

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Aluminum, dissolved (μM)	Arsenic, dissolved (μM)	Boron, dissolved (μM)	Barium, dissolved (μM)	Calcium, dissolved (μM)
FSW 671-A01 (03MW1023A)	12/05/06	30	35	28	<3.15	<0.13	2.0	0.0968	177
FSW 671-A01 (03MW1023A)	12/05/06	40	45	18	<3.15	<0.13	1.7	0.0961	181
FSW 671-A01 (03MW1023A)	12/05/06	50	55	8	<3.15	<0.13	2.2	0.1531	265
FSW 671-A01 (03MW1023A)	12/05/06	60	65	-2	<3.15	<0.13	3.1	0.1147	150
FSW 671-A01 (03MW1023A)	12/05/06	70	75	-12	<3.15	<0.13	2.4	0.2112	203
FSW 671-A01 (03MW1023A)	12/05/06	80	85	-22	<3.15	<0.13	1.9	0.1921	206
FSW 671-A01 (03MW1023A)	12/05/06	90	95	-32	<3.15	<0.13	1.2	0.1670	238
FSW 671-A01 (03MW1023A)	12/05/06	100	105	-42	<3.15	<0.13	0.9	0.1456	326
FSW 671-A01 (03MW1023A)	12/06/06	110	115	-52	<3.15	<0.13	1.0	0.1661	381
FSW 671-A01 (03MW1023A)	12/06/06	120	125	-62	<3.15	<0.13	1.0	0.0416	148
FSW 671-A01 (03MW1023A)	12/06/06	130	135	-72	<3.15	<0.13	1.1	0.0197	63
FSW 671-A01 (03MW1023A)	12/06/06	140	145	-82	<3.15	<0.13	0.9	0.0264	64
FSW 671-A01 (03MW1023A)	12/06/06	150	155	-92	<3.15	<0.13	1.0	0.0193	89
FSW 671-A01 (03MW1023A)	12/06/06	160	165	-102	<3.15	<0.13	0.7	0.0151	61
FSW 671-A01 (03MW1023A)	12/06/06	170	175	-112	<3.15	<0.13	0.8	0.0127	82
FSW 671-A01 (03MW1023A)	12/07/06	180	185	-122	<3.15	<0.13	0.6	0.0106	68
FSW 671-A01 (03MW1023A)	12/07/06	190	195	-132	<3.15	<0.13	1.0	0.0145	76
FSW 671-A01 (03MW1023A)	12/07/06	200	205	-142	<3.15	<0.13	1.0	0.0106	87
FSW 671-A01 (03MW1023A)	12/07/06	210	215	-152	<3.15	<0.13	<0.06	0.0127	80
FSW 671-A01 (03MW1023A)	12/07/06	220	225	-162	<3.15	<0.13	<0.06	0.0093	73
FSW 671-A01 (03MW1023A)	12/07/06	230	235	-172	<3.15	<0.13	<0.06	0.0149	78
FSW 671-A01 (03MW1023A)	12/08/06	240	245	-182	<3.15	<0.13	0.7	0.0211	132
FSW 671-A01 (03MW1023A)	12/08/06	250	255	-192	<3.15	<0.13	1.2	0.0845	153

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Cadmium, dissolved (μM)	Cobalt, dissolved (μM)	Copper, dissolved (μM)	Iron, dissolved (μM)	Potassium, dissolved (μM)
FSW 671-A01 (03MW1023A)	12/05/06	30	35	28	<0.009	<0.02	0.07	4.7	166.9
FSW 671-A01 (03MW1023A)	12/05/06	40	45	18	<0.009	0.03	<0.03	16.6	169.5
FSW 671-A01 (03MW1023A)	12/05/06	50	55	8	<0.009	0.06	<0.03	7.1	211.2
FSW 671-A01 (03MW1023A)	12/05/06	60	65	-2	<0.009	0.07	<0.03	13.0	208.4
FSW 671-A01 (03MW1023A)	12/05/06	70	75	-12	<0.009	0.08	<0.03	7.4	269.8
FSW 671-A01 (03MW1023A)	12/05/06	80	85	-22	<0.009	0.13	0.07	13.5	234.2
FSW 671-A01 (03MW1023A)	12/05/06	90	95	-32	<0.009	0.10	0.04	4.8	186.6
FSW 671-A01 (03MW1023A)	12/05/06	100	105	-42	<0.009	0.04	0.08	8.9	139.5
FSW 671-A01 (03MW1023A)	12/06/06	110	115	-52	<0.009	<0.02	0.04	2.0	118.0
FSW 671-A01 (03MW1023A)	12/06/06	120	125	-62	<0.009	0.08	<0.03	7.3	68.4
FSW 671-A01 (03MW1023A)	12/06/06	130	135	-72	<0.009	<0.02	<0.03	2.7	54.3
FSW 671-A01 (03MW1023A)	12/06/06	140	145	-82	<0.009	0.05	<0.03	3.9	82.6
FSW 671-A01 (03MW1023A)	12/06/06	150	155	-92	<0.009	0.05	<0.03	6.7	63.0
FSW 671-A01 (03MW1023A)	12/06/06	160	165	-102	<0.009	0.04	<0.03	2.8	58.8
FSW 671-A01 (03MW1023A)	12/06/06	170	175	-112	<0.009	<0.02	<0.03	2.8	56.7
FSW 671-A01 (03MW1023A)	12/07/06	180	185	-122	<0.009	<0.02	<0.03	2.0	53.7
FSW 671-A01 (03MW1023A)	12/07/06	190	195	-132	<0.009	<0.02	<0.03	0.8	57.3
FSW 671-A01 (03MW1023A)	12/07/06	200	205	-142	<0.009	<0.02	<0.03	1.1	48.1
FSW 671-A01 (03MW1023A)	12/07/06	210	215	-152	<0.009	<0.02	<0.03	1.0	40.9
FSW 671-A01 (03MW1023A)	12/07/06	220	225	-162	<0.009	<0.02	<0.03	0.9	50.8
FSW 671-A01 (03MW1023A)	12/07/06	230	235	-172	<0.009	<0.02	<0.03	0.7	83.7
FSW 671-A01 (03MW1023A)	12/08/06	240	245	-182	<0.009	<0.02	<0.03	0.8	69.5
FSW 671-A01 (03MW1023A)	12/08/06	250	255	-192	<0.009	<0.02	<0.03	8.1	140.2

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Lithium, dissolved (μM)	Magnesium, dissolved (μM)	Manganese, dissolved (μM)	Sodium, dissolved (μM)	Nickel, dissolved (μM)
FSW 671-A01 (03MW1023A)	12/05/06	30	35	28	<7.2	57	2.62	209	<0.05
FSW 671-A01 (03MW1023A)	12/05/06	40	45	18	<7.2	61	3.13	614	<0.05
FSW 671-A01 (03MW1023A)	12/05/06	50	55	8	<7.2	84	4.08	678	<0.05
FSW 671-A01 (03MW1023A)	12/05/06	60	65	-2	<7.2	125	4.22	905	<0.05
FSW 671-A01 (03MW1023A)	12/05/06	70	75	-12	<7.2	152	5.42	1047	<0.05
FSW 671-A01 (03MW1023A)	12/05/06	80	85	-22	<7.2	215	11.32	1163	<0.05
FSW 671-A01 (03MW1023A)	12/05/06	90	95	-32	<7.2	251	7.72	899	<0.05
FSW 671-A01 (03MW1023A)	12/05/06	100	105	-42	<7.2	288	1.96	976	<0.05
FSW 671-A01 (03MW1023A)	12/06/06	110	115	-52	<7.2	308	1.32	582	<0.05
FSW 671-A01 (03MW1023A)	12/06/06	120	125	-62	<7.2	153	3.42	393	<0.05
FSW 671-A01 (03MW1023A)	12/06/06	130	135	-72	<7.2	44	1.58	362	<0.05
FSW 671-A01 (03MW1023A)	12/06/06	140	145	-82	<7.2	41	2.01	385	<0.05
FSW 671-A01 (03MW1023A)	12/06/06	150	155	-92	<7.2	54	2.15	366	0.05
FSW 671-A01 (03MW1023A)	12/06/06	160	165	-102	<7.2	41	1.70	345	<0.05
FSW 671-A01 (03MW1023A)	12/06/06	170	175	-112	<7.2	55	0.79	351	<0.05
FSW 671-A01 (03MW1023A)	12/07/06	180	185	-122	<7.2	45	0.69	333	<0.05
FSW 671-A01 (03MW1023A)	12/07/06	190	195	-132	<7.2	48	0.34	341	<0.05
FSW 671-A01 (03MW1023A)	12/07/06	200	205	-142	<7.2	59	0.69	296	<0.05
FSW 671-A01 (03MW1023A)	12/07/06	210	215	-152	<7.2	64	0.56	276	<0.05
FSW 671-A01 (03MW1023A)	12/07/06	220	225	-162	<7.2	62	0.65	284	<0.05
FSW 671-A01 (03MW1023A)	12/07/06	230	235	-172	<7.2	69	0.28	300	<0.05
FSW 671-A01 (03MW1023A)	12/08/06	240	245	-182	<7.2	108	1.30	366	<0.05
FSW 671-A01 (03MW1023A)	12/08/06	250	255	-192	<7.2	122	1.83	469	<0.05

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Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Phosphorus, dissolved (μM)	Sulfur, dissolved (μM)	Silica, dissolved (μM)	Strontium, dissolved (μM)	Zinc, dissolved (μM)
FSW 671-A01 (03MW1023A)	12/05/06	30	35	28	27.4	143	203	0.44	0.96
FSW 671-A01 (03MW1023A)	12/05/06	40	45	18	1.9	118	214	0.37	0.67
FSW 671-A01 (03MW1023A)	12/05/06	50	55	8	3.1	143	242	0.53	0.83
FSW 671-A01 (03MW1023A)	12/05/06	60	65	-2	2.9	183	249	0.38	0.72
FSW 671-A01 (03MW1023A)	12/05/06	70	75	-12	2.5	171	204	0.52	0.74
FSW 671-A01 (03MW1023A)	12/05/06	80	85	-22	2.6	154	200	0.42	0.80
FSW 671-A01 (03MW1023A)	12/05/06	90	95	-32	1.8	94	203	0.50	0.93
FSW 671-A01 (03MW1023A)	12/05/06	100	105	-42	<1.3	84	204	0.65	1.03
FSW 671-A01 (03MW1023A)	12/06/06	110	115	-52	<1.3	47	199	0.68	0.99
FSW 671-A01 (03MW1023A)	12/06/06	120	125	-62	<1.3	95	209	0.46	0.59
FSW 671-A01 (03MW1023A)	12/06/06	130	135	-72	<1.3	112	248	0.26	0.60
FSW 671-A01 (03MW1023A)	12/06/06	140	145	-82	<1.3	129	287	0.27	0.51
FSW 671-A01 (03MW1023A)	12/06/06	150	155	-92	<1.3	135	375	0.37	0.52
FSW 671-A01 (03MW1023A)	12/06/06	160	165	-102	<1.3	95	272	0.26	0.39
FSW 671-A01 (03MW1023A)	12/06/06	170	175	-112	<1.3	94	250	0.33	0.44
FSW 671-A01 (03MW1023A)	12/07/06	180	185	-122	<1.3	89	249	0.27	0.43
FSW 671-A01 (03MW1023A)	12/07/06	190	195	-132	<1.3	87	239	0.30	0.36
FSW 671-A01 (03MW1023A)	12/07/06	200	205	-142	<1.3	82	304	0.33	0.31
FSW 671-A01 (03MW1023A)	12/07/06	210	215	-152	<1.3	67	293	0.23	0.28
FSW 671-A01 (03MW1023A)	12/07/06	220	225	-162	<1.3	59	292	0.21	0.48
FSW 671-A01 (03MW1023A)	12/07/06	230	235	-172	<1.3	45	281	0.22	0.45
FSW 671-A01 (03MW1023A)	12/08/06	240	245	-182	<1.3	108	280	0.29	0.32
FSW 671-A01 (03MW1023A)	12/08/06	250	255	-192	<1.3	140	262	0.35	0.59

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Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Aluminum, dissolved (μM)	Arsenic, dissolved (μM)	Boron, dissolved (μM)	Barium, dissolved (μM)	Calcium, dissolved (μM)
FSW 672-A01 (03MW1029A)	01/08/07	40	45	28	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	50	55	18	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	60	65	8	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	70	75	-2	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	80	85	-12	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	90	95	-22	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	100	105	-32	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	110	115	-42	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	120	125	-52	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	130	135	-62	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	140	145	-72	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	150	155	-82	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	160	165	-92	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	170	175	-102	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	180	185	-112	<3.15	<0.13	0.8	0.0126	109
FSW 672-A01 (03MW1029A)	01/11/07	190	195	-122	<3.15	<0.13	1.1	0.0257	119
FSW 672-A01 (03MW1029A)	01/11/07	200	205	-132	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	210	215	-142	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	220	225	-152	<3.15	<0.13	<0.06	0.0138	113
FSW 672-A01 (03MW1029A)	01/12/07	230	235	-162	<3.15	<0.13	<0.06	0.0118	99
FSW 672-A01 (03MW1029A)	01/12/07	240	245	-172	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	250	255	-182	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	260	265	-192	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	269	274	-201	--	--	--	--	--

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Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Cadmium, dissolved (μM)	Cobalt, dissolved (μM)	Copper, dissolved (μM)	Iron, dissolved (μM)	Potassium, dissolved (μM)
FSW 672-A01 (03MW1029A)	01/08/07	40	45	28	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	50	55	18	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	60	65	8	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	70	75	-2	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	80	85	-12	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	90	95	-22	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	100	105	-32	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	110	115	-42	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	120	125	-52	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	130	135	-62	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	140	145	-72	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	150	155	-82	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	160	165	-92	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	170	175	-102	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	180	185	-112	<0.009	<0.02	0.06	1.4	60.3
FSW 672-A01 (03MW1029A)	01/11/07	190	195	-122	<0.009	<0.02	0.07	1.1	275.7
FSW 672-A01 (03MW1029A)	01/11/07	200	205	-132	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	210	215	-142	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	220	225	-152	<0.009	0.03	0.05	3.4	104.1
FSW 672-A01 (03MW1029A)	01/12/07	230	235	-162	<0.009	<0.02	0.04	3.4	91.5
FSW 672-A01 (03MW1029A)	01/12/07	240	245	-172	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	250	255	-182	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	260	265	-192	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	269	274	-201	--	--	--	--	--

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Lithium, dissolved (μM)	Magnesium, dissolved (μM)	Manganese, dissolved (μM)	Sodium, dissolved (μM)	Nickel, dissolved (μM)
FSW 672-A01 (03MW1029A)	01/08/07	40	45	28	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	50	55	18	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	60	65	8	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	70	75	-2	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	80	85	-12	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	90	95	-22	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	100	105	-32	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	110	115	-42	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	120	125	-52	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	130	135	-62	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	140	145	-72	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	150	155	-82	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	160	165	-92	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	170	175	-102	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	180	185	-112	<7.2	84	0.88	337	<0.05
FSW 672-A01 (03MW1029A)	01/11/07	190	195	-122	<7.2	91	0.63	385	<0.05
FSW 672-A01 (03MW1029A)	01/11/07	200	205	-132	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	210	215	-142	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	220	225	-152	<7.2	86	1.70	336	<0.05
FSW 672-A01 (03MW1029A)	01/12/07	230	235	-162	<7.2	81	0.87	326	<0.05
FSW 672-A01 (03MW1029A)	01/12/07	240	245	-172	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	250	255	-182	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	260	265	-192	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	269	274	-201	--	--	--	--	--

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Phosphorus, dissolved (μM)	Sulfur, dissolved (μM)	Silica, dissolved (μM)	Strontium, dissolved (μM)	Zinc, dissolved (μM)
FSW 672-A01 (03MW1029A)	01/08/07	40	45	28	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	50	55	18	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	60	65	8	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	70	75	-2	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	80	85	-12	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	90	95	-22	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	100	105	-32	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/09/07	110	115	-42	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	120	125	-52	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	130	135	-62	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	140	145	-72	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	150	155	-82	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	160	165	-92	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/10/07	170	175	-102	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	180	185	-112	<1.3	98	318	0.40	0.69
FSW 672-A01 (03MW1029A)	01/11/07	190	195	-122	<1.3	67	301	0.44	0.37
FSW 672-A01 (03MW1029A)	01/11/07	200	205	-132	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	210	215	-142	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/11/07	220	225	-152	<1.3	127	330	0.39	0.49
FSW 672-A01 (03MW1029A)	01/12/07	230	235	-162	<1.3	92	267	0.29	0.40
FSW 672-A01 (03MW1029A)	01/12/07	240	245	-172	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	250	255	-182	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	260	265	-192	--	--	--	--	--
FSW 672-A01 (03MW1029A)	01/12/07	269	274	-201	--	--	--	--	--

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Aluminum, dissolved (μM)	Arsenic, dissolved (μM)	Boron, dissolved (μM)	Barium, dissolved (μM)	Calcium, dissolved (μM)
FSW 699-A02 (95MW1234A)	02/08/08	120	125	-67	<3.15	<0.13	1.5	0.0131	188
FSW 699-A02 (95MW1234A)	02/12/08	140	145	-87	<3.15	<0.13	1.4	0.0125	156
FSW 699-A02 (95MW1234A)	02/12/08	150	155	-97	<3.15	<0.13	4.0	0.0293	168
FSW 699-A02 (95MW1234A)	02/12/08	160	165	-107	<3.15	<0.13	5.2	0.0488	241
FSW 699-A02 (95MW1234A)	02/13/08	170	175	-117	44.55	<0.13	4.7	0.0877	157
FSW 699-A02 (95MW1234A)	02/13/08	180	185	-127	93.40	<0.13	5.4	0.1565	182
FSW 699-A02 (95MW1234A)	02/14/08	190	195	-137	105.52	<0.13	5.7	0.1228	175
FSW 699-A02 (95MW1234A)	02/14/08	200	205	-147	248.13	<0.13	5.9	0.2023	157
FSW 699-A02 (95MW1234A)	02/15/08	230	235	-177	35.39	<0.13	5.9	0.0664	151
FSW 699-A02 (95MW1234A)	02/15/08	240	245	-187	10.72	<0.13	6.0	0.0363	172
FSW 699-A02 (95MW1234A)	02/15/08	250	255	-197	<3.15	<0.13	7.3	0.0287	156
FSW 699-A02 (95MW1234A)	02/19/08	260	265	-207	<3.15	<0.13	6.6	0.0454	186
FSW 699-A02 (95MW1234A)	02/19/08	270	275	-217	48.51	<0.13	9.4	0.1086	138
FSW 706-A01 (03MW1046A)	03/17/08	30	35	25	<1.48	<0.11	<0.7	0.0324	108
FSW 706-A01 (03MW1046A)	03/17/08	40	45	15	<1.48	<0.11	1.0	0.1209	70
FSW 706-A01 (03MW1046A)	03/17/08	50	55	5	<1.48	<0.11	2.6	0.1364	125
FSW 706-A01 (03MW1046A)	03/17/08	60	65	-5	<1.48	<0.11	2.6	0.1121	152
FSW 706-A01 (03MW1046A)	03/18/08	70	75	-15	<1.48	<0.11	2.5	0.0899	155
FSW 706-A01 (03MW1046A)	03/18/08	80	85	-25	<1.48	<0.11	2.7	0.1012	168
FSW 706-A01 (03MW1046A)	03/18/08	90	95	-35	<1.48	<0.11	1.9	0.1247	264
FSW 706-A01 (03MW1046A)	03/18/08	100	105	-45	<1.48	<0.11	1.0	0.1206	215
FSW 706-A01 (03MW1046A)	03/18/08	110	115	-55	<1.48	<0.11	1.0	0.1404	264

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Cadmium, dissolved (μM)	Cobalt, dissolved (μM)	Copper, dissolved (μM)	Iron, dissolved (μM)	Potassium, dissolved (μM)
FSW 699-A02 (95MW1234A)	02/08/08	120	125	-67	<0.009	<0.02	<0.03	28.1	75.1
FSW 699-A02 (95MW1234A)	02/12/08	140	145	-87	<0.009	<0.02	<0.03	29.9	65.6
FSW 699-A02 (95MW1234A)	02/12/08	150	155	-97	<0.009	<0.02	<0.03	0.9	124.1
FSW 699-A02 (95MW1234A)	02/12/08	160	165	-107	<0.009	<0.02	<0.03	0.2	153.6
FSW 699-A02 (95MW1234A)	02/13/08	170	175	-117	<0.009	<0.02	<0.03	13.8	202.0
FSW 699-A02 (95MW1234A)	02/13/08	180	185	-127	<0.009	<0.02	<0.03	37.2	223.6
FSW 699-A02 (95MW1234A)	02/14/08	190	195	-137	<0.009	<0.02	0.23	34.1	199.9
FSW 699-A02 (95MW1234A)	02/14/08	200	205	-147	<0.009	0.03	0.27	77.4	232.7
FSW 699-A02 (95MW1234A)	02/15/08	230	235	-177	<0.009	<0.02	<0.03	25.2	179.0
FSW 699-A02 (95MW1234A)	02/15/08	240	245	-187	<0.009	<0.02	<0.03	17.1	140.4
FSW 699-A02 (95MW1234A)	02/15/08	250	255	-197	<0.009	<0.02	0.04	2.0	153.3
FSW 699-A02 (95MW1234A)	02/19/08	260	265	-207	<0.009	<0.02	<0.03	1.8	156.6
FSW 699-A02 (95MW1234A)	02/19/08	270	275	-217	<0.009	<0.02	0.05	47.4	166.4
FSW 706-A01 (03MW1046A)	03/17/08	30	35	25	<0.002	0.05	<0.04	3.1	35.7
FSW 706-A01 (03MW1046A)	03/17/08	40	45	15	<0.002	<0.01	<0.04	0.4	88.6
FSW 706-A01 (03MW1046A)	03/17/08	50	55	5	0.002	0.02	0.04	1.4	144.3
FSW 706-A01 (03MW1046A)	03/17/08	60	65	-5	0.003	0.02	0.05	3.1	112.9
FSW 706-A01 (03MW1046A)	03/18/08	70	75	-15	0.004	0.02	<0.04	4.3	49.9
FSW 706-A01 (03MW1046A)	03/18/08	80	85	-25	0.004	0.02	0.07	3.2	53.8
FSW 706-A01 (03MW1046A)	03/18/08	90	95	-35	0.004	0.04	<0.04	8.5	56.6
FSW 706-A01 (03MW1046A)	03/18/08	100	105	-45	0.005	0.10	0.05	3.7	53.7
FSW 706-A01 (03MW1046A)	03/18/08	110	115	-55	0.004	0.10	0.07	13.6	77.2

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Lithium, dissolved (μM)	Magnesium, dissolved (μM)	Manganese, dissolved (μM)	Sodium, dissolved (μM)	Nickel, dissolved (μM)
FSW 699-A02 (95MW1234A)	02/08/08	120	125	-67	<7.2	129	1.59	495	<0.05
FSW 699-A02 (95MW1234A)	02/12/08	140	145	-87	<7.2	97	2.40	446	<0.05
FSW 699-A02 (95MW1234A)	02/12/08	150	155	-97	<7.2	117	1.19	777	<0.05
FSW 699-A02 (95MW1234A)	02/12/08	160	165	-107	<7.2	143	0.59	913	<0.05
FSW 699-A02 (95MW1234A)	02/13/08	170	175	-117	<7.2	141	0.56	865	<0.05
FSW 699-A02 (95MW1234A)	02/13/08	180	185	-127	<7.2	144	0.45	916	<0.05
FSW 699-A02 (95MW1234A)	02/14/08	190	195	-137	<7.2	155	0.69	894	<0.05
FSW 699-A02 (95MW1234A)	02/14/08	200	205	-147	<7.2	165	0.86	881	<0.05
FSW 699-A02 (95MW1234A)	02/15/08	230	235	-177	<7.2	157	0.66	1007	<0.05
FSW 699-A02 (95MW1234A)	02/15/08	240	245	-187	<7.2	142	0.95	1016	<0.05
FSW 699-A02 (95MW1234A)	02/15/08	250	255	-197	<7.2	159	0.55	1328	<0.05
FSW 699-A02 (95MW1234A)	02/19/08	260	265	-207	<7.2	159	1.11	1248	<0.05
FSW 699-A02 (95MW1234A)	02/19/08	270	275	-217	<7.2	135	1.82	1634	<0.05
FSW 706-A01 (03MW1046A)	03/17/08	30	35	25	<7.2	73	2.49	319	0.02
FSW 706-A01 (03MW1046A)	03/17/08	40	45	15	<7.2	63	1.35	251	<0.02
FSW 706-A01 (03MW1046A)	03/17/08	50	55	5	<7.2	111	28.90	435	0.05
FSW 706-A01 (03MW1046A)	03/17/08	60	65	-5	<7.2	140	55.20	544	0.09
FSW 706-A01 (03MW1046A)	03/18/08	70	75	-15	<7.2	132	67.20	773	0.10
FSW 706-A01 (03MW1046A)	03/18/08	80	85	-25	<7.2	144	65.96	862	0.10
FSW 706-A01 (03MW1046A)	03/18/08	90	95	-35	<7.2	240	92.11	811	0.10
FSW 706-A01 (03MW1046A)	03/18/08	100	105	-45	<7.2	218	67.27	497	0.07
FSW 706-A01 (03MW1046A)	03/18/08	110	115	-55	<7.2	240	15.31	581	0.14

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Phosphorus, dissolved (μM)	Sulfur, dissolved (μM)	Silica, dissolved (μM)	Strontium, dissolved (μM)	Zinc, dissolved (μM)
FSW 699-A02 (95MW1234A)	02/08/08	120	125	-67	<1.3	137	320	0.59	0.45
FSW 699-A02 (95MW1234A)	02/12/08	140	145	-87	6.4	132	332	0.46	0.31
FSW 699-A02 (95MW1234A)	02/12/08	150	155	-97	4.0	125	235	0.54	0.14
FSW 699-A02 (95MW1234A)	02/12/08	160	165	-107	6.2	136	223	0.62	0.40
FSW 699-A02 (95MW1234A)	02/13/08	170	175	-117	4.9	115	329	0.54	0.35
FSW 699-A02 (95MW1234A)	02/13/08	180	185	-127	4.3	120	487	0.89	0.43
FSW 699-A02 (95MW1234A)	02/14/08	190	195	-137	7.6	145	469	0.73	0.51
FSW 699-A02 (95MW1234A)	02/14/08	200	205	-147	5.3	149	907	0.62	0.58
FSW 699-A02 (95MW1234A)	02/15/08	230	235	-177	6.0	123	307	0.78	0.40
FSW 699-A02 (95MW1234A)	02/15/08	240	245	-187	8.5	147	249	0.60	0.27
FSW 699-A02 (95MW1234A)	02/15/08	250	255	-197	6.3	168	237	0.62	0.38
FSW 699-A02 (95MW1234A)	02/19/08	260	265	-207	8.7	172	252	0.67	0.49
FSW 699-A02 (95MW1234A)	02/19/08	270	275	-217	10.4	177	326	0.53	0.48
FSW 706-A01 (03MW1046A)	03/17/08	30	35	25	<0.48	113	316	0.35	0.68
FSW 706-A01 (03MW1046A)	03/17/08	40	45	15	<0.48	86	171	0.15	0.64
FSW 706-A01 (03MW1046A)	03/17/08	50	55	5	<0.48	90	226	0.27	0.59
FSW 706-A01 (03MW1046A)	03/17/08	60	65	-5	<0.48	106	232	0.42	0.62
FSW 706-A01 (03MW1046A)	03/18/08	70	75	-15	<0.48	126	239	0.47	0.54
FSW 706-A01 (03MW1046A)	03/18/08	80	85	-25	<0.48	85	232	0.52	0.84
FSW 706-A01 (03MW1046A)	03/18/08	90	95	-35	<0.48	61	256	0.84	0.66
FSW 706-A01 (03MW1046A)	03/18/08	100	105	-45	<0.48	49	237	0.89	0.56
FSW 706-A01 (03MW1046A)	03/18/08	110	115	-55	<0.48	50	253	1.14	0.52

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Aluminum, dissolved (μM)	Arsenic, dissolved (μM)	Boron, dissolved (μM)	Barium, dissolved (μM)	Calcium, dissolved (μM)
FSW 706-A01 (03MW1046A)	03/18/08	120	125	-65	<1.48	<0.11	1.0	0.0352	93
FSW 706-A01 (03MW1046A)	03/18/08	130	135	-75	<1.48	<0.11	1.3	0.0212	135
FSW 706-A01 (03MW1046A)	03/18/08	140	145	-85	<1.48	<0.11	2.4	0.0208	100
FSW 706-A01 (03MW1046A)	03/18/08	150	155	-95	<1.48	<0.11	2.7	0.0191	128
FSW 706-A01 (03MW1046A)	03/18/08	160	165	-105	<1.48	<0.11	2.5	0.0189	115
FSW 706-A01 (03MW1046A)	03/19/08	170	175	-115	<1.48	<0.11	0.9	0.0218	113
FSW 706-A01 (03MW1046A)	03/19/08	180	185	-125	<1.48	<0.11	<0.7	0.0153	89
FSW 706-A01 (03MW1046A)	03/19/08	190	195	-135	<1.48	<0.11	<0.7	0.0149	88
FSW 706-A01 (03MW1046A)	03/19/08	200	205	-145	<1.48	<0.11	<0.7	0.0119	81
FSW 706-A01 (03MW1046A)	03/19/08	210	215	-155	<1.48	<0.11	<0.7	0.0124	84
FSW 706-A01 (03MW1046A)	03/19/08	220	225	-165	<1.48	<0.11	<0.7	0.0139	104
FSW 706-A01 (03MW1046A)	03/19/08	230	235	-175	<1.48	<0.11	1.0	0.0266	158
FSW 706-A01 (03MW1046A)	03/20/08	240	245	-185	<1.48	<0.11	1.5	0.0411	185
FSW 706-A01 (03MW1046A)	03/20/08	247	252	-192	<1.48	<0.11	2.1	0.0442	169
SDW 107-A01 (03MW1016A)	01/19/06	70	75	13	<3.15	<0.13	1.8	0.0496	26
SDW 107-A01 (03MW1016A)	01/19/06	80	85	3	<3.15	<0.13	1.2	0.1478	65
SDW 107-A01 (03MW1016A)	01/19/06	90	95	-7	<3.15	<0.13	0.9	0.0676	46
SDW 107-A01 (03MW1016A)	01/19/06	100	105	-17	<3.15	<0.13	0.9	0.0620	66
SDW 107-A01 (03MW1016A)	01/19/06	110	115	-27	<3.15	<0.13	1.0	0.0626	137
SDW 107-A01 (03MW1016A)	01/20/06	120	125	-37	<3.15	<0.13	1.0	0.0478	135
SDW 107-A01 (03MW1016A)	01/20/06	130	135	-47	<3.15	<0.13	1.0	0.0378	163
SDW 107-A01 (03MW1016A)	01/20/06	140	145	-57	<3.15	<0.13	0.6	0.0147	68
SDW 107-A01 (03MW1016A)	01/20/06	150	155	-67	<3.15	<0.13	<0.06	0.0093	74

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Cadmium, dissolved (μM)	Cobalt, dissolved (μM)	Copper, dissolved (μM)	Iron, dissolved (μM)	Potassium, dissolved (μM)
FSW 706-A01 (03MW1046A)	03/18/08	120	125	-65	<0.002	0.01	<0.04	1.7	45.2
FSW 706-A01 (03MW1046A)	03/18/08	130	135	-75	<0.002	0.01	<0.04	1.0	27.3
FSW 706-A01 (03MW1046A)	03/18/08	140	145	-85	<0.002	0.02	<0.04	1.0	36.1
FSW 706-A01 (03MW1046A)	03/18/08	150	155	-95	<0.002	0.03	<0.04	2.8	33.0
FSW 706-A01 (03MW1046A)	03/18/08	160	165	-105	<0.002	0.02	<0.04	2.4	28.4
FSW 706-A01 (03MW1046A)	03/19/08	170	175	-115	<0.002	0.05	<0.04	3.4	27.9
FSW 706-A01 (03MW1046A)	03/19/08	180	185	-125	<0.002	0.03	<0.04	2.7	27.7
FSW 706-A01 (03MW1046A)	03/19/08	190	195	-135	<0.002	0.01	<0.04	1.0	27.2
FSW 706-A01 (03MW1046A)	03/19/08	200	205	-145	<0.002	0.01	<0.04	1.0	24.8
FSW 706-A01 (03MW1046A)	03/19/08	210	215	-155	<0.002	0.01	<0.04	1.3	30.4
FSW 706-A01 (03MW1046A)	03/19/08	220	225	-165	<0.002	0.01	<0.04	1.0	35.3
FSW 706-A01 (03MW1046A)	03/19/08	230	235	-175	<0.002	0.02	<0.04	1.2	60.2
FSW 706-A01 (03MW1046A)	03/20/08	240	245	-185	<0.002	0.01	<0.04	18.0	69.0
FSW 706-A01 (03MW1046A)	03/20/08	247	252	-192	<0.002	<0.01	0.05	6.6	62.8
SDW 107-A01 (03MW1016A)	01/19/06	70	75	13	<0.009	<0.02	<0.03	2.6	53.9
SDW 107-A01 (03MW1016A)	01/19/06	80	85	3	<0.009	0.07	<0.03	5.7	97.8
SDW 107-A01 (03MW1016A)	01/19/06	90	95	-7	<0.009	<0.02	0.06	1.7	46.2
SDW 107-A01 (03MW1016A)	01/19/06	100	105	-17	<0.009	<0.02	0.06	2.7	60.6
SDW 107-A01 (03MW1016A)	01/19/06	110	115	-27	<0.009	<0.02	<0.03	4.3	58.5
SDW 107-A01 (03MW1016A)	01/20/06	120	125	-37	<0.009	<0.02	0.04	2.3	72.9
SDW 107-A01 (03MW1016A)	01/20/06	130	135	-47	<0.009	<0.02	0.10	2.3	61.6
SDW 107-A01 (03MW1016A)	01/20/06	140	145	-57	<0.009	<0.02	<0.03	1.2	102.2
SDW 107-A01 (03MW1016A)	01/20/06	150	155	-67	<0.009	<0.02	<0.03	0.5	62.6

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Lithium, dissolved (μM)	Magnesium, dissolved (μM)	Manganese, dissolved (μM)	Sodium, dissolved (μM)	Nickel, dissolved (μM)
FSW 706-A01 (03MW1046A)	03/18/08	120	125	-65	<7.2	78	4.09	355	0.03
FSW 706-A01 (03MW1046A)	03/18/08	130	135	-75	<7.2	95	3.71	383	0.02
FSW 706-A01 (03MW1046A)	03/18/08	140	145	-85	<7.2	66	2.50	435	0.03
FSW 706-A01 (03MW1046A)	03/18/08	150	155	-95	<7.2	82	1.61	392	0.03
FSW 706-A01 (03MW1046A)	03/18/08	160	165	-105	<7.2	88	0.92	376	<0.02
FSW 706-A01 (03MW1046A)	03/19/08	170	175	-115	<7.2	81	1.45	342	0.03
FSW 706-A01 (03MW1046A)	03/19/08	180	185	-125	<7.2	64	1.11	282	<0.02
FSW 706-A01 (03MW1046A)	03/19/08	190	195	-135	<7.2	68	0.43	297	<0.02
FSW 706-A01 (03MW1046A)	03/19/08	200	205	-145	<7.2	64	0.34	277	<0.02
FSW 706-A01 (03MW1046A)	03/19/08	210	215	-155	<7.2	67	0.34	294	<0.02
FSW 706-A01 (03MW1046A)	03/19/08	220	225	-165	<7.2	84	0.25	322	<0.02
FSW 706-A01 (03MW1046A)	03/19/08	230	235	-175	<7.2	124	1.02	480	<0.02
FSW 706-A01 (03MW1046A)	03/20/08	240	245	-185	<7.2	130	4.51	559	<0.02
FSW 706-A01 (03MW1046A)	03/20/08	247	252	-192	<7.2	117	5.60	662	<0.02
SDW 107-A01 (03MW1016A)	01/19/06	70	75	13	<7.2	48	5.10	650	<0.05
SDW 107-A01 (03MW1016A)	01/19/06	80	85	3	<7.2	98	1.23	1174	<0.05
SDW 107-A01 (03MW1016A)	01/19/06	90	95	-7	<7.2	66	0.78	1004	<0.05
SDW 107-A01 (03MW1016A)	01/19/06	100	105	-17	<7.2	83	0.31	1019	<0.05
SDW 107-A01 (03MW1016A)	01/19/06	110	115	-27	<7.2	150	0.16	402	<0.05
SDW 107-A01 (03MW1016A)	01/20/06	120	125	-37	<7.2	135	0.30	366	<0.05
SDW 107-A01 (03MW1016A)	01/20/06	130	135	-47	<7.2	163	0.39	386	<0.05
SDW 107-A01 (03MW1016A)	01/20/06	140	145	-57	<7.2	61	1.22	355	<0.05
SDW 107-A01 (03MW1016A)	01/20/06	150	155	-67	<7.2	50	0.27	285	<0.05

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Phosphorus, dissolved (μM)	Sulfur, dissolved (μM)	Silica, dissolved (μM)	Strontium, dissolved (μM)	Zinc, dissolved (μM)
FSW 706-A01 (03MW1046A)	03/18/08	120	125	-65	<0.48	90	283	0.40	0.48
FSW 706-A01 (03MW1046A)	03/18/08	130	135	-75	<0.48	140	222	0.50	0.39
FSW 706-A01 (03MW1046A)	03/18/08	140	145	-85	<0.48	104	251	0.38	0.40
FSW 706-A01 (03MW1046A)	03/18/08	150	155	-95	<0.48	116	297	0.42	0.38
FSW 706-A01 (03MW1046A)	03/18/08	160	165	-105	<0.48	123	301	0.38	0.42
FSW 706-A01 (03MW1046A)	03/19/08	170	175	-115	<0.48	119	313	0.36	0.40
FSW 706-A01 (03MW1046A)	03/19/08	180	185	-125	<0.48	71	288	0.27	0.21
FSW 706-A01 (03MW1046A)	03/19/08	190	195	-135	0.7	68	301	0.24	0.38
FSW 706-A01 (03MW1046A)	03/19/08	200	205	-145	0.7	59	275	0.20	0.23
FSW 706-A01 (03MW1046A)	03/19/08	210	215	-155	0.9	58	292	0.21	0.40
FSW 706-A01 (03MW1046A)	03/19/08	220	225	-165	1.4	84	273	0.25	0.39
FSW 706-A01 (03MW1046A)	03/19/08	230	235	-175	<0.48	156	269	0.36	0.39
FSW 706-A01 (03MW1046A)	03/20/08	240	245	-185	1.0	167	289	0.40	0.42
FSW 706-A01 (03MW1046A)	03/20/08	247	252	-192	2.0	163	280	0.39	0.38
SDW 107-A01 (03MW1016A)	01/19/06	70	75	13	<1.3	--	158	0.14	0.73
SDW 107-A01 (03MW1016A)	01/19/06	80	85	3	<1.3	--	184	0.40	0.73
SDW 107-A01 (03MW1016A)	01/19/06	90	95	-7	<1.3	--	168	0.22	0.72
SDW 107-A01 (03MW1016A)	01/19/06	100	105	-17	<1.3	--	169	0.29	0.64
SDW 107-A01 (03MW1016A)	01/19/06	110	115	-27	<1.3	--	194	0.51	0.73
SDW 107-A01 (03MW1016A)	01/20/06	120	125	-37	<1.3	--	210	0.51	0.92
SDW 107-A01 (03MW1016A)	01/20/06	130	135	-47	<1.3	--	215	0.60	1.22
SDW 107-A01 (03MW1016A)	01/20/06	140	145	-57	<1.3	--	219	0.26	0.64
SDW 107-A01 (03MW1016A)	01/20/06	150	155	-67	<1.3	--	273	0.25	0.54

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Aluminum, dissolved (μM)	Arsenic, dissolved (μM)	Boron, dissolved (μM)	Barium, dissolved (μM)	Calcium, dissolved (μM)
SDW 107-A01 (03MW1016A)	01/20/06	160	165	-77	<3.15	<0.13	0.6	0.0436	100
SDW 107-A01 (03MW1016A)	01/20/06	170	175	-87	<3.15	<0.13	<0.06	0.0124	85
SDW 107-A01 (03MW1016A)	01/23/06	190	195	-107	<3.15	<0.13	<0.06	0.0116	79
SDW 107-A01 (03MW1016A)	01/23/06	200	205	-117	<3.15	<0.13	<0.06	0.0089	67
SDW 107-A01 (03MW1016A)	01/23/06	210	215	-127	<3.15	<0.13	<0.06	0.0162	83
SDW 107-A01 (03MW1016A)	01/23/06	220	225	-137	<3.15	<0.13	<0.06	0.0090	88
SDW 107-A01 (03MW1016A)	01/23/06	230	235	-147	<3.15	<0.13	<0.06	0.0116	100
SDW 107-A01 (03MW1016A)	01/24/06	240	245	-157	<3.15	<0.13	<0.06	0.0098	118
SDW 107-A01 (03MW1016A)	01/24/06	250	255	-167	<3.15	<0.13	<0.06	0.0301	105
SDW 107-A01 (03MW1016A)	01/25/06	260	265	-177	<3.15	<0.13	0.8	0.1119	149
SDW 107-A01 (03MW1016A)	01/25/06	270	275	-187	<3.15	<0.13	1.6	0.1239	199
SDW 551-A01 (03MW1022A)	11/09/06	70	75	25	<3.15	<0.13	1.0	0.1189	62
SDW 551-A01 (03MW1022A)	11/09/06	80	85	15	<3.15	<0.13	1.0	0.0704	63
SDW 551-A01 (03MW1022A)	11/09/06	90	95	5	<3.15	<0.13	1.1	0.0727	59
SDW 551-A01 (03MW1022A)	11/09/06	100	105	-5	<3.15	<0.13	1.0	0.0601	67
SDW 551-A01 (03MW1022A)	11/09/06	110	115	-15	<3.15	<0.13	0.9	0.0628	58
SDW 551-A01 (03MW1022A)	11/09/06	120	125	-25	<3.15	<0.13	1.0	0.0354	47
SDW 551-A01 (03MW1022A)	11/09/06	130	135	-35	<3.15	<0.13	1.0	0.0250	23
SDW 551-A01 (03MW1022A)	11/10/06	140	145	-45	<3.15	<0.13	1.0	0.0192	42
SDW 551-A01 (03MW1022A)	11/10/06	150	155	-55	<3.15	<0.13	1.0	0.0223	77
SDW 551-A01 (03MW1022A)	11/10/06	160	165	-65	<3.15	<0.13	0.9	0.0264	202
SDW 551-A01 (03MW1022A)	11/10/06	170	175	-75	<3.15	<0.13	0.8	0.0366	151
SDW 551-A01 (03MW1022A)	11/10/06	180	185	-85	<3.15	<0.13	<0.06	0.0168	111

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Cadmium, dissolved (μM)	Cobalt, dissolved (μM)	Copper, dissolved (μM)	Iron, dissolved (μM)	Potassium, dissolved (μM)
SDW 107-A01 (03MW1016A)	01/20/06	160	165	-77	<0.009	<0.02	0.04	2.5	54.7
SDW 107-A01 (03MW1016A)	01/20/06	170	175	-87	<0.009	<0.02	<0.03	1.0	74.3
SDW 107-A01 (03MW1016A)	01/23/06	190	195	-107	<0.009	<0.02	<0.03	1.2	69.9
SDW 107-A01 (03MW1016A)	01/23/06	200	205	-117	<0.009	<0.02	<0.03	0.7	62.2
SDW 107-A01 (03MW1016A)	01/23/06	210	215	-127	<0.009	<0.02	<0.03	1.0	96.3
SDW 107-A01 (03MW1016A)	01/23/06	220	225	-137	<0.009	<0.02	<0.03	0.7	46.9
SDW 107-A01 (03MW1016A)	01/23/06	230	235	-147	<0.009	<0.02	<0.03	1.0	49.4
SDW 107-A01 (03MW1016A)	01/24/06	240	245	-157	<0.009	<0.02	<0.03	1.3	66.3
SDW 107-A01 (03MW1016A)	01/24/06	250	255	-167	<0.009	<0.02	<0.03	0.7	108.6
SDW 107-A01 (03MW1016A)	01/25/06	260	265	-177	<0.009	<0.02	<0.03	26.6	60.4
SDW 107-A01 (03MW1016A)	01/25/06	270	275	-187	<0.009	<0.02	<0.03	1.3	122.3
SDW 551-A01 (03MW1022A)	11/09/06	70	75	25	<0.009	0.15	0.05	10.2	122.3
SDW 551-A01 (03MW1022A)	11/09/06	80	85	15	<0.009	0.03	0.04	13.5	84.5
SDW 551-A01 (03MW1022A)	11/09/06	90	95	5	<0.009	0.05	0.07	6.3	101.4
SDW 551-A01 (03MW1022A)	11/09/06	100	105	-5	<0.009	0.04	0.04	6.2	104.5
SDW 551-A01 (03MW1022A)	11/09/06	110	115	-15	<0.009	0.08	0.07	3.4	72.7
SDW 551-A01 (03MW1022A)	11/09/06	120	125	-25	<0.009	0.06	0.08	7.2	77.8
SDW 551-A01 (03MW1022A)	11/09/06	130	135	-35	<0.009	<0.02	0.06	3.0	66.2
SDW 551-A01 (03MW1022A)	11/10/06	140	145	-45	<0.009	0.02	<0.03	2.6	72.7
SDW 551-A01 (03MW1022A)	11/10/06	150	155	-55	<0.009	<0.02	<0.03	1.8	110.9
SDW 551-A01 (03MW1022A)	11/10/06	160	165	-65	<0.009	0.05	<0.03	4.8	62.6
SDW 551-A01 (03MW1022A)	11/10/06	170	175	-75	<0.009	<0.02	0.04	1.6	92.6
SDW 551-A01 (03MW1022A)	11/10/06	180	185	-85	<0.009	<0.02	<0.03	1.5	52.0

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Lithium, dissolved (μM)	Magnesium, dissolved (μM)	Manganese, dissolved (μM)	Sodium, dissolved (μM)	Nickel, dissolved (μM)
SDW 107-A01 (03MW1016A)	01/20/06	160	165	-77	<7.2	65	0.33	309	<0.05
SDW 107-A01 (03MW1016A)	01/20/06	170	175	-87	<7.2	60	0.32	272	<0.05
SDW 107-A01 (03MW1016A)	01/23/06	190	195	-107	<7.2	58	0.42	265	<0.05
SDW 107-A01 (03MW1016A)	01/23/06	200	205	-117	<7.2	48	0.24	277	<0.05
SDW 107-A01 (03MW1016A)	01/23/06	210	215	-127	<7.2	62	0.21	320	<0.05
SDW 107-A01 (03MW1016A)	01/23/06	220	225	-137	<7.2	75	0.14	348	<0.05
SDW 107-A01 (03MW1016A)	01/23/06	230	235	-147	<7.2	69	0.16	351	<0.05
SDW 107-A01 (03MW1016A)	01/24/06	240	245	-157	<7.2	65	0.43	340	<0.05
SDW 107-A01 (03MW1016A)	01/24/06	250	255	-167	<7.2	70	0.17	332	<0.05
SDW 107-A01 (03MW1016A)	01/25/06	260	265	-177	<7.2	82	1.12	417	<0.05
SDW 107-A01 (03MW1016A)	01/25/06	270	275	-187	<7.2	95	1.72	589	<0.05
SDW 551-A01 (03MW1022A)	11/09/06	70	75	25	<7.2	95	2.35	550	0.06
SDW 551-A01 (03MW1022A)	11/09/06	80	85	15	<7.2	96	1.93	569	<0.05
SDW 551-A01 (03MW1022A)	11/09/06	90	95	5	<7.2	108	2.81	580	<0.05
SDW 551-A01 (03MW1022A)	11/09/06	100	105	-5	<7.2	96	2.40	553	<0.05
SDW 551-A01 (03MW1022A)	11/09/06	110	115	-15	<7.2	81	4.40	571	<0.05
SDW 551-A01 (03MW1022A)	11/09/06	120	125	-25	<7.2	64	3.97	639	<0.05
SDW 551-A01 (03MW1022A)	11/09/06	130	135	-35	<7.2	24	1.64	779	<0.05
SDW 551-A01 (03MW1022A)	11/10/06	140	145	-45	<7.2	41	1.37	806	<0.05
SDW 551-A01 (03MW1022A)	11/10/06	150	155	-55	<7.2	64	0.73	757	<0.05
SDW 551-A01 (03MW1022A)	11/10/06	160	165	-65	<7.2	150	2.31	576	<0.05
SDW 551-A01 (03MW1022A)	11/10/06	170	175	-75	<7.2	113	0.77	441	<0.05
SDW 551-A01 (03MW1022A)	11/10/06	180	185	-85	<7.2	74	0.95	369	<0.05

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Phosphorus, dissolved (μM)	Sulfur, dissolved (μM)	Silica, dissolved (μM)	Strontium, dissolved (μM)	Zinc, dissolved (μM)
SDW 107-A01 (03MW1016A)	01/20/06	160	165	-77	<1.3	--	295	0.33	1.69
SDW 107-A01 (03MW1016A)	01/20/06	170	175	-87	<1.3	--	276	0.29	0.52
SDW 107-A01 (03MW1016A)	01/23/06	190	195	-107	<1.3	--	294	0.29	0.63
SDW 107-A01 (03MW1016A)	01/23/06	200	205	-117	1.4	--	278	0.24	0.44
SDW 107-A01 (03MW1016A)	01/23/06	210	215	-127	<1.3	--	268	0.29	0.58
SDW 107-A01 (03MW1016A)	01/23/06	220	225	-137	<1.3	--	266	0.23	0.36
SDW 107-A01 (03MW1016A)	01/23/06	230	235	-147	<1.3	--	267	0.26	0.56
SDW 107-A01 (03MW1016A)	01/24/06	240	245	-157	<1.3	--	273	0.28	0.40
SDW 107-A01 (03MW1016A)	01/24/06	250	255	-167	1.5	--	278	0.25	0.49
SDW 107-A01 (03MW1016A)	01/25/06	260	265	-177	3.3	--	264	0.36	1.14
SDW 107-A01 (03MW1016A)	01/25/06	270	275	-187	<1.3	--	246	0.48	0.56
SDW 551-A01 (03MW1022A)	11/09/06	70	75	25	<1.3	110	158	0.28	1.00
SDW 551-A01 (03MW1022A)	11/09/06	80	85	15	<1.3	107	166	0.29	1.11
SDW 551-A01 (03MW1022A)	11/09/06	90	95	5	<1.3	111	163	0.29	0.99
SDW 551-A01 (03MW1022A)	11/09/06	100	105	-5	<1.3	108	158	0.30	0.98
SDW 551-A01 (03MW1022A)	11/09/06	110	115	-15	<1.3	109	167	0.23	1.11
SDW 551-A01 (03MW1022A)	11/09/06	120	125	-25	<1.3	115	160	0.18	1.01
SDW 551-A01 (03MW1022A)	11/09/06	130	135	-35	<1.3	119	157	0.09	0.90
SDW 551-A01 (03MW1022A)	11/10/06	140	145	-45	<1.3	108	177	0.18	0.69
SDW 551-A01 (03MW1022A)	11/10/06	150	155	-55	<1.3	120	183	0.33	0.67
SDW 551-A01 (03MW1022A)	11/10/06	160	165	-65	<1.3	104	220	0.75	1.02
SDW 551-A01 (03MW1022A)	11/10/06	170	175	-75	<1.3	140	222	0.59	0.58
SDW 551-A01 (03MW1022A)	11/10/06	180	185	-85	<1.3	156	239	0.40	0.55

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Aluminum, dissolved (μM)	Arsenic, dissolved (μM)	Boron, dissolved (μM)	Barium, dissolved (μM)	Calcium, dissolved (μM)
SDW 551-A01 (03MW1022A)	11/10/06	190	195	-95	<3.15	<0.13	<0.06	0.0254	128
SDW 551-A01 (03MW1022A)	11/13/06	200	205	-105	<3.15	<0.13	<0.06	0.0161	129
SDW 551-A01 (03MW1022A)	11/13/06	210	215	-115	<3.15	<0.13	<0.06	0.0129	104
SDW 551-A01 (03MW1022A)	11/13/06	220	225	-125	<3.15	<0.13	<0.06	0.0074	108
SDW 551-A01 (03MW1022A)	11/13/06	230	235	-135	<3.15	<0.13	<0.06	0.0109	139
SDW 551-A01 (03MW1022A)	11/13/06	240	245	-145	<3.15	<0.13	<0.06	0.0106	127
SDW 551-A01 (03MW1022A)	11/14/06	250	255	-155	<3.15	<0.13	<0.06	0.0140	96
SDW 551-A01 (03MW1022A)	11/14/06	260	265	-165	<3.15	<0.13	<0.06	0.0162	104
SDW 551-A01 (03MW1022A)	11/14/06	270	275	-175	<3.15	<0.13	<0.06	0.0209	176
SDW 551-A01 (03MW1022A)	11/15/06	280	285	-185	<3.15	<0.13	0.6	0.0256	216
SDW 551-A01 (03MW1022A)	11/15/06	290	295	-195	<3.15	<0.13	0.7	0.0364	256
SDW 551-A01 (03MW1022A)	11/15/06	300	305	-205	<3.15	<0.13	1.0	0.0952	386

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Cadmium, dissolved (μM)	Cobalt, dissolved (μM)	Copper, dissolved (μM)	Iron, dissolved (μM)	Potassium, dissolved (μM)
SDW 551-A01 (03MW1022A)	11/10/06	190	195	-95	<0.009	<0.02	<0.03	1.3	115.0
SDW 551-A01 (03MW1022A)	11/13/06	200	205	-105	<0.009	<0.02	0.05	2.1	30.4
SDW 551-A01 (03MW1022A)	11/13/06	210	215	-115	<0.009	<0.02	<0.03	1.6	55.4
SDW 551-A01 (03MW1022A)	11/13/06	220	225	-125	<0.009	<0.02	<0.03	0.8	44.3
SDW 551-A01 (03MW1022A)	11/13/06	230	235	-135	<0.009	<0.02	<0.03	0.6	57.6
SDW 551-A01 (03MW1022A)	11/13/06	240	245	-145	<0.009	<0.02	<0.03	0.7	84.4
SDW 551-A01 (03MW1022A)	11/14/06	250	255	-155	<0.009	0.02	<0.03	5.1	95.3
SDW 551-A01 (03MW1022A)	11/14/06	260	265	-165	<0.009	0.04	<0.03	22.0	50.3
SDW 551-A01 (03MW1022A)	11/14/06	270	275	-175	<0.009	0.04	<0.03	3.8	43.7
SDW 551-A01 (03MW1022A)	11/15/06	280	285	-185	<0.009	<0.02	0.05	1.5	67.2
SDW 551-A01 (03MW1022A)	11/15/06	290	295	-195	<0.009	<0.02	<0.03	1.0	94.2
SDW 551-A01 (03MW1022A)	11/15/06	300	305	-205	<0.009	<0.02	<0.03	15.4	126.4

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Lithium, dissolved (μM)	Magnesium, dissolved (μM)	Manganese, dissolved (μM)	Sodium, dissolved (μM)	Nickel, dissolved (μM)
SDW 551-A01 (03MW1022A)	11/10/06	190	195	-95	<7.2	86	0.58	389	<0.05
SDW 551-A01 (03MW1022A)	11/13/06	200	205	-105	<7.2	83	0.64	377	<0.05
SDW 551-A01 (03MW1022A)	11/13/06	210	215	-115	<7.2	76	0.50	345	<0.05
SDW 551-A01 (03MW1022A)	11/13/06	220	225	-125	<7.2	86	0.88	326	<0.05
SDW 551-A01 (03MW1022A)	11/13/06	230	235	-135	<7.2	101	0.75	330	<0.05
SDW 551-A01 (03MW1022A)	11/13/06	240	245	-145	<7.2	102	0.27	337	<0.05
SDW 551-A01 (03MW1022A)	11/14/06	250	255	-155	<7.2	77	0.71	319	<0.05
SDW 551-A01 (03MW1022A)	11/14/06	260	265	-165	<7.2	86	5.04	310	<0.05
SDW 551-A01 (03MW1022A)	11/14/06	270	275	-175	<7.2	134	2.54	396	<0.05
SDW 551-A01 (03MW1022A)	11/15/06	280	285	-185	<7.2	169	1.35	522	<0.05
SDW 551-A01 (03MW1022A)	11/15/06	290	295	-195	<7.2	187	0.58	636	<0.05
SDW 551-A01 (03MW1022A)	11/15/06	300	305	-205	<7.2	232	5.38	864	<0.05

Table 10. Concentrations of selected inorganic solutes, including cations, anions, and minor elements, in groundwater samples collected from direct-push and sonic profile borings, Ashumet Valley treated-wastewater plume, Cape Cod, Massachusetts, 2006–08.

[Source of data: Douglas B. Kent, U.S. Geological Survey, National Research Program, Menlo Park, CA. Locations of direct-push and sonic profile borings are shown in figures 1-3. Names shortened by removing prefix MA-. Altitudes are in feet above or (-) below the National Geodetic Vertical Datum of 1929 (NGVD29). Direct-push or sonic profile-boring names in parentheses are location identifiers assigned by the Air Force Center for Engineering and the Environment. Depths are in feet below land surface. ft, feet; μM , micromole per liter; <, actual value is less than value shown; --, no data]

Direct-push or sonic profile-boring name	Sampling date	Depth of top of sampling interval (ft)	Depth of bottom of sampling interval (ft)	Altitude of midpoint of sampled interval (ft)	Phosphorus, dissolved (μM)	Sulfur, dissolved (μM)	Silica, dissolved (μM)	Strontium, dissolved (μM)	Zinc, dissolved (μM)
SDW 551-A01 (03MW1022A)	11/10/06	190	195	-95	<1.3	149	238	0.46	0.47
SDW 551-A01 (03MW1022A)	11/13/06	200	205	-105	<1.3	153	250	0.46	0.48
SDW 551-A01 (03MW1022A)	11/13/06	210	215	-115	<1.3	120	271	0.33	0.55
SDW 551-A01 (03MW1022A)	11/13/06	220	225	-125	<1.3	82	286	0.32	0.47
SDW 551-A01 (03MW1022A)	11/13/06	230	235	-135	<1.3	106	305	0.38	0.39
SDW 551-A01 (03MW1022A)	11/13/06	240	245	-145	<1.3	121	296	0.38	0.47
SDW 551-A01 (03MW1022A)	11/14/06	250	255	-155	<1.3	133	283	0.30	0.55
SDW 551-A01 (03MW1022A)	11/14/06	260	265	-165	<1.3	158	302	0.32	0.60
SDW 551-A01 (03MW1022A)	11/14/06	270	275	-175	<1.3	206	319	0.58	0.69
SDW 551-A01 (03MW1022A)	11/15/06	280	285	-185	<1.3	251	275	0.50	0.58
SDW 551-A01 (03MW1022A)	11/15/06	290	295	-195	<1.3	232	269	0.57	0.37
SDW 551-A01 (03MW1022A)	11/15/06	300	305	-205	<1.3	206	258	0.83	0.56