

LABORATORY INSTRUMENTATION

1. Gas Chromatography Instrumentation

a. Hydrocarbons

TPH(g /ss)- MBTEX (EPA 8015Bm / 8020A / 8021B)

5 HP 5890 GCs with OI PID-FID tandem detectors; 5 autosamplers (1 Archon, 4 Tekmar)

TPH(ss /jf /k /d /mo) (EPA 8015Bm)

3 HP 5890 / 6890 GCs with 6 FID detectors, 3 liquid autosamplers with 6 injection towers

b. Volatiles Including Soil Gas & Indoor Air

Volatile Organics by GC-MS (EPA 524.2/624/8240B/8260B)

6 HP 6890 / 7890 GCs with 6 HP 5973 / 5975 MSDs; 6 Archon autosamplers

Volatile Organics by GC-MS (EPA TO14, TO15, TO3)

1 HP 6890 GC with 1 HP 5975 MSD & 1 FID; autosampler

Halogenated Volatile Organics (EPA 502.2 / 601 / 8010B / 8021B)

1 HP 5890 GC with PID-ELCD tandem detectors; 1 Archon autosampler

c. Pesticides & Herbicides

Chlorinated Pesticides / PCBs (EPA 505 / 508 / 508.1 / 608 / 8080A / 8081A / 8082)

3 HP 5890 / 6890 GCs each with 2 ECD detectors, 2 liquid autosamplers with 4 injection towers

Nitrogen-Phosphorous Pesticides (EPA 507 / 614 / 8140B / 8141A)

1 HP 6890 GC with 2 NPD detectors, 1 liquid autosampler with 2 injection towers

Pesticides and Organometallics (EPA 8085)

1 HP G2350A AED for pesticide and organometallic analyses; 1 liquid autosampler

Chlorinated Herbicides (515.1 / 515.2 / 8150B / 8151A)

1 HP 6890 GC with 2 ECD detectors, liquid autosampler with 2 injection towers

Organic Tins

1 HP 6890 GC with 1 FPD detector, liquid autosampler with injection tower

d. Semi-Volatiles By GC-MS

Semi-Volatile Organics by GC-MS (EPA 525.2 / 625 / 8270D)

3 HP 6890 GCs with 3 HP 5973 MSDs; 3 liquid autosamplers with 3 injection towers



1 Varian Saturn 4000 Ion Trap GC-MS with autosampler

e. Organometallics

Organic Tins (Mono thru tetra-butyl tin, some phenyl tins)

1 HP 6890 GC with 1 FPD detector, liquid autosampler with injection tower

Organic Mercury (Methyl mercury, EPA 1630)

1 HP 5890 GC with 1 AFS detector, autosampler

Organic Lead (Tetraethyl & Tetramethyl lead)

1 HP 5890 GC with 2 ECD detectors, liquid autosampler with 2 injection towers

f. Light Gases by GC-PDD / TCD / FID

Light Gases by GC-FID (RSK 175, EPA TO-3), GC-TCD / PDD (EPA 3C, ASTM D 1946-90)

1 Varian GC with 2 TCDs, 1 PDD, 1 FID, 1 autosampler

Liquid

2. Liquid Chromatography Instrumentation

5 HP LC-1100 with Tandem UV-VIS - fluorescence detectors.

1 Post-column derivitizer & RI detector

3. Ion Chromatography Instrumentation

3 ICs, all with Conductivity detectors and 2 with UV-VIS detectors

4. IR Instrumentation

Computer controlled Bomem MB-120 scanning IR spectrometer; laser irradiation, resolution of 1 wave number and a scanning range of 500-5000cm⁻¹.

5. Metals Instrumentation

2 Agilent 7500c ICP-MS

1 high resolution ICP with autosampler.

PE 4110 ZL AA graphite furnace and autosampler; cold vapor / hydride attachment & FIAS autosampler.



Varian Spectra AA 400 graphite furnace and autosampler.
AFS instrument for 0.5ppt sensitivity for mercury
1 HP 5890 w/ AAF detector for methylmercury
1 Agilent 6890 with FPD & autosampler for organic tins.

6. Wet Chemistry & Elemental Analysis Instrumentation

1 TOC - TN analyzer including soil module
2 Auto-analyzers with autosamplers
2 Auto-titrators
1 CNS elemental analyzer for solids & liquids
1 Karl Fischer apparatus

7. Software

HP Chem Station data acquisition software plus various other data acquisition software
Omega LIMS software with output to California DHS EDT, ACE COELT or virtually any electronic data format.
