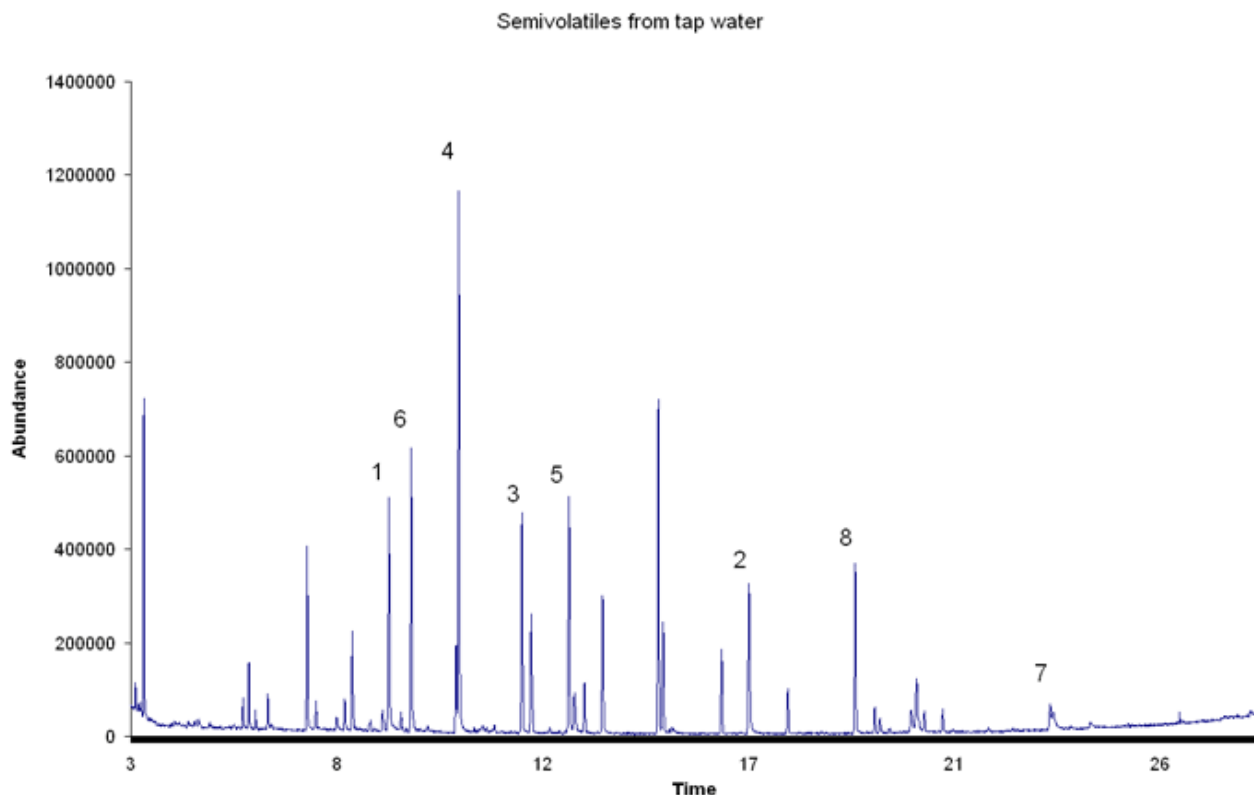


Figure 1 (above): 1. Acenaphthalene, 2. Pyrene, 3. 2,3 Dichlorobiphenyl, 4. Fluorene, 5. Anthracene, 6. 2-Chlorobiphenyl, 7. Benzo(k)Fluoranthene, 8. Benzyl Butyl Phthalate.