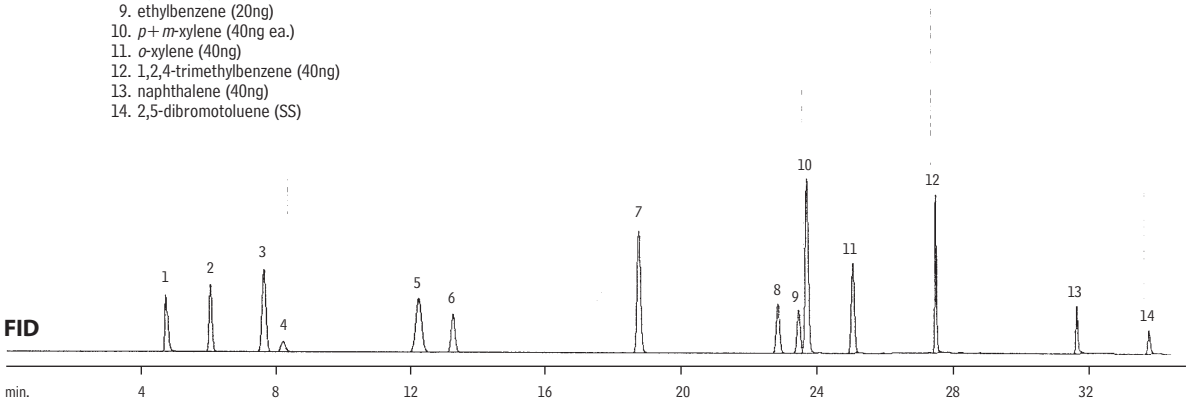
Volatile Petroleum Hydrocarbons (VPH)
Massachusetts Department of Environmental Protection
Rtx®-502.2

For VPH analysis on an Rtx®-502.2 column, use PID for aromatic compounds and FID for aliphatic compounds.

1. methanol
2. methyl *tert*-butyl ether (60ng)
3. benzene (20ng)
4. toluene
5. ethylbenzene (20ng)
6. *p*+*m*-xylene (40ng ea.)
7. *o*-xylene (40ng)
8. 1,2,4-trimethylbenzene (40ng)
9. naphthalene (40ng)
10. 2,5-dibromotoluene (SS)

1. methanol
2. *n*-pentane (40ng)
3. 2-methylpentane (60ng)
4. methyl *tert*-butyl ether (60ng)
5. 2,2,4-trimethylpentane (60ng)
6. benzene (20ng)
7. toluene (60ng)
8. *n*-nonane (40ng)
9. ethylbenzene (20ng)
10. *p*+*m*-xylene (40ng ea.)
11. *o*-xylene (40ng)
12. 1,2,4-trimethylbenzene (40ng)
13. naphthalene (40ng)
14. 2,5-dibromotoluene (SS)



GC_EV00063

Column:	Rtx®-502.2, 105m, 0.53mm ID, 3.0µm (cat.# 10910)
Conc.:	on-column at levels listed
Oven temp:	45°C to 90°C @ 3°C/min., to 140° @ 5°C/min., to 230°C @ 45°C/min. (hold 8 min.)
Carrier gas:	helium @ 15mL/min. Tekmar Model LSC 2000
Trap:	BTEX
Purge:	helium @ 40mL/min. for 11 min.
Dry purge:	2 min.
Desorb preheat:	245°C
Desorb:	2 min. @ 250°C
Bake:	6 min. @ 260°C

Chromatograms courtesy of Severn Trent Laboratories, Burlington, VT.

free literature

Optimizing Massachusetts Volatile Petroleum Hydrocarbon GC Analysis

Massachusetts VPH affords more reliable quantification of volatile petroleum hydrocarbons, relative to older "analytical window" methods, and has been adopted by other states and in Canada. This 2-page note offers valuable tips for selecting a trap and a capillary GC column compatible with the methodology. Reference mixes specifically designed for MA VPH are described.

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Applications Note
lit. cat.# 59150