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Major and Trace Elements in 35 Lake and Reservoir Sediment Cores From Across the United States, 1994–2001

Data Series 166

U.S. Department of the Interior
U.S. Geological Survey

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Abstract

This report presents data on major and trace element concentrations in sediment cores collected from 35 lakes and reservoirs during 1994–2001. The lakes and reservoirs are located in or near 18 major urban areas across the United States and provide a geographically diverse coverage of urban land use for the country as well as some reference settings. Vertical intervals of the cores were analyzed for eight major elements and eight trace elements.

Introduction

One approach to reconstructing historical trends in trace elements in aquatic systems is to analyze sediment cores collected from lakes, reservoirs, estuaries, or the oceans. Analysis of sediment cores has been used to determine the historical contribution of localized sources to aquatic-sediment contamination (Covelli and others, 2001; Hornberger and others, 1999; Sonke and others, 2002; Spliethoff and Hemond, 1996). In other cases, sediment cores have been used to reconstruct histories of long-range atmospheric deposition in remote areas where no local sources are present (for example, the Swiss Alps (Birch and others, 1996) or the Indiana Dunes (Perkins and others, 2000)).

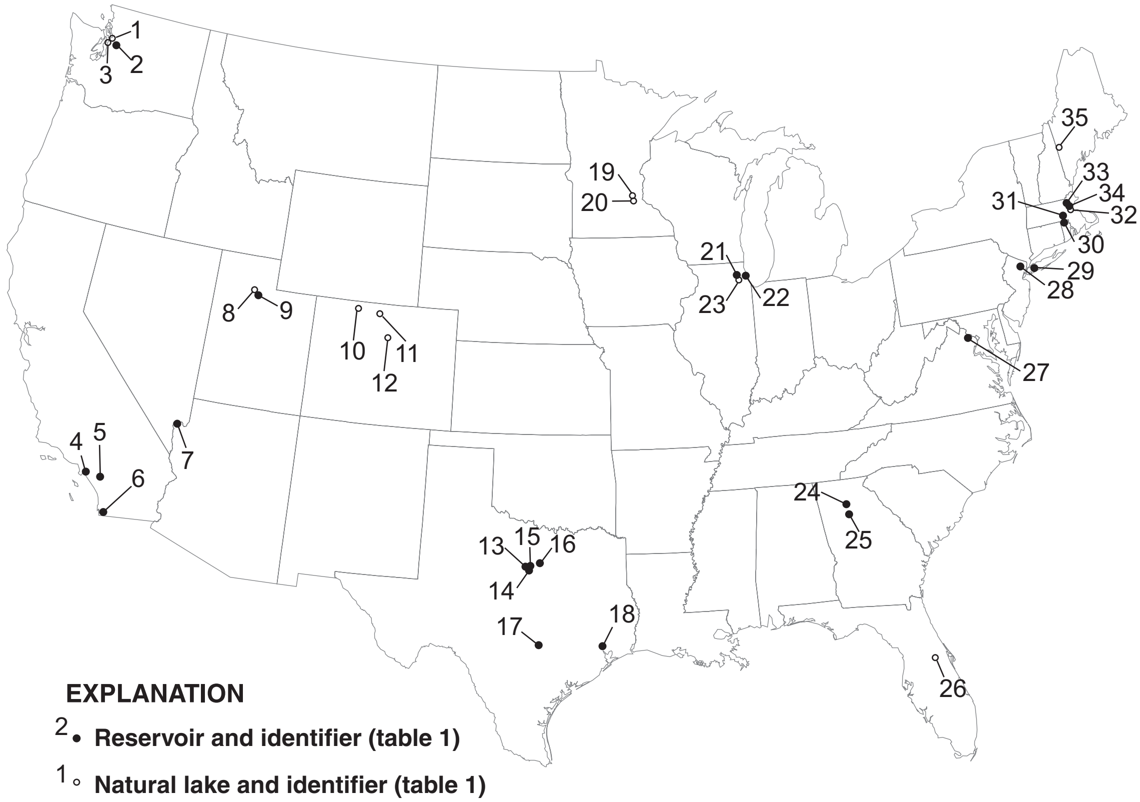
The purpose of this report is to present data for eight trace elements (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc) of environmental concern in lake and reservoir sediment cores at a national scale. The trace element data, as well as the major element and organic carbon data presented in this report, were collected as part of the U.S. Geological Survey (USGS) National Water-Quality Assessment (NAWQA) program, of which one goal is assessment of trends in water quality across the United States. During 1994–2001, sediment cores were collected from 35 lakes and reservoirs in or near 18 major urban areas (fig. 1; table 1). Land use in the watersheds ranges from undeveloped (reference) to entirely urbanized (dense urban).

Detailed information on collection, analysis, and age-dating of the sediment cores for which data are presented in this report is available in Van Metre and others (2004). That report includes a discussion of study design, sampling-site selection, core collection and subsampling, and interpretation of radionuclide profiles to assign date of deposition to intervals within each core. A qualitative rating assigned to each core indicates the reliability of age assignments.

Study Design

Sediment cores were collected from 35 lakes and reservoirs in the United States during 1994–2001 (12 natural lakes and 23 reservoirs, hereinafter referred to as lakes except where the distinction is relevant). The 35 lakes are a subset of 58 lakes sampled by the USGS during 1992–2001, 56 of which are discussed in Van Metre and others (2004). The NAWQA design provided a national framework for identifying potential study areas (Gilliom and others, 1995). The selection of urban areas for this study was based on the combination of NAWQA study units, metropolitan statistical areas (MSAs) (U.S. Census Bureau, 1997), and ecoregions (Omernik, 1987). Urban areas were selected to broadly represent the diversity of ecoregions where a majority of U.S. cities and urban populations are located. Lakes were sampled in one or more cities in the five most populous (summing urban population only) level II ecoregions and eight of the 11 most populous ecoregions. The design provides a geographically diverse coverage of major urban areas of the country. In urban settings, residential and commercial land-use areas were favored, and large point-source and heavily contaminated industrial areas were avoided. Lakes with small drainage-area-to-surface-area ratios and undeveloped watersheds were chosen as reference lakes to assess trends in atmospheric fallout.

The 35 lakes presented here (table 1) were selected from the 58 lakes sampled because (1) they are representative



1. Lake Ballinger, Wash.
2. Tolt Reservoir, Wash.
3. Lake Washington, Wash.
4. West Street Basin, Calif.
5. R.R. Canyon Lake, Calif.
6. Sweetwater Reservoir, Calif.
7. Lake Mead, Las Vegas Bay, Nev./Ariz.
8. Great Salt Lake, Farmington Bay, Utah
9. Red Butte Reservoir, Utah
10. Lake Elbert, Colo.
11. Mills Lake, Colo.
12. Sloans Lake, Colo.
13. Lake Como, Tex.
14. Echo Lake, Tex.
15. Fosdic Lake, Tex.
16. White Rock Lake, Tex.
17. Town Lake, Tex.
18. Lake Houston, Tex.
19. Palmer Lake, West Lobe, Minn.
20. Lake Harriet, Minn.
21. Lake in the Hills, Ill.
22. Beck Lake, Ill.
23. Shoe Factory Road Pond, Ill.
24. Berkeley Lake, Ga.
25. Panola Lake, Ga.
26. Lake Killarney, Fla.
27. Lake Anne, Va.
28. Orange Reservoir, N.J.
29. Newbridge Pond, N.Y.
30. Big Round Top Pond, R.I.
31. Harris Pond, Middle, Mass.
32. Upper Mystic Lake, Mass.
33. South Reservoir, Mass.
34. Charles River, Lower, Mass.
35. Crocker Pond, Maine

Figure 1. Locations of lake sediment coring sites, 1994–2001.

of target land-use settings (urban and reference), (2) their sediment-core profiles do not appear to be unduly affected by diagenesis and post-depositional sediment mixing, and (3) the age-control for the cores was judged to be reliable for trend testing at least back to 1970. The date of 1970 was chosen as the starting point for trend testing because it coincides with a shift in national policy toward stronger environmental protection in the United States and thus is of interest for trend testing (Van Metre and Mahler, 2005; Mahler and others, 2006). Land use in the watersheds was categorized as dense urban (52- to 95-percent urban land use; 13 lakes), light urban (6- to 43-percent urban; 13 lakes), or reference (less than 1.5-percent urban; nine lakes), as determined from the U.S. Geological Survey (1992) National Land Cover Data 1992 (NLCD92). Three of the nine reference lakes are water-supply reservoirs in protected watersheds, and five of the lakes and their watersheds are in county, state, or national parks; the remaining reference lake (Big Round Top Pond) has 1.5-percent developed land, consisting of one road and a few houses, and no evident agriculture or grazing land.

Core Collection

Cores were collected, in most cases, from the deepest part of the lake or in the downstream part of the reservoir where post-depositional disturbance was assumed to be minimal (Van Metre and others, 2004). Collection devices included

Table 1. Watershed characteristics of lakes and reservoirs sampled during 1994–2001.

[--, not recorded]

Map ID (fig. 1)	Lake name and state	Nearest major urban area	Date sampled	Lake (L) or reservoir (R)[1]	Water depth at coring site (meters)	Watershed area[2] (square kilometers)	Percent urban land use	Land-use type
1	Lake Ballinger, Wash.	Seattle	06/08/1998	L	9.9	13.7	73.1	dense urban
2	Tolt Reservoir, Wash.	Seattle	06/11/1998	R	18.3	47.3	0	reference
3	Lake Washington, Wash.	Seattle	06/09/1998	L	62.5	1,470	37.6	light urban
4	West Street Basin, Calif.	Los Angeles	11/12/1998	R	1.2	3.30	79.8	dense urban
5	R.R. Canyon Lake, Calif.	Los Angeles	11/10/1998	R	11.3	1,860	8.3	light urban
6	Sweetwater Reservoir, Calif.	San Diego	09/24/1998	R	16.2	470	9.9	light urban
7	Lake Mead, Las Vegas Bay, Nev./Ariz.	Las Vegas	05/11/1998	R	105.2	5,240	7.9	light urban
8	Great Salt Lake, Farmington Bay, Utah	Salt Lake City	04/07/1998	L	1.2	10,300	11.0	light urban
9	Red Butte Reservoir, Utah	Salt Lake City	04/09/1998	R	7.6	19.7	0	reference
10	Lake Elbert, Colo.	Denver	09/16/1999	L	5.5	1.06	0	reference
11	Mills Lake, Colo.	Denver	09/14/1999	L	6.7	12.1	0	reference
12	Sloans Lake, Colo.	Denver	08/19/1997	L	1.1	8.24	80.1	dense urban
13	Lake Como, Tex.	Fort Worth	03/08/2001	R	7.8	2.70	93.9	dense urban
14	Echo Lake, Tex.	Fort Worth	03/06/2001	R	4.6	2.60	95.5	dense urban
15	Fosdic Lake, Tex.	Fort Worth	03/07/2001	R	2.4	1.20	83.7	dense urban
16	White Rock Lake, Tex.	Dallas	07/06/1994	R	4.6	264	66.5	dense urban
17	Town Lake, Tex.	Austin	08/26/1998	R	8.7	405	25.0	light urban
18	Lake Houston, Tex.	Houston	07/10/1997	R	13.4	2,830	6.7	light urban
19	Palmer Lake, West Lobe, Minn.	Minneapolis	07/30/1997	L	.6	64.2	51.9	dense urban
20	Lake Harriet, Minn.	Minneapolis	07/29/1997	L	21.3	6.07	60.6	dense urban
21	Lake in the Hills, Ill.	Chicago	07/19/2001	R	8.5	24.0	14.9	light urban
22	Beck Lake, Ill.	Chicago	07/17/2001	R	4.0	3.26	21.3	light urban
23	Shoe Factory Road Pond, Ill.	Chicago	07/18/2001	L	.5	.02	0	reference
24	Berkeley Lake, Ga.	Atlanta	05/19/1999	R	15.2	3.01	28.1	light urban
25	Panola Lake, Ga.	Atlanta	05/18/1999	R	5.2	.54	1.1	reference
26	Lake Killarney, Fla.	Orlando	03/16/1999	L	7.5	6.34	63.9	dense urban
27	Lake Anne, Va.	Washington D.C.	06/24/1996	R	8.2	2.28	34.4	light urban
28	Orange Reservoir, N.J.	Newark	09/18/1997	R	--	11.7	42.5	light urban
29	Newbridge Pond, N.Y.	New York	09/22/1997	R	1.8	7.91	96.0	dense urban
30	Big Round Top Pond, R.I.	Boston	07/25/2000	R	1.2	23.3	1.5	reference
31	Harris Pond, Middle, Mass.	Boston	07/26/2000	R	--	82.8	10.6	light urban
32	Upper Mystic Lake, Mass.	Boston	08/31/2000	L	1.4	66.2	67.3	dense urban
33	South Reservoir, Mass.	Boston	09/01/2000	R	13.9	1.90	.2	reference
34	Charles River, Lower, Mass.	Boston	07/28/2000	R	9.8	787	71.8	dense urban
35	Crocker Pond, Maine	none	08/30/2000	L	2.7	.81	0	reference

[1] Lake refers to naturally formed water body; reservoir refers to impounded stream or any other man-made lake.

[2] Excludes drainage above upstream reservoirs.

box corers, piston corers, gravity corers, and push corers. In all cases the sample was collected inside a clean polycarbonate liner. Cores were vertically extruded on-site and sectioned into intervals ranging in thickness from 0.5 to 5 centimeters or more, depending on the assumed or known sedimentation rate at the site, sample mass requirements for chemical analyses, and site-specific objectives. The sediment was not sieved.

Analytical Methods

Core sediment samples for major and trace element analyses were freeze-dried and ground to a fine powder. Elemental concentrations were determined on concentrated-acid digests either by inductively coupled plasma-atomic emission spectrometry (ICP/AES) (Lichte and others, 1987) or by inductively coupled plasma/mass spectrometry (ICP/MS) (Briggs and Meier, 2003). For samples using ICP/AES, cadmium was analyzed by graphite furnace atomic adsorption spectrometry (Aruscavage and Crock, 1987). Mercury concentrations were determined by cold vapor atomic adsorption spectroscopy (Brown and others, 2003). Quality assurance was provided by analyzing several standard reference materials (SRMs), an environmental duplicate, and a blank sample with each batch of as many as 20 samples. The two methods used for trace elements performed well on the basis of analyses of the same four SRMs. Median relative percent difference for all elements for all SRMs was 2.0 percent for ICP/AES and 4.4 percent for ICP/MS. Cadmium was not analyzed for one lake, and mercury was not analyzed for three lakes.

Major and Trace Elements in Lake Sediment Cores

Sediment cores ranged in length from 11 centimeters (South Reservoir and Crocker Pond) to 188 centimeters (Sweetwater Reservoir) (table 2, at end of report). The dates of deposition assigned to sampled intervals of the sediment core for each lake (Van Metre and others, 2004) also are listed in table 2. The lake with the shortest time recorded in the sediment core was Tolt Reservoir, which had bottom-of-core sediment estimated to have been deposited in 1965. The water bodies with the longest time recorded in sediment cores were Lake Elbert and Lake Harriet (natural lakes), both of which had bottom-of-core sediment estimated to have been deposited during the 1770s. Cores from seven lakes had bottom-of-core sediment estimated to pre-date 1900.

Analysis of historical trends in trace elements in sediment cores from these 35 U.S. lakes is presented in Mahler and others (2006). Data for eight major elements, eight trace elements, and organic carbon analyzed in the sediment core from each of the 35 lakes in this report are presented in table 2.

Summary

Sediment cores from lakes and reservoirs can be used to reconstruct historical trends in trace elements in aquatic systems. Major and trace element and organic carbon data are presented here for sediment cores collected during 1994–2001 from 35 lakes and reservoirs located in or near 18 major urban areas across the United States. Land use in the watersheds was categorized as dense urban, light urban, or reference. The sediment cores were vertically sectioned into intervals, each interval was analyzed for a suite of major and trace elements, and date of deposition for each interval was assigned. The age of bottom-of-core sediment ranged from the 1770s to 1960s.

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Table 2. Concentrations of selected major and trace elements in sediment cores.

[In milligrams per kilogram except as noted. --, not analyzed or not estimated; Pre-res., pre-reservoir; <, less than]

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
1	Lake Ballinger	BAL.B	0	0.5	0.25	1998.3	11.3	68,400	18,400	44,700	9,330	981	2,100	5,710	7,200	11	2.0	98	99	296	0.43	66	571
			1	1.5	1.25	1997.1	11.9	70,200	19,600	44,100	26,000	1,070	2,100	3,430	7,300	14	2.2	100	112	253	.46	79	681
			2	2.5	2.25	1995.8	12.6	74,000	22,000	48,400	27,300	1,060	2,400	4,430	7,600	14	2.4	100	112	257	.50	80	720
			3	3.5	3.25	1994.4	12.3	77,200	20,900	45,300	26,700	962	2,400	4,860	7,100	19	2.3	102	111	312	.51	86	709
			4	4.5	4.25	1992.9	--	62,000	19,300	47,500	16,000	942	3,300	3,570	7,300	16	2.3	106	108	303	.68	75	582
			5	5.5	5.25	1991.4	10.6	66,600	18,900	43,900	12,700	910	2,100	4,430	7,400	18	2.2	102	104	391	.54	88	596
			6	6.5	6.25	1989.5	9.5	73,100	20,200	45,500	22,700	946	1,600	4,510	8,450	19	2.0	110	106	450	.48	88	552
			7	7.5	7.25	1987.5	8.8	79,000	21,100	45,400	23,300	925	1,300	4,860	8,400	12	2.0	118	109	495	.46	107	547
			8	8.5	8.25	1985.1	8.6	80,800	21,600	46,500	19,300	919	1,400	5,570	8,900	22	2.1	119	116	610	.46	103	563
			9	9.5	9.25	1982.5	8.1	63,800	14,700	39,000	16,000	745	1,100	3,710	7,500	19	2.0	108	106	646	.44	107	444
			10	10.5	10.25	1979.6	7.8	75,600	16,400	44,200	18,700	812	1,300	5,000	7,700	20	1.9	125	120	659	.43	103	487
			11	11.5	11.25	1976.6	7.4	77,800	15,800	43,200	20,000	749	1,400	5,140	7,100	21	2.2	124	136	652	.39	105	461
			12	12.5	12.25	1973.3	7.0	86,800	13,600	47,600	20,700	774	1,400	5,570	7,200	21	2.0	126	135	588	.36	132	424
			13	13.5	13.25	1970.0	6.7	77,200	14,400	46,600	17,300	692	1,500	4,430	7,200	19	1.7	116	134	486	.35	116	326
			14	14.5	14.25	1967.0	7.2	92,400	15,600	47,100	22,000	682	1,300	6,290	6,300	19	1.7	108	101	396	.32	103	301
			15	15.5	15.25	1964.0	7.4	89,100	16,100	46,200	19,700	702	1,400	5,930	6,800	20	1.4	108	86	338	.32	106	274
			16	16.5	16.25	1961.2	8.1	82,200	15,600	41,800	17,300	696	1,500	4,710	6,200	21	1.2	123	79	239	.33	118	258
			17	17.5	17.25	1958.7	9.6	78,200	16,900	38,100	12,700	682	1,600	4,570	6,100	20	1.1	89	68	194	.35	76	226
			18	18.5	18.25	1956.3	10.4	58,400	15,800	39,100	11,300	769	1,600	3,290	6,100	19	1.3	91	64	187	.35	73	220
			19	19.5	19.25	1954.2	11.3	73,400	18,200	38,800	11,300	762	1,700	4,290	5,500	20	1.4	84	70	207	.49	81	241
			20	20.5	20.25	1952.3	14.7	55,000	14,400	26,600	11,300	696	1,600	2,000	2,700	19	1.7	55	49	140	.38	42	189
			21	21.5	21.25	1950.3	14.4	62,200	15,300	25,700	19,300	682	1,600	2,430	2,800	19	1.8	58	46	149	.42	44	190
			22	22.5	22.25	1948.3	14.5	56,800	14,000	24,800	14,000	689	1,700	2,290	2,500	18	1.5	55	45	137	.34	41	160
	Median						**9.5**	**74,000**	**16,400**	**44,200**	**18,700**	**769**	**1,600**	**4,510**	**7,200**	**19**	**2.0**	**106**	**106**	**312**	**.43**	**88**	**444**
2	Tolt Reservoir	TLT.B	0	1	.5	1997.9	7.7	61,800	17,400	90,200	10,400	3,380	1,050	4,170	24,300	84	.6	46	106	24	--	31	208
			1	2	1.5	1996.4	8.1	63,400	17,500	64,100	10,200	1,990	1,000	3,000	26,000	65	.6	46	104	35	--	33	201
			2	3	2.5	1994.5	7.6	78,000	17,600	49,800	10,200	945	1,000	4,670	24,400	44	.6	49	107	34	--	32	204
			3	4	3.5	1992.1	7.9	71,000	20,000	44,400	12,200	951	960	3,560	28,100	37	.7	48	103	32	--	34	200
			4	5	4.5	1989.5	8.4	80,000	17,500	46,200	9,250	946	1,100	5,280	26,000	38	.7	54	108	25	--	34	199
			5	6	5.5	1987.0	11.2	76,900	16,100	44,600	9,500	1,030	1,100	4,670	23,000	40	.8	48	100	21	--	32	186
			6	7	6.5	1984.5	9.7	74,600	14,100	44,200	7,250	991	1,100	5,110	21,900	40	.7	49	107	27	--	30	174
			7	8	7.5	1981.8	8.9	71,800	17,200	45,700	9,150	1,060	985	4,390	25,700	46	.6	50	102	29	--	35	189
			8	9	8.5	1979.1	8.7	64,500	18,400	42,400	8,750	1,020	1,000	3,440	24,200	47	.5	45	98	24	--	31	176
			9	10	9.5	1976.4	8.4	81,500	18,100	50,600	9,000	1,100	940	6,440	24,600	44	.6	54	100	24	--	29	176

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bot-tom	Mid-dle	Esti-mated deposi-tion date[1]	Organic carbon (percent)	Alu-minum	Cal-cium	Iron	Magne-sium	Manga-nese	Phos-phorus	Potas-sium	Sodi-um	Arse-nic	Cad-mium	Chro-mium	Cop-per	Lead	Mer-cury	Nickel	Zinc
2	Tolt Reservoir —Cont.	TLT.B —Cont.	10	11	10.5	1973.6	7.9	75,800	18,000	49,000	9,500	1,090	1,100	5,670	25,800	43	0.6	50	108	19	--	33	196
			11	12	11.5	1970.9	7.8	92,900	15,200	55,100	8,250	1,020	1,100	8,220	19,100	42	.7	54	115	19	--	30	214
			12	13	12.5	1968.3	--	87,200	15,900	51,600	8,250	1,030	1,100	7,000	22,800	40	.6	54	104	30	--	28	186
			13	14	13.5	1965.4	--	65,600	18,000	44,900	9,900	1,170	1,100	3,440	27,700	37	.5	48	102	28	--	21	191
		Median					**8.2**	**75,200**	**17,500**	**47,600**	**9,380**	**1,030**	**1,080**	**4,670**	**24,500**	**43**	**.6**	**49**	**104**	**26**	**--**	**32**	**194**
3	Lake Washington	WAS-B	0	.5	.25	1998.0	4.4	38,600	13,900	50,300	13,800	5,850	2,200	4,400	7,700	17	1.2	62	64	131	0.34	53	246
			.5	1	.75	1996.9	4.4	35,800	12,900	47,200	13,600	5,440	2,400	4,100	4,900	16	1.4	61	65	103	.28	52	238
			1	1.5	1.25	1995.5	4.3	44,000	14,100	52,500	14,400	6,590	2,200	5,300	7,700	24	1.3	63	67	129	.35	53	247
			1.5	2	1.75	1994.1	4.5	41,600	14,400	53,200	13,800	7,210	2,100	4,900	8,100	20	1.3	63	68	137	.35	60	250
			2	2.5	2.25	1992.7	4.5	42,600	14,700	59,300	12,800	7,390	2,400	4,800	8,800	21	1.4	71	74	156	.37	54	272
			2.5	3	2.75	1991.1	4.5	40,600	14,600	59,400	14,300	7,210	2,350	4,950	8,400	25	1.3	67	68	147	.38	61	265
			3	3.5	3.25	1989.4	4.6	35,900	13,600	57,700	12,400	5,920	2,500	4,900	8,900	20	1.4	66	89	142	.47	58	279
			3.5	4	3.75	1987.6	4.5	47,200	13,900	63,900	14,800	5,210	2,600	5,900	7,900	20	1.3	72	72	159	.40	58	278
			4	4.5	4.25	1985.8	4.5	42,000	14,000	59,900	12,400	3,730	2,500	5,200	8,900	22	1.4	70	71	165	.42	57	276
			4.5	5	4.75	1984.0	4.3	43,200	13,000	56,400	12,800	3,300	2,900	5,100	8,100	14	1.6	71	78	184	.41	60	292
			5	5.5	5.25	1982.1	4.5	35,900	12,600	48,800	12,800	3,040	2,900	3,600	9,100	11	1.6	70	76	182	.42	77	309
			5.5	6	5.75	1980.3	4.3	32,600	11,900	45,500	10,000	3,270	3,900	3,300	8,600	14	1.6	67	78	241	.45	72	299
			6	6.5	6.25	1978.6	4.4	33,200	11,300	49,700	12,000	3,180	4,100	3,900	8,900	16	1.7	67	81	285	.53	72	299
			6.5	7	6.75	1977.0	4.2	40,300	11,600	53,100	12,400	2,920	3,900	4,300	8,200	20	1.6	73	84	285	.51	72	272
			7	7.5	7.25	1975.4	4.0	33,000	11,500	45,900	10,400	2,520	3,600	3,100	8,600	19	1.6	69	76	249	.59	68	261
			7.5	8	7.75	1973.8	4.4	31,100	10,400	46,300	8,600	2,560	4,100	2,500	8,300	18	1.9	66	79	251	.58	67	263
			8	8.5	8.25	1972.2	4.6	38,800	11,600	50,500	10,700	2,390	3,500	3,500	9,050	13	1.8	80	90	264	.59	75	265
			8.5	9	8.75	1970.4	6.6	44,200	12,200	51,600	11,800	2,860	3,700	4,800	8,600	14	2.0	87	88	264	.73	74	289
			9	9.5	9.25	1968.7	4.7	49,000	12,000	58,000	13,600	2,730	5,100	5,600	8,500	16	1.9	87	86	233	.75	74	288
			9.5	10	9.75	1966.8	4.5	41,700	11,600	50,300	13,200	2,790	4,300	5,100	9,200	10	1.8	85	80	210	.62	68	253
			10	10.5	10.25	1965.0	4.3	38,300	11,600	49,200	11,000	2,640	4,900	3,800	8,600	13	1.9	86	79	164	.66	61	248
			10.5	11	10.75	1963.1	4.3	44,600	11,000	50,500	13,400	2,440	4,500	4,800	8,300	12	1.7	88	79	154	.65	63	251
			11	11.5	11.25	1961.2	4.6	29,300	11,200	46,900	8,200	2,320	4,900	3,700	8,700	25	1.1	84	82	154	.66	67	257
			11.5	12	11.75	1959.2	4.5	32,800	10,100	43,900	7,800	2,220	4,200	3,900	8,200	29	1.2	72	71	135	.62	52	229
			12	12.5	12.25	1957.4	4.3	29,400	9,410	41,300	5,800	2,520	3,500	4,900	7,900	30	1.3	66	68	138	.64	48	211
			12.5	13	12.75	1955.5	4.2	23,600	8,710	37,700	6,600	2,860	3,700	3,400	8,900	18	1.4	70	71	131	.61	53	233
			13	13.5	13.25	1953.6	4.4	24,600	8,710	40,900	8,400	2,650	3,800	3,900	8,300	20	1.5	70	75	125	.62	59	257
			13.5	14	13.75	1951.7	4.3	41,900	11,400	45,300	13,200	2,680	3,350	5,000	8,250	30	1.9	78	74	156	.66	54	259
			14	14.5	14.25	1949.8	4.4	28,900	8,350	39,700	8,800	1,930	2,900	3,900	7,900	33	1.6	70	76	134	.70	60	246
			14.5	15	14.75	1947.7	4.2	31,700	7,290	39,500	7,400	1,760	2,300	5,300	6,500	23	1.8	66	74	123	.62	49	236

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bot-tom	Mid-dle	Esti-mated deposi-tion date[1]	Organic carbon (percent)	Alu-minum	Cal-cium	Iron	Magne-sium	Manga-nese	Phos-phorus	Potas-sium	Sodi-um	Arse-nic	Cad-mium	Chro-mium	Cop-per	Lead	Mer-cury	Nickel	Zinc
3	Lake Washington —Cont.	WAS-B —Cont.	15	16	15.5	1944.1	4.0	29,300	10,900	36,800	7,000	1,330	1,900	4,100	8,900	32	2.7	75	72	115	0.63	51	229
			16	17	16.5	1939.1	4.0	28,100	8,820	35,600	8,400	1,130	1,400	3,800	8,500	24	2.3	71	66	97	.63	51	206
			17	18	17.5	1934.3	3.7	22,300	8,590	29,200	4,400	1,600	1,200	3,100	7,800	34	2.1	55	51	74	.66	35	142
			18	19	18.5	1929.0	3.5	28,900	11,000	36,900	4,800	2,030	1,400	3,700	9,200	36	1.4	59	53	84	.55	46	162
			19	20	19.5	1923.6	3.5	31,600	12,100	40,500	4,400	1,410	1,900	4,600	9,500	33	1.3	64	57	70	.53	47	169
			20	21	20.5	1918.1	3.7	28,900	11,900	36,100	4,400	1,460	1,200	3,700	9,700	31	1.1	61	55	72	.55	44	166
			21	22	21.5	1912.6	4.1	31,300	10,600	40,400	3,200	1,360	1,100	5,800	9,600	19	1.1	58	60	64	.35	41	158
			22	23	22.5	1907.2	4.4	29,900	11,000	35,100	3,800	1,460	1,100	3,900	8,900	26	1.6	58	56	75	.53	44	152
			23	24	23.5	1902.0	4.8	42,200	11,400	38,500	3,400	1,520	1,150	4,150	8,850	22	1.2	62	51	40	.34	49	135
			24	25	24.5	1897.2	5.2	27,800	8,710	40,500	3,400	1,720	1,600	2,700	7,900	19	.6	58	41	31	.27	42	118
			25	27	26	1890.1	5.5	26,600	10,400	40,400	4,800	1,940	1,900	3,100	8,100	16	.6	56	36	26	.22	43	116
			27	29	28	1880.7	5.7	25,300	10,600	38,800	5,400	1,930	1,900	3,100	8,100	7.8	.3	58	26	23	.12	42	85
			29	31	30	1871.4	5.7	25,700	11,000	39,100	5,400	1,930	1,700	3,500	8,300	9.3	.2	57	25	22	.12	39	79
			31	33	32	1861.6	5.0	25,600	12,100	37,600	4,800	1,730	1,400	3,900	9,500	6.4	.2	63	25	19	.12	39	81
		Median					**4.4**	**32,900**	**11,500**	**45,700**	**9,400**	**2,540**	**2,500**	**4,000**	**8,500**	**20**	**1.4**	**67**	**72**	**136**	**.53**	**54**	**247**
4	West Street Basin	WST.2	0	2	1	1998.3	8.7	69,800	31,000	43,900	15,200	601	1,410	19,500	13,800	8.0	2.7	73	135	154	.32	38	800
			2	4	3	1996.8	7.5	71,500	35,300	46,900	15,700	642	1,450	20,500	13,400	8.4	2.4	74	117	448	.34	37	731
			4	6	5	1995.0	6.5	75,800	25,100	51,200	16,900	692	1,520	21,500	13,500	9.2	2.1	81	99	106	.19	37	673
			6	8	7	1992.9	8.9	72,800	24,000	43,000	14,200	592	1,370	20,900	16,200	8.2	2.6	75	126	144	.32	35	776
			8	10	9	1990.5	12.6	65,000	28,000	38,600	12,800	537	1,600	18,500	14,500	7.8	3.6	73	166	207	.50	37	950
			10	12	11	1988.5	10.6	67,500	20,500	38,800	12,600	509	1,330	19,600	15,100	7.6	4.0	78	195	226	.53	39	929
			12	14	13	1986.8	9.9	64,800	26,400	34,200	11,000	468	1,380	19,200	15,600	6.7	3.5	70	154	222	.58	33	848
			14	16	15	1984.8	9.1	66,000	41,500	39,600	12,600	520	1,350	19,600	14,300	8.0	4.7	76	175	252	.85	37	893
			16	18	17	1982.9	11.6	63,500	36,200	34,700	12,200	460	1,220	17,400	13,800	8.2	4.2	67	187	237	1.00	35	900
			18	20	19	1981.0	10.1	73,600	32,200	38,400	12,500	513	1,340	22,200	17,900	10	5.2	80	185	447	1.10	42	1,110
			20	22	21	1978.8	10.1	68,000	38,000	42,100	14,000	563	1,440	19,200	13,100	12	5.2	109	224	475	1.90	46	1,050
			22	24	23	1976.5	6.9	74,300	25,000	40,400	13,600	567	1,330	21,800	15,300	9.2	2.9	82	118	319	1.10	37	570
			24	26	25	1973.8	6.7	76,500	22,700	45,300	16,200	602	1,290	21,700	15,000	8.8	3.3	83	101	445	.90	44	652
			26	28	27	1970.4	8.4	69,600	21,000	34,700	11,800	455	1,280	20,600	16,700	8.2	3.5	69	126	693	.55	37	646
			28	30	29	1967.2	9.3	78,600	20,900	42,000	13,500	492	1,420	21,700	16,300	11	4.6	81	180	810	.65	46	826
			30	32	31	1964.0	10.6	70,400	20,400	40,000	13,500	505	1,220	20,500	15,000	10	3.4	85	139	1,330	.73	44	786
			32	34	33	1960.2	11.1	70,000	18,000	44,700	14,700	531	1,460	20,300	13,300	15	7.0	108	228	2,270	.88	57	1,060
			34	36	35	1956.5	12.8	65,000	20,300	42,600	13,000	506	1,620	19,000	12,500	16	10.4	128	271	3,320	1.00	67	1,440
			36	38	37	1952.8	8.6	93,200	18,600	42,400	12,100	511	4,120	19,500	11,600	16	7.1	102	191	1,910	.79	53	1,040
		Median					**9.3**	**70,000**	**25,000**	**42,000**	**13,500**	**520**	**1,380**	**20,300**	**14,500**	**8.8**	**3.6**	**80**	**166**	**445**	**.73**	**38**	**848**

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
5	R.R. Canyon Lake	CYN	0	2	1	1998.7	2.8	97,800	22,000	69,900	19,400	1,200	1,420	21,400	4,550	13	0.6	69	339	27	0.06	33	222
			2	4	3	1998.4	2.9	94,500	27,700	68,800	18,800	1,340	1,440	20,100	4,140	13	.6	64	340	26	.06	30	214
			4	6	5	1998.1	3.2	92,600	33,100	67,400	18,400	1,420	1,500	20,200	4,160	14	.5	63	350	26	.05	30	205
			6	8	7	1997.7	3.0	93,900	28,800	69,900	18,700	1,480	1,620	20,800	4,240	13	.6	66	343	27	.06	31	208
			10	12	11	1997.0	2.4	94,700	25,200	76,500	19,300	1,330	1,530	22,200	4,170	13	.5	66	156	28	.05	31	210
			14	16	15	1996.0	1.6	94,300	15,800	76,100	20,800	1,220	1,380	23,800	4,690	8.6	.5	70	85	27	.06	31	207
			18	20	19	1995.0	2.9	83,000	42,500	60,400	16,400	1,070	1,090	18,600	4,430	14	.6	62	256	33	.08	31	184
			22	24	23	1994.2	3.2	78,900	47,000	61,700	15,600	1,150	1,050	18,200	4,710	16	.6	61	425	38	.07	30	184
			32	34	33	1992.1	1.4	93,400	17,500	74,000	19,600	1,200	1,340	22,400	5,080	9	.4	63	209	30	.06	30	193
			42	44	43	1989.7	1.7	98,500	20,500	68,700	19,800	1,140	1,260	20,500	5,490	11	.5	63	131	33	.06	32	184
			52	54	53	1987.0	1.3	103,000	20,500	73,400	22,000	1,150	1,130	22,200	6,350	10	.4	67	66	26	.08	33	183
			62	64	63	1983.6	1.9	102,000	17,000	71,900	20,100	1,160	1,310	21,700	4,650	12	.5	69	122	46	.07	31	190
			72	74	73	1980.2	2.2	92,900	27,800	56,000	17,400	923	870	18,800	5,780	15	.8	68	289	70	.06	33	182
			76	78	77	1979.0	1.9	93,500	28,400	58,300	17,800	910	864	19,200	5,500	15	.7	68	241	52	.06	33	179
			84	88	86	1976.2	1.3	96,800	22,100	61,300	19,000	879	892	20,700	5,110	12	.7	70	98	35	.06	34	182
			96	100	98	1972.0	1.2	104,000	17,400	77,000	22,800	1,030	1,170	27,800	7,480	7.5	.4	70	62	26	.06	32	192
			104	108	106	1968.5	1.5	100,000	18,900	73,300	19,500	1,400	1,270	24,700	5,030	9.5	.5	69	123	33	.06	32	185
			124	128	126	1961.0	1.8	82,300	51,400	55,900	16,300	816	815	19,000	5,000	10	.6	58	155	29	.06	28	144
			144	148	146	1954.4	1.4	102,000	20,900	74,600	23,800	1,060	1,160	25,700	5,490	8.6	.5	69	60	21	.05	31	184
			164	168	166	Pre-res.	1.6	105,000	15,600	72,800	20,700	965	1,230	22,000	4,810	10	.4	70	60	20	.06	30	176
		Median					**1.8**	**94,600**	**22,000**	**69,900**	**19,400**	**1,150**	**1,240**	**21,100**	**4,900**	**12**	**.5**	**67**	**156**	**28**	**.06**	**31**	**184**
6	Sweetwater Reservoir	SWT.4	0	4	2	1998.3	3.0	58,100	18,100	55,600	11,200	1,750	880	3,000	5,000	19	.1	42	87	25	.07	22	153
			8	12	10	1996.5	2.8	63,800	15,900	56,600	10,500	1,730	960	2,780	4,880	15	.1	42	90	27	.05	24	151
			16	20	18	1994.3	2.8	75,600	15,900	60,000	10,200	1,590	880	3,000	4,880	15	.1	46	103	22	.06	22	154
			24	28	26	1992.1	3.0	72,400	26,600	58,400	11,900	1,520	950	3,890	5,380	25	.2	51	129	26	.06	25	150
			32	36	34	1989.9	3.0	85,900	23,900	61,600	13,000	1,510	930	4,560	5,250	26	.2	51	151	28	.05	22	150
			40	44	42	1987.8	2.8	89,400	19,600	60,600	11,800	1,600	900	4,000	4,620	26	.2	53	143	22	.06	22	140
			48	52	50	1985.6	2.6	79,900	15,100	62,400	10,000	1,710	1,100	2,780	4,880	19	.2	52	112	18	.05	23	151
			56	60	58	1983.2	2.6	81,000	16,800	60,500	9,750	1,670	1,100	3,560	5,000	19	.2	51	109	28	.06	25	147
			64	68	66	1980.4	2.4	108,000	14,500	68,500	9,500	1,530	1,200	5,670	4,880	22	.2	56	101	19	.06	25	163
			72	76	74	1977.6	3.2	91,200	23,600	61,200	12,200	1,440	930	5,440	5,500	22	.2	57	183	34	.06	26	141
			80	84	82	1975.0	3.2	65,900	27,900	58,300	10,200	1,330	890	3,890	5,380	18	.2	53	222	27	.05	22	141
			88	92	90	1972.5	3.0	70,400	24,600	57,700	9,750	1,150	830	3,670	5,000	21	.2	56	184	34	.05	26	131
			96	100	98	1969.8	3.0	60,900	20,500	59,800	9,000	1,180	950	3,440	5,120	13	.2	53	221	23	.05	22	141
			104	108	106	1967.1	2.8	72,600	19,600	57,200	9,050	1,240	1,000	4,000	5,560	15	.2	54	202	28	.05	29	143
			112	116	114	1964.0	2.8	56,600	19,600	55,000	8,500	1,220	840	3,110	5,250	19	.2	57	233	22	.05	29	139

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bot-tom	Mid-dle	Esti-mated deposi-tion date[1]	Organic carbon (percent)	Alu-minum	Cal-cium	Iron	Magne-sium	Manga-nese	Phos-phorus	Potas-sium	Sodi-um	Arse-nic	Cad-mium	Chro-mium	Cop-per	Lead	Mer-cury	Nickel	Zinc
6	Sweetwater Reservoir —Cont.	SWT.4 —Cont.	120	124	122	1961.1	3.0	45,200	18,100	53,000	7,500	1,250	810	2,440	5,620	20	0.3	51	324	18	0.05	26	151
			128	132	130	1958.6	3.5	48,000	13,700	56,000	7,500	1,260	850	3,440	5,500	23	.3	51	513	29	.06	26	160
			136	140	138	1956.2	3.0	75,000	13,400	58,500	6,000	1,160	830	9,330	4,620	25	.3	64	304	29	.04	29	154
			144	148	146	1953.4	2.7	76,000	13,800	57,100	7,000	900	940	3,000	5,620	15	.2	60	97	20	.04	34	143
			152	156	154	1949.1	2.7	92,900	17,300	63,100	9,750	839	660	13,200	8,250	17	.1	71	53	28	.03	24	137
			160	164	162	1943.6	2.3	54,800	19,100	49,900	11,000	1,120	590	7,440	12,900	12	<.1	58	48	21	.03	22	137
			168	172	170	1939.1	2.7	71,500	14,800	59,200	7,750	951	890	2,890	5,620	12	<.1	58	99	28	.04	25	141
			176	180	178	1935.8	2.1	59,200	15,000	57,900	5,750	849	920	3,110	3,880	16	<.1	60	94	34	.04	33	140
			184	188	186	Pre-res.	3.4	72,200	17,600	56,100	11,500	878	660	9,000	10,200	12	<.1	63	54	30	.03	24	144
		Median					**2.8**	**72,300**	**17,900**	**58,400**	**9,750**	**1,260**	**895**	**3,610**	**5,250**	**19**	**.2**	**54**	**120**	**27**	**.05**	**25**	**144**
7	Lake Mead	LVB-S4	0	3	1.5	1998.0	1.2	6,100	45,400	11,700	34,700	709	1,100	16,700	4,800	14	.2	18	48	41	.07	19	149
			3	6	4.5	1996.8	1.3	5,700	49,000	11,500	35,700	681	1,000	16,100	4,500	18	.2	16	43	56	.08	19	134
			6	9	7.5	1995.5	1.6	5,800	41,600	11,900	32,700	807	1,100	17,000	4,400	18	.2	16	43	59	.05	20	120
			9	12	10.5	1994.1	1.4	6,200	40,800	12,600	34,000	829	1,200	16,700	4,500	22	.1	17	42	53	.07	20	120
			12	15	13.5	1992.8	.9	7,000	46,000	13,900	36,000	878	1,100	17,600	4,700	25	.1	21	41	51	.07	18	116
			18	21	19.5	1989.8	1.0	5,950	46,200	12,100	38,300	900	1,150	17,200	4,750	26	.1	20	42	64	.11	21	116
			24	27	25.5	1986.5	1.2	7,300	45,500	13,600	40,300	1,040	1,300	19,200	4,900	31	.1	21	39	68	.04	23	118
			27	30	28.5	1984.5	--	11,500	45,600	18,200	32,000	1,010	1,300	20,400	5,500	33	.2	29	38	76	.04	27	120
			30	33	31.5	1982.1	.5	15,300	39,900	22,200	30,300	1,010	1,200	20,800	9,400	28	.2	43	38	78	.01	21	104
			36	39	37.5	1977.4	.6	7,000	37,500	16,800	33,300	1,260	1,300	20,400	5,200	37	.2	48	41	92	.04	33	135
			42	45	43.5	1973.4	1.2	7,300	48,100	22,500	36,700	1,170	1,300	20,000	4,200	37	.3	126	44	102	.02	82	137
			50	55	52.5	1967.0	1.1	5,100	45,400	15,100	26,000	1,090	1,100	17,500	4,800	28	.2	125	39	91	.03	88	110
			60	65	62.5	1962.9	1.1	5,700	42,600	19,100	31,000	1,060	1,200	19,500	5,100	25	.2	122	40	85	.02	80	116
			70	75	72.5	1960.6	1.9	5,200	50,500	14,600	31,700	842	1,100	17,500	4,600	22	.2	108	36	83	.02	79	121
			80	85	82.5	1958.3	1.2	4,400	61,200	14,100	39,700	720	880	18,100	4,700	18	.1	117	34	88	.02	75	112
			85	90	87.5	1957.1	.9	4,000	80,000	13,300	44,300	720	850	15,800	5,300	17	.1	129	34	105	.05	79	99
			90	95	92.5	1955.9	1.1	5,300	54,900	11,200	32,700	734	910	15,500	5,800	12	.1	102	30	100	.04	66	93
			100	105	102.5	1953.7	1.0	6,800	47,800	11,300	27,300	778	920	16,700	4,500	11	.1	109	32	85	.05	68	98
			105	110	107.5	1952.5	.8	5,300	49,500	12,400	30,700	796	760	16,800	4,600	13	.1	109	35	82	.03	72	112
			115	120	117.5	1949.8	.4	8,600	49,900	9,900	24,300	291	380	15,500	7,100	15	.1	94	15	32	.01	66	52
		Median					**1.1**	**6,020**	**46,100**	**13,400**	**33,000**	**835**	**1,100**	**17,400**	**4,780**	**22**	**.1**	**71**	**39**	**80**	**.04**	**49**	**116**
8	Great Salt Lake	FAR.B	0	1	.5	1997.1	--	8,860	41,200	5,840	18,700	433	1,610	18,000	83,000	11	.4	15	113	76	--	13	194
			1	2	1.5	1994.7	--	11,100	52,800	7,530	19,700	499	1,560	16,900	50,000	19	.4	20	131	90	--	9.8	218
			2	3	2.5	1991.5	--	12,000	48,800	7,660	18,000	516	1,440	17,500	40,200	20	.4	25	146	96	--	17	236
			3	4	3.5	1987.8	--	12,000	42,800	8,050	19,700	511	1,330	16,900	35,500	21	.4	25	143	119	--	13	239
			4	5	4.5	1983.6	--	13,900	51,300	9,220	21,300	520	1,330	17,600	32,800	21	.4	29	149	129	--	18	244

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters)			Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
			Top	Bottom	Middle																		
8	Great Salt Lake—Cont.	FAR.B —Cont.	5	6	5.5	1979.1	--	13,400	45,200	8,830	23,000	541	1,330	17,500	31,000	19	0.4	29	158	113	--	20	249
			6	7	6.5	1974.6	--	13,400	63,300	9,090	26,000	547	1,330	16,700	31,300	24	.4	31	169	117	--	22	248
			7	8	7.5	1970.3	--	13,400	76,000	9,220	27,000	540	1,440	16,900	33,200	25	.3	30	188	117	--	19	245
			8	9	8.5	1966.3	--	11,800	50,500	7,660	23,000	517	1,330	15,900	34,300	17	.3	24	140	116	--	17	230
			9	10	9.5	1962.0	--	12,600	75,800	8,270	21,800	554	1,180	16,400	36,800	22	.4	23	126	102	--	17	224
			10	11	10.5	1957.3	--	13,000	106,000	8,700	18,000	564	1,070	16,700	35,300	22	.4	21	111	107	--	18	212
		Median					**--**	**12,600**	**51,300**	**8,270**	**21,300**	**520**	**1,330**	**16,900**	**35,300**	**21**	**.4**	**25**	**143**	**113**	**--**	**17**	**236**
9	Red Butte Reservoir	RED.1	0	2	1	1998.2	3.7	28,400	43,500	24,100	16,000	594	1,600	26,600	5,500	10	.3	66	114	26	<0.02	28	132
			2	4	3	1997.7	3.0	33,500	41,500	26,800	18,000	638	1,600	28,200	6,400	13	.3	70	176	25	<.02	29	129
			10	12	11	1995.3	2.9	29,900	28,000	25,400	13,400	680	1,700	25,800	6,850	11	.3	66	33	19	<.02	33	136
			20	22	21	1992.0	2.9	49,500	31,500	31,800	16,000	714	1,900	28,800	6,800	12	.3	78	33	24	<.02	37	140
			30	32	31	1988.4	2.9	44,700	32,700	29,600	15,000	706	1,900	27,400	7,600	11	.3	73	33	25	<.02	34	136
			40	42	41	1984.8	2.8	44,400	33,300	28,600	14,500	703	1,900	26,200	7,200	12	.3	67	30	30	<.02	31	132
			50	52	51	1981.1	2.9	48,700	33,500	30,900	14,000	678	1,800	27,700	6,950	11	.3	68	31	24	<.02	26	132
			60	62	61	1977.2	3.1	45,700	31,100	30,500	14,500	705	1,800	27,400	6,700	11	.3	72	31	30	<.02	32	144
			70	72	71	1973.2	2.8	40,700	30,900	27,000	13,000	703	1,800	25,400	6,700	10	.3	64	26	26	<.02	28	124
			80	82	81	1969.2	2.9	60,700	20,200	40,500	13,000	565	1,500	30,800	3,900	12	.3	150	35	19	<.02	81	136
			92	94	93	1964.8	3.5	59,900	20,700	38,800	13,000	578	1,400	29,200	3,600	13	.3	153	36	18	<.02	87	121
		Median					**2.9**	**44,700**	**31,500**	**29,600**	**14,500**	**680**	**1,800**	**27,400**	**6,700**	**11**	**.3**	**70**	**33**	**25**	**<.02**	**32**	**132**
10	Lake Elbert	EBT.B1	0	.5	.25	1997.0	7.5	58,200	4,860	25,400	6,120	207	2,340	14,800	6,230	7.0	.4	34	48	60	.09	13	113
			.5	1	.75	1991.7	7.4	55,100	4,970	25,100	6,360	206	2,260	15,700	6,730	6.6	.4	34	26	61	.09	13	108
			1	1.5	1.25	1985.9	7.2	55,900	4,900	24,900	6,340	206	2,230	15,100	6,420	8.3	.5	33	34	63	.10	13	114
			1.5	2	1.75	1980.2	7.0	57,500	4,880	25,900	6,620	213	2,220	15,900	6,620	7.2	.6	35	28	70	.11	14	116
			2	2.5	2.25	1974.6	6.7	58,600	4,620	24,600	6,340	204	2,120	15,400	6,400	7.1	.7	34	31	71	.09	13	116
			2.5	3	2.75	1969.3	6.5	63,200	5,240	27,300	7,200	225	2,210	17,100	7,140	7.7	.8	38	29	82	.09	14	129
			3	3.5	3.25	1964.5	6.2	59,000	4,530	24,400	6,420	203	2,040	15,400	6,470	7.9	.7	34	26	75	.09	13	120
			3.5	4	3.75	1958.7	5.8	60,200	4,840	26,000	7,000	219	1,740	16,600	7,060	7.3	.8	37	26	81	.09	14	119
			4	4.5	4.25	1953.3	5.7	61,000	4,890	26,200	6,980	216	1,980	16,700	7,020	8.4	.8	37	30	81	.09	13	126
			4.5	5	4.75	1947.6	5.3	62,500	4,920	26,700	7,190	225	1,940	17,500	7,420	9.3	.7	37	27	75	.08	14	123
			5	6	5.5	1938.2	5.2	62,400	5,040	26,900	7,130	226	1,930	17,500	7,430	7.9	.6	37	26	66	.07	14	123
			7	8	7.5	1924.9	5.1	64,800	4,770	26,200	6,850	225	1,950	16,600	7,500	6.3	.4	36	23	38	.06	12	116
			9	10	9.5	1896.0	5.0	61,800	4,800	27,100	6,920	222	2,040	17,100	7,160	5.2	.3	37	24	25	.05	13	115
			11	12	11.5	1865.0	5.1	62,500	4,560	26,300	6,670	214	2,200	15,900	6,660	5.0	.3	36	23	23	.05	13	113
			13	14	13.5	1834.2	5.0	61,800	4,480	25,400	6,500	210	1,980	16,400	6,740	5.6	.3	36	22	22	.05	13	110

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bot-tom	Mid-dle	Esti-mated deposi-tion date[1]	Organic carbon (percent)	Alu-minum	Cal-cium	Iron	Magne-sium	Manga-nese	Phos-phorus	Potas-sium	Sodi-um	Arse-nic	Cad-mium	Chro-mium	Cop-per	Lead	Mer-cury	Nickel	Zinc
10	Lake Elbert	EBT.B1	15	16	15.5	1803.6	5.0	63,100	4,810	26,900	7,150	224	2,020	17,200	7,220	5.7	0.3	38	25	22	--	14	115
	—Cont.	—Cont.	17	18	17.5	1773.2	4.8	63,400	4,660	26,000	6,980	219	2,060	16,400	6,870	5.4	.3	37	24	21	--	13	115
		Median					**5.7**	**61,800**	**4,840**	**26,000**	**6,850**	**216**	**2,040**	**16,400**	**6,870**	**7.1**	**.5**	**36**	**26**	**63**	**0.09**	**13**	**116**
11	Mills Lake	MIL	0	.5	.25	2000.0	14.4	44,600	5,220	30,300	9,700	225	1,980	11,900	4,830	6.9	.6	36	35	42	.12	14	88
			.5	1	.75	1996.8	12.8	49,600	6,270	23,200	10,200	738	1,820	14,000	6,310	4.7	.6	37	38	41	.12	13	85
			1	1.5	1.25	1993.3	12.0	51,400	5,140	17,800	10,000	645	1,620	14,700	6,720	3.3	.7	37	30	40	.12	13	81
			1.5	2	1.75	1989.8	12.7	49,100	5,280	17,500	4,640	635	1,740	13,600	5,850	3.3	.7	36	33	43	.13	13	83
			2	2.5	2.25	1986.5	13.4	48,600	5,270	17,400	10,100	641	1,750	13,000	5,470	3.8	.9	36	38	47	.14	13	89
			2.5	3	2.75	1983.3	13.6	47,800	4,490	16,400	9,900	621	1,610	12,800	5,250	3.8	.9	35	38	51	.15	13	89
			3	3.5	3.25	1980.1	13.7	50,000	4,920	17,500	4,670	642	1,600	13,700	5,780	4.2	.9	36	34	54	.16	13	87
			3.5	4	3.75	1976.9	13.3	52,200	5,040	17,600	4,860	653	1,620	14,000	5,760	3.9	1.0	37	35	56	.16	14	90
			4	4.5	4.25	1973.6	13.0	51,300	4,770	17,200	4,750	652	1,570	14,100	5,720	4.0	.9	36	34	54	.18	13	89
			4.5	5	4.75	1970.2	13.5	53,700	5,270	17,700	4,890	655	1,560	15,000	6,280	4.7	1.0	38	36	55	.12	14	94
			5	6	5.5	1964.5	12.9	52,400	5,050	17,100	4,760	626	1,500	15,000	6,360	4.9	.9	36	32	53	.15	13	90
			6	7	6.5	1956.5	11.5	58,400	5,180	17,800	4,980	661	1,570	17,500	7,670	4.5	.9	38	32	55	.12	13	90
			8	9	8.5	1939.1	12.0	60,400	5,340	18,200	5,210	673	1,630	17,800	8,040	5.3	1.2	40	34	63	.13	14	99
			10	11	10.5	1920.4	14.3	55,200	5,170	17,000	7,340	627	1,530	17,200	7,520	5.7	.9	34	28	60	.11	12	89
			12	13	12.5	1901.8	13.2	53,900	4,870	17,500	4,910	637	1,710	15,000	6,110	6.0	.9	36	29	67	.11	13	88
			14	15	14.5	1883.3	11.6	56,800	4,790	17,800	5,040	647	1,720	17,400	7,190	4.3	.6	38	28	54	.12	14	86
			16	17	16.5	1865.0	12.3	54,800	4,650	17,400	4,970	631	1,820	15,100	6,020	3.4	.4	39	31	34	.11	14	83
		Median					**13.0**	**52,200**	**5,140**	**17,500**	**4,980**	**642**	**1,620**	**14,700**	**6,110**	**4.3**	**.9**	**36**	**34**	**54**	**.12**	**13**	**89**
12	Sloans Lake	SLN.2	0	2	1	1997.2	4.2	59,800	32,400	38,400	11,700	810	1,100	18,500	6,600	13	1.2	48	88	245	.30	23	430
			2	4	3	1996.1	4.2	62,800	33,400	35,900	10,200	746	1,100	18,400	6,500	16	1.1	37	81	225	.28	20	398
			4	6	5	1993.6	4.5	55,900	27,600	37,100	11,200	790	1,100	18,000	6,300	14	1.0	49	80	242	.28	25	418
			6	8	7	1991.0	4.3	57,300	36,200	36,900	10,200	794	1,100	18,300	6,300	15	1.1	56	81	238	.26	22	416
			8	10	9	1988.7	4.3	58,300	33,900	37,800	10,500	802	1,100	18,600	6,400	16	1.0	46	84	244	.23	24	413
			10	12	11	1985.4	4.1	57,600	36,400	37,100	9,800	736	1,100	18,300	6,200	17	1.1	55	81	254	.29	24	420
			12	14	13	1982.2	3.8	56,800	37,100	36,400	9,300	682	1,000	18,100	6,100	16	2.1	62	81	245	.27	27	396
			14	16	15	1979.1	4.0	56,000	24,700	37,200	10,200	712	1,000	18,100	6,100	16	2.1	52	81	256	.30	25	382
			16	18	17	1976.1	3.6	61,800	41,400	37,700	8,800	742	1,000	18,900	6,100	17	2.1	62	88	294	.27	23	380
			18	20	19	1973.0	3.4	58,900	21,100	38,400	9,500	698	1,000	18,400	5,900	16	2.0	45	88	304	.31	34	371
			20	22	21	1970.1	3.3	57,900	22,000	37,100	8,800	708	960	18,200	5,800	17	2.1	49	88	306	.31	25	373
			22	24	23	1967.1	3.3	61,600	22,200	39,200	10,000	756	990	18,900	6,200	19	2.5	67	92	302	.28	26	358
			24	26	25	1963.6	3.1	54,400	22,200	36,900	8,800	720	950	18,400	6,100	18	2.3	52	81	278	.22	26	353
			26	28	27	1960.2	3.0	58,700	22,000	37,100	9,300	699	920	17,800	5,900	19	2.6	50	71	254	.31	24	311
			28	30	29	1957.1	2.8	56,800	21,800	37,300	8,800	712	930	18,700	6,300	17	2.3	66	79	260	.33	24	311

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bot-tom	Mid-dle	Esti-mated deposi-tion date[1]	Organic carbon (percent)	Alu-minum	Cal-cium	Iron	Magne-sium	Manga-nese	Phos-phorus	Potas-sium	Sodi-um	Arse-nic	Cad-mium	Chro-mium	Cop-per	Lead	Mer-cury	Nickel	Zinc
12	Sloans Lake —Cont.	SLN.2 —Cont.	30	32	31	1953.8	2.5	57,600	23,000	37,200	7,150	745	920	18,500	6,300	18	1.9	52	90	234	0.35	25	310
			34	36	35	1946.8	2.2	56,000	20,000	37,400	5,900	738	860	18,200	4,900	18	1.8	40	92	190	.45	27	304
			36	38	37	1943.2	2.2	55,700	20,700	36,900	6,100	720	860	17,600	4,700	19	1.4	52	94	192	.45	26	300
			40	42	41	1936.8	1.9	55,400	20,700	37,200	5,600	778	870	18,400	4,500	21	1.9	63	91	187	.43	31	296
			44	46	45	1929.6	2.1	52,200	19,600	36,700	6,400	764	840	17,800	4,600	21	1.6	47	96	200	.37	24	296
			54	56	55	1913.1	3.1	36,500	22,500	32,400	6,900	804	840	15,600	5,100	21	1.5	34	107	220	.57	24	298
			58	60	59	1908.1	2.9	42,100	22,400	35,500	6,300	870	840	16,300	4,800	21	1.5	44	122	269	.69	24	353
			62	64	63	1902.7	3.0	45,600	21,600	35,100	6,500	948	870	16,900	5,200	21	1.5	56	136	286	.78	26	351
			66	68	67	1897.7	2.8	78,900	83,500	36,600	13,900	914	910	18,400	7,500	21	1.5	62	144	286	1.13	24	338
			68	70	69	1894.9	2.4	84,500	72,700	39,200	13,900	908	940	19,300	7,900	21	1.6	57	146	294	1.17	25	333
			72	74	73	1889.8	2.3	97,100	54,200	40,800	15,700	816	960	21,100	8,300	21	1.4	57	163	316	1.56	24	338
			76	78	77	1885.2	2.0	96,200	44,400	42,100	14,900	808	950	21,800	8,700	21	1.3	44	168	311	1.69	25	344
			80	82	81	1878.5	1.9	78,400	37,800	36,100	11,500	764	910	20,000	8,700	21	1.4	48	145	258	1.73	24	307
			88	90	89	1865.3	1.5	87,300	21,900	37,400	12,200	610	1,050	21,400	9,250	21	1.2	50	34	35	.20	23	127
		Median					**3.0**	**57,600**	**23,000**	**37,100**	**9,500**	**756**	**950**	**18,400**	**6,200**	**18**	**1.5**	**52**	**88**	**254**	**.31**	**24**	**351**
13	Lake Como	CMO.1	0	5	2.5	2000.8	5.7	49,000	168,000	28,100	5,630	718	1,440	8,900	1,010	14	1.2	68	39	124	.12	29	262
			5	10	7.5	1999.9	5.5	48,300	164,000	28,700	5,560	685	1,470	8,740	939	15	1.5	72	46	156	.12	31	291
			10	15	12.5	1998.7	5.4	47,200	204,000	29,000	5,580	769	2,080	8,530	1,030	15	1.7	77	54	186	.13	30	293
			20	25	22.5	1995.3	3.6	48,800	191,000	27,400	5,640	696	1,430	8,920	913	16	1.3	74	34	195	.14	29	217
			30	35	32.5	1990.6	3.4	39,700	203,000	22,200	4,710	565	1,070	7,960	1,100	12	1.3	91	34	410	.14	26	199
			45	50	47.5	1982.5	3.3	35,100	204,000	20,200	4,350	504	968	7,290	1,070	10	1.0	70	32	241	.15	25	171
			60	65	62.5	1974.1	2.5	53,000	205,000	27,800	5,990	682	1,130	10,700	750	13	.9	77	30	159	.10	30	164
			75	80	77.5	1969.1	5.2	47,500	178,000	29,200	5,500	745	1,810	8,320	796	17	2.3	118	46	1,220	.17	30	319
			90	95	92.5	1958.6	2.8	55,800	179,000	31,000	6,170	828	1,170	9,060	734	18	1.2	120	24	303	.09	31	168
		Median					**3.6**	**48,300**	**191,000**	**28,100**	**5,580**	**696**	**1,430**	**8,740**	**939**	**15**	**1.3**	**77**	**34**	**195**	**.13**	**30**	**217**
14	Echo Lake	ECO.1	0	5	2.5	1999.7	3.5	56,800	99,500	31,600	7,910	728	1,020	8,660	1,140	16	3.2	71	39	125	.11	30	292
			5	10	7.5	1998.3	3.6	58,200	109,000	32,500	7,420	685	1,040	8,830	1,070	16	4.8	75	46	144	.14	32	352
			10	15	12.5	1996.4	3.6	56,500	110,000	32,000	6,920	633	982	9,070	987	16	4.2	73	39	129	.13	30	305
			20	25	22.5	1991.7	3.7	61,400	111,000	31,000	8,150	634	832	9,680	1,130	16	6.6	74	39	165	.15	31	276
			30	35	32.5	1985.9	3.9	58,800	114,000	31,100	7,810	668	915	8,940	1,010	19	54.7	101	44	303	.14	29	519
			40	45	42.5	1980.6	3.9	58,200	113,000	31,800	8,010	673	964	9,120	1,110	19	16.1	84	43	464	.14	30	322
			55	60	57.5	1972.5	3.9	56,500	113,000	31,400	8,170	729	1,160	8,970	1,070	21	33.0	136	43	706	.15	32	315
			65	70	67.5	1966.8	3.4	63,100	96,700	32,800	8,950	728	1,570	10,400	1,200	20	182	240	54	305	.14	38	351
			75	80	77.5	1961.1	3.5	59,100	100,000	32,300	8,610	771	1,500	8,550	953	20	80.8	114	45	307	.12	29	215
			90	97	93.5	1951.4	2.9	64,700	76,600	34,300	9,710	791	750	9,780	1,240	18	2.0	70	25	111	.09	27	129
		Median					**3.6**	**58,500**	**110,000**	**31,900**	**8,080**	**706**	**999**	**9,020**	**1,090**	**18**	**11**	**79**	**43**	**234**	**.14**	**30**	**310**

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
15	Fosdic Lake	FOS.4	0	5	2.5	2000.4	2.7	49,400	88,300	28,400	4,540	830	1,520	6,940	1,060	12	1.7	76	37	109	0.24	24	211
			5	10	7.5	1998.4	2.6	47,600	84,900	26,900	4,540	774	1,500	6,880	1,080	12	2.1	74	48	129	.28	24	247
			10	15	12.5	1996.2	2.5	42,500	83,400	19,200	3,950	570	1,300	6,700	1,000	11	2.3	71	42	140	.31	23	244
			20	25	22.5	1991.0	2.2	46,900	72,600	25,500	4,410	517	1,310	7,120	1,110	12	2.8	81	44	196	.37	24	248
			30	35	32.5	1983.3	2.7	52,300	84,900	27,200	4,720	494	1,140	7,780	1,040	13	3.7	86	45	285	.41	27	218
			45	50	47.5	1968.9	2.6	60,700	85,000	31,600	5,100	592	1,260	9,390	1,160	15	4.1	96	40	379	.55	29	206
			55	60	57.5	1959.8	3.0	60,500	93,100	31,100	5,100	573	780	8,150	1,060	220	.9	66	21	242	.16	26	130
			70	75	72.5	1944.6	1.9	69,400	67,900	36,900	5,160	834	666	8,960	1,130	32	.5	71	20	89	.09	28	100
			85	90	87.5	1928.3	2.3	72,000	67,000	36,500	5,350	566	633	9,640	1,140	28	.2	73	16	39	.06	28	87
			100	105	102.5	1912.6	2.0	66,600	42,100	30,800	5,430	520	547	8,570	1,320	21	.2	64	16	27	.04	25	70
			105	112	108.5	Pre-res.	2.2	52,200	41,200	27,100	3,920	446	475	8,240	1,120	12	.1	55	14	20	.04	22	53
	Median						**2.5**	**52,300**	**83,400**	**28,400**	**4,720**	**570**	**1,140**	**8,150**	**1,110**	**12**	**1.7**	**73**	**37**	**129**	**.24**	**25**	**206**
16	White Rock Lake	WRL2.2	0	1.5	.75	1996.1	2.5	54,400	134,000	26,100	6,200	1,060	1,200	6,500	580	8.1	.2	61	12	21	.06	31	104
			1.5	3	2.25	1995.2	2.3	53,500	126,000	23,000	5,950	935	1,050	6,650	605	9.2	.1	64	14	22	.05	31	116
			3	4.5	3.75	1994.3	2.2	49,200	128,000	25,200	6,000	866	1,200	6,700	490	9.0	.2	58	11	21	.05	32	141
			4.5	6	5.25	1993.4	2.2	50,800	125,000	27,400	6,600	916	1,100	6,900	560	10	.1	61	13	23	.05	33	148
			6	7.5	6.75	1992.5	2.0	49,400	122,000	26,300	6,600	832	1,200	6,800	510	10	.2	60	12	21	.06	36	148
			7.5	9	8.25	1991.6	2.1	45,800	123,000	23,200	6,600	794	1,100	6,600	540	9.1	.2	63	12	21	.07	34	150
			9	10.5	9.75	1990.7	2.1	47,600	119,000	26,200	6,400	796	1,150	6,900	515	7.0	.2	61	12	22	.07	34	142
			10.5	12	11.25	1989.8	2.0	51,000	126,000	23,900	6,400	840	1,000	6,900	570	11	.2	60	15	22	.09	31	139
			12	13.5	12.75	1988.8	3.0	51,200	125,000	23,800	6,300	860	1,100	6,900	570	11	.2	65	12	34	.08	34	154
			13.5	15	14.25	1987.9	2.0	53,200	129,000	28,300	6,700	888	1,000	7,100	550	12	.2	68	13	31	.08	34	149
			15	16.5	15.75	1987.0	1.9	56,200	128,000	26,400	6,800	936	1,200	7,000	610	9.0	.2	67	12	34	.09	35	150
			16.5	18	17.25	1986.1	2.0	55,200	121,000	26,400	6,800	962	1,100	7,200	540	10	.2	64	13	29	.09	39	151
			18	19.5	18.75	1985.2	2.1	51,400	121,000	27,200	6,700	950	1,100	6,900	590	11	.2	64	13	39	.09	40	164
			19.5	21	20.25	1984.3	2.0	49,600	106,000	27,100	6,600	930	1,200	7,100	490	11	.2	61	12	42	.09	36	160
			21	22.5	21.75	1983.4	2.0	54,000	126,000	26,500	6,800	964	1,100	7,100	510	8.7	.2	56	13	44	.08	39	148
			22.5	24	23.25	1982.5	2.2	55,600	125,000	26,300	6,900	960	1,100	6,800	580	10	.2	56	13	57	.08	36	154
			24	25.5	24.75	1981.6	2.0	53,500	128,000	28,400	6,850	936	1,100	7,200	475	10	.2	57	11	54	.07	37	144
			25.5	27	26.25	1980.7	1.8	63,600	135,000	26,700	7,100	994	1,100	6,500	580	9.1	.2	66	12	64	.06	38	142
			27	28.5	27.75	1979.8	1.9	69,200	144,000	27,400	7,750	952	1,200	6,550	580	8.9	.2	65	11	66	.06	37	141
			28.5	30	29.25	1978.9	2.0	67,600	147,000	27,500	7,100	918	1,100	7,200	560	11	.2	58	10	78	.07	36	138

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bot-tom	Mid-dle	Esti-mated deposi-tion date[1]	Organic carbon (percent)	Alu-minum	Cal-cium	Iron	Magne-sium	Manga-nese	Phos-phorus	Potas-sium	Sodi-um	Arse-nic	Cad-mium	Chro-mium	Cop-per	Lead	Mer-cury	Nickel	Zinc
16	White Rock Lake—Cont.	WRL2.2—Cont.	30	31.5	30.75	1978.0	2.1	60,200	128,000	30,200	7,300	930	1,200	7,500	560	11	0.2	62	12	78	0.06	34	132
			31.5	33	32.25	1977.1	2.1	62,600	129,000	29,200	7,200	902	1,000	7,200	540	11	.2	58	13	72	.06	33	138
			33	34.5	33.75	1976.2	2.1	61,200	119,000	29,100	7,200	904	1,000	7,400	490	11	.2	68	11	78	.06	35	132
			34.5	36	35.25	1975.3	1.8	60,200	127,000	31,400	7,800	908	1,000	7,900	510	11	.2	67	12	73	.06	37	140
			36	37.5	36.75	1974.4	1.2	60,600	124,000	28,600	7,800	918	1,100	7,700	520	10	.2	77	12	83	.06	39	138
			37.5	39	38.25	1973.5	1.7	60,600	123,000	28,100	7,400	884	1,200	7,600	540	11	.2	76	11	89	.06	38	145
			39	40.5	39.75	1972.3	1.8	61,600	121,000	28,700	7,700	902	1,100	7,700	530	12	.2	78	12	80	.06	41	144
			40.5	42	41.25	1971.1	2.0	66,200	115,000	28,800	7,400	880	1,100	7,400	580	12	.2	80	13	76	.07	41	142
			42	43.5	42.75	1969.9	1.8	70,500	122,000	32,100	8,900	910	1,200	8,400	610	12	.2	83	16	74	.07	41	144
			43.5	45	44.25	1968.7	1.9	66,600	123,000	29,600	7,500	878	1,100	7,600	590	11	.2	81	12	69	.06	43	146
			45	46.5	45.75	1967.5	1.9	70,000	121,000	32,400	8,100	964	1,200	8,100	690	11	.2	88	14	64	.06	43	144
			46.5	48	47.25	1966.2	1.8	65,800	129,000	28,600	7,500	904	1,100	7,500	640	12	.2	77	16	51	.07	41	146
			48	49.5	48.75	1965.0	2.0	68,200	125,000	28,700	7,800	886	990	7,800	620	10	.2	76	12	45	.06	40	140
			49.5	51	50.25	1963.8	2.0	68,600	125,000	30,300	7,100	844	950	7,600	920	9.1	.2	72	14	26	.05	39	123
			51	52.5	51.75	1962.6	1.7	66,200	127,000	26,800	7,400	836	1,100	7,600	560	10	.2	75	12	23	.06	39	134
			52.5	54	53.25	1961.4	1.8	66,200	127,000	30,400	7,700	884	920	7,500	510	10	.2	70	11	23	.06	34	132
			54	55.5	54.75	1960.2	1.9	66,800	114,000	32,400	8,100	852	990	8,100	560	11	.2	76	12	25	.06	42	133
			55.5	57	56.25	1959.0	1.8	73,700	105,000	35,700	9,000	868	925	8,650	520	10	.2	76	13	19	.05	41	137
			57	58.5	57.75	1957.8	1.8	68,400	107,000	33,100	8,200	876	840	8,200	690	11	.2	75	14	19	.05	37	140
			58.5	60	59.25	1956.6	1.7	69,200	109,000	26,900	6,800	888	980	7,900	650	11	.2	76	14	19	.05	39	126
			60	61.5	60.75	1955.4	2.0	79,000	98,400	32,500	8,900	896	860	9,400	620	12	.2	76	14	17	.04	43	138
			61.5	63	62.25	1954.1	3.9	75,200	98,000	33,600	8,650	879	805	8,650	500	10	.2	74	13	15	.04	40	138
			63	64.5	63.75	1952.9	2.1	74,600	96,500	37,300	9,200	938	860	8,400	520	12	.2	75	13	14	.04	41	129
			64.5	66	65.25	1951.7	2.1	78,800	98,700	26,700	7,600	934	760	8,500	580	11	.2	75	13	14	.05	43	122
			66	67.5	66.75	195.5	1.7	81,600	97,300	39,100	9,400	910	860	8,800	540	11	.2	73	13	14	.05	43	142
			67.5	69	68.25	1949.3	2.1	79,100	98,300	37,300	8,800	864	860	8,400	610	11	.2	75	15	14	.04	43	135
			69	70.5	69.75	1948.0	1.8	78,200	97,100	33,400	8,400	954	760	8,500	520	11	.2	71	13	14	.04	42	134
			70.5	72	71.25	1946.6	1.8	78,400	98,600	37,600	9,200	912	860	9,200	490	11	.2	78	14	14	.05	41	133
			72	73.5	72.75	1945.3	1.8	78,600	99,200	34,400	8,900	934	820	9,100	480	11	.2	74	15	14	.05	41	140
			73.5	75	74.25	1943.9	1.9	80,400	99,300	39,100	9,300	839	880	9,100	530	11	.2	77	15	15	.05	43	145
			75	76.5	75.75	1942.5	2.1	79,500	98,200	36,400	8,400	866	840	8,600	740	11	.2	75	14	18	.05	41	132
			76.5	78	77.25	1941.2	2.1	80,800	98,400	31,400	7,100	864	810	8,100	710	11	.2	77	14	16	.05	40	128
			78	79.5	78.75	1939.8	1.9	80,600	99,300	28,400	7,900	900	840	8,700	810	11	.2	71	14	18	.05	37	132
			79.5	81	80.25	1938.5	1.7	81,200	105,000	34,400	8,950	908	925	9,150	530	11	.2	80	13	19	.05	40	144
			81	82.5	81.75	1937.1	1.6	74,400	102,000	35,200	8,600	960	840	8,700	460	11	.2	69	14	18	.04	38	125

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
16	White Rock Lake—Cont.	WRL2.2 —Cont.	82.5	84	83.25	1935.7	1.6	74,000	107,000	32,400	8,600	900	910	8,700	490	11	0.2	66	13	16	0.05	40	128
			84	85.5	84.75	1934.4	1.8	71,200	105,000	36,200	8,800	898	880	8,800	490	11	.2	66	14	15	.05	42	132
			85.5	87	86.25	1933.0	1.8	70,600	116,000	34,500	8,600	920	920	8,200	450	13	.2	67	14	15	.04	41	134
			87	88.5	87.75	1931.6	1.6	71,400	125,000	35,400	8,800	944	850	8,700	460	11	.2	71	13	17	.05	38	128
			88.5	90	89.25	1930.3	1.9	75,400	119,000	32,200	9,100	936	920	9,100	540	11	.2	73	16	16	.04	41	136
			90	91.5	90.75	1928.9	1.8	76,500	114,000	33,600	9,200	861	945	9,250	485	12	.2	72	13	13	.04	40	140
			91.5	93	92.25	1927.5	1.9	76,600	113,000	34,800	8,700	828	910	8,400	490	11	.2	69	13	11	.04	38	133
			93	94.5	93.75	1926.2	2.1	74,200	123,000	31,200	7,900	824	820	8,300	640	11	.2	64	12	12	.05	37	128
			94.5	96	95.25	1924.5	1.9	75,900	110,000	36,500	9,400	828	940	9,500	490	11	.2	68	14	12	.04	34	138
			96	97.5	96.75	1922.7	1.9	65,900	116,000	33,200	8,250	783	890	8,400	530	11	.2	63	12	16	.04	38	131
			97.5	99	98.25	1921.0	1.8	64,800	115,000	31,400	8,700	782	940	9,100	520	11	.2	69	12	11	.04	39	132
			99	100.5	99.75	1919.2	2.1	64,100	128,000	33,400	8,900	758	1,000	8,900	520	11	.2	68	11	11	.04	37	134
			100.5	102	101.25	1917.5	1.7	50,000	123,000	23,500	7,200	732	840	8,100	690	10	.2	68	10	11	.04	32	120
			102	103.5	102.75	1915.7	1.9	50,200	125,000	24,900	7,400	694	940	8,400	610	8.9	.1	62	11	11	.04	36	118
			103.5	105	104.25	1914.0	1.7	37,400	117,000	18,100	6,700	648	840	6,700	960	10	.1	58	8.5	11	.04	30	84
			111	112.5	111.75	Pre-res.	1.7	27,600	108,000	12,600	4,800	648	640	4,800	760	10	.1	32	6.0	10	<.04	25	66
			114	115.5	114.75	Pre-res.	1.6	26,400	104,000	15,800	4,200	630	660	5,400	820	10	.1	42	8.4	11	<.04	28	62
			109.5	111	110.25	Pre-res.	1.4	27,400	117,000	13,200	3,900	652	620	5,100	740	10	.1	32	7.9	11	<.04	24	70
			108	109.5	108.75	Pre-res.	1.2	28,800	118,000	14,300	3,800	666	610	4,400	850	11	.1	27	6.4	10	<.04	25	67
			112.5	114	113.25	Pre-res.	1.4	27,800	105,000	18,200	4,200	664	660	5,100	710	10	.1	42	8.2	10	<.04	26	67
			106.5	108	107.25	Pre-res.	1.9	28,300	112,000	14,100	4,500	660	760	4,600	880	9.0	.1	35	7.4	9.5	<.04	23	72
			105	106.5	105.75	Pre-res.	2.8	36,200	122,000	13,800	4,650	671	830	5,650	810	10	.1	44	8.0	8.0	<.04	24	66
		Median					**1.9**	**66,400**	**121,000**	**29,400**	**7,700**	**899**	**990**	**7,900**	**540**	**11**	**.2**	**69**	**13**	**21**	**.05**	**38**	**138**
17	Town Lake	TWN	0	5	2.5	1998.1	--	47,300	173,000	23,800	13,100	856	680	13,100	2,110	7.8	.5	52	33	54	--	24	112
			10	15	12.5	1995.0	--	47,900	177,000	23,800	13,300	775	670	13,100	2,010	7.8	.5	54	38	68	--	25	114
			20	25	22.5	1991.5	--	46,700	179,000	23,300	12,900	769	670	12,900	1,900	7.8	.5	54	34	72	--	26	113
			30	35	32.5	1987.9	--	50,900	191,000	25,300	13,200	892	670	13,300	1,570	8.3	.5	56	35	83	--	26	112
			40	45	42.5	1984.0	--	46,300	196,000	22,800	13,800	901	630	12,500	1,670	7.9	.4	52	30	76	--	24	96
			50	55	52.5	1979.9	--	51,300	183,000	24,600	11,900	920	700	13,400	1,350	7.9	.5	56	30	80	--	26	106
			60	65	62.5	1976.1	--	49,800	192,000	24,400	13,500	851	670	12,800	1,520	8.6	.5	57	40	126	--	28	113
			70	75	72.5	1972.1	--	43,500	200,000	20,700	14,100	754	620	11,300	1,600	8.2	.5	51	26	138	--	24	97
			80	85	82.5	1968.2	--	48,600	178,000	23,800	13,900	833	610	13,000	2,160	8.9	.5	55	40	191	--	26	116
			90	95	92.5	1964.0	--	53,600	199,000	25,800	13,200	835	670	13,000	1,550	8.0	.6	62	38	176	--	32	125
			100	105	102.5	1961.1	--	62,700	164,000	29,000	13,300	759	650	15,300	1,930	8.6	.6	68	47	187	--	30	134
			110	115	112.5	1955.0	--	45,000	129,000	19,300	12,800	505	450	17,500	6,030	3.9	.2	38	21	28	--	18	50
		Median					**--**	**48,200**	**181,000**	**23,800**	**13,200**	**834**	**670**	**13,000**	**1,780**	**7.9**	**.5**	**54**	**35**	**82**	**--**	**26**	**112**

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
18	Lake Houston	HOS.2	0	4	2	1996.5	--	81,200	5,990	40,500	5,650	2,280	1,680	7,880	1,000	10	0.2	74	23	39	0.12	28	104
			4	8	6	1994.4	--	78,300	4,750	39,100	5,330	2,460	1,640	7,400	900	10	.2	71	21	42	.07	27	94
			8	12	10	1992.2	--	85,700	5,100	40,800	5,600	1,820	1,180	7,970	900	8.0	.2	78	23	40	.07	28	103
			12	16	14	1990.1	--	85,600	4,920	39,000	5,700	1,440	1,060	7,660	900	7.6	.2	78	21	42	.07	27	103
			16	20	18	1987.9	--	86,600	4,960	38,600	5,680	1,390	800	7,730	900	8.0	.2	79	22	44	.09	28	104
			20	24	22	1985.8	--	82,000	5,130	39,200	5,350	1,840	1,520	7,530	1,000	8.0	.2	75	21	40	.06	27	96
			24	28	26	1983.6	--	83,100	4,960	41,700	5,530	2,080	1,900	7,290	900	9.0	.2	76	22	42	.08	29	100
			28	32	30	1981.5	--	85,900	5,240	41,300	5,470	1,870	1,620	7,600	900	10	.2	78	21	47	.08	28	102
			32	36	34	1979.3	--	86,200	5,280	42,100	5,370	2,010	1,710	7,610	900	10	.2	77	25	46	.07	28	101
			36	40	38	1977.2	--	84,500	5,120	40,900	5,430	1,760	1,230	7,290	900	11	.2	79	55	51	.08	29	102
			40	44	42	1975.0	--	89,400	5,520	42,600	5,460	1,800	1,000	8,190	1,000	10	.2	78	20	54	.07	29	96
			44	48	46	1972.9	--	84,400	4,930	40,000	5,550	1,690	900	7,470	900	8.4	.2	79	20	53	.08	29	97
			48	52	50	1970.7	--	87,600	5,330	40,900	5,860	1,760	800	8,150	900	8.0	.2	78	21	49	.06	29	97
			52	56	54	1968.6	--	86,000	5,180	39,900	5,980	1,740	700	7,750	900	7.9	.2	77	22	49	.07	29	96
			56	60	58	1966.4	--	89,500	5,350	42,200	6,090	1,800	800	7,880	900	10	.2	80	22	45	.07	30	99
			60	64	62	1964.3	--	89,000	8,480	40,300	6,530	1,610	600	9,070	1,030	7.9	.2	75	22	34	.05	28	90
			64	68	66	1962.1	--	79,600	4,920	37,000	5,480	2,740	600	7,610	1,040	9.4	.2	71	21	36	.06	27	89
			68	72	70	1960.0	--	44,100	2,470	18,800	2,560	759	300	6,630	1,220	4.0	<.1	40	10	20	<.02	12	38
			72	76	74	1957.8	--	17,000	900	6,520	900	258	90	5,300	900	1.0	<.1	15	4.0	11	.02	4.0	20
			88	92	90	1949.2	--	77,800	58,500	37,700	14,400	546	500	21,100	2,920	7.8	.1	70	18	21	<.02	33	70
		Median					**--**	**85,000**	**5,120**	**40,200**	**5,540**	**1,780**	**950**	**7,640**	**900**	**8.2**	**.2**	**77**	**21**	**42**	**.07**	**28**	**97**
19	Palmer Lake	PLM.W2	0	2	1	1996.8	11.6	22,500	92,200	38,800	8,200	3,270	1,500	4,300	4,000	18	.3	48	22	150	.16	47	246
			2	4	3	1995.1	10.6	23,900	110,000	36,000	9,000	3,460	1,300	5,000	4,600	15	.3	49	21	144	.14	45	222
			4	6	5	1993.4	12.5	23,600	110,000	37,000	8,500	3,370	1,400	5,100	4,400	16	.3	39	20	142	.16	44	210
			6	8	7	1991.6	12.3	23,400	116,000	35,800	8,400	3,290	1,300	4,800	4,300	16	.3	49	19	152	.12	44	208
			8	10	9	1989.6	11.5	23,200	117,000	35,600	8,250	3,210	1,350	5,350	4,200	14	.3	48	19	150	.15	42	190
			10	12	11	1987.5	11.4	23,600	107,000	36,800	8,000	3,270	1,400	5,800	4,000	15	.3	45	18	164	.15	44	182
			12	14	13	1985.4	11.8	24,400	111,000	36,200	8,100	3,320	1,300	6,200	4,100	14	.3	49	20	187	.13	43	170
			14	16	15	1983.4	11.5	25,600	109,000	36,600	7,900	3,260	1,300	6,400	4,000	17	.3	44	19	200	.15	43	161
			16	18	17	1981.3	11.1	22,500	101,000	35,400	7,600	3,300	1,300	6,600	3,900	18	.3	52	20	210	.12	44	149
			18	20	19	1979.2	11.3	27,500	109,000	36,200	8,000	3,520	1,200	4,800	4,100	14	.3	54	22	216	.14	44	176
			20	22	21	1977.0	11.0	25,600	112,000	35,500	7,800	3,450	1,400	4,600	3,900	16	.3	47	19	207	.12	45	157
			22	24	23	1974.8	11.5	21,800	112,000	35,900	7,500	3,580	1,300	4,400	3,700	11	.3	34	18	207	.12	49	160
			24	26	25	1972.6	11.2	23,200	111,000	34,400	7,550	3,470	1,350	4,700	3,800	11	.3	32	18	205	.11	47	146
			26	28	27	1970.4	11.2	22,500	113,000	32,800	7,100	3,250	1,300	4,700	3,500	12	.3	29	16	186	.13	48	133
			28	30	29	1968.2	11.3	18,400	112,000	31,900	6,900	3,360	1,400	4,300	3,200	14	.2	27	15	182	.10	48	133

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
19	Palmer Lake	PLM.W2	30	32	31	1966.1	11.1	17,500	119,000	30,100	6,800	3,470	1,100	4,200	2,900	9.3	0.2	38	15	167	0.10	45	121
	—Cont.	—Cont.	32	34	33	1964.0	11.6	20,800	107,000	30,400	7,000	3,100	1,200	5,200	3,200	10	.3	35	17	161	.13	48	117
			34	36	35	1962.0	12.1	25,600	108,000	32,600	7,200	3,080	1,200	4,500	3,600	9.4	.2	35	20	156	.14	49	164
			36	38	37	1960.0	11.9	15,400	110,000	25,800	6,600	3,200	1,200	3,500	2,800	10	<.2	29	17	154	.10	47	140
			38	40	39	1958.0	7.3	<200	117,000	14,500	3,600	3,070	800	<2,000	--	7.3	<.2	5.3	<2.0	4.1	<.04	5.5	21
			40	42	41	1955.9	5.7	<200	106,000	11,800	3,800	2,850	670	<2,000	--	4.4	<.2	5.5	<2.0	<2.0	<.04	<2.0	10
			42	44	43	1953.4	5.1	<200	123,000	12,000	4,300	3,200	600	<2,000	--	3.4	<.2	1.8	<2.0	<2.0	<.04	<2.0	11
			44	46	45	1950.9	5.8	<200	120,000	12,600	4,200	2,370	610	<2,000	--	3.6	<.2	2.0	<2.0	<2.0	<.04	2.3	8.2
			46	48	47	1948.3	5.7	<200	118,000	11,100	4,600	2,470	560	<2,000	--	3.6	<.2	3.2	<2.0	<2.0	<.04	2.4	8.8
			48	50	49	1945.7	6.1	<200	115,000	11,200	4,100	1,990	570	<2,000	--	3.0	<.2	3.0	<2.0	<2.0	<.04	<2.0	10
			50	52	51	1943.1	7.3	<200	120,000	11,400	5,400	1,960	540	<2,000	--	3.0	<.2	3.1	<2.0	<2.0	<.04	<2.0	11
		Median					**11.3**	**23,200**	**111,000**	**33,600**	**7,350**	**3,260**	**1,300**	**4,800**	**3,650**	**12**	**.3**	**35**	**19**	**166**	**.13**	**45**	**148**
20	Lake Harriet	HAR.3	0	2	1	1995.6	12.2	15,000	86,500	16,000	8,500	994	1,150	5,000	3,400	42	.3	12	30	167	.13	22	250
			2	4	3	1990.6	12.0	21,000	86,000	12,000	8,000	1,020	800	5,000	2,800	41	.2	18	52	168	.13	14	211
			4	6	5	1985.6	11.8	15,000	68,000	14,000	8,200	990	1,000	5,000	3,200	52	.3	12	27	206	.12	21	239
			6	8	7	1981.3	10.3	19,000	92,000	10,500	8,550	1,010	750	5,000	2,600	57	.2	12	35	208	.13	20	192
			8	10	9	1976.5	9.5	26,000	103,000	13,000	9,100	1,180	900	6,000	3,400	72	.2	97	47	395	.15	23	330
			10	12	11	1971.5	10.8	23,000	66,000	15,000	8,800	1,070	1,200	7,000	4,000	62	.3	52	34	315	.15	30	370
			12	14	13	1965.9	8.4	24,000	76,000	15,000	9,400	1,080	900	8,000	3,400	69	.2	14	44	247	.15	29	258
			14	16	15	1959.2	8.9	31,000	78,000	18,000	9,200	1,060	800	8,000	3,700	37	.2	15	55	229	.14	25	273
			16	18	17	1952.6	11.1	33,000	86,000	20,000	8,700	1,010	1,200	6,000	3,900	32	.3	15	37	147	.13	25	273
			22	24	23	1930.6	8.4	40,000	111,000	23,000	8,900	1,050	900	7,000	3,600	15	.3	14	30	71	.11	22	233
			28	30	29	1909.7	8.1	31,000	87,000	30,000	7,400	1,770	800	5,000	3,400	14	.2	9.0	17	34	.08	17	104
			34	36	35	1885.6	11.5	20,000	112,000	27,000	7,500	1,510	1,700	4,000	2,300	13	<.2	6.0	9.0	19	.08	11	51
			40	42	41	1851.2	13.0	6,500	92,000	24,500	6,500	1,320	1,850	2,000	1,850	9.0	<.2	4.5	4.0	4.0	.03	7.0	34
			46	48	47	1830.0	13.0	6,000	92,000	33,000	6,600	1,470	1,200	2,000	1,500	8.0	<.2	3.0	3.0	4.0	<.04	7.0	37
			52	54	53	1790.8	10.3	7,000	82,000	17,000	6,400	952	1,700	2,000	1,300	6.0	<.2	3.0	2.0	3.0	<.04	7.0	29
			58	60	59	--	9.0	7,000	73,000	15,000	6,100	836	900	2,000	1,300	6.0	<.2	1.0	3.0	3.0	<.04	7.0	32
			64	66	65	--	10.2	5,000	67,000	13,000	5,900	673	800	2,000	1,400	5.0	<.2	1.0	3.0	2.0	<.04	6.0	27
			70	72	71	--	8.0	10,000	64,000	10,000	5,900	660	700	2,000	1,500	4.0	<.2	1.0	4.0	2.0	<.04	8.0	30
			76	78	77	--	9.9	15,000	72,000	12,000	8,200	608	700	4,000	2,200	3.9	<.2	1.0	4.0	2.0	<.04	10	40
			82	84	83	--	8.8	9,000	64,000	10,000	6,500	681	800	2,000	1,550	3.1	<.2	1.0	3.0	2.0	<.04	9.0	36
		Median					**10.8**	**21,000**	**86,500**	**17,000**	**8,500**	**1,060**	**1,000**	**5,000**	**3,400**	**37**	**.2**	**12**	**30**	**167**	**.13**	**21**	**233**

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters)			Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
			Top	Bottom	Middle																		
21	Lake in the Hills	LKH.1	0	2	1	2001.2	4.4	59,600	79,500	41,200	19,800	896	1,200	21,800	4,390	17	0.5	70	42	27	0.07	36	132
			2	4	3	2000.4	4.6	64,400	74,700	41,900	20,000	992	1,250	22,900	3,980	17	.5	74	44	28	.07	36	139
			4	6	5	1999.5	4.5	64,400	75,600	43,500	20,100	968	1,190	22,600	3,810	22	.5	72	42	27	.06	36	131
			6	8	7	1998.6	3.9	69,300	63,000	44,000	21,500	905	1,180	25,200	3,420	18	.5	79	44	29	.06	40	138
			10	12	11	1996.0	2.7	79,800	44,400	47,900	25,100	891	1,250	30,200	3,010	16	.4	91	43	26	.06	46	134
			14	16	15	1993.1	3.5	70,200	72,600	41,800	19,800	915	1,380	25,000	2,470	17	.5	79	40	28	.05	39	134
			18	20	19	1990.2	3.9	60,000	98,100	39,900	17,600	910	1,370	21,100	2,330	24	.5	67	37	28	.07	35	120
			23	26	24.5	1986.0	4.6	59,200	82,000	37,900	14,800	988	1,850	19,400	2,300	27	.6	65	36	33	.05	33	123
			29	32	30.5	1981.3	4.6	62,300	76,800	40,700	15,000	961	1,720	19,800	2,300	32	.7	68	38	37	.07	34	131
			38	41	39.5	1974.4	4.6	65,200	68,500	42,000	16,300	977	1,350	21,300	2,300	47	.6	72	42	44	.07	36	134
			47	50	48.5	1966.8	4.4	58,900	90,500	38,700	16,400	994	1,220	19,900	2,450	90	.7	63	43	43	.07	32	127
			58	62	60	1957.9	4.5	66,100	60,200	44,000	16,000	884	1,170	21,900	2,570	106	.6	71	37	38	.06	36	131
			74	78	76	1942.3	3.6	73,200	31,000	42,800	18,200	700	1,080	26,100	3,380	13	.4	76	37	25	.04	36	114
			82	86	84	Pre-res.	2.5	35,200	38,600	17,600	21,000	458	524	16,200	5,400	4.8	.2	30	14	13	.03	15	41
		Median					**4.4**	**64,400**	**74,700**	**41,900**	**18,200**	**915**	**1,250**	**21,900**	**2,570**	**22**	**.5**	**72**	**42**	**28**	**.06**	**36**	**131**
22	Beck Lake	BEC-1	0	1	.5	2001.5	4.6	71,000	37,200	38,600	23,600	619	951	26,700	5,740	18	.6	81	55	48	.07	40	138
			1	2	1.5	2001.1	4.5	71,000	38,400	39,600	22,400	626	999	26,800	5,220	21	.6	85	55	47	.07	41	141
			2	3	2.5	2000.6	4.4	71,000	37,300	39,000	23,100	630	901	26,600	5,560	17	.6	83	56	46	.07	40	140
			4	5	4.5	1999.5	4.4	71,600	37,200	38,900	24,300	577	934	26,200	5,440	21	.6	81	56	46	.06	40	142
			6	7	6.5	1998.4	4.2	73,300	38,500	39,100	24,700	577	910	27,700	5,340	23	.6	84	56	48	.07	41	142
			8	10	9	1996.7	3.9	72,100	40,100	40,300	23,900	585	872	27,100	5,110	26	.6	84	55	49	.07	41	140
			12	14	13	1993.9	3.5	74,000	40,400	41,600	23,000	567	802	27,700	4,760	29	.6	87	53	51	.07	43	139
			16	18	17	1990.7	3.3	75,000	33,500	40,400	25,700	569	776	28,400	5,190	28	.6	89	56	57	.07	43	143
			22	24	23	1985.1	3.0	79,200	31,400	41,400	25,900	566	738	29,300	5,000	30	.7	90	47	63	.07	45	147
			30	33	31.5	1976.0	2.9	74,400	33,300	39,500	25,300	564	677	28,500	4,770	40	.7	86	46	72	.07	44	146
			39	42	40.5	1965.1	2.7	72,200	39,500	38,000	29,700	576	640	27,600	5,220	48	.7	81	42	71	.06	41	141
			42	45	43.5	1959.3	1.2	52,800	69,700	29,300	45,900	621	418	23,800	5,200	23	.2	55	27	25	.02	32	74
		Median					**3.7**	**72,200**	**37,800**	**39,300**	**24,500**	**577**	**837**	**27,300**	**5,210**	**24**	**.6**	**84**	**55**	**48**	**.07**	**41**	**141**
23	Shoe Factory Road Pond	SHO.2	0	1	.5	1993.6	--	57,700	9,840	31,000	8,970	439	1,160	24,200	3,680	7.9	.8	66	33	48	.12	31	140
			1	2	1.5	1991.6	--	56,400	9,590	30,400	8,540	433	1,130	24,000	3,740	7.8	.7	62	31	48	.11	31	136
			2	3	2.5	1989.5	11.0	57,800	8,960	30,700	8,050	427	1,110	24,200	3,570	7.9	.8	63	31	49	.11	31	137
			3	4	3.5	1986.7	--	57,200	8,620	30,500	8,280	408	1,020	24,300	3,670	8.0	.8	61	31	48	.09	32	136
			4	5	4.5	1984.3	--	58,100	8,450	30,200	8,710	396	991	24,100	3,850	7.8	.8	65	32	48	.11	32	138

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bot-tom	Mid-dle	Esti-mated deposi-tion date[1]	Organic carbon (percent)	Alu-minum	Cal-cium	Iron	Magne-sium	Manga-nese	Phos-phorus	Potas-sium	Sodi-um	Arse-nic	Cad-mium	Chro-mium	Cop-per	Lead	Mer-cury	Nickel	Zinc
23	Shoe Factory Road Pond —Cont.	SHO.2 —Cont.	5	6	5.5	1981.8	9.8	58,500	8,550	31,000	8,410	402	950	24,800	3,680	8.3	0.8	66	32	51	0.10	32	140
			6	7	6.5	1979.1	9.7	59,300	8,570	32,300	8,680	411	924	25,100	3,770	9.4	.8	66	33	53	.10	34	141
			7	8	7.5	1976.4	9.7	60,600	8,690	32,000	9,040	402	937	24,600	3,680	10	.8	65	33	51	.11	33	145
			8	9	8.5	1973.6	9.2	62,400	8,940	33,800	8,870	409	931	26,300	3,610	10	.8	69	34	57	.10	35	149
			9	10	9.5	1970.6	8.7	61,200	8,580	33,300	9,360	395	871	24,900	3,720	11	.8	66	32	53	.10	34	145
			10	12	11	1964.5	9.0	62,600	9,380	35,400	9,210	410	921	26,100	3,600	11	.9	69	33	59	.10	37	150
			12	14	13	1958.0	9.3	60,800	9,810	35,600	9,540	424	1,100	24,900	3,710	12	.8	68	32	53	.10	35	143
			14	16	15	1950.3	8.2	66,800	9,990	39,300	9,820	455	1,080	28,000	3,420	12	.9	76	34	58	.10	39	158
			18	20	19	1932.1	6.9	65,200	7,590	35,700	8,700	401	1,220	25,500	4,260	13	.9	69	33	40	.08	36	151
			24	28	26	1892.5	4.2	76,500	5,790	40,300	8,780	394	1,290	30,100	3,730	8.1	.9	84	37	37	.07	42	158
			32	36	34	1863.4	4.2	75,400	5,520	38,300	9,120	336	1,170	28,700	3,830	8.8	.7	82	37	32	.06	40	150
			40	44	42	1801.2	3.8	79,000	5,430	38,700	9,600	318	1,160	30,000	3,510	6.8	.6	88	39	30	--	41	155
			64	68	66	--	3.9	72,800	5,820	27,800	8,030	259	832	28,500	4,330	5.1	.5	79	36	23	.05	30	144
			48	52	50	--	3.3	78,300	5,470	34,900	8,420	294	1,170	31,400	4,260	4.1	.4	86	34	27	.05	36	139
			56	60	58	--	4.3	75,400	5,890	29,300	8,040	257	819	28,700	3,930	4.4	.5	83	37	25	.06	31	151
			80	84	82	--	3.8	72,200	5,890	25,600	7,630	286	839	28,000	3,770	4.8	.6	76	38	24	.07	28	152
			72	76	74	--	3.3	74,400	5,970	25,900	7,290	252	778	29,500	3,610	4.6	.6	77	37	26	.05	27	152
		Median					**9.0**	**60,800**	**8,620**	**33,300**	**8,870**	**408**	**1,080**	**24,900**	**3,680**	**8.8**	**.8**	**66**	**33**	**49**	**.10**	**34**	**145**
24	Berkeley Lake	BRK	0	1	.5	1999.1	13.4	62,000	1,700	84,000	1,500	1,910	2,500	8,000	1,000	32	1.8	62	59	41	.02	39	498
			1	2	1.5	1998.5	12.4	91,000	1,800	73,000	2,300	2,310	2,900	9,000	1,000	28	1.6	73	66	41	.02	44	474
			2	3	2.5	1997.7	11.5	74,000	4,800	74,000	2,300	3,270	3,300	8,000	1,000	29	1.5	73	65	37	.06	47	473
			3	4	3.5	1996.8	10.3	74,000	4,800	77,000	2,100	2,320	2,900	7,000	1,000	25	3.2	67	68	45	.07	49	603
			4	5	4.5	1995.7	8.8	77,000	2,600	91,000	2,800	2,800	3,100	8,000	1,100	28	2.1	66	69	33	.10	35	563
			5	6	5.5	1994.5	8.2	106,000	2,100	85,000	2,400	2,400	2,100	8,000	900	16	2.2	68	69	48	.12	51	551
			6	7	6.5	1993.1	5.6	116,000	1,200	93,000	2,300	2,050	1,750	7,000	900	20	2.1	95	88	38	.11	42	514
			7	8	7.5	1991.5	6.7	120,000	1,300	95,000	2,700	2,220	2,400	8,000	1,000	21	2.4	93	99	36	.10	58	591
			8	9	8.5	1989.9	7.7	110,000	1,400	94,000	2,400	2,430	2,800	7,000	900	21	2.5	110	90	35	.12	56	544
			9	10	9.5	1988.5	7.9	114,000	1,800	93,000	2,700	2,680	2,900	7,000	900	24	2.3	101	84	34	.11	55	523
			10	11	10.5	1987.0	7.4	70,500	13,800	85,500	2,100	2,220	2,900	6,500	800	26	2.6	90	75	36	.14	44	452
			11	12	11.5	1985.4	7.0	68,000	12,900	85,000	2,200	2,010	2,900	7,000	800	33	2.0	76	73	52	.13	39	392
			12	13	12.5	1983.6	5.8	76,000	14,000	78,000	1,800	1,820	2,600	6,000	800	31	1.9	71	68	73	.11	46	358
			13	14	13.5	1981.8	7.2	65,000	15,900	76,000	1,800	1,740	2,600	6,000	800	27	2.0	74	65	100	.12	41	340
			14	15	14.5	1980.0	7.0	81,000	6,400	82,000	2,100	2,000	2,500	7,000	800	25	2.8	68	69	83	.13	54	339

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
24	Berkeley Lake—Cont.	BRK—Cont.	15	16	15.5	1978.2	6.6	114,000	5,500	79,000	2,600	2,020	2,300	8,000	900	30	2.1	74	72	114	0.12	48	302
			16	18	17	1974.6	5.6	102,000	2,300	69,000	2,000	1,800	2,000	8,000	900	29	1.8	75	66	109	.13	44	254
			18	20	19	1970.0	6.6	118,000	1,900	75,000	2,300	2,000	2,600	9,000	900	28	2.0	79	72	99	.10	45	240
			20	22	21	1965.8	6.1	114,000	1,000	72,000	1,900	1,670	2,300	9,000	900	30	1.6	80	65	55	.12	46	229
			22	24	23	1960.8	4.9	134,000	1,000	73,500	2,300	1,620	2,100	10,500	1,000	25	1.3	85	62	46	.10	46	190
			24	26	25	1954.8	3.3	141,000	700	78,000	2,000	2,090	1,300	10,000	1,000	26	.6	84	67	43	.09	45	178
			26	28	27	1948.0	2.7	115,000	900	64,000	2,100	2,800	1,000	10,000	1,000	20	.4	76	51	40	.09	41	138
			28	30	29	Pre-res.	1.9	68,000	900	21,000	1,900	530	400	14,000	1,500	11	.2	52	14	37	.07	11	76
			30	32	31	Pre-res.	1.6	50,000	700	17,000	1,400	421	200	14,000	1,500	7.6	.2	48	12	33	.03	9.0	72
		Median					**7.0**	**104,000**	**2,000**	**78,500**	**2,250**	**2,070**	**2,550**	**8,000**	**900**	**26**	**2.0**	**76**	**68**	**44**	**.11**	**46**	**422**
25	Panola Lake	PAN.B	0	1	.5	1998.5	6.2	95,800	1,030	40,400	7,430	317	1,100	14,400	2,250	8.3	.2	53	20	35	.13	16	170
			1	2	1.5	1996.8	6.6	108,000	1,220	37,900	9,710	356	1,050	14,500	2,060	10	.1	60	21	32	.14	14	172
			2	3	2.5	1994.9	6.5	77,800	1,040	29,300	8,800	289	1,100	13,800	2,000	10	.1	73	20	34	.14	28	161
			3	4	3.5	1993.0	6.5	86,100	1,000	29,400	7,710	260	1,100	14,100	1,880	10	.1	65	20	31	.13	22	163
			4	5	4.5	1990.9	6.5	78,600	1,000	27,400	7,140	232	1,000	13,600	1,880	9.3	.1	70	20	37	.13	22	169
			5	6	5.5	1988.8	6.5	80,700	1,000	24,200	8,290	255	1,100	14,200	1,880	10	.1	62	21	74	.14	22	159
			6	7	6.5	1986.5	6.4	86,600	1,330	21,600	9,430	262	1,100	14,100	1,880	9.4	.1	65	23	52	.13	19	169
			7	8	7.5	1984.0	6.5	78,600	1,780	18,600	8,860	249	1,400	14,200	2,000	12	.2	70	20	45	.12	30	172
			8	9	8.5	1981.3	6.1	53,400	1,670	17,000	6,000	199	1,200	13,300	1,750	12	.2	76	20	39	.13	22	163
			9	10	9.5	1978.4	6.0	48,800	1,560	13,900	7,280	184	1,200	13,300	1,880	12	.2	66	20	42	.13	25	162
			10	11	10.5	1975.3	5.4	53,000	2,000	6,000	9,140	193	1,200	13,400	1,880	11	.2	63	20	39	.14	22	160
			11	12	11.5	1971.9	5.2	49,600	1,780	7,440	9,430	194	1,200	13,600	1,880	11	.2	100	20	48	.12	31	156
			12	13	12.5	1968.2	5.2	31,700	1,890	7,670	5,710	146	1,300	14,000	1,620	11	.2	81	18	36	.11	28	153
			13	14	13.5	1964.0	4.3	27,100	2,330	9,220	7,710	134	1,000	14,400	2,120	8.2	.1	61	14	24	.10	20	132
			14	15	14.5	1958.6	3.3	20,800	2,440	9,000	4,570	128	910	18,000	3,000	7.7	.1	54	13	19	.08	14	192
			15	16	15.5	1950.9	.9	10,900	2,780	6,110	3,140	109	510	23,400	4,000	4.4	.03	58	6.4	22	.03	15	78
			16	17	16.5	Pre-res.	.6	9,110	1,890	5,000	2,400	74	300	27,200	3,750	3.6	.02	26	3.6	25	.03	10	160
		Median					**6.1**	**53,400**	**1,670**	**17,000**	**7,710**	**199**	**1,100**	**14,100**	**1,880**	**10**	**.1**	**65**	**20**	**36**	**.13**	**22**	**162**
26	Lake Killarney	KIL	0	1	.5	1999.1	25.1	63,900	17,600	9,300	3,000	103	4,100	1,700	220	3.8	1.8	64	206	295	.47	18	346
			1	2	1.5	1998.7	24.0	70,100	18,400	10,100	3,200	104	4,500	1,900	220	3.4	2.0	70	233	308	.52	19	376
			2	3	2.5	1998.1	23.9	66,200	16,600	9,850	3,100	86	4,350	1,750	170	3.5	1.8	68	228	304	.50	18	370
			3	4	3.5	1997.6	24.8	54,900	14,800	9,300	2,600	75	4,400	1,400	130	5.3	1.8	67	217	302	.51	16	348
			4	5	4.5	1997.0	23.6	69,100	18,400	10,300	2,800	80	4,500	1,500	170	5.4	1.9	72	239	334	.52	15	391

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
26	Lake Killarney —Cont.	KIL—Cont.	5	6	5.5	1996.3	24.3	63,900	15,200	9,900	2,600	72	4,500	1,600	160	5.4	1.9	70	240	322	0.50	15	376
			6	7	6.5	1995.7	23.2	66,400	16,600	9,900	2,600	73	4,000	1,500	130	5.2	1.8	68	229	297	.50	16	345
			7	8	7.5	1995.0	18.5	60,000	13,000	8,500	2,600	59	3,700	1,300	170	5.5	1.3	59	203	297	.59	10	293
			8	9	8.5	1994.0	18.5	61,000	12,400	8,100	2,400	59	3,400	1,500	<100	3.2	1.2	56	202	313	.49	14	271
			9	10	9.5	1993.0	20.0	70,500	13,200	10,200	2,600	68	4,700	1,600	120	3.8	1.3	81	291	388	.67	17	363
			10	11	10.5	1992.1	20.8	77,200	14,200	10,200	2,800	72	4,800	1,700	120	3.7	1.5	80	300	389	.68	22	350
			11	12	11.5	1991.1	20.5	75,400	13,400	9,650	2,800	68	4,300	1,600	<100	3.0	1.5	76	284	387	.53	16	319
			12	13	12.5	1990.0	13.8	75,000	17,600	9,100	3,000	97	5,300	1,700	120	2.3	1.2	73	272	391	.56	12	306
			13	14	13.5	1988.8	20.3	62,500	10,800	8,200	2,200	59	3,900	1,400	<100	3.4	1.8	64	256	325	.51	12	273
			14	15	14.5	1987.6	19.7	54,000	10,000	6,600	1,980	49	3,200	1,100	<100	3.0	1.4	51	204	328	.49	12	211
			15	16	15.5	1986.3	19.4	65,800	10,800	9,300	2,000	63	4,500	1,500	<100	3.9	1.5	75	306	446	.50	14	303
			16	17	16.5	1985.0	17.8	61,500	9,600	9,600	1,960	61	4,700	1,400	<100	5.7	2.0	79	333	473	.52	19	323
			17	18	17.5	1983.6	18.1	79,900	12,800	10,000	2,400	72	4,900	1,800	100	6.1	2.0	87	351	479	.54	17	320
			18	19	18.5	1982.3	16.5	85,500	13,400	9,500	3,000	72	4,500	1,800	<100	5.6	2.0	79	319	473	.53	14	295
			19	20	19.5	1980.9	16.3	72,000	11,100	9,800	2,100	66	4,700	1,600	<100	5.3	2.3	84	343	490	.54	20	304
			20	22	21	1978.9	17.7	61,600	9,000	10,000	1,500	61	5,200	1,500	<100	5.5	2.5	92	389	507	.54	18	328
			22	24	23	1976.2	16.6	75,000	9,800	10,500	2,000	60	5,200	1,700	<100	4.7	2.6	94	410	528	.54	22	326
			24	26	25	1973.4	17.6	107,000	10,400	11,600	3,600	72	5,800	2,100	110	6.6	2.7	103	433	558	.46	23	367
			26	28	27	1970.6	17.1	97,600	9,200	10,700	1,700	56	6,100	1,600	100	6.9	2.8	104	449	551	.49	20	297
			28	30	29	1967.5	15.2	117,000	11,800	11,400	3,400	64	6,400	2,200	120	5.2	2.1	108	436	563	.52	25	268
			30	32	31	1964.0	13.5	130,000	11,000	12,600	2,900	62	7,500	2,900	110	6.5	2.1	126	411	535	.46	27	250
			32	34	33	1959.9	11.5	115,000	10,200	10,600	3,600	61	7,400	2,600	110	5.6	2.0	115	253	376	.49	20	171
			34	36	35	1954.9	10.8	110,000	8,300	10,200	2,300	52	7,850	2,600	120	6.0	1.3	101	104	192	.43	20	113
			36	38	37	1949.6	16.4	69,500	6,000	8,300	1,900	68	6,500	1,300	130	4.9	.8	68	47	103	.42	15	96
			38	40	39	1944.6	18.8	72,400	5,400	8,000	2,000	61	4,600	1,400	<100	4.2	.6	49	33	92	.41	9.6	79
			40	42	41	1939.9	21.3	73,400	6,800	8,200	2,400	72	4,300	1,300	110	4.4	.4	48	32	81	.43	10	68
			42	44	43	1935.8	23.7	70,800	7,300	7,600	3,000	73	3,700	1,300	120	3.6	.4	39	28	61	.13	16	65
		Median					**18.7**	**70,600**	**11,400**	**9,820**	**2,600**	**68**	**4,550**	**1,600**	**120**	**5.0**	**1.8**	**74**	**254**	**355**	**.50**	**17**	**305**
27	Lake Anne	ANN.2	0	.5	.25	1996.1	4.7	62,000	2,000	67,000	2,000	666	1,400	17,000	2,500	25	--	75	105	60	.18	42	196
			.5	1	.75	1995.3	5.6	39,000	1,000	45,000	1,000	776	1,500	17,000	2,200	34	--	72	128	74	.22	46	212
			1	1.5	1.25	1994.4	4.5	56,000	2,000	52,000	1,000	648	1,300	15,000	1,800	27	--	66	101	61	.22	38	188
			1.5	2	1.75	1993.4	6.0	53,000	2,000	54,000	2,000	830	1,700	18,000	2,200	31	--	69	143	88	.27	49	252
			2	2.5	2.25	1992.5	5.3	56,000	2,000	61,000	1,000	746	1,650	17,500	1,900	25	--	72	122	78	.28	52	262

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
27	Lake Anne	ANN.2	2.5	3	2.75	1991.5	5.9	75,000	2,000	66,000	2,000	746	1,600	20,000	2,000	24	--	70	136	88	0.31	48	272
	—Cont.	—Cont.	3	3.5	3.25	1990.5	5.1	38,000	1,000	49,000	6,000	696	1,600	18,000	2,100	23	--	72	141	96	.33	49	244
			3.5	4	3.75	1989.4	4.7	74,000	2,000	72,000	5,000	756	1,600	20,000	4,000	21	--	75	139	89	.34	63	270
			4	4.5	4.25	1988.2	4.0	139,000	2,000	72,000	4,000	726	1,400	23,000	2,100	19	--	80	134	92	.31	52	246
			4.5	5	4.75	1987.0	3.9	116,000	2,000	70,000	5,000	738	1,300	22,000	2,000	18	--	73	122	96	.30	48	242
			5	5.5	5.25	1985.7	3.9	118,000	2,000	80,000	4,000	822	1,400	12,000	2,000	17	--	74	127	100	.29	53	254
			5.5	6	5.75	1984.4	4.0	129,000	2,000	83,500	4,500	798	1,400	21,000	1,900	20	--	78	132	110	.31	52	269
			6	6.5	6.25	1983.2	4.0	117,000	2,000	84,000	4,000	652	1,300	17,000	1,900	19	--	70	122	116	.30	49	272
			6.5	7	6.75	1982.0	4.0	126,000	2,000	83,000	5,000	714	1,300	17,000	1,800	17	--	74	113	108	.29	47	260
			7	7.5	7.25	1980.7	3.4	87,000	1,000	60,000	3,000	666	1,200	20,000	1,700	15	--	70	112	124	.28	44	220
			7.5	8	7.75	1979.4	3.4	132,000	2,000	81,000	5,000	672	1,400	21,000	2,400	15	--	74	122	122	.28	52	246
			8	8.5	8.25	1978.0	3.4	65,000	1,000	40,000	3,000	598	1,200	19,000	1,600	20	--	75	119	172	.26	45	216
			8.5	9	8.75	1976.8	3.4	128,000	2,000	82,000	5,000	614	1,400	22,000	1,700	15	--	73	124	156	.24	49	340
			9	9.5	9.25	1975.5	3.3	136,000	2,000	82,000	5,000	554	1,400	23,000	1,700	14	--	74	124	136	.22	56	258
			9.5	10	9.75	1974.2	3.3	81,000	1,000	49,000	3,000	578	1,200	21,000	1,800	13	--	77	119	137	.23	48	226
			10	10.5	10.25	1973.1	3.4	112,000	2,000	73,500	3,500	648	1,350	22,500	1,900	15	--	70	131	126	.24	50	262
			10.5	11	10.75	1972.1	3.3	130,000	2,000	81,000	4,000	648	1,400	23,000	2,100	14	--	73	133	136	.30	54	278
			11	11.5	11.24	1971.1	3.5	125,000	2,000	77,000	5,000	670	1,300	23,000	2,200	16	--	69	155	112	.30	49	280
			11.5	12	11.75	1970.3	3.7	125,000	2,000	70,000	4,000	686	1,300	23,000	2,300	16	--	73	162	120	.31	47	270
			12	12.5	12.25	1969.5	3.6	127,000	2,000	73,000	5,000	742	1,300	23,000	2,000	15	--	75	125	108	.38	48	266
			12.5	13	12.75	1968.7	3.7	132,000	2,000	78,000	4,000	800	1,300	23,000	2,000	17	--	78	126	104	.42	48	294
			13	13.5	13.25	1967.9	3.5	128,000	2,000	79,000	2,000	798	1,300	22,000	2,000	16	--	75	125	100	.39	54	288
			13.5	14	13.75	1967.2	2.9	142,000	2,000	79,500	4,000	667	1,350	19,000	2,000	13	--	76	126	94	.34	58	261
			14	14.5	14.25	1966.5	2.3	170,000	2,000	79,000	3,000	530	1,300	25,000	2,100	11	--	76	110	80	.24	51	232
			14.5	15	14.75	1965.7	1.8	163,000	2,000	76,000	4,000	480	1,200	26,000	2,200	9.2	--	77	100	72	.25	46	190
			15	15.5	15.25	1964.7	1.4	156,000	1,000	72,000	3,000	464	1,100	27,000	2,400	8.4	--	75	99	48	.20	76	214
			15.5	16	15.75	1963.7	1.3	143,000	1,000	67,000	3,000	440	1,000	27,000	2,400	8.1	--	71	82	52	.22	45	136
		Median					**3.6**	**125,000**	**2,000**	**72,500**	**4,000**	**671**	**1,320**	**21,000**	**2,000**	**16**	**--**	**74**	**124**	**100**	**.28**	**49**	**256**
28	Orange Reservoir	NJOR.BC1	0	1	.5	1997.5	7.7	62,500	21,700	43,400	20,400	336	1,700	9,000	8,900	18	1.9	147	132	254	4.40	69	563
			2	3	2.5	1996.5	7.0	56,300	21,100	44,600	13,100	334	1,800	9,300	9,000	19	1.9	158	149	265	5.13	81	614
			4	5	4.5	1995.4	8.1	51,000	18,800	40,200	9,400	274	1,600	7,500	7,900	18	1.8	112	156	237	4.91	77	556

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
28	Orange Reservoir—Cont.	NJOR.1	6	8	7	1992.3	6.6	45,500	18,600	36,800	10,800	258	1,300	8,000	8,400	19	1.9	109	214	410	3.64	70	507
			8	10	9	1990.0	6.0	46,200	18,600	36,400	10,500	280	1,200	7,900	8,700	22	1.8	120	211	440	3.47	67	462
			10	12	11	1986.9	5.2	50,500	18,600	38,200	10,900	304	1,200	8,200	8,900	21	1.4	111	238	508	2.49	67	456
			12	14	13	1983.2	5.2	33,600	15,800	33,600	7,900	276	1,300	7,800	8,900	17	1.9	104	213	514	2.21	62	442
			14	16	15	1979.2	4.6	38,400	15,800	35,100	8,200	288	1,300	7,900	9,200	12	1.6	127	192	560	2.11	65	420
			16	18	17	1975.3	4.0	38,800	15,900	38,400	8,900	292	1,300	7,600	9,200	13	1.5	113	170	492	1.99	63	384
			18	20	19	1971.8	3.8	37,900	15,200	42,000	8,500	304	1,400	8,200	9,300	16	1.5	119	192	468	1.81	70	391
			20	22	21	1968.7	3.5	34,200	13,800	40,200	8,500	314	1,300	7,900	8,700	14	1.5	122	227	432	1.50	71	391
			22	24	23	1966.1	3.4	36,300	13,400	39,500	7,450	331	1,200	7,500	8,350	16	1.5	122	378	338	1.53	78	372
			24	26	25	1963.6	2.9	37,100	13,800	39,300	7,900	378	1,300	7,600	9,100	16	1.6	127	419	370	1.57	76	398
			26	28	27	1960.7	2.7	34,200	11,100	38,000	7,300	288	1,400	7,300	8,800	14	1.4	109	303	224	1.31	65	298
			28	30	29	1957.4	2.5	35,600	11,100	36,800	6,700	370	1,400	7,100	8,400	14	1.3	97	258	202	1.29	67	289
			30	32	31	1953.4	3.8	56,100	12,400	44,800	10,900	372	1,300	8,900	8,400	20	1.4	99	195	206	1.30	66	300
		Median					**4.3**	**38,600**	**15,800**	**38,800**	**8,700**	**304**	**1,300**	**7,900**	**8,850**	**16**	**1.6**	**116**	**212**	**390**	**2.05**	**68**	**409**
29	Newbridge Pond	NEW.3	0	1	.5	1997.7	17.2	56,000	9,600	28,200	4,800	654	1,700	7,500	4,700	20	1.6	89	170	1,010	.82	60	1,080
			2	3	2.5	1996.5	17.2	58,400	9,650	27,500	5,100	624	1,650	7,600	4,600	19	1.6	98	170	1,020	.77	60	1,100
			4	5	4.5	1995.3	17.5	65,200	10,000	27,200	6,000	628	1,700	7,600	4,600	20	1.4	95	172	1,020	.79	62	1,180
			6	7	6.5	1994.0	17.4	66,800	9,900	29,100	5,100	699	1,600	7,600	4,500	14	1.2	102	172	1,030	.73	60	1,060
			8	9	8.5	1992.7	17.3	62,600	9,800	28,900	4,900	659	1,700	7,900	4,600	13	1.3	105	173	1,050	.78	62	1,090
			10	11	10.5	1991.3	17.5	62,200	9,400	28,300	4,800	734	1,700	7,300	4,400	12	1.3	94	174	1,020	.72	61	1,090
			12	13	12.5	1990.0	17.5	57,100	8,900	28,200	4,400	691	1,600	7,500	4,400	13	1.3	106	176	1,160	.86	62	1,110
			14	15	14.5	1988.4	16.7	62,000	9,200	26,800	4,800	664	1,600	7,300	4,400	12	1.6	91	173	1,270	.93	67	1,110
			16	17	16.5	1986.8	16.9	60,300	9,300	26,700	4,800	704	1,700	7,100	4,300	13	1.9	101	174	1,370	.98	65	1,080
			18	19	18.5	1985.3	16.4	62,800	9,400	28,400	4,000	788	1,700	8,600	4,400	13	1.7	97	171	1,530	.84	65	1,020
			19	20	19.5	1984.6	16.6	53,600	8,600	26,800	4,400	605	1,600	7,900	4,300	12	1.7	91	172	1,580	.83	62	1,100
			20	21	20.5	1983.8	16.5	56,000	8,100	28,600	3,500	732	1,600	10,100	4,200	12	1.7	101	167	1,760	.84	63	1,090
			21	22	21.5	1983.1	16.3	62,000	9,200	28,200	4,150	702	1,600	9,600	4,250	10	1.5	91	168	1,900	.92	62	1,070
			22	23	22.5	1982.3	15.9	58,000	8,600	28,200	4,800	692	1,600	9,400	4,200	10	2.0	94	160	1,990	.95	60	1,040
			23	24	23.5	1981.5	15.4	66,000	10,000	28,600	2,900	772	1,700	9,600	4,500	12	2.0	109	167	2,090	.94	60	1,020
			24	25	24.5	1980.7	15.7	74,000	9,400	29,800	3,800	706	1,700	10,600	4,400	13	1.8	102	164	2,130	.98	59	1,030
			25	26	25.5	1979.8	15.3	67,600	9,800	28,400	3,100	666	1,700	9,800	4,500	12	1.9	104	163	2,100	.99	61	1,040
			26	27	26.5	1979.0	15.1	67,200	9,000	30,000	3,700	668	1,700	10,600	4,500	13	1.9	106	167	2,270	1.02	68	1,050
			27	28	27.5	1978.1	14.8	51,600	7,600	29,800	2,800	685	1,600	10,100	4,300	13	1.2	100	157	2,190	1.00	58	984
			28	29	28.5	1977.2	14.8	68,800	9,000	29,800	3,600	693	1,700	9,800	4,300	12	1.3	101	156	2,190	.98	58	968

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
29	Newbridge Pond—Cont.	NEW.3 —Cont.	29	30	29.5	1976.3	14.4	58,800	8,000	31,000	3,700	708	1,700	10,100	4,500	14	1.4	100	159	2,340	1.04	58	960
			30	31	30.5	1975.4	14.4	64,800	9,400	28,800	2,900	638	1,700	8,900	4,700	14	1.7	96	157	2,240	1.02	58	963
			32	33	32.5	1973.5	13.9	57,900	9,400	28,800	2,500	670	1,700	7,600	4,300	13	1.9	105	155	2,250	1.14	57	897
			34	35	34.5	1971.6	14.2	67,800	9,600	29,100	3,100	651	1,800	8,100	4,200	12	1.4	96	153	2,250	1.10	58	949
			36	37	36.5	1969.7	13.7	63,200	7,500	28,600	2,500	668	1,900	5,600	4,100	10	1.9	107	160	2,170	1.08	60	839
			38	39	38.5	1967.9	14.0	51,600	7,800	31,000	2,400	698	1,900	6,100	3,900	8.8	1.5	113	165	2,210	1.21	61	894
			40	41	40.5	1966.1	13.9	60,400	7,500	31,600	3,200	744	1,900	6,200	3,700	8.0	1.3	125	161	2,000	1.20	65	888
			42	43	42.5	1964.5	12.7	64,000	6,200	31,400	3,350	681	1,750	7,100	3,650	9.0	1.0	94	144	1,430	.89	60	760
			44	45	44.5	1962.7	12.6	34,400	2,700	37,400	1,800	666	1,800	8,400	3,300	10	.7	80	103	893	.72	46	536
			46	47	46.5	1960.8	10.6	38,800	4,000	32,800	1,600	626	1,600	5,600	2,900	10	.5	65	88	614	.78	42	464
			48	49	48.5	1958.7	11.3	52,400	3,800	35,600	1,900	718	2,200	5,400	2,100	7.2	.4	72	97	317	.48	43	362
			49	50	49.5	Pre-res.	5.5	16,600	1,200	7,100	800	198	410	2,900	1,000	3.6	<.2	1.7	18	23	.34	6.7	52
		Median					**15.4**	**62,000**	**9,200**	**28,800**	**3,700**	**685**	**1,700**	**7,900**	**4,300**	**12**	**1.5**	**100**	**165**	**1,760**	**.93**	**60**	**1,030**
30	Big Round Top Pond	BRT.B1	0	.5	.25	2000.0	17.4	57,700	6,700	20,000	4,200	281	920	8,400	5,600	11	.1	40	12	80	.19	16	82
			.5	1	.75	1997.0	18.3	58,300	6,500	19,200	4,200	284	960	8,800	5,700	11	.1	38	13	68	.19	12	88
			1	1.5	1.25	1995.0	17.4	57,700	6,600	18,900	4,400	290	990	8,800	5,500	10	.2	36	12	70	.19	16	83
			1.5	2	1.75	1993.0	16.8	56,600	6,450	17,000	4,200	278	855	8,700	5,800	11	.1	36	12	70	.18	20	88
			2	2.5	2.25	1992.0	16.5	50,000	6,000	15,400	4,000	298	800	8,400	6,900	10	.2	31	11	77	.15	18	72
			2.5	3	2.75	1990.0	15.9	55,800	7,100	16,500	3,700	292	850	9,100	7,300	10	.2	45	10	76	.16	13	73
			3	3.5	3.25	1988.0	15.4	61,200	8,100	17,500	4,000	313	950	9,900	7,700	10	.2	50	12	75	.19	19	106
			3.5	4	3.75	1986.0	15.5	59,000	7,300	17,400	4,300	302	950	9,400	7,300	10	.1	47	12	78	.19	14	82
			4	4.5	4.25	1984.0	14.8	65,300	7,600	17,200	4,900	307	750	10,100	7,700	10	.2	44	12	76	.17	13	100
			4.5	5	4.75	1982.0	16.1	64,800	7,300	16,700	5,100	300	950	9,700	7,600	12	.2	43	12	70	.17	13	81
			5	5.5	5.25	1980.0	14.1	62,700	7,100	15,800	4,900	285	950	9,900	7,700	11	.1	42	12	66	.17	18	79
			5.5	6	5.75	1978.0	13.2	63,700	7,300	16,100	4,900	295	800	10,100	7,900	11	.1	42	12	67	.16	13	89
			6	6.5	6.25	1976.0	13.6	64,000	7,050	15,700	5,000	290	925	10,000	7,800	10	.1	38	11	67	.18	14	88
			6.5	7	6.75	1974.0	13.5	64,300	7,100	16,400	4,900	294	900	10,100	7,600	10	.2	43	12	64	.18	11	96
			7	7.5	7.25	1972.0	13.9	63,200	7,100	16,200	4,900	291	850	9,700	7,700	10	.1	46	11	63	.19	15	100
			7.5	8	7.75	1970.0	13.8	63,300	6,900	16,200	4,900	307	900	10,000	7,400	12	.1	45	11	64	.17	15	96
			8	8.5	8.25	1969.0	14.2	52,200	5,700	14,200	3,700	248	700	8,400	6,400	12	.1	43	11	74	.18	15	93
			8.5	9	8.75	1967.0	14.2	60,300	6,400	15,600	4,300	286	800	9,100	7,000	12	.1	45	12	73	.17	14	87
			9	9.5	9.25	1965.0	14.0	54,300	6,000	14,700	4,000	264	850	8,400	6,300	11	.1	48	12	64	.16	12	86
			9.5	10	9.75	1964.0	14.5	60,500	6,800	15,400	4,600	294	800	8,900	2,600	11	.1	48	12	63	.15	14	87

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
30	Big Round	BRT.B1	10	10.5	10.25	1963.0	13.7	59,300	6,800	15,200	4,300	304	900	9,400	7,000	10	0.2	47	10	60	0.16	11	91
	Top Pond	—Cont.	10.5	11	10.75	1961.0	14.5	54,000	6,150	14,400	3,700	283	920	8,850	6,650	9.2	.2	48	11	64	.15	14	85
	—Cont.		11	11.5	11.25	1960.0	14.4	58,700	6,800	15,100	4,000	305	800	8,900	7,100	8.3	.2	51	11	73	.17	11	89
			11.5	12	11.75	1958.0	14.0	53,500	6,700	14,200	4,000	286	650	8,000	6,100	8.5	.2	51	12	65	.16	15	99
			12	12.5	12.25	1957.0	15.1	54,000	6,500	14,400	3,700	296	700	8,600	6,900	9.3	.2	49	11	65	.16	14	82
			12.5	13	12.75	1956.0	15.1	52,800	6,800	14,200	4,000	300	600	8,300	6,400	9.4	.2	55	9.8	63	.17	11	81
			13	13.5	13.25	1954.0	14.9	56,300	6,800	14,500	4,000	304	650	11,000	7,300	8.5	.2	50	9.3	62	.16	14	84
			13.5	14	13.75	1953.0	14.1	54,500	7,300	14,600	4,000	311	750	9,100	7,000	8.5	.2	48	11	66	.16	11	94
			14	14.5	14.25	1952.0	14.8	54,000	7,200	15,100	3,700	320	750	9,300	7,600	8.7	.1	51	11	58	.15	12	88
			14.5	15	14.75	1950.0	14.7	56,700	7,350	14,400	3,700	320	675	10,700	8,300	8.0	.2	54	10	57	.12	12	86
			15	15.5	15.25	1949.0	15.6	60,300	7,500	13,800	3,400	315	650	14,000	9,700	7.0	.2	54	8.9	52	.11	15	83
			15.5	16	15.75	1948.0	12.8	48,800	6,500	12,200	3,100	293	550	9,900	7,600	7.5	.2	59	8.4	44	.10	17	69
			16	16.5	16.25	1947.0	14.0	55,800	6,100	11,600	3,100	282	600	17,000	10,300	6.0	.1	43	8.1	41	.12	10	71
		Median					**15.4**	**57,700**	**6,800**	**15,400**	**4,000**	**294**	**800**	**9,300**	**7,300**	**10**	**.2**	**46**	**11**	**66**	**.17**	**14**	**87**
31	Harris Pond	HSP.B2	0	1	.5	2000.4	10.8	84,000	17,000	36,000	9,300	952	2,300	12,000	14,000	6.0	.8	35	60	55	.14	23	213
			1	2	1.5	1999.6	10.4	83,000	15,000	34,000	11,000	816	2,000	13,000	15,000	5.1	.9	42	58	57	.20	20	216
			2	3	2.5	1998.5	10.4	71,000	12,000	32,000	9,000	708	2,000	12,000	14,000	5.4	.5	39	54	58	.21	26	199
			3	4	3.5	1997.4	10.4	83,000	15,000	32,000	11,000	776	2,000	12,000	14,000	4.0	.6	37	55	59	.22	15	211
			4	5	4.5	1996.2	10.4	80,500	14,000	32,000	10,400	725	1,950	12,500	14,500	4.4	.5	40	54	55	.20	12	201
			5	6	5.5	1995.1	10.0	77,000	15,000	33,000	8,700	715	2,200	13,000	15,000	7.9	.4	42	60	57	.20	10	212
			6	7	6.5	1993.9	9.8	80,000	15,000	33,000	10,300	700	2,300	13,000	15,000	8.8	.4	44	60	53	.21	12	209
			7	8	7.5	1992.7	9.7	83,000	15,000	33,000	10,300	692	2,100	13,000	15,000	8.5	.6	43	60	54	.23	14	205
			8	9	8.5	1991.4	9.3	80,500	13,000	32,000	9,750	689	2,000	13,500	14,500	8.7	.2	50	62	58	.21	21	208
			9	10	9.5	1990.0	9.1	95,000	14,000	32,000	9,300	695	1,900	13,000	14,000	9.2	.2	52	61	70	.22	21	204
			11	12	11.5	1986.8	8.2	85,000	14,000	32,000	10,700	655	2,000	13,000	15,000	6.8	.3	47	63	62	.25	20	211
			13	14	13.5	1983.6	8.1	88,000	15,000	32,000	10,000	668	2,000	14,000	16,000	7.0	.3	54	64	62	.21	24	200
			15	16	15.5	1979.6	8.8	89,000	14,000	31,000	9,300	639	2,100	14,000	15,000	4.4	.1	50	72	60	.21	25	195
			17	18	17.5	1975.8	9.2	87,000	14,000	31,000	9,000	619	2,100	13,000	14,000	4.9	.2	51	87	62	.24	21	200
			19	20	19.5	1972.1	9.1	85,000	13,000	29,000	8,300	615	2,200	12,000	14,000	4.3	.2	58	102	85	.23	25	215
			21	22	21.5	1968.2	8.8	85,000	15,000	28,000	9,300	595	2,200	12,000	15,000	3.3	.3	53	101	87	.25	21	207
			23	24	23.5	1964.0	8.5	70,000	12,000	26,000	8,000	504	2,100	12,000	15,000	4.2	.3	53	94	83	.23	25	200
			25	26	25.5	1958.8	8.3	81,000	12,000	24,000	7,000	493	1,800	13,000	16,000	3.9	.3	45	96	81	.23	22	197
			27	28	27.5	1953.4	4.8	57,000	10,000	14,000	5,300	332	900	15,000	16,000	2.9	.2	26	48	36	.11	18	101
		Median					**9.2**	**83,000**	**14,000**	**32,000**	**9,300**	**689**	**2,000**	**13,000**	**15,000**	**5.1**	**.3**	**45**	**61**	**59**	**.21**	**21**	**205**

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bot-tom	Mid-dle	Esti-mated deposi-tion date[1]	Organic carbon (percent)	Alu-minum	Cal-cium	Iron	Magne-sium	Manga-nese	Phos-phorus	Potas-sium	Sodi-um	Arse-nic	Cad-mium	Chro-mium	Cop-per	Lead	Mer-cury	Nickel	Zinc
32	Upper Mystic Lake	MYS.B2	0	1	0.5	2000.2	--	74,500	14,000	49,800	11,300	852	2,200	15,800	10,400	80	8.2	379	390	563	1.76	48	1,930
			1	2	1.5	1998.9	--	75,700	13,800	49,200	11,300	890	2,200	15,700	10,500	95	8.2	391	408	690	1.62	51	2,030
			2	3	2.5	1997.5	--	77,800	13,800	49,200	11,600	900	2,200	16,000	10,500	97	8.1	386	405	666	1.73	46	2,010
			3	4	3.5	1996.2	--	75,800	13,900	47,800	11,300	919	2,300	15,800	10,300	102	7.9	374	401	620	1.82	50	1,960
			4	5	4.5	1994.8	--	74,800	13,700	48,400	11,600	956	2,400	15,300	10,500	106	8.1	382	413	635	1.73	51	2,000
			5	6	5.5	1993.4	--	77,800	13,900	50,400	12,900	969	2,300	17,500	10,500	107	8.2	395	419	629	1.79	43	2,050
			6	7	6.5	1992.0	--	77,300	13,900	49,700	12,400	989	2,600	16,700	10,600	108	8.2	382	411	676	1.78	48	1,990
			7	8	7.5	1990.5	--	70,500	14,800	50,200	9,600	1,000	2,400	12,500	10,200	113	7.1	414	404	637	1.81	39	2,150
			8	9	8.5	1989.1	--	68,700	13,900	49,600	9,000	1,010	2,500	11,000	9,780	122	8.3	411	402	623	1.72	45	2,180
			9	10	9.5	1987.8	--	69,200	14,100	49,000	9,000	1,010	2,600	11,500	9,670	125	7.9	464	404	653	1.80	66	2,190
			10	11	10.5	1986.4	--	71,800	14,000	48,700	9,200	971	2,200	11,400	9,780	121	7.8	426	407	688	1.68	48	2,230
			11	12	11.5	1985.1	--	73,300	13,800	50,300	9,800	951	2,400	12,000	9,890	128	7.9	459	424	726	1.78	54	2,300
			12	13	12.5	1983.7	--	76,500	13,600	50,400	9,900	856	2,250	12,400	9,890	143	8.3	500	442	849	1.72	52	2,420
			13	14	13.5	1982.3	--	79,500	13,500	51,600	10,200	804	2,200	13,100	9,780	148	8.3	544	440	971	1.76	53	2,490
			14	15	14.5	1980.8	--	77,200	13,500	49,200	10,200	765	2,100	12,100	9,780	125	8.2	543	433	1,000	1.81	53	2,500
			15	16	15.5	1979.2	--	74,300	14,000	48,000	9,600	730	2,200	11,500	9,670	127	8.2	564	445	990	1.72	53	2,570
			16	17	16.5	1977.7	--	71,300	12,100	47,700	12,300	749	2,100	12,200	9,780	116	8.5	530	461	1,110	1.73	52	2,660
			17	18	17.5	1976.2	--	75,300	13,900	47,400	12,000	749	2,300	11,000	10,000	125	9.4	564	469	1,170	1.79	53	2,700
			18	19	18.5	1974.7	--	77,600	13,800	49,100	13,000	713	2,400	11,600	10,000	128	9.8	603	483	1,260	1.90	53	2,750
			19	20	19.5	1973.0	--	75,600	13,400	48,300	11,700	692	2,400	11,500	9,780	130	9.5	660	496	1,460	1.76	56	2,890
			20	22	21	1970.6	--	76,200	13,900	49,600	11,000	668	2,300	11,400	10,000	124	10.8	746	526	1,450	1.72	58	2,940
			22	24	23	1967.6	--	73,800	13,400	51,300	11,000	637	2,500	10,000	9,560	130	13.2	958	554	1,540	1.94	51	3,120
			24	26	25	1964.6	--	82,500	13,400	53,600	11,700	623	2,500	12,200	9,670	149	12.4	1,270	509	1,350	1.92	54	3,280
			26	28	27	1961.3	--	84,700	13,000	48,900	12,300	605	2,200	13,600	10,400	138	8.8	1,200	427	1,090	1.92	58	3,180
			28	30	29	1957.6	--	84,400	13,700	45,100	12,700	603	2,150	12,000	10,300	119	9.0	951	394	992	2.14	46	3,180
			30	32	31	1953.9	--	83,800	14,200	44,100	13,200	593	2,200	11,400	10,400	117	9.4	552	437	792	2.48	52	3,370
			32	34	33	1950.5	--	82,200	13,800	41,600	13,200	564	2,000	10,100	9,880	115	12.8	468	511	718	2.55	44	3,670
			34	36	35	1947.0	--	84,900	13,400	40,100	12,000	523	1,600	10,000	9,290	130	13.7	429	727	556	2.63	35	5,270
			36	38	37	1942.9	--	81,100	11,600	29,600	12,000	451	1,200	10,000	8,470	127	11.5	281	642	296	2.47	26	5,330
			38	40	39	1938.0	--	80,200	11,400	28,400	15,200	651	1,000	13,000	10,200	97	10.3	118	500	164	.51	29	7,090
			40	41	40.5	1934.1	--	71,800	12,000	20,700	12,800	507	740	12,700	11,500	31	6.1	148	202	50	.40	36	3,210
		Median					**--**	**76,200**	**13,800**	**49,000**	**11,600**	**749**	**2,200**	**12,100**	**10,000**	**122**	**8.3**	**464**	**433**	**718**	**1.8**	**51**	**2,570**

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Bottom	Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
33	South Reservoir	SRV	0	0.5	0.25	1999.5	17.4	63,400	10,200	48,700	10,000	768	1,700	6,820	5,880	20	1.7	45	231	270	0.71	33	251
			.5	1	.75	1996.8	17.5	69,400	11,300	54,200	11,500	799	1,700	8,120	6,590	17	1.7	48	257	389	.70	44	270
			1	1.5	1.25	1993.7	16.7	73,800	11,300	54,800	14,500	791	2,000	8,710	6,820	16	1.7	48	267	349	.69	46	280
			1.5	2	1.75	1990.3	16.4	73,300	11,700	55,100	15,000	765	1,950	9,120	7,120	17	1.8	50	277	340	.65	44	305
			2	2.5	2.25	1987.2	16.5	73,300	11,800	51,500	12,500	794	1,900	9,100	7,100	18	1.8	55	280	345	.66	34	301
			2.5	3	2.75	1983.8	16.3	74,200	11,600	52,900	14,000	719	2,000	9,650	7,180	19	1.8	51	272	346	.63	44	293
			3	3.5	3.25	1980.2	16.2	74,200	12,000	52,600	13,000	704	2,000	9,060	7,180	21	1.8	52	293	370	.64	43	297
			3.5	4	3.75	1976.6	17.1	77,600	12,200	53,600	16,500	718	2,000	9,530	7,060	17	1.8	50	308	363	.67	42	298
			4	4.5	4.25	1973.0	17.4	76,500	13,300	52,600	14,000	740	2,000	9,180	7,060	16	2.5	50	324	360	.67	49	309
			4.5	5	4.75	1969.6	18.1	70,200	13,300	50,500	10,000	728	1,900	8,120	6,940	19	2.6	53	319	320	.67	44	308
			5	5.5	5.25	1966.1	18.2	69,500	12,400	49,100	12,500	673	2,000	8,400	6,900	23	1.8	51	316	332	--	45	305
			5.5	6	5.75	1962.6	18.1	75,300	13,100	47,600	13,200	682	2,050	9,820	7,470	18	2.1	52	290	337	.62	36	317
			6	6.5	6.25	1959.3	17.5	71,400	13,300	44,600	10,500	664	2,000	8,710	7,060	18	1.7	49	263	333	.58	37	298
			6.5	7	6.75	1956.0	18.3	72,200	13,800	44,200	11,500	632	2,100	9,180	7,290	23	1.7	53	270	322	--	33	289
			7	7.5	7.25	1952.6	19.1	72,400	14,700	42,200	18,500	629	2,000	9,290	7,100	23	1.6	54	266	321	.55	34	273
			7.5	8	7.75	1949.3	20.4	62,000	10,500	36,000	11,000	547	1,700	7,880	5,760	18	1.0	49	224	257	--	25	226
			8	8.5	8.25	1946.1	23.7	66,400	14,500	34,500	15,000	641	1,400	7,650	5,650	22	1.5	48	210	235	.47	27	232
			8.5	9	8.75	1942.9	23.4	65,100	14,200	37,200	13,000	674	1,500	7,880	6,120	17	1.3	47	228	250	--	29	228
			9	9.5	9.25	1939.8	28.6	54,000	15,100	31,300	12,000	675	1,300	6,240	4,820	16	.9	39	170	203	.38	30	182
			9.5	10	9.75	1936.9	29.3	54,000	15,100	31,400	12,000	681	1,300	6,290	4,710	18	.9	32	178	196	--	26	191
			10	10.5	10.25	1934.0	30.8	45,100	15,600	28,000	10,500	676	1,100	5,290	4,120	16	.7	33	139	135	.36	27	152
			10.5	11	10.75	1931.2	34.5	42,700	17,600	28,200	10,000	745	970	4,940	3,880	12	.7	29	120	138	--	28	159
		Median					**18.1**	**70,800**	**13,200**	**48,100**	**12,500**	**693**	**1,920**	**8,550**	**6,920**	**18**	**1.7**	**49**	**266**	**327**	**.65**	**35**	**285**
34	Charles River	CHA.B1	0	1	.5	2000.1	10.9	51,000	9,000	46,000	14,800	679	1,700	12,000	27,000	7.6	2.7	100	200	501	1.38	53	587
			1	2	1.5	1998.9	11.7	54,000	10,000	53,000	12,800	725	2,100	14,000	29,400	8.2	3.0	121	235	588	1.51	64	654
			2	3	2.5	1997.8	11.5	51,000	10,000	53,000	11,600	750	2,200	14,000	29,000	8.9	3.7	130	223	544	1.44	65	618
			3	4	3.5	1996.7	11.8	55,000	14,000	53,000	13,400	809	2,700	15,000	32,700	8.2	3.7	117	223	533	1.42	52	627
			4	5	4.5	1995.5	10.1	52,000	9,000	44,000	13,200	644	1,900	13,000	25,100	7.7	3.5	111	209	477	1.28	59	592
			5	6	5.5	1994.3	10.7	52,000	11,000	42,500	14,000	641	1,850	13,000	28,600	8.9	3.8	112	225	518	1.31	52	616
			6	7	6.5	1993.1	12.2	51,000	12,000	44,000	14,000	618	2,000	14,000	30,700	6.3	3.6	114	241	563	1.40	57	700
			7	8	7.5	1992.0	11.8	55,000	13,000	45,000	10,600	646	2,100	14,000	32,300	5.8	3.5	110	232	581	1.35	46	714
			8	9	8.5	1990.8	12.5	58,000	13,000	41,000	10,400	546	1,800	12,000	30,400	6.9	3.8	107	227	508	1.44	52	621
			9	10	9.5	1989.7	12.3	54,000	11,000	48,000	12,800	551	2,200	14,000	29,600	7.1	4.0	121	274	631	2.18	72	733

Footnote at end of table.

Table 2. Concentrations of selected major and trace elements in sediment cores—Continued.

Map ID (fig. 1)	Lake name	Core ID	Interval (centimeters) Top	Interval (centimeters) Bottom	Interval (centimeters) Middle	Estimated deposition date[1]	Organic carbon (percent)	Aluminum	Calcium	Iron	Magnesium	Manganese	Phosphorus	Potassium	Sodium	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
34	Charles River —Cont.	CHA.B1— Cont.	10	11	10.5	1988.5	12.7	54,000	11,000	47,000	10,800	519	2,000	14,000	28,600	6.6	4.3	108	274	644	2.32	70	762
			12	13	12.5	1986.2	12.6	52,000	11,000	47,000	10,400	545	1,800	14,000	27,300	7.5	4.3	129	310	737	2.34	57	822
			14	15	14.5	1983.9	12.7	54,000	11,000	45,000	11,200	483	2,100	14,000	25,600	7.4	4.5	115	284	667	2.60	48	792
			16	17	16.5	1981.6	12.2	52,000	10,000	42,000	10,800	436	1,700	13,000	25,400	4.4	3.9	107	272	598	2.24	54	718
			18	19	18.5	1979.2	9.8	49,000	9,000	39,000	10,000	394	1,600	10,000	23,700	2.8	3.8	101	228	565	2.15	48	621
			20	22	21	1976.2	12.4	51,000	10,000	48,000	11,200	650	1,900	12,000	25,900	3.0	4.7	124	302	749	2.18	67	793
			24	26	25	1971.5	12.3	53,000	12,000	45,500	13,100	744	2,250	13,500	28,600	3.5	4.3	120	306	820	2.21	55	818
			28	30	29	1966.5	10.3	50,000	10,000	42,000	13,600	580	1,800	12,000	22,700	3.3	4.6	110	312	788	2.29	57	719
			32	34	33	1961.5	11.7	50,000	11,000	44,000	14,400	809	2,700	13,000	24,700	2.1	4.8	154	317	825	2.26	56	795
			36	38	37	1956.3	9.8	56,000	11,000	34,000	13,400	646	2,400	12,000	23,100	2.4	4.1	140	300	724	2.10	51	713
			40	42	41	1951.2	8.9	52,000	11,000	35,000	14,400	629	2,500	12,000	23,300	3.4	3.7	119	277	700	1.99	47	641
Median							**11.8**	**52,000**	**11,000**	**45,000**	**12,800**	**641**	**2,000**	**13,000**	**27,300**	**6.6**	**3.8**	**115**	**272**	**598**	**2.10**	**55**	**713**
35	Crocker Pond	CRK.B1	0	.5	.25	1999.4	23.0	42,200	7,830	19,100	4,290	292	1,400	4,470	3,120	<1.0	1.0	18	15	49	.07	14	102
			.5	1	.75	1996.5	23.5	42,400	7,670	17,200	4,570	259	1,600	4,240	3,250	<1.0	1.2	12	16	44	<.02	13	100
			1	1.5	1.25	1993.4	23.7	42,000	7,170	15,100	4,290	221	1,500	4,350	3,120	<1.0	.8	18	16	50	.15	12	108
			1.5	2	1.75	1989.9	23.3	40,700	7,000	14,100	4,290	209	1,500	4,470	3,120	<1.0	1.1	15	16	41	<.02	11	100
			2	2.5	2.25	1986.2	22.8	44,200	7,500	14,400	4,570	216	1,600	4,410	3,250	<1.0	1.2	13	16	24	.19	9.2	111
			2.5	3	2.75	1982.2	22.6	44,900	7,330	13,700	4,570	206	1,500	4,470	3,380	<1.0	.4	15	17	47	.18	15	112
			3	3.5	3.25	1977.8	22.3	43,800	7,170	13,400	4,570	201	1,500	4,470	3,250	<1.0	.5	14	18	34	.02	13	112
			3.5	4	3.75	1973.1	22.1	45,400	7,000	13,300	4,570	201	1,400	4,350	3,380	<1.0	1.3	27	19	42	.09	11	109
			4	4.5	4.25	1967.6	21.7	46,400	7,500	13,700	4,570	202	1,300	4,470	3,380	<1.0	1.4	23	20	31	.08	25	115
			4.5	5	4.75	1961.0	22.0	46,400	7,170	13,400	4,570	196	1,400	4,470	3,380	<1.0	1.4	16	18	33	.10	18	117
			5	6	5.5	1951.5	22.6	49,400	7,500	13,700	4,860	225	1,400	4,590	3,750	<1.0	1.9	15	20	27	.11	12	130
			6	7	6.5	1939.2	23.1	48,400	7,670	13,000	4,710	198	1,200	4,820	4,060	<1.0	1.5	17	20	37	.14	12	128
			7	8	7.5	1925.5	22.6	52,000	8,170	14,200	4,860	216	1,000	5,180	4,620	<1.0	.2	17	20	36	.09	12	137
			8	9	8.5	1905.2	21.9	50,000	8,170	14,100	4,570	210	920	5,180	4,620	<1.0	.2	16	18	31	<.02	8.3	111
			9	10	9.5	1875.4	22.7	46,900	7,830	11,900	4,290	204	970	4,710	4,250	<1.0	.5	13	18	55	.05	12	98
			10	11	10.5	1829.1	21.8	44,200	7,500	10,000	4,000	179	1,100	4,120	3,620	<1.0	.1	24	16	36	<.02	8.9	73
Median							**22.6**	**45,200**	**7,500**	**13,700**	**4,570**	**208**	**1,400**	**4,470**	**3,380**	**<1.0**	**1.1**	**16**	**18**	**36**	**.08**	**12**	**111**

[1] From Van Metre and others, (2004).

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