**Experimental Conditions**

- MEPS extraction was performed by diluting 100 µL of a 10-100 ppb standard with 900 µL of water.
- The whole sample was extracted on a C18 MEPS cartridge conditioned with methanol and water.
- The solvent was dried and eluted sequentially with 10 µL of isopropanol and 10 µL of dichloromethane into the same vial.
- A 1 µL portion of the eluate was separated on a BPX5 30 m x 0.25 mm i.d. with a 0.25 µm film thickness (SGE Analytical Science) in a 6890 GC-5973N MSD (Agilent Technologies) fitted with an ETP 14642 electron multiplier.
- Injection was splitless at a temperature of 250 °C.
- The carrier gas was helium with a nominal flowrate of 1.3 mL/min in constant flowrate mode and a nominal inlet pressure of 10.8 psi.
- The oven temperature was programmed from 50 °C (held for 2 minutes) to 270 °C (held for 15 minutes) at 20 °C/min.
- The transfer line was at 280 °C.
- MS experiments were in selected ion monitoring mode with an ion dwell time of 200 msec.
- For online use, the 20 µL combined isopropanol-dichloromethane eluate should be injected using a large volume injector.
- The MEPS cartridge was recycled in excess of 20 times by washing with dichloromethane (2 x 20 µL) and methanol (2 x 20 µL).
- Recovery may be improved by modifying the sample with surface active agents and increasing the ionic strength of the aqueous sample.
- Pure standards shown in orange. Extracted samples shown in blue.

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**HCCH and HCB 5 ppb**

**HCCH**

- Hexachlorobenzene (HCB)
- Recovery 55 - 88%

**HCB**

- Hexachlorobenzene (HCB)
- Recovery 55 - 88%

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**NAPHTHALENE 5 ppb**

**NAPHTHALENE**

- 1,4-Di-tert-butylbenzene
- Recovery 60 - 85%

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**DDT and related compounds 1 ppb**

**DDT and related compounds**

- DDT and related compounds (1 ppb)
- Recovery 40 - 63%

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**HEPTACHLOR EPOXIDE 10 ppb**

**HEPTACHLOR EPOXIDE**

- Heptachlor epoxide
- Recovery 82%

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**CHLORDENE and ALDRIN 1-10 ppb**

**CHLORDENE and ALDRIN**

- Aldrin
- Recovery 90 - 65%

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**CHLORDANE 5 ppb**

**CHLORDANE**

- CHLORDANE
- Recovery 90 - 66%

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