

Appendix 10. Detection frequencies and median concentrations for selected volatile organic compounds in samples from public wells.

[µg/L, micrograms per liter; ND, compound not detected; <, less than; --, not applicable]

Compound name	Number of samples	Detection frequency at selected assessment levels ¹ (percent)				Median concentration ² (µg/L)	
		0.2 µg/L	1 µg/L	5 µg/L	10 µg/L	All samples	Samples with detections
Fumigants							
Bromomethane	1,078	0.093	0.093	0.093	ND	<0.17	6.4
Dibromochloropropane	378	ND	ND	ND	ND	<.5	--
1,4-Dichlorobenzene	1,067	.094	ND	ND	ND	<.066	.025
1,2-Dichloropropane	1,078	.74	.19	ND	ND	<.056	.17
<i>cis</i> -1,3-Dichloropropene	1,078	ND	ND	ND	ND	<.048	--
<i>trans</i> -1,3-Dichloropropene	1,078	ND	ND	ND	ND	<.052	--
Ethylene dibromide	462	ND	ND	ND	ND	<.10	--
1,2,3-Trichloropropane	997	.80	.30	ND	ND	<.054	.70
Gasoline hydrocarbons							
Benzene	1,095	0.46	0.27	ND	ND	< 0.058	0.13
<i>n</i> -Butylbenzene	950	.11	ND	ND	ND	<.094	.21
Ethylbenzene	1,083	.46	.18	ND	ND	<.066	.32
Isopropylbenzene	944	.11	ND	ND	ND	<.080	.19
Naphthalene	962	.10	ND	ND	ND	<.11	.22
Styrene	1,074	.19	ND	ND	ND	<.052	.13
Toluene	1,077	1.0	.46	.19	ND	<.050	.040
1,2,4-Trimethylbenzene	938	.32	ND	ND	ND	<.044	.018
<i>o</i> -Xylene	830	.48	ND	ND	ND	<.056	.31
<i>m</i> - and <i>p</i> -Xylenes ³	828	.60	.12	ND	ND	<.13	.38
Total xylenes ⁴	1,069	.56	.19	ND	ND	<.060	.44
Gasoline oxygenates							
<i>tert</i> -Amyl methyl ether	818	0.49	ND	ND	ND	< 0.050	0.23
Diisopropyl ether	807	.37	0.12	ND	ND	<.15	.16
Ethyl <i>tert</i> -butyl ether	818	.12	ND	ND	ND	<.068	.14
Methyl <i>tert</i> -butyl ether	913	5.4	1.6	0.11	ND	<.078	.26
Organic synthesis							
Acrolein	126	ND	ND	ND	ND	< 2.0	--
Acrylonitrile	837	ND	ND	ND	ND	<.20	--
1,1-Dichloroethene	1,096	1.3	0.46	0.18	0.18	<.16	0.20
Hexachlorobutadiene	962	ND	ND	ND	ND	<.17	.030
1,2,3-Trichlorobenzene	950	ND	ND	ND	ND	<.084	.020
Vinyl bromide	818	ND	ND	ND	ND	<.17	--
Vinyl chloride	1,096	.18	.18	ND	ND	<.16	3.2

Appendix 10. Detection frequencies and median concentrations for selected volatile organic compounds in samples from public wells.—Continued

[µg/L, micrograms per liter; ND, compound not detected; <, less than; --, not applicable]

Compound name	Number of samples	Detection frequency at selected assessment levels ¹ (percent)				Median concentration ² (µg/L)	
		0.2 µg/L	1 µg/L	5 µg/L	10 µg/L	All samples	Samples with detections
Refrigerants							
Dichlorodifluoromethane	1,096	1.7	0.64	0.18	0.091	< 0.24	0.22
Trichlorofluoromethane	1,096	1.1	.27	.091	.091	<.19	.25
Trichlorotrifluoroethane	931	.32	ND	ND	ND	<.20	.094
Solvents							
Carbon tetrachloride	1,096	0.73	0.27	ND	ND	< 0.098	0.38
Chlorobenzene	1,096	.18	.091	ND	ND	<.064	.31
Chloroethane	1,078	.28	.28	ND	ND	<.19	2.2
Chloromethane	1,045	.38	ND	ND	ND	<.21	.070
1,2-Dichlorobenzene	1,087	.18	ND	ND	ND	<.074	.15
1,3-Dichlorobenzene	913	ND	ND	ND	ND	<.058	.008
1,1-Dichloroethane	1,096	2.0	.46	0.18	0.091	<.072	.22
1,2-Dichloroethane	1,073	.56	.093	ND	ND	<.058	.39
<i>cis</i> -1,2-Dichloroethene	969	1.5	.62	.10	.10	<.048	.18
<i>trans</i> -1,2-Dichloroethene	1,050	1.0	.57	.095	ND	<.080	.60
Hexachloroethane	829	ND	ND	ND	ND	<.17	--
Methylene chloride	1,094	.46	.37	.18	.18	<.042	1.6
Perchloroethene	1,093	5.3	2.3	.82	.46	<.098	.20
<i>n</i> -Propylbenzene	950	ND	ND	ND	ND	<.086	--
1,2,4-Trichlorobenzene	962	ND	ND	ND	ND	<.084	.020
1,1,1-Trichloroethane	1,095	2.2	1.1	.46	.18	<.090	.17
1,1,2-Trichloroethane	1,078	ND	ND	ND	ND	<.028	.018
Trichloroethene	1,093	4.3	2.2	.82	.37	<.068	.52
Trihalomethanes							
Bromodichloromethane	1,095	4.2	1.3	0.46	0.091	<0.036	0.23
Bromoform	1,096	4.5	1.6	.27	.091	<.044	.50
Chloroform	1,092	11.4	3.1	.82	.46	<.050	.20
Dibromochloromethane	1,095	4.4	1.5	.18	.091	<.040	.43
Total trihalomethanes ⁴	1,096	14.8	5.3	1.7	.82	<.048	.30

¹These detection frequencies are for all samples included in this assessment, regardless of the analytical method.

²The analytical methods used for this assessment have varied sensitivity among compounds and, as such, comparison of the median concentrations between compounds is not appropriate. No assessment level was applied to determine the median.

³Considered as 2 of the 55 compounds included in this assessment.

⁴Not considered as 1 of the 55 compounds included in this assessment.