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Analytical results and sample locality maps of samples of the ash of dwarf arctic birch, black spruce, white spruce, and tamarack from the Medfra quadrangle, west-central Alaska

By

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INTRODUCTION

During 1978 and 1979 the U.S. Geological Survey conducted a reconnaissance geochemical survey of the Medfra quadrangle, west-central Alaska (fig. 1), as part of the Alaska Mineral Resource Assessment Program (AMRAP). Samples collected and used to assess the mineral resource potential of the quadrangle, included stream sediments, nonmagnetic and moderately magnetic heavy-mineral concentrates, and acquatic bryophytes (mosses). Analytical results and sample locality map for those samples were released in an open-file report (King and others, 1980). During the time those samples were collected several types of vegetation samples were also collected, including dwarf arctic birch (Betula nana L.), black spruce (Picea mariana (Mill.) B.S.P.), white spruce (Picea glauca (Moench) Voss), and tamarack (Larix laricina (Du Roi) K. Koch). These samples were collected and analyzed to determine their usefullness in exploration for concealed mineral deposits in this region, where bedrock is extensively covered by transported soils and vegetation.

This report presents analytical results for 436 samples of the ash of dwarf arctic birch leaves, 435 samples of the ash of dwarf arctic birch stems, 243 samples each of the ash of black spruce leaves (needles), and stems, 242 samples each of the ash of white spruce leaves and stems, 329 samples of the ash of tamarack leaves, and 325 samples of the ash of tamarack stems.

Out of a total of 517 sample sites for the Medfra quadrangle, one or more of the four vegetation samples were collected at 501 sites. Access to sample sites was gained by use of a helicopter. Sample site locations are shown on plates 1-3.

COLLECTION, PREPARATION, AND ANALYSIS OF SAMPLES

The vegetation samples were collected during late June and the first half of July of 1978 and 1979 at sites where stream sediment, and heavy-mineral-concentrate samples were collected. The distances from the stream-sediment and concentrate sample sites to the locations where each of the different vegetation samples were collected varied; however, most of the vegetation samples were taken within about five meters from the stream site. The main purpose of going to each sample site was to obtain the sediment and concentrate samples; the vegetation samples were collected when convenient. Thus, if one or more of the four plant types was not quickly observed in a readily accessible locality near the stream site, or while walking en route to the helicopter landing site, a sample of that type was not taken. Only one sample of spruce, either black spruce or white spruce, was collected at each site. The samples referred to as dwarf arctic birch may, in some cases, actually be resin birch (Betula glandulosa Michx.), particularly in the eastern half of the quadrangle. Positive identification of the birch samples was not made.

The vegetation samples were collected by taking clippings from several branches of plants of each of the four types. The

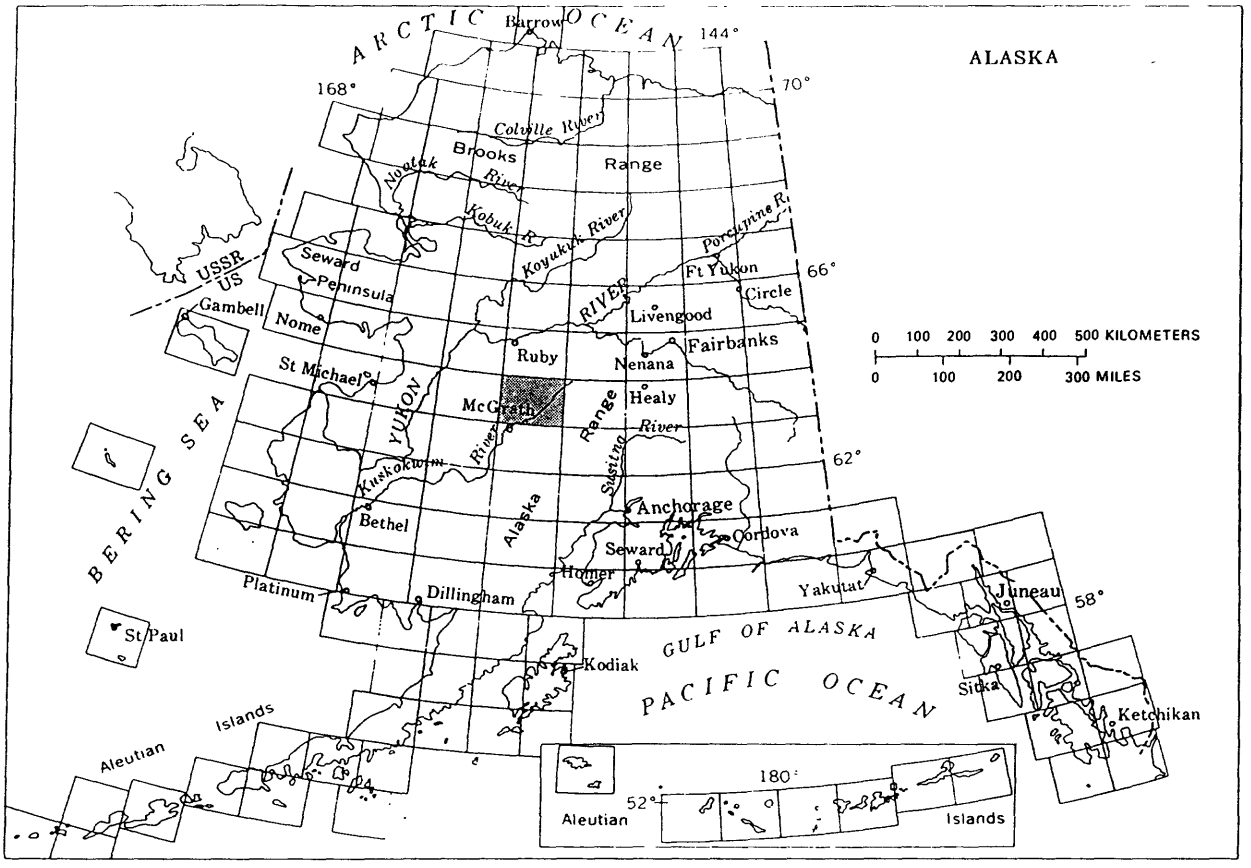

Figure 1. Index map showing the location of the Medfra quadrangle (shaded), Alaska

spruce and tamarack samples were usually taken from one plant; the dwarf arctic birch samples were often taken from several plants. The present year's growth and several of the most recent years growth, up to about five years, were collected, in cloth bags, for each of the four sample types.

After drying in an oven at low temperature in the laboratory, the leaves and stems were separated and pulverized in a Waring blender. The samples were then ashed in a muffle furnace during a 24-hour period with maximum temperature of 500°C The percent ash (the ash weight divided by the original dry weight) was determined for each sample. The range of ash percent and the average ash percent for each sample type is given in the following table:

	Ash percent	
Sample type	Range	Average
Dwarf arctic birch leaves	1.2-6.7	3.23
Dwarf arctic birch stems	0.87-2.7	1.52
Black spruce leaves	1.6-4.0	2.74
Black spruce stems	0.9-3.2	1.75
White spruce leaves	2.0-7.1	3.26
White spruce stems	1.6-4.4	2.81
Tamarack leaves	1.8-4.3	2.72
Tamarack stems	1.1-3.9	1.89

The ashed samples were analyzed by a semiquantitative optical emission spectrographic method for plant materials (Mosier, 1972), with modification (Curry and others, 1975). Initially, 32 elements were determined in each sample. The elements analyzed and their lower limits of determination are listed in table 1. Later the number of elements was reduced to 25, omitting elements (Mg, Ti, Mn, B, La, V, Zr) that were considered difficult or time consuming to determine, and/or, based on appraisal of initial results, were considered not to provide useful information. One element, Ga, was determined only in samples of ash of white spruce leaves. The spectrographic results were reported as geometric midpoints, 1.0, 0.7, 0.5, 0.3, 0.2, 0.15, (or appropriate multiples of ten) of geometric brackets having the boundaries 1.2, 0.83, 0.56, 0.38, 0.26, 0.18, 0.12, (or appropriate multiples).

DATA STORAGE SYSTEM

Upon completion of all analytical work, the analytical results were entered into the USGS computer data base called RASS (Rock Analysis Storage System). This data base contains both descriptive geological information and analytical data. Any or all of this information may be retrieved and converted to a binary form (STATPAC) for computerized statistical analysis or publication (VanTrump and Miesch, 1977).

DESCRIPTION OF DATA TABLES

Tables 2-9 list the results of analyses for the samples of ash of dwarf arctic birch leaves, ash of dwarf arctic birch stems, ash of black spruce leaves, ash of black spruce stems, ash of white spruce leaves, ash of white spruce stems, ash of tamarack leaves, and ash of tamarack stems, respectively. For these tables, the data are arranged so that column 1 contains the USGS-assigned sample numbers. Suffixes identify the sample types as follows: "BO"=dwarf arctic birch, "BS"=black spruce, "WS"=white spruce, and "T"=tamarack. The additional suffixes "1" or "2" identify samples of ash of leaves or stems, respectively. These numbers correspond to the numbers shown on the site location maps (plates 1-3) as follows: The sample number for samples of the ash of leaves is identical in the tables of data (tables 2, 4, 6, and 8) to the sample number shown on the sample location maps (plates 1-3); the sample numbers for samples of the ash of stems in the tables (tables 3, 5, 7, and 9) corresponds with the sample number on the sample locality map (plates 1-3) after the suffix "1" on the map is replaced by the suffix "2". The letter "S" in the column headings indicates emission spectrographic analyses. A letter "N" in the tables indicates that a given element was looked for but was not detected. A "less than" symbol (<) entered in the tables in front of the lower limit of determination indicates that an element was observed but was below the lowest reporting value. If an element was observed but was above the highest reporting value, a "greater than" symbol (>) was entered in the tables in front of the upper limit of determination. If an element was not looked for in a sample, two dashes (--) are entered in the table in place of an analytical value. Analytical values for Fe, Mg, Na, and Ti are in weight percent; all others are in parts per million.

Elements that were looked for but not found in any samples of any of the eight sample types were excluded from the table of results of analyses for that sample type. As, Sb, Sc, Ge, In, and Tl were looked for but not found in any samples and were excluded from all tables of results of analyses. Au and Nb were found only in samples of ash of dwarf arctic birch leaves. Be was not found in any samples of ash of white spruce leaves or stems. W was not found in any samples of ash of black spruce or white spruce. Y was not found in any samples of ash of leaves of black spruce, white spruce, or tamarack.

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TABLE 1.--Limits of determination for the optical emission spectrographic analysis of ashed plant samples, based on a 5-mg sample.

Elements	Lower determination limit	Upper determination limit
	Percent	
Iron (Fe)	0.05	20
Magnesium (Mg)	0.02	10
Sodium (Na)	0.2	5
Titanium (Ti)	0.002	1
	Parts per million	
Silver (Ag)	0.1, 0.5	5,000
Arsenic (As)	200	10,000
Gold (Au)	10	500
Boron (B)	10	1,000
Barium (Ba)	20	2,000
Beryllium (Be)	0.5, 1	1,000
Bismuth (Bi)	1	1,000
Cadmium (Cd)	1, 20	500
Cobalt (Co)	5	2,000
Chromium (Cd)	5	5,000
Copper (Cu)	5	20,000
Gallium (Ga)	5	500
Germanium (Ge)	10	100
Indium		
Lanthanum (La)	20	1,000
Manganese (Mn)	10	10,000
Molybdenum (Mo)	5	2,000
Niobium (Nb)	20	2,000
Nickel (Ni)	5	5,000
Lead (Pb)	1, 10	20,000
Antimony (Sb)	100	10,000
Scandium (Sc)	5	100
Thallium		
Tin (Sn)	5, 10	1,000
Strontium (Sr)	100	5,000
Vanadium (V)	5	10,000
Tungsten (W)	50	10,000
Yttrium (Y)	10	2,000
Zinc (Zn)	100	20,000
Zirconium (Zr)	10	1,000

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown; --, no data]

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-Au	S-B	S-Ba	S-Be
M003B01	63 7 9	154 54 46	.1	--	.7	--	--	<.1	N	--	1,500	.5
M004B01	63 9 43	154 56 2	.1	--	2	--	--	.5	N	--	1,500	.5
M005B01	63 12 54	154 55 26	.2	--	.7	--	--	.3	N	--	1,500	.5
M006B01	63 11 0	154 50 5	.1	--	.7	--	--	.1	N	--	1,500	.5
M007B01	63 12 34	154 51 16	.07	--	1.5	--	--	.1	N	--	700	1
M008B01	63 12 36	154 45 48	.3	--	1	--	--	.15	N	--	1,000	<.5
M009B01	63 14 58	154 40 45	.1	--	1	--	--	.2	N	--	1,000	.5
M010B01	63 15 37	154 38 43	.07	--	.7	--	--	.1	N	--	5,000	1
M014B01	63 17 13	154 28 33	.07	--	.7	--	--	1.5	N	--	700	<.5
M017B01	63 22 33	154 26 19	.07	--	.7	--	--	.15	N	--	1,000	.7
M018B01	63 21 5	154 28 40	.1	--	1.5	--	--	.15	N	--	700	1
M019B01	63 22 34	154 20 50	.1	--	1	--	--	.2	N	--	500	.5
M020B01	63 24 6	154 15 57	.1	--	.7	--	--	N	N	--	700	<.5
M021B01	63 26 11	154 53 30	.2	--	1	--	--	N	N	--	300	.5
M022B01	63 26 49	155 1 23	.2	--	1.5	--	--	.5	N	--	1,500	.5
M023B01	63 27 37	155 3 56	.1	--	1	--	--	.3	N	--	1,000	1
M024B01	63 28 32	155 6 16	.1	--	.7	--	--	.15	N	--	200	.5
M025B01	63 31 50	155 9 17	.1	--	.7	--	--	.15	N	--	1,500	1
M026B01	63 33 53	155 3 27	.07	--	.7	--	--	.7	N	--	500	1
M027B01	63 32 43	155 0 30	.07	--	.7	--	--	.2	N	--	700	.7
M028B01	63 32 40	154 56 39	.07	--	1	--	--	.1	N	--	300	.5
M029B01	63 30 19	154 56 45	.07	--	.7	--	--	N	N	--	2,000	.7
M031B01	63 25 8	154 52 1	.1	--	.7	--	--	<.1	N	--	2,000	.5
M032B01	63 28 39	154 45 45	.1	--	.5	--	--	.2	N	--	1,500	.5
M033B01	63 27 46	154 44 35	.1	--	.7	--	--	.15	N	--	1,500	.5
M034B01	63 27 29	154 38 14	.07	--	1	--	--	.5	N	--	7,000	.7
M036B01	63 25 13	154 39 6	.07	--	.7	--	--	N	N	--	1,500	<.5
M037B01	63 26 24	154 34 37	.1	--	.7	--	--	.3	N	--	1,500	<.5
M040B01	63 30 33	154 17 49	.15	--	.7	--	--	.15	N	--	5,000	.7
M041B01	63 27 5	154 33 24	.07	--	.7	--	--	.5	N	--	1,500	<.5
M042B01	63 31 11	154 23 6	.05	--	.7	--	--	.15	N	--	7,000	.7
M043B01	63 29 37	154 38 2	.07	--	.5	--	--	.2	N	--	1,500	1
M045B01	63 31 9	154 36 18	.07	--	.7	--	--	.2	N	--	2,000	.7
M046B01	63 32 9	154 42 4	.07	--	.5	--	--	N	N	--	2,000	.5
M047B01	63 33 37	154 38 11	.07	--	.7	--	--	N	N	--	1,000	<.5
M048B01	63 35 34	154 38 36	.07	--	1	--	--	.5	N	--	1,500	1
M049B01	63 33 43	154 39 1	.1	--	.7	--	--	.1	N	--	1,500	<.5
M051B01	63 34 54	154 28 22	.07	--	1	--	--	.2	N	--	1,500	.5
M052B01	63 35 10	154 21 13	.07	--	.7	--	--	.2	N	--	2,000	.5
M053B01	63 34 5	154 29 12	.07	--	.7	--	--	.3	N	--	1,500	.5
M054B01	63 35 14	154 16 18	.05	--	.7	--	--	.15	N	--	2,000	.7
M055B01	63 34 58	154 21 18	.07	--	.7	--	--	.1	N	--	1,500	.5
M057B01	63 37 2	154 14 32	.05	--	.7	--	--	.3	N	--	7,000	.7
M060B01	63 40 18	154 20 1	.07	--	1	--	--	.5	N	--	7,000	.5
M061B01	63 41 39	154 14 42	.07	--	.7	--	--	.2	N	--	7,000	.5
M062B01	63 40 32	154 26 34	.1	--	.7	--	--	1	N	--	7,000	.5
M063B01	63 39 4	154 25 43	.1	--	.7	--	--	.2	<2	--	1,500	.5
M064B01	63 43 2	154 33 19	.1	--	.7	--	--	.15	N	--	2,000	.5
M065B01	63 37 38	154 29 28	.1	--	.7	--	--	.15	N	--	3,000	.5
M066B01	63 42 48	154 29 50	.15	--	.7	--	--	.1	N	--	3,000	<.5
M069B01	63 6 2	154 53 9	.15	--	.7	--	--	.2	<2	--	5,000	.5
M070B01	63 6 0	154 51 24	.1	--	1	--	--	.15	N	--	5,000	.7
M071B01	63 2 57	154 55 16	.1	--	.7	--	--	.2	<2	--	7,000	<.5
M072B01	63 5 29	154 56 0	.15	--	.7	--	--	.2	N	--	5,000	.7
M073B01	63 3 8	155 3 47	.07	--	.7	--	--	.2	<2	--	2,000	.7
M074B01	63 1 31	154 58 32	.1	--	.7	--	--	N	N	--	1,000	.5
M075B01	63 0 17	155 15 14	.15	--	.7	--	--	.1	N	--	1,500	<.5
M076B01	63 2 29	155 6 20	.07	--	1	--	--	.2	N	--	3,000	.7
M077B01	63 0 8	155 26 0	.07	--	.7	--	--	.15	N	--	700	.7
M078B01	63 1 15	155 19 34	.1	--	.7	--	--	<.1	N	--	1,500	.5

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Nb	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M003B01	N	3	5	N	200	--	<5	N	100	5	N	1,000	--	N	N	5,000	--
M004B01	N	20	5	N	150	--	N	N	100	10	N	300	--	N	N	5,000	--
M005B01	N	10	5	N	200	--	<5	N	150	10	N	300	--	N	N	5,000	--
M006B01	N	10	10	N	200	--	7	N	150	7	N	500	--	N	N	3,000	--
M007B01	N	20	10	N	150	--	N	N	150	5	N	300	--	N	N	5,000	--
M008B01	N	10	<5	N	150	--	10	N	100	15	<5	300	--	N	N	5,000	--
M009B01	N	20	7	N	200	--	N	N	100	15	N	500	--	N	N	5,000	--
M010B01	N	20	7	N	200	--	N	N	200	2	N	700	--	N	N	5,000	--
M014B01	N	20	10	N	200	--	<5	N	20	5	N	200	--	N	N	7,000	--
M017B01	1.5	20	5	N	200	--	N	N	150	30	N	500	--	N	N	5,000	--
M018B01	N	30	5	N	200	--	50	N	100	7	N	200	--	N	N	7,000	--
M019B01	N	15	20	N	200	--	N	N	100	10	N	150	--	N	N	7,000	--
M020B01	N	3	5	N	150	--	30	N	50	10	N	500	--	N	N	5,000	--
M021B01	1	20	<5	N	300	--	N	N	200	15	<5	300	--	N	N	3,000	--
M022B01	1	10	15	N	200	--	10	N	200	30	N	1,000	--	N	N	3,000	--
M023B01	N	10	10	N	200	--	<5	N	150	10	N	700	--	N	N	3,000	--
M024B01	N	5	<5	N	200	--	5	N	70	10	<5	300	--	N	N	2,000	--
M025B01	N	30	20	N	200	--	N	N	100	5	N	1,500	--	N	N	7,000	--
M026B01	N	20	10	N	200	--	N	N	100	7	N	1,500	--	N	N	7,000	--
M027B01	N	50	15	N	300	--	N	N	100	5	N	500	--	N	N	7,000	--
M028B01	N	5	7	N	300	--	N	N	150	5	N	200	--	N	N	3,000	--
M029B01	N	20	15	N	200	--	5	N	150	7	N	700	--	N	N	5,000	--
M031B01	N	30	7	N	200	--	N	N	70	3	N	700	--	N	N	5,000	--
M032B01	N	N	7	N	200	--	<5	N	70	20	N	1,500	--	N	N	5,000	--
M033B01	N	5	7	N	200	--	N	N	150	5	N	500	--	N	N	5,000	--
M034B01	N	10	30	N	200	--	N	N	300	5	20	1,500	--	N	N	7,000	--
M036B01	N	20	<5	N	150	--	N	N	50	5	N	1,000	--	N	N	5,000	--
M037B01	N	10	5	N	200	--	7	N	200	5	N	1,000	--	N	N	7,000	--
M040B01	N	15	20	N	200	--	N	N	70	5	N	1,500	--	N	N	7,000	--
M041B01	N	15	15	N	200	--	<5	N	100	7	5	1,500	--	N	N	10,000	--
M042B01	N	10	15	N	300	--	N	N	150	2	N	2,000	--	N	N	7,000	--
M043B01	N	20	10	N	200	--	N	N	100	3	N	2,000	--	N	N	5,000	--
M045B01	N	20	20	N	200	--	N	N	150	3	N	1,000	--	N	N	7,000	--
M046B01	N	5	10	N	200	--	10	N	70	5	<5	1,500	--	N	N	7,000	--
M047B01	<1	3	<5	N	200	--	5	N	100	7	N	700	--	N	N	7,000	--
M048B01	N	20	30	N	200	--	N	N	150	7	N	700	--	N	N	5,000	--
M049B01	N	10	10	N	200	--	N	N	100	5	N	1,000	--	N	N	7,000	--
M051B01	N	3	5	N	200	--	5	N	150	10	5	1,500	--	N	N	7,000	--
M052B01	N	20	15	N	200	--	N	N	100	10	N	1,000	--	N	N	7,000	--
M053B01	N	10	10	N	200	--	N	N	150	7	N	1,500	--	N	N	7,000	--
M054B01	N	20	5	N	200	--	N	N	150	10	N	2,000	--	N	N	7,000	--
M055B01	N	10	10	N	300	--	N	N	150	3	N	1,500	--	N	N	5,000	--
M057B01	N	5	15	N	300	--	10	N	300	2	<5	3,000	--	N	N	5,000	--
M060B01	N	15	5	N	200	--	N	N	150	7	N	2,000	--	N	N	10,000	--
M061B01	N	20	10	N	150	--	N	N	200	2	N	1,000	--	N	N	7,000	--
M062B01	N	30	20	N	200	--	N	N	300	5	N	1,000	--	N	N	10,000	--
M063B01	N	5	30	N	200	--	<5	N	150	5	<5	1,000	--	N	N	5,000	--
M064B01	N	15	15	N	200	--	N	N	300	10	<5	500	--	N	N	7,000	--
M065B01	N	10	20	N	300	--	N	N	150	5	<5	1,500	--	N	N	5,000	--
M066B01	N	1	5	N	150	--	20	N	100	7	30	1,000	--	N	N	5,000	--
M069B01	N	15	<5	N	200	--	<5	N	150	7	N	1,000	--	N	N	5,000	--
M070B01	N	10	N	N	150	--	5	N	70	5	N	1,500	--	N	N	7,000	--
M071B01	N	5	10	N	200	--	15	N	150	5	N	1,000	--	N	N	7,000	--
M072B01	N	5	5	N	300	--	5	N	150	3	N	1,000	--	N	N	5,000	--
M073B01	N	15	15	N	300	--	30	N	200	2	N	500	--	N	N	3,000	--
M074B01	N	10	7	N	150	--	N	N	100	2	N	700	--	N	N	5,000	--
M075B01	N	3	<5	N	150	--	5	N	70	5	N	500	--	N	N	7,000	--
M076B01	N	20	15	N	150	--	N	N	200	7	N	1,000	--	N	N	5,000	--
M077B01	N	15	N	N	200	--	N	N	50	5	N	300	--	N	N	5,000	--
M078B01	N	1	10	N	300	--	5	N	200	3	N	700	--	N	N	3,000	--

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-Au	S-B	S-Ba	S-Be
M081B01	63 24 11	155 25 54	.1	--	.7	--	--	N	N	--	2,000	<.5
M083B01	63 27 42	155 24 9	.07	--	.5	--	--	.15	N	--	1,500	N
M084B01	63 28 7	155 28 50	.1	--	.7	--	--	.15	N	--	1,000	N
M085B01	63 28 15	155 31 43	.07	--	.7	--	--	.15	N	--	1,500	N
M086B01	63 24 23	155 35 19	.1	--	1	--	--	.5	N	--	700	.5
M087B01	63 28 1	155 35 6	.07	--	.7	--	--	.5	N	--	1,500	1
M088B01	63 23 8	155 34 29	.2	--	.5	--	--	.1	N	--	500	<.5
M090B01	63 22 23	155 38 16	.1	--	.7	--	--	.1	N	--	500	.7
M091B01	63 20 12	155 37 55	.07	--	.7	--	--	.2	N	--	1,000	.5
M092B01	63 19 37	155 33 15	.07	--	.5	--	--	N	N	--	700	<.5
M094B01	63 19 35	155 22 26	.07	--	.5	--	--	.1	N	--	2,000	.5
M096B01	63 21 41	155 21 13	.07	--	.5	--	--	.3	N	--	2,000	.7
M097B01	63 16 56	155 42 15	.07	--	.7	--	--	.1	N	--	1,000	1
M098B01	63 1 50	155 31 44	.07	--	.5	--	--	.7	N	--	2,000	.7
M099B01	63 0 47	155 40 25	.07	--	.7	--	--	.1	N	--	5,000	.7
M100B01	63 0 40	155 49 28	.07	--	.5	--	--	.1	N	--	300	.5
M101B01	63 3 1	155 51 42	.07	--	.7	--	--	.3	N	--	3,000	.5
M102B01	63 2 59	155 54 52	.07	--	.5	--	--	<.1	N	--	2,000	.7
M103B01	63 5 20	155 48 8	.07	--	.7	--	--	.1	N	--	700	.5
M104B01	63 5 3	155 56 8	.1	--	1	--	--	.7	N	--	7,000	N
M105B01	63 4 53	155 52 12	.07	--	.7	--	--	.15	N	--	1,500	.5
M106B01	63 7 24	155 57 52	.2	--	.7	--	--	.2	N	--	1,500	.5
M108B01	63 11 57	155 49 39	.1	--	.3	--	--	.1	N	--	5,000	.7
M110B01	63 14 9	155 55 17	.07	--	.7	--	--	.5	N	--	1,500	.5
M111B01	63 13 13	155 59 44	.07	--	.7	--	--	<.1	N	--	200	<.5
M112B01	63 13 48	155 45 16	.07	--	.5	--	--	<.1	N	--	1,500	.5
M113B01	63 12 56	155 42 29	.1	--	.7	--	--	.2	N	--	1,500	.7
M114B01	63 20 24	155 55 46	.1	--	.5	--	--	2	N	--	2,000	<.5
M115B01	63 16 49	155 58 22	.07	--	.7	--	--	N	N	--	1,500	.5
M116B01	63 20 41	155 46 43	.1	--	.5	--	--	.5	N	--	2,000	<.5
M118B01	63 20 23	155 46 33	.1	--	.7	--	--	.2	N	--	1,500	.5
M119B01	63 17 47	155 40 55	.07	--	.5	--	--	.3	N	--	1,500	<.5
M121B01	63 22 36	155 49 39	.15	--	.5	--	--	.1	N	--	2,000	N
M123B01	63 26 43	155 47 12	.07	--	.7	--	--	<.1	N	--	700	<.5
M124B01	63 26 23	155 42 31	.1	--	.5	--	--	N	N	--	3,000	<.5
M125B01	63 28 13	155 44 59	.07	--	.7	--	--	.3	N	--	150	.7
M126B01	63 26 13	155 42 31	.07	--	.7	--	--	1.5	N	--	7,000	.5
M127B01	63 29 9	155 57 50	.05	--	.7	--	--	.1	N	--	300	N
M128B01	63 26 10	155 59 34	.07	--	.7	--	--	<.1	N	--	1,500	.7
M129B01	63 29 42	155 46 23	.07	--	.7	--	--	<.1	N	--	1,500	.5
M130B01	63 25 52	155 59 37	.1	--	.7	--	--	<.1	N	--	7,000	.7
M131B01	63 52 47	155 9 15	.1	--	.5	--	--	.15	N	--	1,500	<.5
M132B01	63 29 6	155 53 23	.3	--	.7	--	--	.3	N	--	7,000	.5
M133B01	63 51 50	155 7 54	.07	--	.7	--	--	.1	N	--	10,000	.7
M134B01	63 29 18	155 53 52	.07	--	.5	--	--	N	N	--	2,000	<.5
M135B01	63 51 36	155 3 28	.2	--	.7	--	--	.15	N	--	7,000	.5
M136B01	63 29 14	155 37 5	.07	--	.7	--	--	1	N	--	5,000	.5
M137B01	63 54 26	155 3 5	.1	--	1	--	--	.1	N	--	7,000	<.5
M139B01	63 54 47	155 3 1	.07	--	.5	--	--	<.1	N	--	7,000	.7
M140B01	63 56 17	155 3 32	.1	--	1	--	--	N	N	--	1,500	.5
M141B01	63 59 15	155 5 7	.1	--	.7	--	--	.1	N	--	2,000	.5
M142B01	63 52 26	155 16 46	.1	--	.5	--	--	.1	N	--	3,000	.5
M143B01	63 54 35	155 18 34	.1	--	.5	--	--	.3	N	--	1,500	<.5
M144B01	63 57 8	155 19 31	.07	--	.5	--	--	.1	N	--	7,000	1
M145B01	63 58 27	155 16 37	.15	--	.5	--	--	.1	N	--	5,000	.7
M146B01	63 56 44	155 12 11	.1	--	.7	--	--	.2	N	--	2,000	.7
M147B01	63 56 32	155 11 29	.1	--	.5	--	--	.1	N	--	2,000	.5
M148B01	63 57 25	155 10 16	.15	--	.7	--	--	.1	N	--	3,000	.5
M149B01	63 55 21	155 6 51	.15	--	.7	--	--	<.1	N	--	5,000	.7
M150B01	63 31 30	154 14 54	.05	--	1	--	--	.1	N	--	700	.7

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Nb	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M081B01	N	15	15	N	200	--	N	N	100	2	N	1,500	--	N	N	7,000	--
M083B01	N	20	5	N	150	--	N	N	100	2	N	1,000	--	N	N	5,000	--
M084B01	N	1	5	N	200	--	20	N	30	5	N	1,500	--	N	N	5,000	--
M085B01	N	1.5	<5	N	200	--	5	N	150	3	N	1,500	--	N	N	7,000	--
M086B01	N	3	15	N	300	--	N	N	150	3	N	200	--	N	N	7,000	--
M087B01	N	50	20	N	300	--	N	N	150	1.5	N	500	--	N	N	7,000	--
M088B01	N	10	5	N	300	--	N	N	70	3	N	300	--	N	N	5,000	--
M090B01	N	7	7	N	200	--	N	N	50	2	N	500	--	N	N	7,000	--
M091B01	N	20	50	N	200	--	N	N	100	7	N	1,000	--	N	N	7,000	--
M092B01	N	3	5	N	200	--	7	N	30	10	N	1,000	--	N	N	7,000	--
M094B01	N	5	20	N	200	--	N	N	150	5	<5	700	--	N	N	5,000	--
M096B01	N	20	<5	N	200	--	N	N	150	7	N	1,000	--	N	N	7,000	--
M097B01	N	15	10	N	300	--	N	N	150	5	N	300	--	N	N	7,000	--
M098B01	N	20	<5	N	150	--	N	N	50	15	N	1,500	--	N	N	7,000	--
M099B01	N	15	20	N	200	--	N	N	150	5	N	1,500	--	N	N	7,000	--
M100B01	N	10	10	N	200	--	N	N	100	5	N	200	--	N	N	5,000	--
M101B01	5	5	10	N	200	--	15	N	150	7	N	700	--	N	N	2,000	--
M102B01	N	10	30	N	300	--	30	N	200	2	N	1,000	--	N	N	7,000	--
M103B01	N	20	15	N	200	--	N	N	70	2	5	300	--	N	N	7,000	--
M104B01	2	5	7	N	200	--	7	N	100	3	N	1,500	--	N	N	7,000	--
M105B01	5	10	20	N	300	--	5	N	100	7	N	700	--	N	N	7,000	--
M106B01	3	5	5	N	200	--	<5	N	50	7	N	700	--	N	N	5,000	--
M108B01	N	7	10	N	150	--	N	N	150	2	N	1,000	--	N	N	5,000	--
M110B01	N	10	20	N	200	--	N	N	200	7	N	500	--	N	N	7,000	--
M111B01	N	5	7	N	200	--	N	N	100	5	N	300	--	N	N	10,000	--
M112B01	N	N	7	N	200	--	10	N	150	5	<5	500	--	N	N	7,000	--
M113B01	N	5	10	N	200	--	N	N	100	7	N	300	--	N	N	5,000	--
M114B01	N	1.5	<5	N	200	--	30	N	150	15	5	700	--	N	N	5,000	--
M115B01	N	3	<5	N	150	--	N	N	70	5	N	700	--	N	N	7,000	--
M116B01	N	15	20	N	200	--	N	N	150	5	N	1,000	--	N	N	7,000	--
M118B01	N	10	20	N	200	--	N	N	100	5	N	700	--	N	N	7,000	--
M119B01	N	2	7	N	300	--	N	N	200	3	N	1,000	--	N	N	7,000	--
M121B01	N	5	7	N	200	--	N	N	150	7	N	700	--	N	N	5,000	--
M123B01	N	7	7	N	300	--	N	N	150	3	N	500	--	N	N	10,000	--
M124B01	N	5	5	N	150	--	7	N	150	5	N	1,500	--	N	N	7,000	--
M125B01	N	30	10	N	300	--	N	N	100	5	N	150	--	N	N	5,000	--
M126B01	N	7	7	N	150	--	15	N	200	5	N	1,000	--	N	N	7,000	--
M127B01	N	<1	5	N	150	--	7	N	70	3	N	500	--	N	N	3,000	--
M128B01	N	2	<5	N	150	--	N	N	100	5	N	300	--	N	N	5,000	--
M129B01	N	15	20	N	200	--	N	N	200	2	N	1,500	--	N	N	5,000	--
M130B01	N	5	10	N	200	--	N	N	200	3	N	1,000	--	N	N	7,000	--
M131B01	N	1.5	5	N	200	--	20	N	150	30	<5	700	--	N	N	5,000	--
M132B01	N	15	20	N	300	--	5	N	300	7	5	1,500	--	N	<10	10,000	--
M133B01	N	30	7	N	200	--	N	N	150	2	N	1,000	--	N	N	5,000	--
M134B01	N	1	N	N	200	--	10	N	100	2	10	1,500	--	N	N	7,000	--
M135B01	N	7	10	N	200	--	N	N	300	5	N	1,500	--	N	N	7,000	--
M136B01	N	15	7	N	200	--	7	N	200	2	<5	2,000	--	N	N	10,000	--
M137B01	N	10	10	N	200	--	<5	N	300	5	N	1,000	--	N	N	7,000	--
M139B01	N	15	20	N	150	--	10	N	100	2	N	1,500	--	N	N	5,000	--
M140B01	N	7	30	N	150	--	N	N	150	1.5	N	1,000	--	N	N	5,000	--
M141B01	<1	10	7	N	200	--	7	N	200	5	N	1,500	--	N	N	7,000	--
M142B01	N	15	<5	N	200	--	<5	N	150	3	N	1,000	--	N	N	5,000	--
M143B01	N	5	5	N	200	--	50	N	70	5	N	1,000	--	N	N	7,000	--
M144B01	N	15	7	N	150	--	<5	N	300	7	N	500	--	N	N	5,000	--
M145B01	N	15	<5	N	150	--	N	N	100	2	N	700	--	N	N	5,000	--
M146B01	N	10	10	N	200	--	N	N	300	5	N	1,000	--	N	N	5,000	--
M147B01	N	3	5	N	150	--	5	N	70	5	N	1,000	--	N	N	7,000	--
M148B01	N	10	10	N	200	--	15	N	200	5	N	1,000	--	N	N	7,000	--
M149B01	N	15	N	N	200	--	N	N	150	2	N	1,000	--	N	N	7,000	--
M150B01	N	10	50	N	200	--	N	N	100	7	15	700	--	N	N	5,000	--

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-Au	S-B	S-Ba	S-Be
M152B01	63 33 22	154 11 46	.1	>10	1.5	.015	>10,000	N	N	500	1,000	.5
M154B01	63 33 51	154 2 47	.1	>10	2	.015	10,000	N	N	500	500	N
M155B01	63 34 14	154 4 5	.15	>10	.3	.02	10,000	N	N	300	500	N
M156B01	63 33 33	154 2 56	.07	>10	3	.015	3,000	N	N	200	500	N
M157B01	63 36 30	154 4 23	.07	>10	1	.01	10,000	N	N	300	500	<.5
M160B01	63 31 26	154 2 6	.07	>10	1	.01	>10,000	N	N	300	1,000	<.5
M163B01	63 43 21	153 54 38	.2	>10	1	.03	10,000	N	N	500	5,000	.5
M165B01	63 44 51	153 55 24	.3	>10	>5	.05	10,000	N	N	300	2,000	N
M166B01	63 39 51	153 50 21	.07	>10	1	.015	5,000	N	N	300	500	.5
M171B01	63 7 38	155 8 42	.15	>10	.2	.05	>10,000	N	N	300	2,000	.7
M172B01	63 9 13	155 3 22	.07	>10	.2	.015	3,000	N	N	200	1,500	.5
M175B01	63 14 47	154 52 45	.2	>10	.3	.05	>10,000	N	N	300	1,000	.5
M176B01	63 14 21	154 53 29	.07	>10	.2	.01	10,000	N	N	200	1,000	N
M177B01	63 17 29	154 46 44	.1	>10	.2	.02	>10,000	N	N	500	1,000	N
M178B01	63 16 7	154 46 38	.1	>10	.2	.02	>10,000	N	N	300	3,000	.7
M179B01	63 20 32	154 41 28	.05	>10	.3	.015	10,000	N	N	700	1,000	N
M180B01	63 18 15	154 41 35	.1	>10	.3	.02	>10,000	N	N	300	1,500	N
M181B01	63 22 39	154 41 3	.1	>10	.3	.02	>10,000	N	N	>1,000	7,000	.5
M182B01	63 21 1	154 38 26	.15	>10	.2	.05	>10,000	N	N	500	1,500	.5
M183B01	63 22 35	154 31 35	.07	>10	.3	.015	>10,000	N	N	500	1,500	.5
M184B01	63 21 11	154 37 22	.07	>10	.3	.015	>10,000	N	N	700	1,500	.7
M185B01	63 23 40	154 46 20	.07	>10	.2	.02	>10,000	N	N	1,000	7,000	.5
M186B01	63 23 14	154 44 30	.07	>10	.3	.015	10,000	N	N	500	7,000	.7
M187B01	63 21 2	154 53 4	.1	10	.3	.01	>10,000	.5	N	300	1,000	.07
M188B01	63 23 3	154 47 46	.2	>10	.2	.03	10,000	N	N	300	2,000	.05
M189B01	63 21 15	154 59 1	.15	>10	.3	.015	7,000	1	N	150	1,500	<.5
M190B01	63 20 39	154 56 56	.3	10	.2	.05	3,000	N	N	200	1,500	<.5
M191B01	63 20 7	155 3 38	.2	10	.5	.05	>10,000	1	N	200	1,000	<.5
M192B01	63 20 42	155 0 27	.07	>10	.2	.015	5,000	N	N	200	2,000	<.5
M193B01	63 23 29	155 5 11	.1	10	.2	.02	10,000	.7	N	300	2,000	N
M195B01	63 26 11	155 7 52	.2	>10	.2	.007	>10,000	1.5	N	500	150	.05
M197B01	63 26 39	155 16 32	.07	>10	.2	.015	>10,000	N	N	500	700	.05
M198B01	63 25 47	155 12 40	.1	>10	.2	.005	7,000	.15	N	700	1,500	.05
M199B01	63 46 21	153 52 50	.07	10	.5	.005	>10,000	N	N	300	1,500	<.5
M200B01	63 28 16	155 21 16	.07	>10	.2	.01	>10,000	1	N	500	1,500	<.5
M201B01	63 46 40	153 48 48	.07	>10	.007	.015	5,000	.3	N	300	1,500	.05
M202B01	63 49 19	153 47 37	.07	10	.2	.015	>10,000	.1	N	300	1,000	.05
M203B01	63 52 0	153 37 38	.07	>10	.1	.01	2,000	.15	N	300	150	N
M204B01	63 54 48	153 33 33	.07	>10	.1	.01	2,000	.2	N	200	200	N
M205B01	63 56 22	153 33 12	.07	10	.5	.007	10,000	.3	N	300	1,500	N
M206B01	63 54 46	153 29 54	.07	>10	.3	.01	5,000	.7	N	500	1,000	<.5
M207B01	63 58 11	153 18 17	.07	>10	.3	.01	10,000	N	N	200	1,000	<.5
M208B01	63 56 59	153 12 34	.2	>10	.7	.05	>10,000	.15	N	1,000	2,000	.1
M209B01	63 57 5	153 5 28	.07	>10	.007	.015	10,000	.1	N	500	5,000	.07
M210B01	63 58 1	153 3 43	.1	>10	.2	.01	>10,000	.3	N	150	7,000	.07
M211B01	63 56 39	153 7 17	.1	>10	.3	.015	10,000	.2	N	300	2,000	<.5
M212B01	63 56 2	153 0 32	.1	>10	.5	.015	>10,000	1	N	150	1,000	.7
M213B01	63 52 44	153 5 29	.5	>10	.7	.1	>10,000	.7	N	200	3,000	1
M214B01	63 43 52	154 4 17	.1	>10	.7	.01	>10,000	.15	N	70	1,500	<.5
M215B01	63 51 24	153 19 25	.15	>10	.7	.03	>10,000	.3	N	70	3,000	.5
M216B01	63 50 30	153 18 21	.1	>10	.5	.015	>10,000	.15	N	500	7,000	1
M217B01	63 49 0	153 13 31	.07	>10	.7	.015	>10,000	.1	N	300	2,000	<.5
M218B01	63 47 44	153 16 53	.15	>10	.7	.02	>10,000	.2	N	300	1,500	.5
M219B01	63 46 25	153 19 15	.3	>10	.5	.07	>10,000	.2	N	300	5,000	.7
M220B01	63 45 38	153 12 14	.3	>10	1	.07	>10,000	.3	N	200	3,000	.7
M221B01	63 46 21	153 2 33	.1	>10	.7	.01	>10,000	.15	N	200	5,000	.5
M222B01	63 49 36	153 5 59	.1	>10	1	.01	>10,000	N	N	500	700	1
M223B01	63 51 4	153 9 2	.07	>10	.7	.015	10,000	N	N	200	2,000	.5
M224B01	63 51 47	153 8 23	.2	>10	.7	.03	5,000	.1	N	200	1,500	.5
M226B01	63 53 13	153 15 1	1.5	>10	1	.7	>10,000	.5	N	500	7,000	.7

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Nb	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M152B01	N	15	7	N	300	N	10	N	100	<1	30	1,000	10	N	N	10,000	15
M154B01	N	10	10	N	500	N	N	N	70	15	10	200	N	N	N	10,000	20
M155B01	N	10	5	N	300	50	N	N	70	10	10	200	N	N	N	10,000	30
M156B01	N	3	10	N	200	50	5	N	70	10	<5	300	N	N	N	5,000	10
M157B01	N	7	15	N	500	N	N	N	200	10	10	150	N	N	N	2,000	10
M160B01	N	15	7	N	200	N	N	N	100	15	20	300	N	N	N	10,000	10
M163B01	N	5	5	N	300	50	<5	N	300	10	7	1,000	N	N	N	7,000	50
M165B01	N	10	15	N	500	50	20	N	300	<1	5	500	N	N	N	3,000	70
M166B01	N	5	<5	N	300	50	20	N	50	10	7	500	N	N	N	10,000	15
M171B01	N	30	20	N	200	N	N	N	150	10	20	1,000	N	N	N	7,000	50
M172B01	3	<1	<5	N	150	N	20	N	50	<1	7	1,000	N	N	N	5,000	15
M175B01	N	10	<5	N	300	N	N	N	150	<1	30	300	N	N	N	5,000	70
M176B01	N	7	10	N	300	50	20	N	100	<1	7	300	N	N	N	5,000	10
M177B01	N	10	5	N	500	50	N	N	100	15	20	500	N	N	N	10,000	15
M178B01	N	20	20	N	200	N	N	N	200	<1	30	700	N	N	N	10,000	20
M179B01	7	7	10	N	200	50	30	N	150	<1	5	1,500	N	N	N	7,000	10
M180B01	N	15	15	N	200	50	N	N	70	15	20	200	N	N	N	1,500	15
M181B01	1	5	20	N	500	50	5	N	70	10	10	2,000	N	N	N	7,000	20
M182B01	<1	10	5	N	300	50	N	N	150	10	10	500	N	N	N	7,000	30
M183B01	N	15	N	N	200	50	N	N	50	<1	15	500	N	N	N	7,000	10
M184B01	3	20	5	N	500	N	N	N	100	<1	20	500	N	N	N	7,000	20
M185B01	1	20	10	N	300	N	N	N	150	15	15	1,500	N	N	N	7,000	20
M186B01	10	7	<5	N	500	50	5	N	200	10	10	3,000	N	N	N	7,000	15
M187B01	N	20	10	N	150	N	N	20	100	3	30	500	N	N	N	7,000	15
M188B01	30	30	10	N	200	N	N	20	150	5	10	1,000	N	N	N	7,000	30
M189B01	N	7	7	N	200	N	N	<20	100	15	10	700	N	N	N	5,000	20
M190B01	N	N	5	N	300	30	10	<20	150	7	5	700	20	N	N	7,000	50
M191B01	N	7	10	N	200	N	7	20	70	10	10	500	N	N	N	10,000	30
M192B01	N	7	<5	N	200	N	<5	20	70	5	5	1,000	N	N	N	7,000	10
M193B01	N	10	5	N	200	N	N	<20	200	10	15	1,000	N	N	N	10,000	15
M195B01	N	7	50	N	300	N	N	N	100	15	50	300	15	N	N	5,000	30
M197B01	N	15	5	N	150	N	N	N	70	3	50	700	<10	N	N	5,000	15
M198B01	N	5	10	N	300	N	N	<20	150	5	5	1,000	N	N	N	10,000	20
M199B01	N	20	7	N	150	N	N	N	100	2	30	500	N	N	N	5,000	10
M200B01	N	1.5	<5	N	200	N	N	N	100	2	15	1,500	N	N	N	5,000	10
M201B01	5	2	<5	N	300	N	30	N	70	3	7	500	N	N	N	5,000	10
M202B01	7	10	N	N	300	N	N	N	30	3	15	300	N	N	N	7,000	10
M203B01	70	N	5	N	200	20	7	N	70	10	7	200	N	N	N	5,000	10
M204B01	70	1	5	N	300	30	10	N	70	7	7	300	N	N	N	7,000	10
M205B01	N	10	5	N	300	50	5	N	200	5	10	700	N	N	N	7,000	10
M206B01	<1	2	<5	N	300	50	N	N	100	10	10	1,000	N	N	N	7,000	<10
M207B01	N	15	N	N	200	N	N	N	70	3	10	700	N	N	N	5,000	10
M208B01	N	15	15	N	200	N	N	N	100	7	30	1,500	10	N	N	7,000	50
M209B01	N	20	5	N	300	N	20	N	500	5	7	1,000	N	N	N	7,000	10
M210B01	N	20	70	N	200	N	N	N	300	2	20	1,000	N	N	N	3,000	15
M211B01	N	15	15	N	200	50	7	N	150	15	15	500	N	N	N	5,000	20
M212B01	>500	20	20	N	200	N	20	N	200	15	50	500	N	N	N	7,000	20
M213B01	3	30	10	N	200	N	N	N	200	5	50	700	N	N	30	10,000	200
M214B01	10	15	10	20	200	N	N	N	70	5	10	500	N	N	N	7,000	10
M215B01	N	20	20	30	200	N	N	N	150	5	20	700	N	N	<10	5,000	50
M216B01	N	50	50	30	200	N	N	N	100	2	30	1,000	N	N	N	7,000	20
M217B01	N	10	10	50	200	50	N	N	150	3	10	1,000	N	N	N	3,000	<10
M218B01	N	7	10	50	300	50	N	N	150	5	7	1,000	N	N	N	5,000	15
M219B01	N	10	5	30	150	50	N	N	70	5	10	1,000	N	N	N	7,000	50
M220B01	N	50	70	20	200	N	N	N	150	7	50	500	N	N	N	5,000	70
M221B01	N	15	100	50	300	N	N	N	300	2	10	1,000	N	N	N	3,000	N
M222B01	N	20	5	N	200	N	N	N	70	2	30	300	N	N	N	10,000	20
M223B01	N	10	<5	N	200	50	N	N	150	5	5	700	N	N	N	7,000	10
M224B01	N	1.5	7	N	200	30	N	N	100	7	2	1,000	N	N	N	5,000	30
M226B01	N	15	50	300	300	70	N	N	200	.5	20	1,500	N	N	70	7,000	700

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-Au	S-B	S-Ba	S-Be
M227B01	63 54 46	153 14 2	.3	10	.3	.05	>10,000	N	N	200	2,000	.5
M228B01	63 55 19	153 20 52	.2	10	.5	.03	10,000	N	N	200	1,500	.5
M229B01	63 53 33	153 23 19	.5	>10	.7	.1	3,000	.15	N	150	1,000	.7
M230B01	63 53 47	153 21 41	.1	>10	.7	.015	>10,000	N	N	300	700	.7
M231B01	63 50 44	153 25 25	.07	>10	.5	.007	>10,000	N	N	500	2,000	.5
M232B01	63 48 51	153 28 38	.05	10	.5	.007	5,000	N	N	300	1,500	.5
M233B01	63 28 59	154 15 26	.05	10	.3	.005	7,000	N	N	300	500	N
M235B01	63 30 0	154 4 10	.07	>10	.5	.01	>10,000	N	N	200	1,500	<.5
M236B01	63 28 41	154 8 14	.07	>10	.5	.01	7,000	N	N	300	700	.5
M239B01	63 28 41	154 6 28	.05	>10	.5	.005	7,000	N	N	200	500	<.5
M240B01	63 27 34	154 9 27	.07	>10	.7	.01	>10,000	N	N	200	1,000	.5
M243B01	63 25 9	154 12 8	.07	>10	.7	.015	>10,000	N	N	300	500	.7
M249B01	63 24 52	154 23 31	.07	>10	.7	.01	1,000	.1	N	300	700	.5
M250B01	63 43 47	154 20 7	.1	10	.5	.01	7,000	N	N	100	2,000	<.5
M251B01	63 44 5	154 20 26	.07	>10	.7	.05	>10,000	N	N	500	2,000	.7
M252B01	63 43 42	154 15 29	.07	>10	.5	.007	>10,000	N	N	300	7,000	.7
M253B01	63 47 43	154 13 20	.07	>10	.7	.01	>10,000	N	N	200	2,000	<.5
M254B01	63 48 17	154 18 17	.1	>10	.3	.02	10,000	N	N	300	1,500	.5
M255B01	63 51 14	154 24 3	.1	>10	.5	.02	5,000	N	N	200	1,500	<.5
M256B01	63 53 2	154 28 1	.3	>10	.3	.05	1,500	.1	N	150	1,500	<.5
M257B01	63 55 17	154 23 23	.1	>10	.5	.01	>10,000	N	N	500	700	.7
M259B01	63 55 42	154 21 36	.07	>10	.3	.015	5,000	N	N	200	1,500	.5
M260B01	63 58 54	154 21 9	.1	>10	.3	.015	10,000	N	N	300	3,000	<.5
M261B01	63 57 57	154 9 51	.2	>10	.5	.05	>10,000	.1	N	200	2,000	.5
M262B01	63 56 46	154 11 29	.07	>10	.7	.01	2,000	N	N	150	1,000	<.5
M263B01	63 56 25	154 11 20	.1	>10	.7	.01	5,000	N	N	500	2,000	N
M264B01	63 52 36	154 10 33	.1	10	.7	.005	>10,000	N	N	200	500	1
M265B01	63 50 24	154 5 49	.15	10	1	.01	>10,000	.15	N	200	2,000	.7
M266B01	63 49 10	154 4 21	.1	>10	.7	.01	>10,000	N	N	300	1,500	.5
M267B01	63 46 22	154 8 13	.1	>10	1	.015	>10,000	.15	N	500	2,000	.5
M268B01	63 44 50	154 7 46	.1	>10	.7	.01	10,000	.3	N	300	1,500	<.5
M270B01	63 42 12	154 4 54	.1	>10	.7	.015	3,000	.5	N	200	1,500	.5
M271B01	63 6 35	154 8 33	.1	>10	.7	.02	>10,000	.7	N	500	1,500	<.5
M272B01	63 7 12	153 56 13	.1	>10	1	.01	>10,000	.2	N	300	1,000	.7
M274B01	63 10 21	153 54 0	.07	>10	.7	.01	7,000	.3	N	700	1,500	.5
M275B01	63 13 51	153 50 6	.1	>10	.7	.02	5,000	.5	N	300	1,000	<.5
M276B01	63 14 4	153 50 38	.1	>10	.7	.02	5,000	.1	N	200	1,500	<.5
M277B01	63 17 42	153 53 29	.15	>10	.5	.02	>10,000	N	N	300	5,000	.5
M278B01	63 11 19	154 2 11	.1	>10	1	.01	>10,000	.1	N	500	1,500	.5
M279B01	63 25 31	154 29 15	.1	>10	1	.02	10,000	.3	N	300	2,000	N
M280B01	63 19 11	154 20 30	.3	>10	.7	.05	>10,000	.5	N	700	7,000	.5
M281B01	63 19 38	154 9 55	.2	>10	1	.03	>10,000	.2	N	300	7,000	.5
M282B01	63 20 15	154 0 55	.07	>10	1	.01	10,000	N	N	150	1,500	<.5
M283B01	63 16 37	154 16 41	.1	>10	1	.015	>10,000	N	N	700	1,500	.5
M284B01	63 1 45	153 4 32	.1	>10	.7	.015	>10,000	.2	N	150	5,000	.7
M285B01	63 2 36	153 7 58	.07	>10	.7	.01	10,000	N	N	200	3,000	<.5
M286B01	63 3 50	153 10 57	.15	>10	.7	.02	10,000	.15	N	150	1,500	.5
M287B01	63 6 55	153 6 27	.1	>10	.7	.03	>10,000	.2	N	70	1,000	1
M288B01	63 8 43	153 2 14	.2	>10	.5	.05	>10,000	.5	N	300	1,500	<.5
M289B01	63 14 4	153 4 41	.2	>10	.5	.05	>10,000	.15	N	200	5,000	.7
M290B01	63 13 25	153 10 1	.15	>10	.7	.02	>10,000	.1	N	200	2,000	.5
M291B01	63 12 10	153 15 36	.2	7	.7	.015	>10,000	.1	N	200	1,000	.5
M292B01	63 37 5	155 21 28	.2	10	.7	.02	>10,000	.2	N	300	2,000	.5
M293B01	63 41 22	155 34 18	.07	10	.5	.005	>10,000	.2	N	100	7,000	1
M294B01	63 44 51	155 39 58	.15	>10	.5	.02	>10,000	.2	N	300	2,000	.7
M295B01	63 43 57	155 42 9	.1	>10	.5	.015	5,000	.15	N	500	1,500	.5
M296B01	63 42 54	155 44 20	.1	>10	.7	.01	5,000	.2	N	500	3,000	<.5
M297B01	63 45 16	155 48 48	.1	>10	.5	.02	>10,000	<.1	N	500	5,000	.7
M298B01	63 42 10	155 55 48	.07	>10	.5	.01	>10,000	.15	N	300	5,000	.7
M299B01	63 41 12	155 56 21	.07	>10	.7	.01	>10,000	.15	N	150	7,000	.5

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Nb	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M227B01	N	10	50	100	150	N	20	N	200	7	N	1,500	N	N	N	7,000	50
M228B01	N	20	10	50	200	50	N	N	70	5	20	500	N	N	N	5,000	30
M229B01	N	15	10	700	300	50	10	<20	100	10	5	300	N	N	20	5,000	100
M230B01	N	20	10	30	150	N	N	N	50	5	20	300	N	N	N	7,000	20
M231B01	N	3	N	20	200	N	N	N	100	2	30	1,000	N	N	N	1,000	15
M232B01	N	5	5	30	200	50	20	N	100	5	5	300	N	N	N	5,000	<10
M233B01	N	5	70	50	200	50	<5	N	150	2	5	150	N	N	N	1,500	N
M235B01	N	3	20	50	200	N	5	N	150	5	10	700	N	N	N	5,000	20
M236B01	N	1	5	70	300	70	20	N	70	2	5	300	N	N	N	5,000	10
M239B01	N	1.5	7	50	150	50	N	N	50	3	5	100	N	N	N	3,000	N
M240B01	N	20	10	30	150	N	N	N	70	5	20	500	N	N	N	7,000	15
M243B01	N	15	10	30	150	N	N	N	100	7	15	300	N	N	N	10,000	20
M249B01	N	N	N	50	30	70	15	N	5	7	<5	700	N	N	N	5,000	10
M250B01	N	5	70	100	300	N	N	N	200	7	10	1,000	N	N	N	2,000	15
M251B01	N	20	7	20	200	N	N	N	100	2	30	1,500	N	N	N	7,000	15
M252B01	N	30	15	30	300	N	N	N	300	2	15	1,500	N	N	N	7,000	10
M253B01	N	7	5	50	100	N	N	N	150	3	10	300	N	N	N	5,000	10
M254B01	N	15	5	50	200	50	N	N	100	7	7	500	N	N	N	5,000	20
M255B01	N	1	7	100	200	50	7	N	150	5	<5	500	N	N	N	7,000	20
M256B01	N	1.5	7	200	150	50	50	N	100	3	<5	500	N	N	N	5,000	50
M257B01	N	20	50	30	200	N	N	N	150	5	30	300	N	N	N	10,000	30
M259B01	N	3	15	50	200	70	7	N	70	2	N	1,000	N	N	N	7,000	10
M260B01	N	15	7	50	200	N	N	N	200	5	50	700	N	N	N	5,000	20
M261B01	<1	20	15	N	200	N	5	N	200	5	N	700	N	N	N	5,000	15
M262B01	N	3	5	N	200	N	N	N	100	7	N	700	N	N	N	5,000	10
M263B01	N	5	7	N	200	N	10	N	70	3	N	1,500	70	N	N	7,000	<10
M264B01	N	15	10	N	200	N	N	N	100	2	N	300	N	N	N	10,000	<10
M265B01	N	50	50	N	150	N	N	N	150	10	N	500	N	N	N	7,000	10
M266B01	N	20	<5	N	150	N	N	N	30	3	N	700	N	N	N	5,000	10
M267B01	N	50	5	N	200	N	N	N	150	7	N	500	N	N	N	10,000	<10
M268B01	N	15	10	N	200	N	N	N	100	5	N	1,000	N	N	N	7,000	N
M270B01	N	3	7	N	200	N	20	N	70	7	N	1,000	N	N	N	7,000	10
M271B01	N	10	5	N	150	N	N	N	100	7	N	1,000	N	N	N	7,000	N
M272B01	N	20	30	N	200	N	N	N	100	7	N	300	10	N	N	5,000	N
M274B01	N	15	N	N	300	N	7	N	150	5	N	1,000	10	N	N	7,000	10
M275B01	N	3	<5	N	300	N	20	N	100	15	N	1,000	N	N	N	5,000	20
M276B01	N	5	7	N	200	N	10	N	150	5	N	1,500	N	N	N	5,000	10
M277B01	N	20	10	N	150	N	N	N	70	2	N	1,500	N	N	N	5,000	<10
M278B01	N	30	<5	N	200	N	50	N	200	5	N	1,000	N	N	N	7,000	70
M279B01	N	5	5	N	300	N	15	N	200	15	N	1,000	N	N	N	5,000	15
M280B01	N	50	50	50	200	N	N	N	200	5	N	1,500	N	N	N	10,000	20
M281B01	N	20	150	N	300	N	N	N	200	10	N	1,000	N	N	N	3,000	10
M282B01	N	5	5	N	200	N	5	N	100	5	N	1,000	20	N	N	2,000	10
M283B01	N	50	15	20	300	N	N	N	150	5	N	500	10	N	N	7,000	10
M284B01	N	20	100	50	500	N	N	N	300	3	N	1,000	N	N	N	10,000	10
M285B01	<1	7	20	N	200	N	10	N	200	5	7	1,000	N	N	N	3,000	<10
M286B01	N	1.5	5	N	200	N	10	N	100	5	N	1,000	N	N	N	5,000	20
M287B01	N	30	7	N	150	N	N	N	100	7	N	500	N	N	N	5,000	70
M288B01	N	20	30	N	200	N	N	N	100	5	N	1,000	N	N	N	7,000	30
M289B01	N	20	50	N	150	N	<5	N	200	5	N	1,500	15	N	N	7,000	30
M290B01	N	3	7	N	200	70	<5	N	200	7	N	1,000	N	N	N	5,000	20
M291B01	N	20	20	N	150	N	5	N	150	7	N	300	N	N	N	3,000	30
M292B01	N	15	50	N	200	N	N	N	300	10	N	1,000	N	N	N	7,000	20
M293B01	N	20	10	N	150	N	N	N	200	2	N	700	N	N	N	5,000	10
M294B01	N	30	30	N	200	N	N	N	300	15	N	1,000	15	N	N	7,000	30
M295B01	N	5	10	N	200	70	10	N	200	7	N	1,000	10	N	N	5,000	15
M296B01	N	15	20	N	200	50	N	N	200	5	N	1,000	N	N	N	3,000	15
M297B01	N	15	5	N	200	N	<5	N	100	7	N	500	N	N	N	5,000	30
M298B01	N	20	10	N	200	N	N	N	150	7	N	1,000	N	N	N	5,000	10
M299B01	N	15	30	N	200	N	N	N	150	2	N	1,000	<10	N	N	5,000	20

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-Au	S-B	S-Ba	S-Be
M300B01	63 40 7	155 54 36	.2	>10	.7	.03	7,000	.2	N	1,000	2,000	<.5
M301B01	63 38 39	155 47 39	.1	>10	.7	.015	>10,000	.7	N	300	7,000	.7
M302B01	63 36 36	155 58 0	.07	>10	.7	.005	>10,000	N	N	500	1,500	.5
M303B01	63 35 28	155 58 28	.2	>10	.7	.07	>10,000	<.1	N	700	1,500	.5
M304B01	63 36 10	155 57 7	.15	>10	.5	.02	7,000	.1	N	500	2,000	N
M305B01	63 33 15	155 59 28	.07	10	.5	.01	>10,000	.2	N	300	1,500	N
M306B01	63 32 52	155 51 23	.07	>10	.5	.01	>10,000	N	N	1,000	1,500	N
M309B01	63 27 46	154 32 36	.2	--	.7	--	--	.1	N	--	500	.7
M310B01	63 27 32	154 39 5	.05	--	.7	--	--	.15	N	--	1,500	.5
M311B01	63 30 20	154 36 2	.2	--	1	--	--	.2	N	--	7,000	.5
M312B01	63 37 41	154 6 37	.3	--	1	--	--	1	N	--	7,000	.5
M313B01	63 41 37	154 3 51	.2	--	.7	--	--	<.1	N	--	700	.5
M314B01	63 41 52	154 3 18	.1	--	1	--	--	<.1	N	--	7,000	.5
M316B01	63 38 17	155 34 25	.3	--	1	--	--	.15	N	--	5,000	.5
M317B01	63 36 28	155 29 18	.2	--	.7	--	--	.3	N	--	1,500	<.5
M318B01	63 40 1	155 29 1	.15	--	.7	--	--	.5	N	--	2,000	.5
M319B01	63 40 23	155 23 48	.2	--	1	--	--	.15	N	--	10,000	.5
M320B01	63 42 28	155 20 37	.3	--	.7	--	--	.3	N	--	10,000	.5
M321B01	63 44 20	155 17 49	.5	--	.7	--	--	.5	N	--	7,000	.7
M322B01	63 43 41	155 14 57	.1	--	1	--	--	N	N	--	2,000	.5
M323B01	63 46 23	155 12 51	.07	--	1	--	--	.1	N	--	5,000	.7
M324B01	63 47 40	155 4 46	.1	--	1	--	--	N	N	--	3,000	.5
M325B01	63 48 49	155 11 39	.15	--	1	--	--	.1	N	--	3,000	.5
M326B01	63 47 0	155 15 52	.1	--	.7	--	--	.1	N	--	5,000	.5
M327B01	63 41 12	155 0 41	.07	--	1	--	--	.5	N	--	5,000	.5
M328B01	63 39 21	155 5 44	.15	--	1	--	--	N	N	--	3,000	.5
M329B01	63 42 23	155 5 37	.2	--	.7	--	--	.3	N	--	10,000	1
M330B01	63 43 20	155 7 56	.2	--	.7	--	--	.15	N	--	3,000	.5
M331B01	63 42 33	155 9 42	.15	--	1	--	--	2	N	--	10,000	.7
M332B01	63 41 4	155 13 8	.1	--	.7	--	--	.15	N	--	7,000	.5
M333B01	63 39 15	155 16 47	.3	--	.7	--	--	.1	N	--	10,000	1
M334B01	63 38 58	155 17 47	.2	--	.7	--	--	.15	N	--	10,000	.7
M335B01	63 36 35	155 17 21	.15	--	.5	--	--	.2	N	--	2,000	.7
M337B01	63 30 56	155 24 11	.15	--	.7	--	--	<.1	N	--	1,500	<.5
M338B01	63 32 32	153 14 9	.15	--	.7	--	--	.5	N	--	7,000	.5
M339B01	63 33 29	153 13 53	.1	--	.5	--	--	<.1	N	--	7,000	1
M340B01	63 34 40	153 12 17	.07	--	.7	--	--	N	N	--	7,000	.7
M342B01	63 36 5	153 7 4	.5	--	1	--	--	.1	N	--	7,000	1
M343B01	63 39 13	153 7 22	.2	--	.7	--	--	.15	N	--	20,000	.5
M344B01	63 42 25	153 6 30	.2	--	.7	--	--	N	N	--	2,000	.5
M345B01	63 31 41	153 2 2	.2	--	.7	--	--	.2	N	--	20,000	1.5
M346B01	63 31 1	153 3 31	.15	--	1	--	--	.2	N	--	20,000	.5
M347B01	63 30 8	153 6 47	.15	--	.7	--	--	.3	N	--	20,000	.7
M348B01	63 28 20	153 8 11	.3	--	1	--	--	.3	N	--	>20,000	.7
M349B01	63 29 32	153 13 42	.3	--	.7	--	--	.7	N	--	15,000	.7
M350B01	63 21 34	154 47 14	.3	--	1	--	--	N	N	--	1,500	.7
M351B01	63 23 2	154 51 53	.3	--	.7	--	--	N	N	--	3,000	.5
M352B01	63 23 0	154 52 15	.15	--	.5	--	--	N	N	--	2,000	.5
M353B01	63 26 39	154 57 42	.07	--	.7	--	--	.7	N	--	1,500	.5
M354B01	63 25 13	154 57 50	.3	--	1	--	--	.7	N	--	7,000	.5
M355B01	63 25 55	155 3 24	.2	--	.7	--	--	.1	N	--	1,500	<.5
M356B01	63 25 13	155 8 53	.07	--	.7	--	--	.5	N	--	7,000	<.5
M357B01	63 30 12	154 48 15	.07	--	1	--	--	<.1	N	--	1,000	2
M359B01	63 34 34	154 49 57	.07	--	.7	--	--	<.1	N	--	5,000	1
M360B01	63 32 51	154 58 31	.07	--	.7	--	--	.15	N	--	700	.5
M361B01	63 46 5	153 35 32	.3	--	1.5	--	--	.1	N	--	2,000	.7
M362B01	63 46 0	153 41 47	.5	--	1	--	--	.1	N	--	1,500	<.5
M364B01	63 47 49	153 35 42	.1	--	.7	--	--	.5	N	--	2,000	.5
M365B01	63 47 26	153 33 33	.1	--	.7	--	--	.15	N	--	1,500	.5
M367B01	63 50 29	153 34 31	.1	--	.7	--	--	N	N	--	200	.5

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Nb	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M300B01	N	15	7	N	300	N	10	N	150	5	N	1,000	N	N	N	7,000	30
M301B01	N	10	50	N	500	N	<5	N	200	5	N	1,500	N	N	N	5,000	15
M302B01	N	15	5	N	200	N	N	N	100	5	N	300	N	N	N	5,000	15
M303B01	N	10	5	N	300	N	N	N	70	5	N	1,000	10	N	N	5,000	70
M304B01	N	1.5	<5	N	200	50	10	N	50	7	N	1,500	10	N	N	5,000	30
M305B01	N	5	5	N	150	50	N	N	70	7	N	1,000	N	N	N	3,000	10
M306B01	N	10	5	N	300	N	N	N	50	5	N	1,500	N	N	N	7,000	15
M309B01	N	20	10	N	200	--	N	N	100	7	<5	500	--	N	N	10,000	--
M310B01	N	3	15	N	200	--	30	N	200	5	<5	700	--	N	N	7,000	--
M311B01	N	30	30	N	500	--	N	N	150	20	5	1,000	--	N	20	15,000	--
M312B01	N	10	7	N	700	--	20	N	200	20	<5	2,000	--	N	N	10,000	--
M313B01	N	3	5	N	200	--	50	N	70	10	<5	700	--	N	N	7,000	--
M314B01	N	20	15	N	300	--	30	N	200	10	15	700	--	N	N	15,000	--
M316B01	N	30	50	N	300	--	30	N	200	15	<5	700	--	N	N	7,000	--
M317B01	N	10	10	N	300	--	30	N	300	20	5	700	--	N	N	5,000	--
M318B01	N	10	50	N	200	--	N	N	200	30	<5	1,000	--	N	N	5,000	--
M319B01	N	50	100	N	500	--	20	N	200	15	N	3,000	--	N	N	15,000	--
M320B01	N	15	15	N	500	--	5	N	150	15	N	3,000	--	N	N	10,000	--
M321B01	N	20	10	N	150	--	<5	N	150	10	5	1,000	--	N	N	5,000	--
M322B01	N	10	70	N	300	--	20	N	150	7	<5	1,500	--	N	N	7,000	--
M323B01	N	15	20	N	300	--	N	N	300	3	N	1,000	--	N	N	5,000	--
M324B01	N	20	20	N	500	--	30	N	300	20	<5	1,000	--	N	N	7,000	--
M325B01	N	7	20	N	150	--	7	N	150	10	5	1,000	--	N	N	5,000	--
M326B01	N	3	7	N	500	--	20	N	200	10	<5	1,000	--	N	N	7,000	--
M327B01	N	15	10	N	300	--	N	N	300	20	15	1,500	--	N	N	7,000	--
M328B01	N	15	15	N	200	--	7	N	200	5	N	1,000	--	N	N	7,000	--
M329B01	N	20	100	N	700	--	20	N	300	10	5	1,500	--	N	N	5,000	--
M330B01	N	15	70	N	300	--	N	N	200	15	N	500	--	N	N	5,000	--
M331B01	N	70	7	N	500	--	N	N	70	10	N	1,500	--	N	N	15,000	--
M332B01	N	15	50	N	200	--	<5	N	200	150	N	1,000	--	N	N	7,000	--
M333B01	N	15	50	N	200	--	30	N	200	5	N	1,000	--	N	N	5,000	--
M334B01	N	30	20	N	300	--	15	N	150	20	7	3,000	--	N	N	10,000	--
M335B01	N	10	10	N	150	--	N	N	200	10	7	700	--	N	N	7,000	--
M337B01	N	2	5	N	300	--	10	N	150	5	5	1,000	--	N	N	5,000	--
M338B01	N	30	20	N	500	--	20	N	150	10	N	2,000	--	N	N	7,000	--
M339B01	N	30	20	N	150	--	50	N	100	7	N	700	--	N	N	5,000	--
M340B01	N	50	30	N	150	--	<5	N	100	7	N	700	--	N	N	7,000	--
M342B01	N	15	20	N	500	--	5	N	100	20	N	2,000	--	N	<10	15,000	--
M343B01	N	20	7	N	500	--	7	N	150	15	15	3,000	--	N	N	15,000	--
M344B01	N	15	10	N	200	--	15	N	150	10	7	1,000	--	N	N	5,000	--
M345B01	N	30	15	N	500	--	20	N	150	20	5	2,000	--	N	N	15,000	--
M346B01	N	50	70	N	500	--	N	N	300	10	N	1,500	--	N	20	15,000	--
M347B01	N	70	70	N	300	--	10	N	300	15	5	5,000	--	N	N	15,000	--
M348B01	N	50	100	N	700	--	N	N	200	10	5	3,000	--	N	20	10,000	--
M349B01	N	50	30	N	500	--	N	N	200	20	<5	2,000	--	N	20	10,000	--
M350B01	N	7	7	N	300	--	30	N	70	20	5	2,000	--	N	N	7,000	--
M351B01	N	10	7	N	300	--	<5	N	50	30	N	700	--	N	N	20,000	--
M352B01	N	1.5	10	N	500	--	7	N	200	10	5	700	--	N	N	10,000	--
M353B01	N	3	5	N	300	--	20	N	150	5	N	500	--	N	N	5,000	--
M354B01	N	15	20	N	500	--	5	N	100	30	20	2,000	--	N	N	15,000	--
M355B01	1	1	5	N	300	--	5	N	150	10	5	1,000	--	N	N	5,000	--
M356B01	N	15	5	N	200	--	N	N	200	10	5	500	--	N	N	10,000	--
M357B01	N	20	50	N	150	--	N	N	100	5	N	700	--	N	N	5,000	--
M359B01	N	20	30	N	200	--	<5	N	200	5	N	1,500	--	N	N	5,000	--
M360B01	N	5	7	N	200	--	N	N	200	10	N	500	--	N	N	3,000	--
M361B01	N	10	15	N	150	--	<5	N	200	7	<5	700	--	N	N	5,000	--
M362B01	N	7	15	N	300	--	N	N	150	10	5	300	--	N	N	5,000	--
M364B01	N	10	<5	N	150	--	N	N	30	10	5	1,000	--	N	N	7,000	--
M365B01	N	10	N	N	150	--	N	N	50	7	N	1,000	--	N	N	7,000	--
M367B01	N	15	30	N	200	--	N	N	150	5	<5	1,000	--	N	N	7,000	--

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-Au	S-B	S-Ba	S-Be
M368B01	63 50 26	153 33 49	.07	--	.7	--	--	<.1	N	--	500	.5
M369B01	63 52 27	153 38 0	.15	--	1	--	--	.1	N	--	500	.5
M370B01	63 56 36	153 40 1	.07	--	1	--	--	N	N	--	5,000	.7
M372B01	63 58 20	153 31 25	.3	--	.7	--	--	.15	N	--	1,000	.5
M373B01	63 59 18	153 36 7	.1	--	1	--	--	.1	N	--	1,500	.5
M374B01	63 59 46	153 40 4	.07	--	1	--	--	N	N	--	7,000	7
M375B01	63 45 57	153 55 12	.07	--	.7	--	--	.1	N	--	1,500	.5
M376B01	63 51 34	153 48 5	.1	--	.7	--	--	N	N	--	700	N
M377B01	63 51 40	153 47 23	.1	--	.7	--	--	<.1	N	--	2,000	.5
M378B01	63 52 43	153 45 44	.1	--	.7	--	--	N	N	--	1,000	.5
M379B01	63 54 42	153 47 50	.1	--	.7	--	--	N	N	--	3,000	.5
M380B01	63 55 19	153 47 16	.1	--	.7	--	--	.1	N	--	7,000	.7
M381B01	63 56 24	153 50 53	.1	--	.5	--	--	.1	N	--	1,500	.5
M382B01	63 59 26	153 50 1	.07	--	.7	--	--	.1	N	--	5,000	.5
M383B01	63 51 52	153 52 15	.1	--	.7	--	--	.1	N	--	1,500	.5
M384B01	63 50 59	153 53 12	.2	--	1	--	--	.1	N	--	1,000	.5
M385B01	63 47 52	153 58 9	.5	--	.7	--	--	.15	N	--	1,500	.5
M386B01	63 45 50	154 30 17	1	--	2	--	--	.2	N	--	2,000	.5
M387B01	63 47 17	154 36 22	.3	--	.7	--	--	.15	N	--	1,500	<.5
M388B01	63 47 37	154 35 40	.15	--	.5	--	--	.1	N	--	1,500	.5
M389B01	63 48 44	154 31 7	.07	--	.3	--	--	N	N	--	1,000	<.5
M390B01	63 50 23	154 33 35	.07	--	.7	--	--	N	N	--	1,000	<.5
M391B01	63 49 26	154 38 8	.2	--	.7	--	--	N	N	--	2,000	.5
M392B01	63 49 20	154 42 56	.1	--	.5	--	--	N	N	--	5,000	.5
M393B01	63 51 21	154 45 24	.15	--	.5	--	--	.3	N	--	3,000	.5
M394B01	63 54 8	154 42 42	.1	--	.5	--	--	N	N	--	1,000	<.5
M395B01	63 54 49	154 35 20	.07	--	.5	--	--	N	N	--	1,500	.5
M396B01	63 54 51	154 36 2	.1	--	.5	--	--	N	N	--	2,000	.5
M397B01	63 56 21	154 28 31	.2	--	.7	--	--	<.1	N	--	2,000	<.5
M398B01	63 58 44	154 32 41	.1	--	.5	--	--	<.1	N	--	5,000	<.5
M399B01	63 48 47	154 51 2	.1	--	.7	--	--	N	N	--	2,000	<.5
M400B01	63 45 18	155 49 44	.07	--	1	--	--	.15	N	--	7,000	.7
M401B01	63 47 7	155 53 36	.07	--	.7	--	--	.1	N	--	5,000	.5
M402B01	63 48 24	155 56 12	.07	--	.5	--	--	.5	N	--	1,500	1
M403B01	63 50 21	155 55 30	.5	--	.7	--	--	.2	N	--	5,000	1
M404B01	63 49 41	155 48 45	.07	--	.5	--	--	.15	N	--	7,000	.7
M405B01	63 51 35	155 48 31	.05	--	.5	--	--	N	N	--	1,500	1
M406B01	63 54 53	155 58 30	.15	--	.5	--	--	.1	N	--	5,000	.5
M407B01	63 56 8	155 48 19	.1	--	.5	--	--	.15	N	--	7,000	.7
M408B01	63 56 33	155 42 17	.1	--	.5	--	--	.2	N	--	10,000	.7
M409B01	63 54 1	155 43 7	.1	--	.5	--	--	N	N	--	3,000	.5
M410B01	63 54 22	155 42 40	.1	--	.5	--	--	.1	N	--	2,000	.5
M411B01	63 56 32	155 39 1	.05	--	.5	--	--	.1	N	--	2,000	.5
M413B01	63 58 5	155 34 58	.07	--	.7	--	--	.5	N	--	1,000	.5
M414B01	63 59 41	155 32 3	.1	--	.5	--	--	.15	N	--	7,000	.5
M415B01	63 59 42	155 32 31	.07	--	.5	--	--	.2	N	--	10,000	.5
M416B01	63 49 49	155 18 38	.05	--	.5	--	--	N	N	--	1,500	<.5
M417B01	63 50 5	155 18 15	.1	--	.7	--	--	.1	N	--	7,000	.5
M418B01	63 49 56	155 15 14	.07	--	.5	--	--	<.1	N	--	5,000	.5
M419B01	63 52 29	155 25 6	.1	--	.5	--	--	N	N	--	7,000	.7
M420B01	63 52 29	155 24 34	.07	--	.5	--	--	.2	N	--	2,000	<.5
M421B01	63 54 34	155 22 18	.1	--	.7	--	--	.1	N	--	2,000	<.5
M422B01	63 56 10	155 24 58	.1	--	.5	--	--	.15	N	--	7,000	.7
M423B01	63 46 5	155 21 47	.15	--	.7	--	--	<.1	N	--	7,000	.5
M424B01	63 57 43	155 10 11	.1	--	.5	--	--	.1	N	--	2,000	<.5
M426B01	63 58 44	155 21 56	.2	--	.5	--	--	.15	N	--	7,000	.5
M427B01	63 56 52	155 33 17	.1	--	.5	--	--	N	N	--	7,000	<.5
M428B01	63 56 43	155 31 39	.15	--	.5	--	--	.1	N	--	2,000	<.5
M429B01	63 54 12	155 36 37	.07	--	.5	--	--	.1	N	--	5,000	<.5
M430B01	63 54 0	155 35 46	.07	--	.5	--	--	<.1	N	--	7,000	.5

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Nb	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M368B01	N	3	<5	N	200	--	30	N	100	5	5	300	--	N	N	5,000	--
M369B01	N	5	7	N	300	--	10	N	100	10	<5	500	--	N	N	5,000	--
M370B01	N	15	10	N	200	--	7	N	100	5	<5	700	--	N	N	7,000	--
M372B01	N	2	5	N	200	--	10	N	200	10	N	1,000	--	N	N	3,000	--
M373B01	N	2	10	N	300	--	30	N	200	7	5	1,000	--	N	N	7,000	--
M374B01	N	5	10	N	200	--	N	N	200	3	N	1,000	--	N	N	7,000	--
M375B01	N	3	7	N	200	--	10	N	200	30	<5	300	--	N	N	5,000	--
M376B01	N	1	N	N	200	--	70	N	70	50	5	500	--	N	N	5,000	--
M377B01	N	5	5	N	200	--	30	N	200	10	N	1,000	--	N	N	3,000	--
M378B01	N	<1	<5	N	150	--	10	N	70	2	N	500	--	N	N	3,000	--
M379B01	<1	3	<5	N	300	--	5	<20	150	10	<5	1,000	--	N	N	5,000	--
M380B01	N	7	5	N	300	--	N	N	200	15	<5	700	--	N	N	3,000	--
M381B01	<1	5	N	N	200	--	15	N	50	20	N	500	--	N	N	7,000	--
M382B01	N	10	50	N	150	--	20	N	200	7	N	500	--	N	N	5,000	--
M383B01	N	10	<5	N	200	--	10	N	100	20	<5	500	--	N	N	7,000	--
M384B01	N	10	7	N	200	--	30	N	150	20	<5	300	--	N	N	5,000	--
M385B01	N	7	7	N	150	--	20	N	70	30	5	200	--	N	N	5,000	--
M386B01	N	3	10	N	200	--	30	N	200	10	20	200	--	N	10	3,000	--
M387B01	N	5	10	N	300	--	10	N	150	20	5	300	--	N	<10	5,000	--
M388B01	N	3	5	N	300	--	20	N	200	5	N	500	--	N	N	7,000	--
M389B01	N	5	5	N	200	--	5	N	50	7	<5	300	--	N	N	3,000	--
M390B01	N	1.5	<5	N	200	--	15	N	70	7	N	150	--	N	N	5,000	--
M391B01	N	5	7	N	200	--	7	N	100	3	N	500	--	N	N	7,000	--
M392B01	N	7	10	N	300	--	30	N	150	3	N	500	--	N	N	5,000	--
M393B01	N	10	10	N	300	--	N	N	150	5	15	500	--	N	N	5,000	--
M394B01	N	20	<5	N	150	--	N	N	70	3	N	300	--	N	N	5,000	--
M395B01	N	5	5	N	200	--	<5	N	50	5	<5	300	--	N	N	7,000	--
M396B01	N	1.5	<5	N	200	--	5	N	30	5	N	500	--	N	N	7,000	--
M397B01	N	7	20	N	150	--	N	N	150	7	5	300	--	N	N	3,000	--
M398B01	N	15	7	N	150	--	30	N	200	5	N	700	--	N	N	7,000	--
M399B01	N	5	7	N	150	--	7	N	150	3	<5	700	--	N	N	5,000	--
M400B01	N	15	30	N	200	--	N	N	100	10	N	1,000	--	N	N	7,000	--
M401B01	N	30	30	N	200	--	N	N	200	7	N	500	--	N	N	7,000	--
M402B01	N	10	20	N	150	--	N	N	100	15	<5	300	--	N	N	7,000	--
M403B01	N	15	15	N	200	--	15	N	300	15	N	500	--	N	N	7,000	--
M404B01	N	20	70	N	300	--	10	N	200	5	N	1,500	--	N	N	10,000	--
M405B01	N	20	5	N	150	--	N	N	70	3	N	500	--	N	N	7,000	--
M406B01	N	10	15	N	200	--	N	N	200	5	5	1,000	--	N	N	5,000	--
M407B01	N	15	30	N	200	--	20	N	200	3	5	700	--	N	N	7,000	--
M408B01	N	20	50	N	200	--	N	N	200	5	N	1,000	--	N	N	7,000	--
M409B01	N	15	7	N	200	--	N	N	300	7	N	300	--	N	N	10,000	--
M410B01	N	5	5	N	200	--	N	N	200	3	N	700	--	N	N	5,000	--
M411B01	N	7	5	N	200	--	30	N	300	5	N	300	--	N	N	7,000	--
M413B01	N	20	5	N	200	--	15	N	300	5	N	200	--	N	N	7,000	--
M414B01	N	10	15	N	200	--	N	N	300	5	N	1,000	--	N	N	10,000	--
M415B01	N	7	15	N	200	--	20	N	150	2	N	1,500	--	N	N	5,000	--
M416B01	N	1.5	<5	N	200	--	7	N	100	3	N	1,000	--	N	N	5,000	--
M417B01	N	20	10	N	200	--	7	N	200	3	N	1,500	--	N	N	7,000	--
M418B01	N	10	10	N	200	--	15	N	200	5	5	1,000	--	N	N	7,000	--
M419B01	N	20	10	N	200	--	7	N	200	7	<5	1,500	--	N	N	7,000	--
M420B01	N	3	5	N	200	--	20	N	150	5	N	1,000	--	N	N	7,000	--
M421B01	N	10	20	N	200	--	30	N	200	10	N	700	--	N	N	5,000	--
M422B01	N	5	20	N	200	--	15	N	300	5	N	1,000	--	N	N	5,000	--
M423B01	N	3	5	N	300	--	20	N	100	5	<5	3,000	--	N	N	7,000	--
M424B01	N	2	7	N	300	--	20	N	200	5	<5	700	--	N	N	3,000	--
M426B01	N	10	30	N	300	--	15	N	300	5	<5	1,000	--	N	N	7,000	--
M427B01	N	10	10	N	200	--	N	N	150	10	N	1,000	--	N	N	5,000	--
M428B01	N	1.5	5	N	150	--	10	N	100	7	N	1,000	--	N	N	5,000	--
M429B01	N	5	7	N	200	--	N	N	200	5	N	700	--	N	N	3,000	--
M430B01	N	15	20	N	200	--	15	N	200	3	N	1,000	--	N	N	5,000	--

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-Au	S-B	S-Ba	S-Be
M431B01	63 52 33	155 31 41	.1	--	.5	--	--	.1	N	--	5,000	<.5
M432B01	63 51 46	155 31 12	.07	--	.5	--	--	.1	N	--	2,000	.5
M433B01	63 51 5	155 30 38	.1	--	.5	--	--	.1	N	--	3,000	.5
M434B01	63 50 24	155 33 10	.07	--	.7	--	--	.3	N	--	7,000	.7
M435B01	63 45 23	155 47 58	.2	--	.7	--	--	.2	N	--	3,000	<.5
M436B01	63 48 31	155 45 19	.1	--	.7	--	--	.5	N	--	2,000	<.5
M437B01	63 48 25	155 37 45	.1	--	.7	--	--	N	N	--	3,000	.5
M439B01	63 12 18	155 45 17	.1	--	.7	--	--	.2	N	--	2,000	.7
M440B01	63 13 52	155 50 47	.1	--	.5	--	--	.3	N	--	2,000	.5
M441B01	63 15 42	155 51 1	.1	--	.7	--	--	.15	N	--	2,000	.7
M443B01	63 14 59	155 54 51	.1	--	.5	--	--	.15	N	--	1,000	.5
M444B01	63 10 21	155 51 33	.07	--	.7	--	--	N	N	--	1,500	.7
M445B01	63 44 24	155 24 54	.1	--	.5	--	--	.1	N	--	2,000	<.5
M446B01	63 45 17	155 27 5	.07	--	.5	--	--	N	N	--	3,000	.5
M447B01	63 48 15	155 31 20	.05	--	.5	--	--	N	N	--	2,000	<.5
M448B01	63 49 36	155 35 23	.07	--	.7	--	--	.1	N	--	7,000	1
M449B01	63 49 11	155 40 56	.15	--	.7	--	--	.1	N	--	1,500	.7
M450B01	63 46 49	155 38 32	.1	--	.3	--	--	.1	N	--	700	1
M451B01	63 46 13	155 35 21	.07	--	.5	--	--	.1	N	--	3,000	.5
M452B01	63 44 56	155 28 51	.1	--	.5	--	--	.1	N	--	7,000	<.5
M453B01	63 43 27	155 31 44	.15	--	.7	--	--	.7	N	--	10,000	<.5
M454B01	63 41 26	155 30 8	.1	--	.5	--	--	<.1	N	--	7,000	<.5
M455B01	63 40 42	155 35 34	.1	--	.5	--	--	.7	N	--	1,500	<.5
M456B01	63 40 30	155 46 5	.1	--	.5	--	--	N	N	--	7,000	.5
M457B01	63 40 15	155 47 0	.2	--	.5	--	--	.15	N	--	7,000	.7
M458B01	63 44 10	155 52 5	.07	--	.5	--	--	N	N	--	3,000	.5
M459B01	63 42 18	155 51 33	.2	--	.5	--	--	.1	N	--	7,000	.5
M460B01	63 40 38	155 50 1	.2	--	.7	--	--	.15	N	--	7,000	.7
M461B01	63 35 36	155 56 34	.07	--	.5	--	--	N	N	--	5,000	.7
M462B01	63 36 36	155 52 0	.07	--	.5	--	--	.2	N	--	7,000	.5
M464B01	63 33 18	155 46 3	.1	--	.3	--	--	N	N	--	2,000	.5
M468B01	63 55 38	154 39 50	.1	--	.5	--	--	.1	N	--	2,000	<.5
M469B01	63 57 58	154 41 28	.1	--	.5	--	--	.2	N	--	5,000	1
M470B01	63 57 58	154 48 46	.15	--	.7	--	--	<.1	N	--	1,500	<.5
M471B01	63 57 16	154 53 39	.07	--	.5	--	--	.3	N	--	3,000	<.5
M472B01	63 57 35	154 53 20	.1	--	.5	--	--	<.1	N	--	2,000	.5
M473B01	63 56 36	154 52 1	.07	--	.3	--	--	.1	N	--	3,000	.5
M474B01	63 53 33	154 56 29	.07	--	.5	--	--	N	N	--	2,000	.5
M475B01	63 41 0	154 18 24	.1	--	.7	--	--	.1	N	--	1,500	<.5
M477B01	63 44 33	154 16 44	.07	--	.5	--	--	.2	N	--	2,000	.7
M479B01	63 46 54	154 17 28	.1	--	1	--	--	N	N	--	700	<.5
M480B01	63 40 20	153 52 35	.1	--	.5	--	--	N	N	--	1,500	<1
M481B01	63 40 34	153 50 44	.07	--	.7	--	--	N	N	--	1,000	.5
M482B01	63 35 1	153 53 48	.2	--	.7	--	--	<.1	N	--	1,000	<.5
M483B01	63 33 40	153 45 20	.05	--	.3	--	--	N	N	--	3,000	<.5
M484B01	63 7 43	154 53 40	.2	--	.3	--	--	.1	N	--	2,000	.5
M485B01	63 22 23	155 10 3	.1	--	.5	--	--	.1	N	--	3,000	.5
M486B01	63 20 45	155 11 42	.05	--	.7	--	--	N	N	--	3,000	.5
M487B01	63 24 13	155 16 51	.07	--	.7	--	--	.1	N	--	3,000	.5
M489B01	63 31 51	155 30 47	.05	--	.3	--	--	N	N	--	2,000	.5
M490B01	63 31 40	155 27 11	.07	--	.5	--	--	N	N	--	2,000	.5
M492B01	63 36 21	155 2 32	<.05	--	.3	--	--	.1	N	--	3,000	.7
M493B01	63 54 53	154 51 28	.3	--	.5	--	--	.15	N	--	5,000	<.5
M494B01	63 52 34	154 53 37	.05	--	.5	--	--	N	N	--	10,000	.7
M495B01	63 51 45	154 55 51	.05	--	.3	--	--	<.1	N	--	10,000	.5
M496B01	63 48 12	154 57 12	.15	--	.3	--	--	.5	N	--	5,000	.7
M497B01	63 46 38	154 58 12	.07	--	.3	--	--	.1	N	--	7,000	.7
M498B01	63 47 19	154 52 6	.07	--	.3	--	--	N	N	--	5,000	.5
M499B01	63 44 31	154 56 24	.1	--	.5	--	--	.2	N	--	5,000	.5
M500B01	63 43 7	154 57 33	.07	--	.5	--	--	.2	N	--	2,000	1

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Nb	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M431B01	N	15	20	N	200	--	10	N	150	3	N	1,000	--	N	N	7,000	--
M432B01	N	20	7	N	150	--	N	N	200	5	N	1,000	--	N	N	7,000	--
M433B01	N	7	10	N	150	--	N	N	200	3	N	1,000	--	N	N	5,000	--
M434B01	7	10	30	N	200	--	N	N	200	5	N	700	--	N	N	3,000	--
M435B01	<1	10	7	N	200	--	5	N	100	20	5	1,000	--	N	N	7,000	--
M436B01	N	15	20	N	200	--	7	N	200	20	N	300	--	N	N	3,000	--
M437B01	N	10	70	N	200	--	N	N	300	5	N	500	--	N	N	7,000	--
M439B01	N	10	20	N	200	--	15	N	150	7	N	700	--	N	N	7,000	--
M440B01	N	3	5	N	150	--	50	N	150	1	5	1,000	--	N	N	5,000	--
M441B01	N	20	10	N	150	--	N	N	150	15	N	500	--	N	N	7,000	--
M443B01	N	2	<5	N	200	--	N	N	100	20	5	500	--	N	N	5,000	--
M444B01	N	7	5	N	150	--	N	N	70	7	N	700	--	N	N	5,000	--
M445B01	N	10	10	N	200	--	10	N	150	3	N	1,000	--	N	N	5,000	--
M446B01	N	N	5	N	200	--	10	N	300	7	N	1,500	--	N	N	5,000	--
M447B01	N	2	<5	N	150	--	10	N	100	7	N	1,500	--	N	N	5,000	--
M448B01	N	30	20	N	150	--	N	N	150	20	N	700	--	N	N	5,000	--
M449B01	N	10	10	N	150	--	N	N	70	10	N	500	--	N	N	7,000	--
M450B01	N	20	30	N	200	--	N	N	150	3	N	1,000	--	N	N	7,000	--
M451B01	N	15	10	N	150	--	15	N	200	10	N	1,000	--	N	N	5,000	--
M452B01	N	15	5	N	300	--	50	N	150	10	<5	2,000	--	N	N	7,000	--
M453B01	N	20	20	N	500	--	30	N	300	10	5	2,000	--	N	N	10,000	--
M454B01	N	30	30	N	500	--	7	N	300	10	N	1,000	--	N	N	10,000	--
M455B01	N	5	50	N	200	--	N	N	300	7	<5	700	--	N	N	5,000	--
M456B01	N	10	10	N	200	--	<5	N	150	7	N	1,500	--	N	N	3,000	--
M457B01	N	20	50	N	200	--	<5	N	300	7	N	2,000	--	N	<10	7,000	--
M458B01	N	15	50	N	200	--	20	N	300	5	N	700	--	N	N	5,000	--
M459B01	N	15	20	N	300	--	N	N	200	7	N	1,000	--	N	N	7,000	--
M460B01	N	20	30	N	200	--	N	N	200	3	N	1,000	--	N	N	5,000	--
M461B01	N	20	10	N	150	--	N	N	150	3	N	1,500	--	N	N	5,000	--
M462B01	N	20	15	N	200	--	N	N	200	3	N	1,500	--	N	N	7,000	--
M464B01	N	3	10	N	300	--	N	N	200	5	N	1,500	--	N	N	7,000	--
M468B01	N	5	7	N	200	--	N	N	200	7	N	300	--	N	N	5,000	--
M469B01	N	7	50	N	200	--	N	N	200	20	N	500	--	N	N	7,000	--
M470B01	N	2	N	N	300	--	5	N	150	15	<5	1,000	--	N	N	2,000	--
M471B01	N	1.5	5	N	500	--	20	N	70	5	5	1,000	--	N	N	5,000	--
M472B01	N	3	7	N	200	--	15	N	150	10	<5	1,500	--	N	N	7,000	--
M473B01	N	10	50	N	200	--	N	N	300	7	N	1,000	--	N	N	5,000	--
M474B01	N	7	20	N	200	--	20	N	200	10	N	1,000	--	N	N	5,000	--
M475B01	N	5	<5	N	200	--	30	N	70	15	5	2,000	--	N	N	3,000	--
M477B01	N	20	15	N	200	--	10	N	200	7	N	1,000	--	N	N	5,000	--
M479B01	N	2	N	N	150	--	10	N	70	10	<5	300	--	N	N	7,000	--
M480B01	N	3	<5	N	300	--	150	N	100	20	<5	700	--	N	N	7,000	--
M481B01	N	15	N	N	150	--	N	N	30	10	15	200	--	N	N	7,000	--
M482B01	N	10	<5	N	300	--	20	N	150	20	5	700	--	N	N	5,000	--
M483B01	N	3	5	N	150	--	30	N	150	7	N	700	--	200	N	7,000	--
M484B01	N	20	30	N	200	--	N	N	200	10	N	300	--	N	N	5,000	--
M485B01	N	7	7	N	200	--	15	N	150	50	N	1,000	--	N	N	5,000	--
M486B01	N	15	7	N	200	--	N	N	200	5	N	700	--	N	N	7,000	--
M487B01	N	10	20	N	150	--	N	N	200	1	N	1,000	--	N	N	5,000	--
M489B01	N	5	5	N	500	--	5	N	150	10	100	1,000	--	N	N	3,000	--
M490B01	N	7	5	N	150	--	N	N	200	7	N	1,500	--	N	N	7,000	--
M492B01	N	30	15	N	200	--	N	N	200	3	N	2,000	--	N	N	7,000	--
M493B01	N	20	70	N	200	--	30	N	200	5	N	700	--	N	<10	5,000	--
M494B01	N	20	50	N	150	--	N	N	200	10	N	1,000	--	N	N	7,000	--
M495B01	N	1	15	N	200	--	<5	N	200	10	10	1,000	--	N	N	5,000	--
M496B01	N	10	100	N	200	--	30	N	200	10	N	500	--	N	N	5,000	--
M497B01	N	20	30	N	200	--	<5	N	200	5	N	1,000	--	N	N	5,000	--
M498B01	N	20	50	N	200	--	5	N	200	2	N	1,000	--	N	N	5,000	--
M499B01	N	10	20	N	200	--	10	N	300	7	N	1,000	--	N	N	7,000	--
M500B01	N	15	20	N	150	--	N	N	200	7	N	500	--	N	N	7,000	--

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-Au	S-B	S-Ba	S-Be
M501B01	63 41 54	154 49 37	.07	--	.5	--	--	.1	N	--	3,000	.5
M502B01	63 42 45	154 46 4	.05	--	.3	--	--	.1	N	--	10,000	1
M503B01	63 34 58	154 43 36	.07	--	.7	--	--	N	N	--	1,500	.5
M504B01	63 37 52	154 35 56	.07	--	.5	--	--	N	N	--	10,000	.5
M505B01	63 40 3	154 35 19	.07	--	.5	--	--	.1	N	--	1,500	<.5
M506B01	63 39 55	154 46 41	.3	--	.3	--	--	.2	N	--	10,000	.7
M507B01	63 43 12	153 29 43	.07	--	1	--	--	.2	N	--	3,000	1
M508B01	63 44 0	153 27 59	.07	--	.7	--	--	N	N	--	2,000	.5
M509B01	63 41 3	153 33 57	.1	--	.5	--	--	N	N	--	2,000	.5
M510B01	63 41 25	153 37 38	.1	--	.5	--	--	N	N	--	1,000	.5
M511B01	63 41 26	153 39 10	.1	--	.7	--	--	.1	N	--	1,500	.5
M512B01	63 31 28	153 59 6	.07	--	.7	--	--	<.1	N	--	1,500	.7
M513B01	63 30 38	153 56 40	.07	--	.3	--	--	N	N	--	3,000	.7
M514B01	63 27 15	153 51 2	.07	--	.7	--	--	N	N	--	1,500	.5
M515B01	63 28 56	153 58 24	.07	--	.5	--	--	.1	N	--	1,500	.5
M516B01	63 24 10	153 59 44	.07	--	.5	--	--	N	N	--	1,000	<.5

Table 2. Results of analyses of samples of the ash of dwarf arctic birch leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Nb	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M501B01	N	10	15	N	200	--	N	N	300	5	N	1,000	--	N	N	5,000	--
M502B01	N	20	100	N	150	--	30	N	300	1.5	N	1,000	--	N	N	3,000	--
M503B01	N	10	5	N	200	--	N	N	50	7	N	700	--	N	N	10,000	--
M504B01	N	15	70	N	150	--	N	N	300	5	N	2,000	--	N	N	7,000	--
M505B01	N	5	<5	N	150	--	N	N	200	10	N	300	--	N	N	3,000	--
M506B01	N	20	100	N	200	--	N	N	300	10	N	1,500	--	N	<10	7,000	--
M507B01	N	15	50	N	200	--	20	N	200	7	N	500	--	N	N	5,000	--
M508B01	N	1.5	50	N	200	--	50	N	150	7	N	1,000	--	N	N	3,000	--
M509B01	N	5	7	N	150	--	15	N	150	10	N	1,500	--	N	N	7,000	--
M510B01	N	1.5	N	N	300	--	20	N	70	7	N	700	--	N	N	7,000	--
M511B01	N	7	7	N	150	--	5	N	70	20	N	1,500	--	N	N	5,000	--
M512B01	N	10	10	N	200	--	<5	N	150	20	N	500	--	N	N	5,000	--
M513B01	<1	7	<5	N	150	--	10	N	100	5	N	700	--	N	N	5,000	--
M514B01	N	10	7	N	150	--	N	N	100	7	N	500	--	N	N	7,000	--
M515B01	N	10	7	N	150	--	10	N	70	30	N	300	--	N	N	5,000	--
M516B01	N	<1	5	N	300	--	20	N	150	5	N	700	--	N	N	5,000	--

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown; --, no data]

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M003B02	63 7 9	154 54 46	.2	10	.7	.02	10,000	.15	200	2,000	<.5
M004B02	63 9 43	154 56 2	.3	10	1	.05	>10,000	1	300	3,000	N
M005B02	63 12 54	154 55 26	.2	10	.7	.05	10,000	1	300	7,000	.5
M006B02	63 11 0	154 50 5	.2	>10	1	.03	10,000	.5	200	2,000	N
M007B02	63 12 34	154 51 16	.2	>10	1.5	.07	>10,000	.5	700	7,000	.7
M008B02	63 12 36	154 45 48	.15	10	.7	.05	7,000	.2	200	2,000	.5
M009B02	63 14 58	154 40 45	.15	10	1	.02	>10,000	.3	300	7,000	.5
M010B02	63 15 37	154 38 43	.15	10	1	.02	>10,000	.5	300	10,000	1
M014B02	63 17 13	154 28 33	.3	>10	1	.05	10,000	1	300	5,000	.5
M017B02	63 22 33	154 26 19	.2	10	1	.03	>10,000	.2	500	5,000	.5
M018B02	63 21 5	154 28 40	.2	10	1.5	.03	>10,000	.15	200	1,500	.5
M019B02	63 22 34	154 20 50	.1	10	.7	.02	>10,000	.3	300	2,000	<.5
M020B02	63 24 6	154 15 57	.15	>10	1.5	.05	2,000	.2	300	2,000	<.5
M021B02	63 26 11	154 53 30	.15	10	2	.02	>10,000	.7	200	1,500	N
M022B02	63 26 49	155 1 23	.2	10	2	.05	>10,000	.7	300	5,000	.5
M023B02	63 27 37	155 3 56	.1	10	2	.015	>10,000	.3	200	1,500	<.5
M024B02	63 28 32	155 6 16	.1	10	1	.01	>10,000	.2	200	1,000	<.5
M025B02	63 31 50	155 9 17	.1	>10	1.5	.03	>10,000	.3	500	7,000	.5
M026B02	63 33 53	155 3 27	.15	10	1	.05	>10,000	1	700	7,000	.7
M027B02	63 32 43	155 0 30	.1	>10	1.5	.015	>10,000	.5	300	5,000	<.5
M028B02	63 32 40	154 56 39	.15	10	1.5	.02	>10,000	.3	500	1,500	.5
M029B02	63 30 19	154 56 45	.1	>10	.7	.02	>10,000	.2	300	10,000	1
M031B02	63 25 8	154 52 1	.1	>10	.7	.015	>10,000	.15	500	7,000	N
M032B02	63 28 39	154 45 45	.2	>10	.5	.03	10,000	.5	300	5,000	.5
M033B02	63 27 46	154 44 35	.15	>10	.7	.02	>10,000	.2	300	7,000	.5
M034B02	63 27 29	154 38 14	.07	>10	1	.01	>10,000	.15	500	10,000	.7
M036B02	63 25 13	154 39 6	.15	7	1	.02	>10,000	.1	300	5,000	.5
M037B02	63 26 24	154 34 37	.1	10	.7	.01	7,000	.7	300	5,000	.5
M040B02	63 30 33	154 17 49	.15	10	.7	.02	7,000	.2	300	7,000	.7
M041B02	63 27 5	154 33 24	.2	>10	1	.05	>10,000	.15	300	7,000	.7
M042B02	63 31 11	154 23 6	.05	10	.7	.01	>10,000	.2	300	10,000	.5
M043B02	63 29 37	154 38 2	.15	>10	.7	.015	>10,000	.3	300	5,000	.5
M045B02	63 31 9	154 36 18	.1	10	1	.015	>10,000	.5	300	7,000	.5
M046B02	63 32 9	154 42 4	.1	10	.7	.015	7,000	.15	300	7,000	<.5
M047B02	63 33 37	154 38 11	.15	>10	1	.02	700	.15	300	5,000	.5
M048B02	63 35 34	154 38 36	.15	>10	1.5	.02	>10,000	.5	500	7,000	.7
M049B02	63 33 43	154 39 1	.15	10	1	.02	>10,000	.3	300	5,000	<.5
M051B02	63 34 54	154 28 22	.15	>10	1	.015	7,000	.2	500	7,000	<.5
M052B02	63 35 10	154 21 13	.15	>10	1	.03	>10,000	.5	300	10,000	.7
M053B02	63 34 5	154 29 12	.1	>10	1	.01	>10,000	.2	300	7,000	.5
M054B02	63 35 14	154 16 18	.1	10	1	.015	>10,000	.15	300	7,000	.5
M055B02	63 34 58	154 21 18	.2	>10	1	.05	>10,000	.5	300	7,000	.5
M057B02	63 37 2	154 14 32	.1	>10	1	.015	>10,000	.5	200	10,000	.5
M060B02	63 40 18	154 20 1	.3	>10	1	.07	>10,000	.7	300	20,000	.7
M061B02	63 41 39	154 14 42	.1	>10	.7	.02	>10,000	.5	300	15,000	1
M062B02	63 40 32	154 26 34	.1	>10	1	.02	>10,000	.3	500	2,000	.5
M063B02	63 39 4	154 25 43	.3	>10	1.5	.07	>10,000	.2	300	7,000	.5
M064B02	63 43 2	154 33 19	.2	>10	1	.02	>10,000	.3	300	7,000	<.5
M065B02	63 37 38	154 29 28	.1	>10	1	.015	>10,000	.2	300	10,000	.5
M066B02	63 42 48	154 29 50	.5	>10	1.5	.1	1,500	N	700	15,000	1
M069B02	63 6 2	154 53 9	.2	>10	1	.05	>10,000	.5	300	7,000	.5
M070B02	63 6 0	154 51 24	.15	>10	1	.02	>10,000	.2	500	10,000	.7
M071B02	63 2 57	154 55 16	.2	10	1	.05	>10,000	.3	300	15,000	.7
M072B02	63 5 29	154 56 0	.2	>10	1	.05	>10,000	.5	300	7,000	.5
M073B02	63 3 8	155 3 47	.07	10	.7	.015	>10,000	.2	200	3,000	.5
M074B02	63 1 31	154 58 32	.2	>10	.7	.07	>10,000	.2	300	3,000	.7
M075B02	63 0 17	155 15 14	.2	>10	1	.05	10,000	.3	300	7,000	.5
M076B02	63 2 29	155 6 20	.2	>10	2	.05	>10,000	.7	500	10,000	.5
M077B02	63 0 8	155 26 0	.15	>10	1.5	.05	>10,000	.2	500	3,000	1
M078B02	63 1 15	155 19 34	.2	>10	1	.03	>10,000	.15	300	7,000	.5

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M003B02	N	15	15	50	500	N	N	100	15	N	1,500	N	N	N	10,000	30
M004B02	N	30	50	70	500	N	N	150	20	N	700	N	N	N	10,000	50
M005B02	N	20	10	50	500	70	N	100	30	N	500	N	N	N	7,000	50
M006B02	N	30	10	N	500	100	7	100	20	N	1,000	N	N	N	7,000	50
M007B02	N	50	70	100	500	N	N	150	20	N	1,000	30	N	N	15,000	70
M008B02	N	30	5	N	500	50	10	150	30	N	700	N	N	N	10,000	20
M009B02	N	50	20	50	500	N	N	100	30	N	1,000	N	N	N	10,000	30
M010B02	N	70	10	N	700	N	N	300	10	N	1,000	10	N	N	10,000	20
M014B02	2	30	20	150	500	70	10	100	70	N	700	N	N	N	15,000	30
M017B02	3	50	7	N	500	N	N	150	30	N	1,500	15	N	N	15,000	50
M018B02	<1	50	7	N	300	N	30	70	50	N	700	15	N	N	10,000	30
M019B02	2	30	50	N	500	70	5	100	15	N	500	N	N	N	10,000	20
M020B02	2	10	5	N	500	50	30	50	20	5	1,500	N	N	N	10,000	30
M021B02	1	30	7	N	700	70	N	200	20	N	1,000	N	N	N	7,000	20
M022B02	<1	20	10	N	500	N	N	200	70	N	1,500	N	N	N	10,000	50
M023B02	<1	20	10	N	500	50	5	100	20	N	1,000	N	N	N	7,000	20
M024B02	N	7	5	30	500	N	7	100	15	N	500	N	N	N	5,000	15
M025B02	N	50	50	50	500	N	N	100	30	N	3,000	N	N	N	15,000	30
M026B02	N	30	70	N	500	N	N	100	50	N	2,000	N	N	N	20,000	30
M027B02	N	70	50	N	700	N	N	150	15	N	1,000	N	N	N	15,000	20
M028B02	N	15	15	N	500	N	N	100	20	N	700	N	N	N	15,000	20
M029B02	N	50	50	N	500	N	N	150	10	N	1,500	N	N	N	10,000	20
M031B02	N	15	10	N	500	N	N	100	15	15	1,000	N	N	N	10,000	20
M032B02	<1	5	20	N	700	N	N	100	20	N	3,000	10	N	N	15,000	10
M033B02	N	20	15	N	500	N	N	200	15	N	1,000	N	N	N	15,000	20
M034B02	<1	30	30	N	500	N	N	300	7	N	1,500	N	N	N	10,000	N
M036B02	N	50	5	N	500	N	N	50	15	N	2,000	N	N	N	15,000	15
M037B02	N	50	5	N	500	50	5	300	10	N	1,500	N	N	N	20,000	10
M040B02	N	20	20	N	500	50	N	70	20	N	2,000	N	N	N	15,000	<10
M041B02	N	70	20	N	500	N	<5	150	30	N	5,000	N	N	N	20,000	10
M042B02	N	20	20	N	500	70	N	150	10	N	2,000	10	N	N	10,000	10
M043B02	N	70	30	N	700	100	N	200	15	N	3,000	N	N	N	20,000	10
M045B02	N	70	50	N	500	N	N	300	15	N	1,500	N	N	N	15,000	15
M046B02	N	20	20	N	500	50	20	100	15	N	2,000	N	N	N	10,000	10
M047B02	N	15	7	N	700	100	5	100	15	N	3,000	N	N	N	10,000	10
M048B02	N	50	70	N	700	N	N	150	20	N	1,500	10	N	N	15,000	15
M049B02	N	30	20	N	500	100	N	150	20	N	1,000	N	N	N	20,000	15
M051B02	N	20	10	N	500	100	7	200	20	N	3,000	N	N	N	10,000	15
M052B02	N	100	30	N	500	N	N	150	50	N	3,000	10	N	N	15,000	10
M053B02	N	20	20	N	500	N	N	200	10	N	3,000	N	N	N	10,000	10
M054B02	N	70	7	N	500	N	N	200	10	N	2,000	N	N	N	15,000	10
M055B02	N	50	20	N	500	N	N	200	30	N	3,000	N	N	N	15,000	10
M057B02	N	20	15	N	500	N	20	300	15	N	3,000	N	N	N	10,000	10
M060B02	N	30	7	N	500	70	N	150	20	N	5,000	50	N	N	15,000	20
M061B02	10	70	20	N	300	N	N	300	20	N	2,000	10	N	N	10,000	<10
M062B02	N	100	50	N	500	N	N	500	15	N	2,000	N	N	N	>20,000	10
M063B02	N	20	50	50	500	100	N	150	20	N	3,000	50	N	N	10,000	70
M064B02	N	50	50	N	500	50	N	700	10	N	1,000	N	N	N	10,000	30
M065B02	N	20	20	N	700	N	N	150	30	N	3,000	N	N	N	20,000	15
M066B02	<1	7	20	70	300	50	N	100	7	N	5,000	N	N	15	5,000	100
M069B02	N	70	7	70	700	N	<5	200	20	N	2,000	N	N	N	15,000	50
M070B02	N	50	7	30	500	N	5	100	15	N	2,000	10	N	N	15,000	30
M071B02	N	20	20	70	500	70	N	100	50	N	3,000	N	N	N	15,000	50
M072B02	N	30	10	100	500	N	<5	150	20	N	2,000	20	N	N	10,000	70
M073B02	N	70	10	20	500	100	7	100	5	N	700	N	N	N	5,000	10
M074B02	<1	20	7	70	500	N	N	150	15	N	3,000	N	N	N	15,000	70
M075B02	N	10	7	50	500	50	5	100	15	N	2,000	N	N	N	20,000	50
M076B02	N	70	30	N	700	N	7	200	20	N	1,500	20	N	N	15,000	70
M077B02	N	100	5	70	500	N	N	70	20	N	1,000	N	N	N	20,000	70
M078B02	<1	20	20	N	700	N	<5	300	10	N	1,500	N	N	N	7,000	30

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M081B02	63 24 11	155 25 54	.1	10	.7	.015	>10,000	.15	500	3,000	<.5
M083B02	63 27 42	155 24 9	.1	10	.7	.02	>10,000	.3	300	2,000	<.5
M084B02	63 28 7	155 28 50	.15	>10	.7	.03	1,500	<.1	300	2,000	N
M085B02	63 28 15	155 31 43	.1	>10	1	.01	5,000	.3	300	7,000	<.5
M086B02	63 24 23	155 35 19	.15	10	2	.015	>10,000	.5	200	2,000	<.5
M087B02	63 28 1	155 35 6	.07	10	1	.01	>10,000	.7	500	7,000	.5
M088B02	63 23 8	155 34 29	.1	10	.7	.015	>10,000	.1	200	1,500	<.5
M090B02	63 22 23	155 38 16	.15	10	.7	.02	>10,000	.5	500	1,500	.5
M091B02	63 20 12	155 37 55	.2	10	1	.03	>10,000	.2	500	2,000	.5
M092B02	63 19 37	155 33 15	.2	10	1	.03	7,000	.1	300	1,500	.5
M094B02	63 19 35	155 22 26	.2	10	.7	.02	10,000	.2	300	5,000	<.5
M096B02	63 21 41	155 21 13	.2	>10	1	.05	>10,000	.3	300	7,000	.5
M097B02	63 16 56	155 42 15	.1	>10	1	.02	>10,000	.3	500	5,000	.7
M098B02	63 1 50	155 31 44	.2	10	.7	.02	>10,000	.3	500	7,000	.5
M099B02	63 0 47	155 40 25	.1	10	.7	.015	10,000	.3	300	7,000	<.5
M100B02	63 0 40	155 49 28	.15	10	1	.05	>10,000	.1	500	1,500	.7
M101B02	63 3 1	155 51 42	.07	10	.5	.01	10,000	.2	300	5,000	<.5
M102B02	63 2 59	155 54 52	.1	10	.7	.015	>10,000	.1	500	10,000	.5
M103B02	63 5 20	155 48 8	.2	10	1.5	.02	>10,000	.3	500	7,000	.5
M104B02	63 5 3	155 56 8	.3	10	1	.05	5,000	.5	300	15,000	.5
M105B02	63 4 53	155 52 12	.2	>10	1	.02	>10,000	.3	500	10,000	.5
M106B02	63 7 24	155 57 52	.2	10	1	.03	>10,000	.2	700	7,000	N
M108B02	63 11 57	155 49 39	.1	>10	.7	.01	>10,000	.2	500	10,000	<.5
M110B02	63 14 9	155 55 17	.2	10	1	.03	>10,000	.5	300	5,000	.5
M111B02	63 13 13	155 59 44	.1	10	1	.015	>10,000	.15	300	1,500	.5
M112B02	63 13 48	155 45 16	.07	10	.7	.01	1,000	<.1	300	5,000	<.5
M113B02	63 12 56	155 42 29	.3	>10	.7	.07	>10,000	.7	300	5,000	.7
M114B02	63 20 24	155 55 46	.07	10	.7	.01	1,500	1.5	300	7,000	<.5
M115B02	63 16 49	155 58 22	.15	10	1	.02	10,000	.3	300	10,000	N
M116B02	63 20 41	155 46 43	.2	10	.7	.03	10,000	.1	300	7,000	N
M118B02	63 20 23	155 46 33	.1	>10	.7	.02	>10,000	.2	300	7,000	.5
M119B02	63 17 47	155 40 55	.1	>10	.7	.02	3,000	.2	300	7,000	<.5
M121B02	63 22 36	155 49 39	.1	5	.5	.015	7,000	.1	200	7,000	<.5
M123B02	63 26 43	155 47 12	.15	10	.7	.02	>10,000	.1	500	3,000	.5
M124B02	63 26 23	155 42 31	.15	10	1	.05	1,500	.2	300	7,000	<.5
M125B02	63 28 13	155 44 59	.2	10	1	.03	>10,000	.5	500	1,500	.5
M126B02	63 26 13	155 42 31	.2	10	.5	.07	2,000	.3	300	20,000	.5
M127B02	63 29 9	155 57 50	.07	>10	.7	.01	2,000	.15	300	2,000	.5
M128B02	63 26 10	155 59 34	.15	>10	.7	.05	>10,000	.2	500	7,000	.7
M129B02	63 29 42	155 46 23	.15	>10	1	.02	>10,000	.2	500	5,000	.5
M130B02	63 25 52	155 59 37	.1	>10	.7	.02	10,000	.2	500	10,000	.5
M131B02	63 52 47	155 9 15	.07	10	.7	.015	5,000	.2	200	3,000	<.5
M132B02	63 29 6	155 53 23	.5	>10	1	.1	5,000	.7	300	15,000	.5
M133B02	63 51 50	155 7 54	.2	>10	.7	.05	>10,000	.5	500	20,000	.7
M134B02	63 29 18	155 53 52	.1	10	.7	.02	7,000	.1	300	7,000	<.5
M135B02	63 51 36	155 3 28	.2	>10	1.5	.015	10,000	N	500	>20,000	.7
M136B02	63 29 14	155 37 5	.07	10	.5	.007	3,000	.7	500	7,000	.5
M137B02	63 54 26	155 3 5	.1	>10	.7	.015	7,000	.3	300	10,000	.5
M139B02	63 54 47	155 3 1	.1	>10	3	.01	>10,000	N	500	>20,000	.7
M140B02	63 56 17	155 3 32	.15	>10	1	.02	>10,000	.15	300	5,000	.7
M141B02	63 59 15	155 5 7	.1	>10	.7	.015	5,000	.3	300	5,000	<.5
M142B02	63 52 26	155 16 46	.1	>10	.7	.015	10,000	.1	300	7,000	<.5
M143B02	63 54 35	155 18 34	.1	>10	.7	.03	5,000	.15	300	7,000	.5
M144B02	63 57 8	155 19 31	.1	>10	1	.015	>10,000	.2	300	10,000	.5
M145B02	63 58 27	155 16 37	.15	>10	.7	.03	>10,000	.3	300	10,000	.5
M146B02	63 56 44	155 12 11	.1	10	.7	.01	>10,000	.2	300	5,000	.5
M147B02	63 56 32	155 11 29	.2	>10	.7	.05	3,000	.3	300	10,000	.5
M148B02	63 57 25	155 10 16	.3	>10	1	.07	10,000	.2	300	10,000	.7
M149B02	63 55 21	155 6 51	.1	>10	.7	.015	>10,000	.3	300	7,000	.7
M150B02	63 31 30	154 14 54	.1	>10	.7	.01	>10,000	.15	500	3,000	.5

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M081B02	N	70	30	N	500	N	5	100	20	N	2,000	N	N	N	15,000	15
M083B02	N	100	20	N	500	N	N	100	20	N	1,500	10	N	N	10,000	20
M084B02	N	3	7	N	500	N	20	50	30	N	3,000	10	N	N	10,000	20
M085B02	N	10	5	N	500	50	N	150	15	N	2,000	N	N	N	10,000	15
M086B02	N	20	10	N	500	N	N	150	15	N	700	10	N	N	10,000	20
M087B02	N	100	50	N	500	N	N	150	10	N	1,000	<5	N	N	10,000	15
M088B02	N	50	10	N	500	N	N	100	10	N	700	10	N	<10	10,000	20
M090B02	N	50	50	N	500	N	N	70	20	N	1,000	10	N	N	10,000	30
M091B02	N	70	70	N	500	N	<5	100	20	N	1,500	15	N	N	15,000	50
M092B02	N	20	5	N	500	50	20	70	30	N	2,000	20	N	N	10,000	50
M094B02	N	10	20	N	300	20	<5	200	70	N	1,000	N	N	N	7,000	30
M096B02	N	70	10	N	300	N	5	150	30	N	1,500	15	N	N	10,000	70
M097B02	N	70	50	N	500	N	N	200	20	N	700	10	N	N	20,000	30
M098B02	N	50	10	N	500	N	5	70	20	N	3,000	15	N	N	15,000	30
M099B02	7	50	30	N	500	N	N	200	50	N	1,500	N	N	N	10,000	20
M100B02	N	50	50	N	500	N	N	100	20	N	700	15	N	N	20,000	50
M101B02	3	15	15	N	300	N	10	300	10	N	1,000	N	N	N	3,000	10
M102B02	N	20	100	N	300	N	20	300	10	N	2,000	10	N	N	10,000	15
M103B02	5	70	50	N	700	N	N	100	30	N	1,000	10	N	N	15,000	30
M104B02	3	20	10	N	500	50	N	100	20	N	3,000	20	N	N	10,000	50
M105B02	5	50	20	N	700	50	5	100	30	N	2,000	15	N	N	15,000	30
M106B02	3	30	70	50	700	50	10	150	15	N	1,500	20	N	N	15,000	30
M108B02	N	20	20	N	500	N	15	150	20	N	1,000	<5	N	N	10,000	15
M110B02	N	50	30	N	300	N	N	100	20	N	1,000	10	N	N	15,000	50
M111B02	N	20	20	N	700	N	N	100	10	N	1,000	N	N	N	15,000	20
M112B02	N	2	<5	N	500	50	10	150	10	7	1,000	N	N	N	7,000	15
M113B02	N	30	20	N	300	N	<5	100	30	<5	700	30	N	N	15,000	70
M114B02	N	7	5	N	300	70	30	150	10	<5	1,000	N	N	N	7,000	10
M115B02	N	15	7	N	700	N	N	70	20	N	1,500	N	N	N	20,000	20
M116B02	N	50	50	N	500	N	N	150	15	N	1,500	N	N	N	20,000	30
M118B02	N	50	100	N	500	N	N	100	15	N	1,500	10	N	N	20,000	20
M119B02	N	10	10	N	500	70	10	300	10	<5	1,500	N	N	N	10,000	20
M121B02	N	20	10	N	500	N	N	150	10	N	1,000	N	N	N	10,000	15
M123B02	N	30	10	N	700	100	N	150	20	<5	1,500	15	N	N	15,000	30
M124B02	N	15	5	N	500	50	10	100	20	N	3,000	N	N	N	15,000	30
M125B02	N	70	20	N	500	N	N	70	20	N	500	10	N	N	20,000	50
M126B02	N	20	15	N	300	N	15	200	15	<5	3,000	N	N	<10	10,000	70
M127B02	N	7	7	N	300	N	10	100	10	N	1,500	N	N	N	10,000	10
M128B02	N	15	15	N	700	N	N	100	10	N	7,000	15	N	N	15,000	50
M129B02	N	50	20	N	500	N	N	150	15	N	2,000	10	N	N	15,000	30
M130B02	N	30	20	N	700	50	<5	200	30	5	1,500	N	N	N	10,000	20
M131B02	N	20	5	N	700	70	15	150	20	<5	1,000	N	N	N	15,000	15
M132B02	N	50	30	N	500	100	7	300	20	7	1,500	50	N	20	15,000	100
M133B02	N	70	20	N	500	N	N	100	10	30	2,000	20	N	N	10,000	70
M134B02	<1	7	5	N	700	50	20	100	70	7	5,000	N	N	N	10,000	20
M135B02	N	20	50	N	500	N	N	300	5	5	5,000	N	N	N	7,000	50
M136B02	<1	50	7	N	500	70	5	200	10	N	2,000	N	N	N	10,000	10
M137B02	N	20	10	N	700	N	7	300	15	N	2,000	N	N	N	10,000	20
M139B02	N	30	70	N	700	N	N	100	7	N	3,000	N	N	N	5,000	20
M140B02	N	20	50	N	500	N	N	150	15	N	2,000	N	N	N	15,000	30
M141B02	<1	20	7	N	500	N	N	150	15	N	1,500	N	N	N	10,000	20
M142B02	<1	20	5	N	500	50	N	150	10	N	1,500	N	N	N	7,000	20
M143B02	N	15	7	N	500	50	30	70	10	N	5,000	N	N	N	7,000	30
M144B02	N	50	20	N	700	N	7	200	10	N	1,000	10	N	N	15,000	15
M145B02	N	20	<5	N	500	N	N	70	10	N	1,500	15	N	N	10,000	30
M146B02	N	30	15	N	500	N	N	150	15	N	1,000	N	N	N	10,000	15
M147B02	N	10	10	N	500	N	10	70	20	N	3,000	15	N	N	15,000	50
M148B02	N	50	20	N	500	N	15	200	20	N	3,000	20	N	N	15,000	50
M149B02	N	50	<5	N	500	70	N	100	10	N	2,000	N	N	N	10,000	20
M150B02	N	20	50	N	500	N	N	70	15	N	1,500	10	N	N	10,000	15

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M152B02	63 33 22	154 11 46	.2	10	1	.03	>10,000	.2	300	3,000	.5
M154B02	63 33 51	154 2 47	.3	7	.7	.05	10,000	.5	300	2,000	.5
M155B02	63 34 14	154 4 5	.1	10	.7	.02	7,000	.3	300	1,500	<.5
M156B02	63 33 33	154 2 56	.15	10	1	.02	2,000	.15	300	1,500	<.5
M157B02	63 36 30	154 4 23	.1	10	.7	.015	10,000	.15	300	1,500	<.5
M160B02	63 31 26	154 2 6	.15	>10	1	.05	>10,000	.2	300	7,000	.5
M163B02	63 43 21	153 54 38	.2	5	1	.05	5,000	.7	200	5,000	.5
M165B02	63 44 51	153 55 24	1	10	1	.1	5,000	.7	200	2,000	.5
M166B02	63 39 51	153 50 21	.1	10	1	.02	2,000	.1	200	1,000	.5
M171B02	63 7 38	155 8 42	.2	>10	1	.07	>10,000	1	300	7,000	.5
M172B02	63 9 13	155 3 22	.1	10	.7	.02	1,500	.5	200	2,000	.5
M175B02	63 14 47	154 52 45	.2	10	1	.05	>10,000	.2	300	2,000	<.5
M176B02	63 14 21	154 53 29	.1	10	.7	.02	3,000	<.1	200	2,000	<.5
M177B02	63 17 29	154 46 44	.15	10	.7	.07	10,000	.15	300	5,000	<.5
M178B02	63 16 7	154 46 38	.15	>10	.7	.05	>10,000	.5	300	7,000	.7
M179B02	63 20 32	154 41 28	.07	10	1	.02	3,000	.3	300	2,000	N
M180B02	63 18 15	154 41 35	.15	>10	.7	.03	>10,000	.1	300	5,000	.5
M181B02	63 22 39	154 41 3	.15	>10	.7	.05	10,000	N	500	10,000	.5
M182B02	63 21 1	154 38 26	.15	>10	1	.05	10,000	.1	500	7,000	<.5
M183B02	63 22 35	154 31 35	.1	7	.7	.03	10,000	.1	200	3,000	<.5
M184B02	63 21 11	154 37 22	.2	>10	.7	.05	>10,000	<.1	500	5,000	.5
M185B02	63 23 40	154 46 20	.15	>10	.7	.05	>10,000	.1	500	>20,000	.5
M186B02	63 23 14	154 44 30	.1	>10	1.5	.03	10,000	.15	500	20,000	<.5
M187B02	63 21 2	154 53 4	.15	10	.7	.05	>10,000	.5	300	7,000	1
M188B02	63 23 3	154 47 46	.3	>10	.7	.05	7,000	.2	300	10,000	.7
M189B02	63 21 15	154 59 1	.5	10	.7	.07	7,000	1	200	7,000	.5
M190B02	63 20 39	154 56 56	.3	>10	.7	.07	2,000	.5	300	7,000	.5
M191B02	63 20 7	155 3 38	.2	10	.7	.05	10,000	.3	300	5,000	.5
M192B02	63 20 42	155 0 27	.15	>10	.7	.03	3,000	N	300	10,000	.5
M193B02	63 23 29	155 5 11	.2	10	.7	.05	10,000	.5	300	10,000	.5
M195B02	63 26 11	155 7 52	.2	>10	.7	.07	>10,000	1	500	1,500	.7
M197B02	63 26 39	155 16 32	.2	>10	1	.07	>10,000	.3	300	3,000	.7
M198B02	63 25 47	155 12 40	.3	>10	1	.07	5,000	.15	500	7,000	.5
M199B02	63 46 21	153 52 50	.2	10	1	.07	>10,000	.15	300	10,000	.5
M200B02	63 28 16	155 21 16	.1	10	.7	.015	10,000	.1	300	7,000	N
M201B02	63 46 40	153 48 48	.1	10	.7	.02	3,000	.2	300	2,000	.5
M202B02	63 49 19	153 47 37	.1	10	.7	.03	7,000	N	200	1,500	.5
M203B02	63 52 0	153 37 38	.1	10	.5	.02	1,500	.5	300	700	<.5
M204B02	63 54 48	153 33 33	.15	10	.7	.05	2,000	.1	300	1,000	.7
M205B02	63 56 22	153 33 12	.5	>10	.7	.1	7,000	.3	300	10,000	.5
M206B02	63 54 46	153 29 54	.1	10	.7	.02	2,000	.5	300	3,000	<.5
M207B02	63 58 11	153 18 17	.1	>10	1	.03	7,000	.3	300	5,000	.5
M208B02	63 56 59	153 12 34	.3	10	1	.07	>10,000	.15	300	7,000	3
M209B02	63 57 5	153 5 28	.1	>10	.7	.015	7,000	.5	300	10,000	.5
M210B02	63 58 1	153 3 43	.1	>10	.7	.01	>1,000	.5	200	10,000	.5
M211B02	63 56 39	153 7 17	.1	>10	.7	.015	7,000	<.1	300	10,000	.5
M212B02	63 56 2	153 0 32	.3	>10	.7	.1	>10,000	1.5	500	7,000	.7
M213B02	63 52 44	153 5 29	.3	7	1	.1	>10,000	.5	500	7,000	.7
M214B02	63 43 52	154 4 17	.2	10	.5	.05	5,000	<.1	150	7,000	.5
M215B02	63 51 24	153 19 25	.1	10	.7	.02	10,000	.2	200	10,000	.7
M216B02	63 50 30	153 18 21	.1	10	1	.015	>10,000	.5	500	10,000	.7
M217B02	63 49 0	153 13 31	.1	10	.7	.02	7,000	.3	300	7,000	.5
M218B02	63 47 44	153 16 53	.1	7	.7	.015	3,000	.1	300	5,000	.5
M219B02	63 46 25	153 19 15	.5	7	.5	.02	1,500	N	500	7,000	.5
M220B02	63 45 38	153 12 14	.2	7	1	.07	>10,000	.2	300	10,000	.7
M221B02	63 46 21	153 2 33	.07	10	.7	.02	10,000	.15	300	7,000	.7
M222B02	63 49 36	153 5 59	.15	10	1	.03	>10,000	.15	500	2,000	.5
M223B02	63 51 4	153 9 2	.2	10	.7	.05	3,000	.15	300	7,000	.5
M224B02	63 51 47	153 8 23	.3	>10	1	.1	2,000	.15	300	7,000	.7
M226B02	63 53 13	153 15 1	.7	>10	1	.3	10,000	.3	300	10,000	.7

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M152B02	N	30	15	N	700	N	N	100	20	N	2,000	20	N	N	20,000	30
M154B02	N	20	30	N	500	N	N	70	30	N	700	N	N	N	15,000	50
M155B02	N	20	10	N	500	N	N	70	20	N	500	N	N	N	20,000	15
M156B02	N	10	10	N	300	100	N	50	30	N	700	N	N	N	10,000	20
M157B02	N	30	20	N	700	70	N	150	10	N	300	N	N	N	7,000	20
M160B02	N	30	20	N	500	N	N	100	30	N	700	N	N	N	15,000	50
M163B02	N	15	7	N	500	N	N	200	30	N	1,500	15	N	N	15,000	50
M165B02	N	20	10	N	500	100	15	150	20	N	1,000	50	N	<10	10,000	200
M166B02	N	7	5	N	300	N	30	50	20	N	500	N	N	N	7,000	15
M171B02	N	50	30	N	500	N	15	150	30	N	1,500	30	N	N	15,000	50
M172B02	20	1.5	<5	N	500	N	10	30	30	10	1,500	N	N	N	7,000	20
M175B02	N	30	7	N	500	N	7	100	30	N	700	15	N	N	20,000	50
M176B02	N	15	15	N	700	N	30	100	15	<5	500	N	N	N	7,000	20
M177B02	N	15	10	N	500	70	N	100	20	5	1,000	N	N	N	15,000	50
M178B02	1.5	50	30	N	500	N	N	300	70	<5	1,500	10	N	N	15,000	30
M179B02	70	10	15	N	500	50	30	100	15	20	2,000	N	N	N	10,000	15
M180B02	5	30	15	N	500	N	N	100	20	5	500	15	N	N	20,000	50
M181B02	N	10	20	N	700	N	10	70	10	5	5,000	N	N	N	10,000	50
M182B02	<1	20	10	N	700	N	N	100	10	N	1,000	N	N	N	15,000	30
M183B02	N	15	5	N	300	N	N	50	10	N	700	N	N	N	10,000	15
M184B02	7	30	20	N	500	N	N	100	20	N	1,000	20	N	N	20,000	50
M185B02	<1	50	20	N	700	N	N	200	20	N	5,000	N	N	N	15,000	50
M186B02	20	15	10	N	700	N	10	300	15	5	3,000	N	N	N	15,000	30
M187B02	N	50	20	N	500	N	N	150	15	N	1,000	20	N	N	15,000	50
M188B02	50	30	15	N	700	100	N	200	20	15	2,000	20	N	N	15,000	50
M189B02	3	20	15	N	500	70	N	150	30	7	1,500	30	N	<10	7,000	70
M190B02	N	3	15	N	700	50	10	200	10	5	1,500	30	N	N	10,000	70
M191B02	1.5	15	10	N	700	N	N	100	30	5	1,000	20	N	N	20,000	50
M192B02	1	20	7	N	500	50	N	100	20	10	1,500	N	N	N	10,000	30
M193B02	N	30	10	N	700	70	N	300	20	<5	1,500	20	N	N	15,000	50
M195B02	N	30	150	N	700	N	N	100	50	7	1,000	30	N	N	15,000	100
M197B02	N	30	20	N	500	N	15	100	20	5	1,500	20	N	N	20,000	70
M198B02	N	20	20	N	500	70	N	100	30	10	1,500	20	N	N	20,000	70
M199B02	N	50	15	N	500	N	N	150	15	N	1,000	20	N	N	10,000	50
M200B02	N	10	5	N	700	N	15	200	10	15	1,500	N	N	N	10,000	15
M201B02	15	2	5	N	500	50	30	70	7	15	1,000	N	N	N	10,000	20
M202B02	20	20	<5	N	500	N	5	50	15	5	700	N	N	N	15,000	20
M203B02	70	2	7	N	700	70	7	100	10	10	500	N	N	N	10,000	20
M204B02	50	5	7	N	500	50	10	50	20	5	1,000	N	N	N	20,000	30
M205B02	3	20	10	N	700	N	N	200	20	5	2,000	30	N	N	10,000	100
M206B02	<1	10	<5	N	500	50	N	100	10	<5	1,500	N	N	N	10,000	20
M207B02	<1	50	5	N	500	N	N	150	20	<5	1,500	N	N	N	15,000	30
M208B02	N	20	20	20	700	70	N	100	30	5	1,500	20	N	50	15,000	100
M209B02	N	50	10	N	700	50	20	500	20	<5	1,500	N	N	N	10,000	15
M210B02	N	70	100	N	700	N	N	300	10	20	1,500	N	N	N	10,000	15
M211B02	<1	70	15	N	700	N	<5	200	7	N	1,000	N	N	N	7,000	15
M212B02	50	50	70	N	500	N	N	100	20	N	1,500	20	N	N	20,000	100
M213B02	3	50	20	N	300	100	N	150	15	N	1,000	50	N	20	20,000	100
M214B02	5	20	20	N	500	100	7	70	20	N	1,500	N	N	N	10,000	50
M215B02	<1	30	30	N	500	N	N	150	15	N	1,500	N	N	N	10,000	20
M216B02	<1	50	100	N	300	N	10	300	30	N	1,500	N	N	N	15,000	20
M217B02	<1	30	10	N	300	N	30	200	5	30	2,000	N	N	N	7,000	20
M218B02	<1	20	15	N	500	50	20	150	7	<5	1,500	N	N	N	7,000	15
M219B02	N	10	7	N	150	100	<5	50	7	N	1,000	N	N	N	5,000	70
M220B02	<1	70	70	N	500	N	10	200	15	N	1,000	20	N	<10	15,000	70
M221B02	<1	50	70	N	500	N	5	300	10	<5	1,500	N	N	N	7,000	15
M222B02	N	50	10	N	500	N	<5	100	30	N	700	10	N	N	15,000	50
M223B02	<1	30	10	N	500	50	10	150	20	<5	1,500	N	N	N	15,000	50
M224B02	N	15	10	N	500	50	10	100	20	<5	2,000	20	N	20	10,000	100
M226B02	N	30	30	N	500	100	7	200	20	5	2,000	50	N	30	15,000	300

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M227B02	63 54 46	153 14 2	.3	10	.5	.07	>10,000	.5	200	7,000	.5
M228B02	63 55 19	153 20 52	.1	10	.5	.02	7,000	.15	300	2,000	<.5
M229B02	63 53 33	153 23 19	.5	10	.7	.1	1,500	.2	200	2,000	.7
M230B02	63 53 47	153 21 41	.2	10	1	.05	>10,000	.7	500	3,000	.5
M231B02	63 50 44	153 25 25	.15	10	1	.05	>10,000	.3	500	7,000	.5
M232B02	63 48 51	153 28 38	.15	10	.7	.02	1,500	.7	300	5,000	.5
M233B02	63 28 59	154 15 26	.2	>10	.5	.05	3,000	.3	300	2,000	.7
M235B02	63 30 0	154 4 10	.3	10	.7	.05	10,000	.7	500	10,000	.7
M236B02	63 28 41	154 8 14	.15	>10	.7	.05	2,000	1	500	1,500	.5
M239B02	63 28 41	154 6 28	.2	10	.7	.05	5,000	.15	300	1,500	<.5
M240B02	63 27 34	154 9 27	.2	10	1	.03	>10,000	.2	200	2,000	.5
M243B02	63 25 9	154 12 8	.3	10	1	.07	>10,000	.5	300	2,000	.7
M249B02	63 24 52	154 23 31	.2	>10	.7	.05	700	N	300	2,000	.5
M250B02	63 43 47	154 20 7	.1	10	.7	.02	7,000	.3	200	10,000	<.5
M251B02	63 44 5	154 20 26	.1	>10	1	.05	>10,000	.15	500	7,000	.5
M252B02	63 43 42	154 15 29	.15	>10	1	.02	10,000	.2	300	10,000	.5
M253B02	63 47 43	154 13 20	.07	>10	.7	.015	10,000	.1	200	10,000	.7
M254B02	63 48 17	154 18 17	.2	10	1	.05	5,000	.15	300	7,000	.5
M255B02	63 51 14	154 24 3	1	10	1	.3	1,500	.2	200	7,000	.5
M256B02	63 53 2	154 28 1	1	>10	.7	.2	1,500	.5	200	7,000	.5
M257B02	63 55 17	154 23 23	.2	>10	1.5	.07	>10,000	.2	500	5,000	.7
M259B02	63 55 42	154 21 36	.1	>10	1	.015	2,000	<.1	300	5,000	.5
M260B02	63 58 54	154 21 9	.2	>10	.7	.02	7,000	.2	500	15,000	.5
M261B02	63 57 57	154 9 51	.15	7	1	.03	1,500	.1	200	1,500	<.5
M262B02	63 56 46	154 11 29	.15	>10	.7	.05	3,000	.1	300	7,000	.7
M263B02	63 56 25	154 11 20	.2	>10	.7	.05	2,000	N	300	7,000	.5
M264B02	63 52 36	154 10 33	.15	10	1	.07	>10,000	.2	300	1,500	.7
M265B02	63 50 24	154 5 49	.1	7	.7	.02	>10,000	.5	300	7,000	.7
M266B02	63 49 10	154 4 21	.15	10	.7	.03	10,000	.15	200	3,000	.5
M267B02	63 46 22	154 8 13	.2	>10	.7	.05	>10,000	.2	500	7,000	.7
M268B02	63 44 50	154 7 46	.07	10	.5	.01	5,000	.2	300	1,500	N
M270B02	63 42 12	154 4 54	.15	>10	.7	.03	2,000	.1	300	2,000	.5
M271B02	63 6 35	154 8 33	.5	10	.7	.07	10,000	.5	500	5,000	<.5
M272B02	63 7 12	153 56 13	.1	5	1	.02	>10,000	.1	300	1,500	.5
M274B02	63 10 21	153 54 0	.2	10	.7	.05	2,000	<.1	200	2,000	.5
M275B02	63 13 51	153 50 6	.3	>10	1	.07	2,000	.7	300	2,000	.5
M276B02	63 14 4	153 50 38	.15	>10	.5	.02	3,000	.2	200	2,000	<.5
M277B02	63 17 42	153 53 29	.2	10	.7	.07	10,000	.2	500	10,000	.5
M278B02	63 11 19	154 2 11	.2	>10	.7	.05	>10,000	.1	300	5,000	.7
M279B02	63 25 31	154 29 15	.2	10	1	.05	5,000	.5	200	7,000	.5
M280B02	63 19 11	154 20 30	.3	10	.7	.07	>10,000	1	300	20,000	.5
M281B02	63 19 38	154 9 55	.07	>10	.5	.005	10,000	N	200	7,000	<.5
M282B02	63 20 15	154 0 55	.2	>10	.7	.05	7,000	.15	200	5,000	.5
M283B02	63 16 37	154 16 41	.2	10	1	.03	>10,000	.15	300	7,000	<.5
M284B02	63 1 45	153 4 32	.1	>10	1	.03	>10,000	.2	300	10,000	.7
M285B02	63 2 36	153 7 58	.07	7	.7	.01	3,000	N	200	7,000	<.5
M286B02	63 3 50	153 10 57	.2	>10	.7	.03	3,000	.15	200	5,000	.5
M287B02	63 6 55	153 6 27	.15	>10	1	.05	>10,000	.5	300	5,000	N
M288B02	63 8 43	153 2 14	.15	>10	.7	.05	>10,000	1.5	300	7,000	.5
M289B02	63 14 4	153 4 41	.2	>10	1	.03	>10,000	.7	300	7,000	.5
M290B02	63 13 25	153 10 1	.15	10	.5	.02	7,000	.2	200	7,000	.5
M291B02	63 12 10	153 15 36	.2	>10	.7	.05	>10,000	.2	300	5,000	.7
M292B02	63 37 5	155 21 28	.15	7	1	.03	10,000	.7	300	10,000	.5
M293B02	63 41 22	155 34 18	.005	10	.5	.002	>10,000	.5	200	7,000	.5
M294B02	63 44 51	155 39 58	.2	>10	.7	.05	10,000	.5	300	7,000	.5
M295B02	63 43 57	155 42 9	.3	>10	.7	.07	5,000	.3	300	7,000	.5
M296B02	63 42 54	155 44 20	.15	>10	.7	.02	5,000	.7	300	10,000	.5
M297B02	63 45 16	155 48 48	.15	10	.7	.03	>10,000	.1	300	10,000	.7
M298B02	63 42 10	155 55 48	.007	>10	.5	.01	10,000	.1	200	10,000	.5
M299B02	63 41 12	155 56 21	.007	>10	1	.015	>10,000	1	300	10,000	<.5

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M227B02	N	30	30	N	500	N	5	150	10	N	1,000	15	N	N	10,000	70
M228B02	N	30	10	N	500	30	N	70	10	<5	700	N	N	N	10,000	20
M229B02	<1	10	10	N	500	70	10	100	15	<5	500	50	N	<10	10,000	100
M230B02	N	50	20	N	500	N	N	70	20	<5	1,000	20	N	N	>20,000	50
M231B02	N	30	7	N	500	N	5	70	20	<5	2,000	N	N	N	7,000	50
M232B02	N	15	5	N	500	50	20	100	7	N	700	N	N	N	10,000	20
M233B02	<1	15	70	N	500	30	N	150	20	5	500	N	N	N	7,000	30
M235B02	<1	15	30	N	700	70	N	100	20	N	1,500	20	N	N	20,000	50
M236B02	N	10	7	N	700	N	30	70	20	10	700	N	N	N	15,000	30
M239B02	N	10	10	N	500	N	<5	50	20	<5	500	N	N	N	10,000	20
M240B02	<1	30	15	N	300	N	N	70	30	<5	1,000	15	N	N	15,000	30
M243B02	N	50	50	N	500	N	N	150	30	<5	700	20	N	N	20,000	70
M249B02	N	N	<5	N	100	50	20	30	15	<5	3,000	N	N	N	7,000	30
M250B02	N	20	70	N	700	70	N	300	20	<5	1,500	N	N	N	7,000	20
M251B02	N	50	15	N	500	N	<5	100	15	<5	3,000	10	N	N	15,000	30
M252B02	N	70	20	N	700	N	N	500	10	<5	2,000	N	N	N	15,000	20
M253B02	N	30	10	N	500	N	N	200	15	N	1,000	N	N	N	10,000	15
M254B02	N	50	10	N	500	100	N	70	30	5	1,500	N	N	N	15,000	50
M255B02	N	10	10	N	500	100	7	150	15	<5	1,000	50	N	20	20,000	300
M256B02	N	7	7	N	500	100	50	100	10	<5	700	30	N	<10	10,000	200
M257B02	3	50	50	N	500	N	5	100	150	N	500	20	N	N	>20,000	70
M259B02	N	7	10	N	500	N	10	70	7	5	1,000	N	N	N	15,000	20
M260B02	1	70	15	N	700	50	<5	200	10	<5	2,000	15	N	N	10,000	50
M261B02	<1	15	7	N	500	70	10	200	15	<5	1,500	20	N	N	7,000	30
M262B02	<1	20	15	N	300	N	10	70	20	<5	5,000	N	N	N	15,000	50
M263B02	N	10	15	N	300	N	15	200	20	5	5,000	20	N	N	10,000	50
M264B02	N	30	20	N	500	50	N	100	15	N	1,000	10	N	N	20,000	50
M265B02	<1	70	50	N	500	N	N	200	10	N	700	N	N	N	15,000	20
M266B02	N	30	5	N	300	100	7	50	10	<5	1,000	N	N	N	10,000	20
M267B02	N	50	10	N	500	N	N	150	20	<5	1,000	20	N	N	15,000	50
M268B02	N	20	7	N	500	N	N	70	7	<5	1,000	N	N	N	7,000	10
M270B02	N	7	7	N	300	20	10	50	10	5	1,500	N	N	N	10,000	50
M271B02	N	20	10	20	300	50	N	100	20	<5	2,000	50	N	N	10,000	70
M272B02	N	50	20	N	300	N	10	100	7	N	700	10	N	N	10,000	20
M274B02	N	30	<5	N	700	50	N	100	15	<5	1,500	10	N	N	7,000	30
M275B02	N	7	5	N	500	50	20	150	20	10	1,500	30	N	N	10,000	50
M276B02	N	10	7	N	500	N	7	150	10	<5	2,000	15	N	N	10,000	30
M277B02	N	30	10	N	300	50	N	100	30	5	2,000	20	N	<10	15,000	70
M278B02	N	70	5	N	500	N	50	100	15	5	2,000	20	N	N	10,000	50
M279B02	N	10	5	N	500	70	20	300	30	<5	2,000	20	N	N	7,000	50
M280B02	N	70	20	N	300	100	10	300	15	5	1,500	20	N	<10	15,000	70
M281B02	7	50	70	N	500	N	15	150	10	N	1,000	N	N	N	7,000	<10
M282B02	N	20	7	N	500	100	7	100	15	<5	2,000	N	N	N	10,000	30
M283B02	<1	30	20	N	500	50	N	200	30	<5	1,000	15	N	N	20,000	30
M284B02	N	50	100	N	700	N	20	300	10	N	2,000	20	N	N	15,000	30
M285B02	N	15	10	N	300	N	10	200	7	N	1,500	15	N	N	5,000	15
M286B02	N	7	7	N	500	N	15	150	10	<5	2,000	N	N	N	10,000	30
M287B02	N	70	50	N	300	N	N	100	30	N	1,000	20	N	N	15,000	50
M288B02	N	30	50	N	500	N	N	100	10	<5	2,000	N	N	N	15,000	30
M289B02	N	20	70	N	500	N	N	150	10	5	1,500	N	N	N	10,000	50
M290B02	<1	10	10	N	500	N	5	300	30	N	1,000	N	N	N	10,000	20
M291B02	N	50	70	N	500	N	10	200	10	N	1,000	20	N	N	10,000	70
M292B02	<1	30	100	N	500	100	N	300	20	N	2,000	N	N	N	20,000	30
M293B02	N	30	15	N	300	50	15	200	7	N	700	N	N	N	7,000	N
M294B02	N	50	70	N	500	100	N	500	15	<5	1,000	N	N	N	15,000	50
M295B02	N	15	70	N	500	50	10	200	10	<5	2,000	N	N	20	10,000	70
M296B02	N	20	50	N	500	N	N	200	15	N	1,500	N	N	N	7,000	20
M297B02	N	20	50	N	500	N	N	100	7	N	1,500	15	N	N	10,000	50
M298B02	N	20	30	N	500	50	10	150	5	<5	1,500	N	N	N	7,000	10
M299B02	N	30	50	N	500	N	N	200	7	N	1,500	N	N	N	15,000	20

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M300B02	63 40 7	155 54 36	.2	>10	1	.05	5,000	.3	300	7,000	.5
M301B02	63 38 39	155 47 39	.007	>10	1	.015	>10,000	.5	300	15,000	.7
M302B02	63 36 36	155 58 0	.1	>10	1	.02	>10,000	.15	300	7,000	.7
M303B02	63 35 28	155 58 28	.3	>10	.7	.05	7,000	.1	200	5,000	<.5
M304B02	63 36 10	155 57 7	.1	>10	.7	.02	5,000	.1	300	7,000	.5
M305B02	63 33 15	155 59 28	.1	>10	.7	.015	>10,000	.3	300	7,000	.5
M306B02	63 32 52	155 51 23	.1	>10	.7	.02	>10,000	.1	200	7,000	.5
M309B02	63 27 46	154 32 36	.2	--	.5	--	--	.5	--	1,500	.5
M310B02	63 27 32	154 39 5	.2	--	.7	--	--	.3	--	5,000	<.5
M311B02	63 30 20	154 36 2	.2	--	.7	--	--	.2	--	1,500	<.5
M312B02	63 37 41	154 6 37	.1	--	.5	--	--	.2	--	1,500	<.5
M313B02	63 41 37	154 3 51	.5	--	.7	--	--	.3	--	1,500	.5
M314B02	63 41 52	154 3 18	.07	--	.5	--	--	N	--	2,000	.5
M316B02	63 38 17	155 34 25	.3	--	.7	--	--	.5	--	10,000	.5
M317B02	63 36 28	155 29 18	.2	--	.7	--	--	.2	--	5,000	<.5
M318B02	63 40 1	155 29 1	.3	--	1	--	--	.5	--	7,000	.5
M319B02	63 40 23	155 23 48	.07	--	.5	--	--	<.1	--	5,000	.7
M320B02	63 42 28	155 20 37	.1	--	.5	--	--	.1	--	3,000	<.5
M321B02	63 44 20	155 17 49	.2	--	.7	--	--	.2	--	10,000	.7
M322B02	63 43 41	155 14 57	.2	--	.7	--	--	.7	--	7,000	.5
M323B02	63 46 23	155 12 51	.1	--	.7	--	--	.15	--	7,000	.5
M324B02	63 47 40	155 4 46	.2	--	.7	--	--	.1	--	7,000	.5
M325B02	63 48 49	155 11 39	.3	--	1	--	--	.2	--	15,000	.5
M326B02	63 47 0	155 15 52	.1	--	.7	--	--	.3	--	7,000	.5
M327B02	63 41 12	155 0 41	.1	--	1	--	--	.5	--	10,000	<.5
M328B02	63 39 21	155 5 44	.15	--	.7	--	--	.1	--	7,000	<.5
M329B02	63 42 23	155 5 37	.2	--	.7	--	--	.3	--	>20,000	.1
M330B02	63 43 20	155 7 56	.5	--	1	--	--	.3	--	10,000	.5
M331B02	63 42 33	155 9 42	.1	--	.7	--	--	.3	--	2,000	.7
M332B02	63 41 4	155 13 8	.1	--	.5	--	--	.5	--	10,000	.5
M333B02	63 39 15	155 16 47	.3	--	.7	--	--	.2	--	15,000	.7
M334B02	63 38 58	155 17 47	.15	--	.5	--	--	<.1	--	2,000	.5
M335B02	63 36 35	155 17 21	.2	--	1	--	--	1	--	10,000	1
M337B02	63 30 56	155 24 11	.5	--	.7	--	--	.1	--	7,000	<.5
M338B02	63 32 32	153 14 9	.1	--	.7	--	--	.1	--	1,500	.5
M339B02	63 33 29	153 13 53	.1	--	.7	--	--	.5	--	10,000	1
M340B02	63 34 40	153 12 17	.1	--	.7	--	--	.1	--	7,000	.5
M342B02	63 36 5	153 7 4	.1	--	.7	--	--	N	--	1,000	.5
M343B02	63 39 13	153 7 22	.1	--	.7	--	--	1	--	2,000	.5
M344B02	63 42 25	153 6 30	.15	--	.7	--	--	.15	--	7,000	<.5
M345B02	63 31 41	153 2 2	.1	--	1	--	--	N	--	7,000	1
M346B02	63 31 1	153 3 31	.2	--	.5	--	--	.2	--	7,000	.7
M347B02	63 30 8	153 6 47	.15	--	.5	--	--	.2	--	5,000	.5
M348B02	63 28 20	153 8 11	.1	--	.5	--	--	.2	--	7,000	.7
M349B02	63 29 32	153 13 42	.3	--	.5	--	--	.5	--	7,000	.5
M350B02	63 21 34	154 47 14	.2	--	.7	--	--	.1	--	700	<.5
M351B02	63 23 2	154 51 53	.1	--	.7	--	--	.1	--	700	.5
M352B02	63 23 0	154 52 15	.2	--	.7	--	--	<.1	--	7,000	<.5
M353B02	63 26 39	154 57 42	.1	--	1	--	--	.3	--	7,000	.5
M354B02	63 25 13	154 57 50	.2	--	.7	--	--	.7	--	700	.5
M355B02	63 25 55	155 3 24	.3	--	1	--	--	.5	--	7,000	.5
M356B02	63 25 13	155 8 53	.1	--	.7	--	--	.15	--	10,000	.7
M357B02	63 30 12	154 48 15	.1	--	1	--	--	.2	--	5,000	<.5
M359B02	63 34 34	154 49 57	.15	--	.7	--	--	.15	--	10,000	.7
M360B02	63 32 51	154 58 31	.1	--	.7	--	--	.2	--	5,000	.5
M361B02	63 46 5	153 35 32	.2	--	1	--	--	.2	--	10,000	.5
M362B02	63 46 0	153 41 47	.5	--	1	--	--	.3	--	7,000	<.5
M364B02	63 47 49	153 35 42	.2	--	.5	--	--	.3	--	7,000	.5
M365B02	63 47 26	153 33 33	.2	--	.7	--	--	.3	--	7,000	.5
M367B02	63 50 29	153 34 31	.2	--	.7	--	--	.2	--	10,000	.7

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M300B02	N	50	15	N	500	N	7	150	15	<5	2,000	N	N	N	15,000	50
M301B02	N	30	100	N	300	50	N	300	7	N	2,000	N	N	N	15,000	15
M302B02	N	50	15	N	500	N	N	150	20	N	1,000	10	N	N	15,000	30
M303B02	N	20	5	N	500	N	N	70	5	N	1,500	N	N	N	10,000	50
M304B02	N	5	7	N	500	50	20	100	10	N	5,000	N	N	N	10,000	20
M305B02	N	10	10	N	500	70	10	200	10	N	2,000	N	N	N	10,000	15
M306B02	N	20	7	N	500	70	N	100	10	<5	3,000	10	N	N	15,000	20
M309B02	N	50	15	N	500	--	N	150	20	15	1,000	--	N	N	20,000	--
M310B02	N	10	30	N	500	--	15	200	20	N	1,500	--	N	N	15,000	--
M311B02	N	15	5	N	200	--	N	150	10	<5	300	--	N	N	7,000	--
M312B02	N	1.5	<5	N	300	--	5	200	7	<5	700	--	N	N	5,000	--
M313B02	N	5	7	N	200	--	20	70	30	20	1,000	--	N	N	10,000	--
M314B02	N	20	15	N	150	--	<5	200	5	N	500	--	N	N	7,000	--
M316B02	N	50	70	N	700	--	N	200	20	10	1,500	--	N	N	15,000	--
M317B02	N	20	20	N	500	--	20	300	20	15	1,500	--	N	N	7,000	--
M318B02	N	30	70	N	500	--	N	200	70	7	2,000	--	N	10	15,000	--
M319B02	N	20	50	N	150	--	10	150	3	N	1,000	--	N	N	5,000	--
M320B02	N	5	7	N	200	--	<5	150	7	5	1,000	--	N	N	5,000	--
M321B02	N	50	20	N	300	--	N	150	20	5	3,000	--	N	<10	7,000	--
M322B02	N	30	50	N	500	--	5	100	15	<5	3,000	--	N	10	10,000	--
M323B02	N	50	20	N	300	--	N	150	10	7	1,500	--	N	N	10,000	--
M324B02	N	30	30	N	500	--	10	300	15	10	2,000	--	N	<10	15,000	--
M325B02	N	20	30	N	500	--	<5	200	20	20	3,000	--	N	10	15,000	--
M326B02	3	10	7	N	500	--	10	150	15	5	1,500	--	N	N	10,000	--
M327B02	N	20	7	N	500	--	<5	300	30	30	1,500	--	N	N	10,000	--
M328B02	N	30	10	N	300	--	<5	200	10	5	1,500	--	N	N	10,000	--
M329B02	N	50	150	N	500	--	N	300	30	5	5,000	--	N	N	20,000	--
M330B02	N	50	70	N	500	--	N	300	50	10	1,500	--	N	N	15,000	--
M331B02	N	50	<5	N	200	--	N	100	50	N	500	--	N	N	7,000	--
M332B02	1.5	30	100	N	500	--	7	300	20	5	2,000	--	N	N	10,000	--
M333B02	N	20	70	N	500	--	5	200	15	<5	2,000	--	N	<10	10,000	--
M334B02	N	10	10	N	150	--	10	150	10	<5	1,500	--	N	N	7,000	--
M335B02	N	20	50	N	700	--	N	300	15	10	2,000	--	N	10	20,000	--
M337B02	N	5	N	N	500	--	10	200	10	5	2,000	--	N	10	10,000	--
M338B02	N	10	10	N	200	--	N	150	5	N	1,000	--	N	N	5,000	--
M339B02	N	70	50	N	200	--	100	100	30	7	2,000	--	N	N	15,000	--
M340B02	N	70	50	N	200	--	N	100	20	5	1,500	--	N	N	10,000	--
M342B02	N	10	10	N	150	--	N	70	5	N	500	--	N	N	5,000	--
M343B02	N	10	<5	N	200	--	<5	100	5	5	700	--	N	N	7,000	--
M344B02	N	30	20	N	300	--	15	150	15	10	2,000	--	N	N	10,000	--
M345B02	N	10	7	N	200	--	50	150	5	<5	1,000	--	N	N	7,000	--
M346B02	N	20	50	N	300	--	N	300	5	N	1,000	--	N	N	7,000	--
M347B02	N	50	10	N	200	--	20	200	10	N	1,000	--	N	N	5,000	--
M348B02	N	20	70	N	200	--	N	150	10	<5	1,000	--	N	N	5,000	--
M349B02	N	30	50	N	300	--	30	300	10	<5	1,000	--	N	15	5,000	--
M350B02	N	5	<5	N	200	--	50	100	15	<5	700	--	N	N	7,000	--
M351B02	N	5	5	N	150	--	N	30	10	<5	2,000	--	N	N	10,000	--
M352B02	N	7	10	N	500	--	20	150	20	10	1,000	--	N	N	10,000	--
M353B02	N	20	7	N	500	--	N	150	10	N	1,000	--	N	N	15,000	--
M354B02	N	5	10	N	200	--	N	100	20	5	500	--	N	N	3,000	--
M355B02	N	7	7	N	700	--	7	200	30	15	3,000	--	N	N	10,000	--
M356B02	N	1	7	N	500	--	N	200	20	<5	1,000	--	N	N	20,000	--
M357B02	N	50	50	N	500	--	N	100	15	20	1,500	--	N	N	10,000	--
M359B02	N	50	100	N	200	--	10	200	20	N	2,000	--	N	N	10,000	--
M360B02	N	15	30	N	500	--	7	200	20	7	1,500	--	150	N	10,000	--
M361B02	N	20	20	N	500	--	N	150	20	5	1,500	--	N	N	15,000	--
M362B02	N	20	50	N	700	--	<5	200	20	10	1,000	--	N	N	15,000	--
M364B02	N	15	5	N	300	--	N	50	30	5	3,000	--	N	N	15,000	--
M365B02	N	20	7	N	500	--	30	50	20	<5	3,000	--	N	N	20,000	--
M367B02	N	30	70	N	500	--	10	100	15	10	2,000	--	N	N	15,000	--

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M368B02	63 50 26	153 33 49	.15	--	.5	--	--	.1	--	1,500	.7
M369B02	63 52 27	153 38 0	.2	--	.7	--	--	.1	--	1,500	.5
M370B02	63 56 36	153 40 1	.1	--	.7	--	--	.15	--	7,000	.5
M372B02	63 58 20	153 31 25	.2	--	.7	--	--	.2	--	5,000	.7
M373B02	63 59 18	153 36 7	.3	--	.7	--	--	.15	--	7,000	.5
M374B02	63 59 46	153 40 4	.2	--	.7	--	--	.15	--	10,000	.5
M375B02	63 45 57	153 55 12	.2	--	.7	--	--	.1	--	5,000	.5
M376B02	63 51 34	153 48 5	.3	--	.7	--	--	N	--	2,000	.5
M377B02	63 51 40	153 47 23	.15	--	.7	--	--	.2	--	3,000	.5
M378B02	63 52 43	153 45 44	.1	--	.7	--	--	N	--	2,000	.5
M379B02	63 54 42	153 47 50	.1	--	.7	--	--	.1	--	7,000	<.5
M380B02	63 55 19	153 47 16	.1	--	.5	--	--	.3	--	20,000	.5
M381B02	63 56 24	153 50 53	.1	--	.5	--	--	.1	--	3,000	<.5
M382B02	63 59 26	153 50 1	.07	--	.7	--	--	.1	--	7,000	.5
M383B02	63 51 52	153 52 15	.1	--	.7	--	--	.3	--	2,000	.5
M384B02	63 50 59	153 53 12	.3	--	.7	--	--	.2	--	2,000	.5
M385B02	63 47 52	153 58 9	.1	--	.7	--	--	.15	--	2,000	<.5
M386B02	63 45 50	154 30 17	1	--	1	--	--	.5	--	2,000	.5
M387B02	63 47 17	154 36 22	.5	--	.5	--	--	.2	--	2,000	.5
M388B02	63 47 37	154 35 40	.2	--	.7	--	--	<.1	--	7,000	.5
M389B02	63 48 44	154 31 7	.2	--	.5	--	--	.1	--	2,000	.5
M390B02	63 50 23	154 33 35	.2	--	.7	--	--	N	--	3,000	<.5
M391B02	63 49 26	154 38 8	.2	--	.5	--	--	.2	--	7,000	.5
M392B02	63 49 20	154 42 56	.2	--	.5	--	--	N	--	10,000	.5
M393B02	63 51 21	154 45 24	.15	--	.7	--	--	.3	--	10,000	.5
M394B02	63 54 8	154 42 42	.15	--	1	--	--	<.1	--	5,000	.7
M395B02	63 54 49	154 35 20	.15	--	.7	--	--	N	--	2,000	.5
M396B02	63 54 51	154 36 2	.1	--	.5	--	--	N	--	2,000	<.5
M397B02	63 56 21	154 28 31	.07	--	.5	--	--	N	--	10,000	<.5
M398B02	63 58 44	154 32 41	.1	--	.7	--	--	.2	--	15,000	.5
M399B02	63 48 47	154 51 2	.2	--	.5	--	--	.15	--	10,000	.5
M400B02	63 45 18	155 49 44	.2	--	1	--	--	.2	--	10,000	<.5
M401B02	63 47 7	155 53 36	.15	--	.7	--	--	.2	--	15,000	<.5
M402B02	63 48 24	155 56 12	.2	--	.7	--	--	.7	--	7,000	.5
M403B02	63 50 21	155 55 30	.5	--	.7	--	--	.5	--	10,000	.5
M404B02	63 49 41	155 48 45	.1	--	.5	--	--	.5	--	15,000	.5
M405B02	63 51 35	155 48 31	.2	--	.7	--	--	.1	--	7,000	.5
M406B02	63 54 53	155 58 30	.3	--	.7	--	--	.2	--	10,000	.5
M407B02	63 56 8	155 48 19	.15	--	.7	--	--	.5	--	10,000	.5
M408B02	63 56 33	155 42 17	.2	--	.7	--	--	.5	--	>20,000	.5
M409B02	63 54 1	155 43 7	.1	--	.7	--	--	.15	--	10,000	.5
M410B02	63 54 22	155 42 40	.15	--	.7	--	--	.15	--	7,000	.5
M411B02	63 56 32	155 39 1	.1	--	.7	--	--	.5	--	7,000	.5
M413B02	63 58 5	155 34 58	.07	--	5	--	--	1	--	2,000	<.5
M414B02	63 59 41	155 32 3	.3	--	.7	--	--	.3	--	20,000	.7
M415B02	63 59 42	155 32 31	.1	--	.7	--	--	.2	--	10,000	.5
M416B02	63 49 49	155 18 38	.05	--	.7	--	--	.1	--	5,000	<.5
M417B02	63 50 5	155 18 15	.15	--	.7	--	--	.2	--	10,000	.5
M418B02	63 49 56	155 15 14	.1	--	.7	--	--	.2	--	10,000	.5
M419B02	63 52 29	155 25 6	.2	--	.7	--	--	.1	--	10,000	.5
M420B02	63 52 29	155 24 34	.2	--	.7	--	--	.7	--	10,000	<.5
M421B02	63 54 34	155 22 18	.2	--	.7	--	--	<.1	--	7,000	.5
M422B02	63 56 10	155 24 58	.1	--	.7	--	--	.2	--	10,000	<.5
M423B02	63 46 5	155 21 47	.1	--	1	--	--	N	--	10,000	.5
M424B02	63 57 43	155 10 11	.1	--	.7	--	--	<.1	--	7,000	<.5
M426B02	63 58 44	155 21 56	.2	--	.7	--	--	.3	--	15,000	<.5
M427B02	63 56 52	155 33 17	.1	--	.7	--	--	.15	--	20,000	.5
M428B02	63 56 43	155 31 39	.1	--	.7	--	--	.2	--	10,000	<.5
M429B02	63 54 12	155 36 37	.1	--	.7	--	--	N	--	15,000	.5
M430B02	63 54 0	155 35 46	.07	--	1	--	--	1	--	20,000	.5

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M368B02	N	7	5	N	500	--	20	150	10	N	700	--	N	N	10,000	--
M369B02	N	7	7	N	500	--	10	100	10	<5	1,000	--	N	N	10,000	--
M370B02	15	15	15	N	500	--	5	100	10	7	1,000	--	N	N	10,000	--
M372B02	N	10	10	N	500	--	7	150	15	5	2,000	--	N	N	15,000	--
M373B02	N	10	20	N	500	--	20	300	15	10	2,000	--	N	N	10,000	--
M374B02	N	20	10	N	300	--	<5	150	15	15	1,500	--	N	N	10,000	--
M375B02	N	10	10	N	300	--	30	150	20	10	1,000	--	N	N	10,000	--
M376B02	N	2	5	N	300	--	50	70	15	<5	1,000	--	N	N	10,000	--
M377B02	N	7	5	N	500	--	20	150	15	5	1,500	--	N	N	7,000	--
M378B02	N	2	5	N	300	--	10	70	10	<5	700	--	N	N	10,000	--
M379B02	<1	10	5	N	500	--	5	100	20	5	2,000	--	N	N	10,000	--
M380B02	N	15	10	N	500	--	N	200	10	5	1,000	--	N	N	7,000	--
M381B02	N	10	N	N	300	--	20	50	30	N	700	--	N	N	10,000	--
M382B02	N	20	30	N	500	--	15	200	7	5	700	--	N	N	7,000	--
M383B02	N	10	<5	N	300	--	20	50	15	5	1,000	--	N	N	10,000	--
M384B02	N	15	10	N	300	--	20	100	30	<5	500	--	N	N	10,000	--
M385B02	N	7	7	N	500	--	30	70	30	15	500	--	N	N	7,000	--
M386B02	N	5	7	N	500	--	15	100	20	20	500	--	N	<10	15,000	--
M387B02	N	3	5	N	500	--	15	150	15	5	1,000	--	N	N	7,000	--
M388B02	N	10	7	N	500	--	7	150	7	<5	1,500	--	N	N	10,000	--
M389B02	N	10	7	N	300	--	10	50	10	<5	1,000	--	N	N	7,000	--
M390B02	N	3	<5	N	500	--	20	150	10	<5	300	--	N	N	7,000	--
M391B02	N	10	10	N	700	--	15	100	10	<5	1,000	--	N	N	15,000	--
M392B02	N	20	20	N	500	--	10	200	10	<5	1,500	--	N	N	10,000	--
M393B02	N	20	20	N	300	--	N	200	10	N	1,000	--	N	N	15,000	--
M394B02	N	50	5	N	500	--	N	150	15	N	1,000	--	N	N	20,000	--
M395B02	N	10	7	N	500	--	N	50	15	N	700	--	N	N	10,000	--
M396B02	N	5	<5	N	500	--	5	30	7	N	700	--	N	N	15,000	--
M397B02	N	20	50	N	500	--	<5	300	7	N	1,000	--	N	N	7,000	--
M398B02	N	30	15	N	500	--	10	200	10	5	1,500	--	N	N	10,000	--
M399B02	N	20	20	N	700	--	<5	200	10	N	1,500	--	N	N	10,000	--
M400B02	N	20	100	N	500	--	20	100	20	N	1,500	--	N	N	15,000	--
M401B02	N	50	70	N	700	--	N	300	15	N	1,000	--	N	N	20,000	--
M402B02	N	20	50	N	300	--	N	100	30	20	1,000	--	N	N	20,000	--
M403B02	N	20	30	N	700	--	50	300	20	5	1,000	--	N	N	10,000	--
M404B02	N	30	100	N	700	--	20	200	15	N	1,500	--	N	N	15,000	--
M405B02	N	20	20	N	300	--	N	70	15	N	1,000	--	N	N	10,000	--
M406B02	N	15	50	N	500	--	20	200	20	<5	2,000	--	N	N	15,000	--
M407B02	N	20	100	N	700	--	30	200	15	<5	1,500	--	N	N	15,000	--
M408B02	N	30	150	N	500	--	20	200	15	N	1,500	--	N	N	15,000	--
M409B02	N	20	20	N	500	--	N	300	15	<5	700	--	N	<10	15,000	--
M410B02	N	20	10	N	500	--	N	150	10	<5	1,500	--	N	N	10,000	--
M411B02	N	15	10	N	500	--	50	300	10	<5	1,000	--	N	N	10,000	--
M413B02	N	50	10	N	500	--	10	300	10	5	500	--	N	N	10,000	--
M414B02	N	15	30	N	500	--	5	200	20	<5	2,000	--	N	15	10,000	--
M415B02	N	15	15	N	300	--	20	150	10	5	2,000	--	N	<10	10,000	--
M416B02	N	5	5	N	500	--	10	150	10	<5	1,500	--	N	N	10,000	--
M417B02	N	50	15	N	500	--	10	150	15	5	3,000	--	N	10	10,000	--
M418B02	N	20	20	N	500	--	30	150	15	7	2,000	--	N	10	10,000	--
M419B02	N	30	10	N	500	--	N	150	15	5	2,000	--	N	N	10,000	--
M420B02	N	15	5	N	700	--	20	200	10	<5	2,000	--	N	N	15,000	--
M421B02	N	20	10	N	300	--	50	150	15	N	1,000	--	N	N	7,000	--
M422B02	N	20	20	N	700	--	20	200	10	5	1,000	--	N	N	7,000	--
M423B02	N	10	7	N	500	--	50	100	15	5	5,000	--	N	<10	10,000	--
M424B02	N	5	7	N	500	--	20	200	7	N	1,500	--	N	N	7,000	--
M426B02	N	50	50	N	700	--	20	300	10	<5	2,000	--	N	<10	15,000	--
M427B02	N	30	15	N	700	--	10	200	5	N	1,500	--	N	N	10,000	--
M428B02	N	10	7	N	500	--	10	150	10	N	2,000	--	N	N	20,000	--
M429B02	<1	20	15	N	500	--	10	200	30	N	1,500	--	N	N	10,000	--
M430B02	N	30	100	N	300	--	70	200	7	N	1,000	--	N	N	15,000	--

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M431B02	63 52 33	155 31 41	.2	--	.7	--	--	.3	--	20,000	.5
M432B02	63 51 46	155 31 12	.1	--	.7	--	--	.1	--	7,000	.5
M433B02	63 51 5	155 30 38	.1	--	.7	--	--	.2	--	10,000	.5
M434B02	63 50 24	155 33 10	.07	--	.7	--	--	.5	--	15,000	.5
M435B02	63 45 23	155 47 58	.7	--	1	--	--	.3	--	10,000	<.5
M436B02	63 48 31	155 45 19	.05	--	1	--	--	.15	--	7,000	<.5
M437B02	63 48 25	155 37 45	.1	--	1	--	--	<.1	--	10,000	.5
M439B02	63 12 18	155 45 17	.1	--	1	--	--	.2	--	7,000	.5
M440B02	63 13 52	155 50 47	.15	--	1	--	--	.7	--	7,000	<.5
M441B02	63 15 42	155 51 1	.2	--	1	--	--	.2	--	15,000	.5
M443B02	63 14 59	155 54 51	.07	--	.7	--	--	.15	--	5,000	.5
M444B02	63 10 21	155 51 33	.1	--	.7	--	--	.2	--	5,000	.5
M445B02	63 44 24	155 24 54	.1	--	.7	--	--	.5	--	10,000	<.5
M446B02	63 45 17	155 27 5	.1	--	.7	--	--	<.1	--	7,000	<.5
M447B02	63 48 15	155 31 20	.1	--	.7	--	--	<.1	--	10,000	<.5
M448B02	63 49 36	155 35 23	.15	--	1	--	--	.5	--	10,000	.5
M449B02	63 49 11	155 40 56	.2	--	.7	--	--	.1	--	7,000	.5
M450B02	63 46 49	155 38 32	.1	--	.7	--	--	.3	--	15,000	.7
M451B02	63 46 13	155 35 21	.15	--	.7	--	--	.5	--	7,000	<.5
M452B02	63 44 56	155 28 51	.07	--	.5	--	--	N	--	3,000	<.5
M453B02	63 43 27	155 31 44	.15	--	.7	--	--	.1	--	7,000	<.5
M454B02	63 41 26	155 30 8	.1	--	.7	--	--	N	--	2,000	.5
M455B02	63 40 42	155 35 34	.1	--	.7	--	--	.2	--	7,000	.5
M456B02	63 40 30	155 46 5	.15	--	.7	--	--	.5	--	15,000	.5
M457B02	63 40 15	155 47 0	.3	--	.7	--	--	.3	--	20,000	.5
M458B02	63 44 10	155 52 5	.07	--	.7	--	--	.2	--	7,000	.5
M459B02	63 42 18	155 51 33	.2	--	1	--	--	.7	--	10,000	.5
M460B02	63 40 38	155 50 1	.15	--	1	--	--	.5	--	15,000	.7
M461B02	63 35 36	155 56 34	.15	--	1	--	--	.1	--	10,000	.5
M462B02	63 36 36	155 52 0	.1	--	.7	--	--	.7	--	10,000	.5
M464B02	63 33 18	155 46 3	.2	--	.7	--	--	.15	--	7,000	<.5
M468B02	63 55 38	154 39 50	.2	--	1	--	--	.15	--	7,000	<.5
M469B02	63 57 58	154 41 28	.1	--	.7	--	--	.5	--	10,000	.5
M470B02	63 57 58	154 48 46	.3	--	1	--	--	.1	--	5,000	<.5
M471B02	63 57 16	154 53 39	.07	--	.7	--	--	.15	--	7,000	<.5
M472B02	63 57 35	154 53 20	.3	--	.7	--	--	.5	--	10,000	.5
M473B02	63 56 36	154 52 1	.1	--	.7	--	--	.7	--	10,000	<.5
M474B02	63 53 33	154 56 29	.1	--	.7	--	--	.5	--	10,000	.5
M475B02	63 41 0	154 18 24	.15	--	1	--	--	.2	--	7,000	<.5
M479B02	63 46 54	154 17 28	.2	--	1	--	--	.2	--	2,000	.5
M480B02	63 40 20	153 52 35	.07	--	.7	--	--	N	--	5,000	.5
M481B02	63 40 34	153 50 44	.1	--	.7	--	--	N	--	5,000	.5
M482B02	63 35 1	153 53 48	.3	--	1	--	--	.15	--	3,000	<.5
M483B02	63 33 40	153 45 20	.15	--	.5	--	--	.1	--	10,000	<.5
M484B02	63 7 43	154 53 40	.1	--	.7	--	--	.1	--	7,000	<.5
M485B02	63 22 23	155 10 3	.2	--	1	--	--	.3	--	10,000	.5
M486B02	63 20 45	155 11 42	.1	--	.7	--	--	.1	--	10,000	.5
M487B02	63 24 13	155 16 51	.1	--	.7	--	--	.5	--	7,000	<.5
M489B02	63 31 51	155 30 47	.07	--	.5	--	--	.2	--	7,000	<.5
M490B02	63 31 40	155 27 11	.2	--	.7	--	--	.2	--	7,000	<.5
M492B02	63 36 21	155 2 32	.1	--	.5	--	--	.1	--	10,000	.5
M493B02	63 54 53	154 51 28	.3	--	.7	--	--	1	--	10,000	.5
M494B02	63 52 34	154 53 37	.1	--	1	--	--	.15	--	15,000	.5
M495B02	63 51 45	154 55 51	.07	--	.7	--	--	.2	--	15,000	.5
M496B02	63 48 12	154 57 12	.2	--	.7	--	--	.7	--	10,000	.5
M497B02	63 46 38	154 58 12	.1	--	.7	--	--	.2	--	15,000	.5
M498B02	63 47 19	154 52 6	.2	--	.7	--	--	.15	--	15,000	.5
M499B02	63 44 31	154 56 24	.1	--	.7	--	--	.5	--	10,000	.5
M500B02	63 43 7	154 57 33	.15	--	.7	--	--	.3	--	7,000	.5
M501B02	63 41 54	154 49 37	.2	--	.7	--	--	.2	--	10,000	<.5

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M431B02	N	50	70	N	500	--	N	200	10	N	1,500	--	N	N	20,000	--
M432B02	N	50	10	N	500	--	N	200	7	N	1,500	--	N	N	10,000	--
M433B02	N	20	20	N	500	--	N	200	5	<5	2,000	--	N	N	7,000	--
M434B02	N	50	30	N	500	--	N	200	15	N	1,000	--	N	N	10,000	--
M435B02	N	15	10	N	500	--	10	150	30	10	1,500	--	N	<10	10,000	--
M436B02	N	30	50	N	500	--	N	200	15	N	5,000	--	N	N	7,000	--
M437B02	N	30	70	N	500	--	50	200	10	N	1,000	--	N	N	10,000	--
M439B02	N	20	50	N	500	--	15	150	20	N	1,000	--	N	N	15,000	--
M440B02	<1	10	7	N	500	--	30	200	20	5	1,000	--	N	N	10,000	--
M441B02	N	50	50	N	500	--	N	150	30	N	1,000	--	N	10	15,000	--
M443B02	N	10	7	N	700	--	N	150	20	<5	700	--	N	N	10,000	--
M444B02	N	20	10	N	200	--	7	70	20	N	1,500	--	N	N	10,000	--
M445B02	N	20	20	N	500	--	10	200	7	N	2,000	--	N	N	7,000	--
M446B02	N	7	7	N	500	--	5	300	20	5	2,000	--	N	N	10,000	--
M447B02	N	10	7	N	500	--	20	150	20	<5	2,000	--	N	N	10,000	--
M448B02	N	50	30	N	700	--	N	200	15	N	1,000	--	N	N	10,000	--
M449B02	2	30	15	N	700	--	10	100	20	N	1,000	--	N	N	15,000	--
M450B02	N	30	100	N	500	--	<5	200	10	N	2,000	--	N	<10	10,000	--
M451B02	N	20	20	N	500	--	30	300	10	N	1,500	--	N	N	10,000	--
M452B02	N	7	<5	N	200	--	30	100	7	N	1,000	--	N	N	5,000	--
M453B02	N	3	15	N	200	--	20	300	5	N	1,000	--	N	N	3,000	--
M454B02	N	10	20	N	300	--	15	200	5	N	700	--	N	N	5,000	--
M455B02	N	20	150	N	700	--	5	300	7	N	2,000	--	N	N	10,000	--
M456B02	<1	20	20	N	500	--	N	200	20	5	2,000	--	N	<10	10,000	--
M457B02	N	50	70	N	300	--	5	300	10	N	3,000	--	N	10	15,000	--
M458B02	N	30	50	N	700	--	20	200	5	N	1,500	--	N	N	7,000	--
M459B02	N	20	50	N	500	--	<5	200	15	5	2,000	--	N	<10	20,000	--
M460B02	N	50	70	N	500	--	N	300	10	<5	1,500	--	N	10	10,000	--
M461B02	N	50	20	N	500	--	N	100	15	N	5,000	--	N	N	1,000	--
M462B02	N	50	20	N	700	--	N	150	10	N	5,000	--	N	N	15,000	--
M464B02	<1	20	15	N	500	--	7	300	15	N	2,000	--	N	N	15,000	--
M468B02	N	20	10	N	500	--	5	150	15	7	1,000	--	N	N	10,000	--
M469B02	N	30	70	N	500	--	<5	300	20	N	1,500	--	N	N	15,000	--
M470B02	N	3	5	N	500	--	7	200	30	5	1,500	--	N	<10	7,000	--
M471B02	N	10	5	N	700	--	30	70	1	<5	1,500	--	N	N	15,000	--
M472B02	<1	10	20	N	300	--	15	150	20	<5	3,000	--	N	15	15,000	--
M473B02	N	30	70	N	500	--	N	300	10	N	2,000	--	N	N	10,000	--
M474B02	N	20	50	N	500	--	20	200	15	N	1,000	--	N	N	10,000	--
M475B02	<1	15	5	N	500	--	7	100	20	7	3,000	--	N	N	10,000	--
M479B02	N	7	5	N	500	--	10	100	10	N	1,000	--	N	N	15,000	--
M480B02	N	7	5	N	500	--	100	150	15	N	1,000	--	N	N	10,000	--
M481B02	N	20	<5	N	500	--	N	50	10	10	500	--	N	N	10,000	--
M482B02	N	20	5	N	700	--	30	150	30	<5	2,000	--	N	N	10,000	--
M483B02	N	15	10	N	500	--	15	200	15	5	1,000	--	N	N	10,000	--
M484B02	N	50	20	N	500	--	N	200	10	<5	500	--	N	N	15,000	--
M485B02	N	20	15	N	500	--	N	150	30	N	1,500	--	N	N	20,000	--
M486B02	N	30	10	N	500	--	10	100	10	N	1,500	--	N	N	15,000	--
M487B02	N	30	50	N	200	--	<5	200	20	N	2,000	--	N	N	15,000	--
M489B02	N	20	10	N	700	--	5	300	10	<5	1,500	--	N	N	7,000	--
M490B02	N	20	7	N	500	--	7	150	20	5	3,000	--	N	N	15,000	--
M492B02	N	70	20	N	700	--	N	300	10	N	3,000	--	N	N	10,000	--
M493B02	N	50	100	N	700	--	20	500	10	N	1,500	--	N	10	20,000	--
M494B02	N	50	70	N	500	--	N	200	10	N	2,000	--	N	N	10,000	--
M495B02	N	50	50	N	700	--	N	300	10	N	1,500	--	N	N	10,000	--
M496B02	N	30	200	N	700	--	30	200	10	N	1,000	--	N	<10	7,000	--
M497B02	N	50	100	N	700	--	10	300	70	N	1,500	--	N	N	10,000	--
M498B02	N	70	100	N	500	--	N	300	10	N	1,500	--	N	N	1,500	--
M499B02	N	20	50	N	500	--	N	700	10	N	1,500	--	N	N	15,000	--
M500B02	N	20	50	N	500	--	10	300	10	N	1,000	--	N	N	10,000	--
M501B02	N	20	70	N	700	--	N	300	10	N	1,500	--	N	<10	15,000	--

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M502B02	63 42 45	154 46 4	.1	--	1	--	--	.7	--	15,000	.5
M503B02	63 34 58	154 43 36	.1	--	1	--	--	.15	--	3,000	<.5
M504B02	63 37 52	154 35 56	>20	--	1	--	--	.2	--	20,000	.5
M505B02	63 40 3	154 35 19	.1	--	.5	--	--	N	--	5,000	.5
M506B02	63 39 55	154 46 41	.3	--	.7	--	--	.7	--	20,000	.5
M507B02	63 43 12	153 29 43	.2	--	.2	--	--	.5	--	7,000	.5
M508B02	63 44 0	153 27 59	.07	--	.7	--	--	.1	--	2,000	<.5
M509B02	63 41 3	153 33 57	.2	--	1	--	--	.2	--	5,000	<.5
M510B02	63 41 25	153 37 38	.2	--	.7	--	--	N	--	2,000	<.5
M511B02	63 41 26	153 39 10	.1	--	.7	--	--	N	--	5,000	.5
M512B02	63 31 28	153 59 6	.15	--	.7	--	--	.15	--	2,000	.5
M513B02	63 30 38	153 56 40	.2	--	3	--	--	N	--	7,000	<.5
M514B02	63 27 15	153 51 2	.2	--	.7	--	--	.2	--	10,000	.5
M515B02	63 28 56	153 58 24	.1	--	.5	--	--	<.1	--	5,000	.5
M516B02	63 24 10	153 59 44	.1	--	.5	--	--	N	--	3,000	<.5

Table 3. Results of analyses of samples of the ash of dwarf arctic birch stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-W	S-Y	S-Zn	S-Zr
M502B02	N	30	150	N	500	--	100	300	10	N	1,500	--	N	N	15,000	--
M503B02	N	20	7	N	500	--	N	70	15	N	1,500	--	N	N	20,000	--
M504B02	1.5	30	100	N	300	--	N	500	50	N	2,000	--	N	N	15,000	--
M505B02	N	15	15	N	500	--	<5	100	10	<5	700	--	N	N	7,000	--
M506B02	N	30	150	N	700	--	10	500	10	N	3,000	--	N	10	20,000	--
M507B02	N	20	70	N	500	--	20	200	20	<5	1,000	--	N	N	20,000	--
M508B02	N	5	20	N	200	--	20	150	5	<5	700	--	N	N	5,000	--
M509B02	N	10	10	N	700	--	50	500	10	N	2,000	--	N	N	15,000	--
M510B02	1.5	5	5	N	700	--	10	100	10	N	1,500	--	N	N	10,000	--
M511B02	<1	20	7	N	500	--	5	100	10	N	3,000	--	N	N	7,000	--
M512B02	N	30	10	N	500	--	7	70	20	N	1,000	--	N	N	10,000	--
M513B02	N	20	5	N	500	--	20	100	15	N	1,000	--	N	N	7,000	--
M514B02	N	50	15	N	500	--	N	200	15	N	1,000	--	N	N	20,000	--
M515B02	N	30	10	N	500	--	15	100	15	N	1,000	--	N	N	10,000	--
M516B02	N	5	7	N	700	--	20	150	10	N	1,500	--	N	N	10,000	--

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown; --, no data]

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M004BS1	63 9 43	154 56 2	.1	2	.2	.005	>10,000	1	200	1,000	N
M005BS1	63 12 54	154 55 26	.2	2	.3	.005	>10,000	.5	200	1,000	N
M006BS1	63 11 0	154 50 5	.2	2	.3	.005	>10,000	1	300	700	N
M007BS1	63 12 34	154 51 16	.15	2	.3	.005	>10,000	.7	200	500	N
M008BS1	63 12 36	154 45 48	.2	2	.3	.005	>10,000	.7	200	300	N
M010BS1	63 15 37	154 38 43	.1	3	.3	.005	>10,000	1.5	200	1,000	N
M015BS1	63 19 18	154 24 55	.1	2	.3	.005	10,000	1	200	1,000	N
M018BS1	63 21 5	154 28 40	.1	2	.3	.005	>10,000	1	200	700	N
M019BS1	63 22 34	154 20 50	.1	3	.3	.005	>10,000	1	200	300	N
M020BS1	63 24 6	154 15 57	.1	5	.5	.005	2,000	1	200	500	N
M025BS1	63 31 50	155 9 17	.1	2	.2	.005	>10,000	1.5	150	1,000	N
M026BS1	63 33 53	155 3 27	.2	5	.2	.005	>10,000	1	150	1,500	N
M028BS1	63 32 40	154 56 39	.1	3	.3	.005	>10,000	1.5	200	500	N
M032BS1	63 28 39	154 45 45	.1	3	.3	.005	>10,000	1.5	500	1,500	N
M039BS1	63 28 38	154 30 35	.1	3	.3	.005	>10,000	1.5	500	1,500	N
M041BS1	63 27 5	154 33 24	.1	2	.1	.005	>10,000	1	200	700	N
M043BS1	63 29 37	154 38 2	.1	2	.2	.005	>10,000	.5	200	500	N
M047BS1	63 33 37	154 38 11	.15	3	.2	.015	10,000	1.5	300	1,500	N
M048BS1	63 35 34	154 38 36	.1	2	.2	.005	>10,000	1	300	200	N
M049BS1	63 33 43	154 39 1	.1	2	.2	.005	>10,000	5	200	1,000	N
M052BS1	63 35 10	154 21 13	.1	5	.5	.005	>10,000	.7	500	700	N
M060BS1	63 40 18	154 20 1	.1	5	.2	.005	>10,000	1	500	5,000	N
M063BS1	63 39 4	154 25 43	.15	5	.1	.005	>10,000	.5	500	300	N
M064BS1	63 43 2	154 33 19	.2	2	.2	.05	>10,000	1.5	300	1,500	N
M068BS1	63 3 48	154 49 38	.3	2	.1	.02	5,000	1.5	200	700	N
M070BS1	63 6 0	154 51 24	.1	2	.1	.01	>10,000	1.5	500	700	N
M071BS1	63 2 57	154 55 16	.1	3	.05	.01	>10,000	.5	500	3,000	N
M072BS1	63 5 29	154 56 0	.15	3	.2	.015	>10,000	1.5	300	700	N
M073BS1	63 3 8	155 3 47	.1	2	.2	.005	>10,000	1	150	500	N
M074BS1	63 1 31	154 58 32	.1	2	.1	.005	>10,000	1	300	1,000	N
M076BS1	63 2 29	155 6 20	.1	2	.15	.005	>10,000	.5	300	700	N
M078BS1	63 1 15	155 19 34	.15	3	.1	.005	10,000	2	200	3,000	N
M080BS1	63 22 16	155 26 26	.1	2	.05	.005	>10,000	1	150	1,000	N
M084BS1	63 28 7	155 28 50	.1	3	.1	.005	>10,000	1	500	700	N
M093BS1	63 18 10	155 30 40	.15	2	.1	.005	>10,000	2	300	700	N
M094BS1	63 19 35	155 22 26	.1	3	.05	.005	>10,000	1	200	500	N
M097BS1	63 16 56	155 42 15	.07	3	.2	.005	>10,000	1	200	1,000	N
M098BS1	63 1 50	155 31 44	1	2	.2	.005	>10,000	1	200	700	N
M099BS1	63 0 47	155 40 25	.07	2	.3	.005	>10,000	1	300	700	N
M100BS1	63 0 40	155 49 28	.1	2	.3	.005	>10,000	1	300	300	N
M101BS1	63 3 1	155 51 42	.05	2	.5	.005	>10,000	1	300	1,000	N
M102BS1	63 2 59	155 54 52	.3	2	.5	.07	>10,000	.5	500	200	N
M103BS1	63 5 20	155 48 8	.1	2	.5	.005	>10,000	1	300	300	N
M105BS1	63 4 53	155 52 12	.1	2	.3	.005	>10,000	1	200	300	N
M106BS1	63 7 24	155 57 52	.1	2	.3	.005	>10,000	1	300	1,000	N
M108BS1	63 11 57	155 49 39	.1	2	.3	.005	>10,000	3	150	2,000	N
M109BS1	63 12 44	155 49 28	.2	2	.3	.01	>10,000	1.5	500	700	N
M110BS1	63 14 9	155 55 17	.1	2	.2	.005	>10,000	1	500	300	N
M113BS1	63 12 56	155 42 29	.1	2	.2	.005	>10,000	1	200	700	N
M114BS1	63 20 24	155 55 46	.15	3	.2	.01	>10,000	1	200	3,000	N
M121BS1'	63 22 36	155 49 39	.1	2	.3	.003	>10,000	1	200	500	N
M125BS1	63 28 13	155 44 59	.1	2	.3	.005	>10,000	1	200	300	N
M129BS1	63 29 42	155 46 23	.1	2	.15	.003	>10,000	1	300	300	N
M130BS1	63 25 52	155 59 37	.15	3	.15	.01	>10,000	.5	500	700	N
M131BS1	63 52 47	155 9 15	.05	2	.15	.005	2,000	1	150	1,000	N
M133BS1	63 51 50	155 7 54	.05	1.5	.05	.01	>10,000	.2	150	3,000	N
M135BS1	63 51 36	155 3 28	.1	1.5	.2	.01	>10,000	1.5	150	1,000	N
M137BS1	63 54 26	155 3 5	.1	2	.05	.01	>10,000	1	100	1,000	N
M139BS1	63 54 47	155 3 1	.1	2	.2	.005	>10,000	.5	200	700	N
M140BS1	63 56 17	155 3 32	.1	2	.2	.005	>10,000	.5	150	500	N

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M004BS1	N	1	<5	<5	70	50	N	50	2	N	200	50	1,000	<10
M005BS1	5	1	<5	<5	100	20	N	50	10	N	200	20	2,000	<10
M006BS1	N	N	N	N	70	50	N	10	5	N	300	20	3,000	N
M007BS1	N	1	N	N	50	50	N	10	5	N	200	50	2,000	N
M008BS1	N	1	N	<5	70	50	N	20	2	N	150	70	3,000	N
M010BS1	N	N	N	N	100	50	N	50	5	N	300	70	2,000	N
M015BS1	N	10	N	N	70	20	N	<5	10	N	1,000	20	5,000	N
M018BS1	N	1	N	7	50	50	50	10	10	N	300	50	2,000	<10
M019BS1	N	N	N	<5	70	20	N	10	10	N	100	30	2,000	<10
M020BS1	N	N	N	<5	70	30	10	<5	10	N	500	10	3,000	N
M025BS1	N	N	10	N	70	50	N	20	1	N	1,000	50	2,000	N
M026BS1	N	N	<5	<5	100	30	N	50	1	N	2,000	20	2,000	N
M028BS1	N	1	N	<5	100	50	N	50	10	N	200	50	2,000	N
M032BS1	N	1	N	N	100	50	N	50	5	N	2,000	50	3,000	N
M039BS1	N	N	N	<5	70	30	N	50	10	N	3,000	20	3,000	N
M041BS1	N	N	N	N	50	30	N	10	1	N	1,000	20	2,000	N
M043BS1	N	N	N	N	50	50	N	10	<1	N	2,000	20	2,000	N
M047BS1	N	N	N	5	50	30	N	15	5	N	3,000	20	2,000	<10
M048BS1	N	N	N	N	100	30	N	20	5	N	100	50	2,000	N
M049BS1	N	N	N	N	100	30	N	30	5	N	2,000	20	2,000	N
M052BS1	N	1	N	N	100	70	N	30	N	N	1,000	100	2,000	N
M060BS1	N	N	N	N	50	50	N	50	10	N	3,000	30	2,000	N
M063BS1	N	N	N	<5	50	50	N	20	1	N	500	50	2,000	<10
M064BS1	N	N	N	5	70	50	N	50	5	N	500	20	3,000	<10
M068BS1	N	N	<5	10	100	20	N	100	10	30	500	10	1,500	<10
M070BS1	N	N	N	<5	70	50	N	20	30	N	700	50	2,000	N
M071BS1	N	10	N	<5	50	50	N	20	1	N	2,000	50	2,000	<10
M072BS1	N	N	N	<5	100	20	N	50	10	N	2,000	20	3,000	<10
M073BS1	N	N	N	<5	70	50	N	30	N	N	200	50	3,000	N
M074BS1	N	N	N	<5	70	50	N	10	N	N	1,000	50	2,000	N
M076BS1	N	N	N	<5	70	50	N	20	N	N	200	50	3,000	N
M078BS1	N	N	<5	<5	100	30	N	50	N	N	2,000	20	2,000	N
M080BS1	N	N	N	<5	50	30	N	20	N	20	700	50	2,000	N
M084BS1	N	N	N	N	50	20	N	10	1	N	1,000	20	2,000	N
M093BS1	N	N	20	N	100	20	N	70	1	N	700	30	2,000	N
M094BS1	N	N	N	N	70	20	N	20	1	N	200	30	2,000	N
M097BS1	N	N	<5	N	70	20	N	20	5	N	500	20	2,000	N
M098BS1	N	N	N	<5	70	50	N	20	15	N	700	50	2,000	N
M099BS1	N	N	N	N	70	50	N	20	15	N	700	50	2,000	N
M100BS1	N	N	N	N	70	30	N	20	3	N	200	50	2,000	N
M101BS1	N	N	20	N	100	30	N	70	1	N	300	30	2,000	N
M102BS1	N	N	10	10	100	50	N	70	10	5	100	30	2,000	20
M103BS1	N	N	N	N	100	50	N	15	1	N	200	50	3,000	N
M105BS1	N	N	N	N	70	50	N	15	1	N	200	50	2,000	N
M106BS1	N	N	N	N	70	50	N	15	1	N	700	50	2,000	N
M108BS1	N	N	N	N	70	50	N	50	1	N	700	50	2,000	N
M109BS1	N	N	N	<5	100	50	N	50	5	N	300	50	2,000	N
M110BS1	N	N	N	N	70	50	N	30	1	N	100	50	2,000	N
M113BS1	N	N	N	N	70	50	N	30	1	N	300	50	2,000	N
M114BS1	N	N	N	<5	70	50	N	30	5	N	1,500	30	2,000	N
M121BS1'	N	1	N	N	100	30	N	30	1	N	100	50	2,000	N
M125BS1	N	1	N	N	100	50	N	20	1	N	100	50	3,000	N
M129BS1	N	N	N	N	70	30	N	20	1	N	500	50	3,000	N
M130BS1	N	N	N	<5	70	50	N	20	1	N	500	50	2,000	N
M131BS1	N	N	N	N	50	20	N	<5	2	N	1,000	<5	3,000	N
M133BS1	N	N	N	N	30	100	N	N	N	N	500	50	2,000	N
M135BS1	N	N	N	N	50	50	N	50	1	N	1,000	50	2,000	N
M137BS1	N	N	N	N	50	50	N	10	N	N	1,000	50	2,000	N
M139BS1	N	N	N	N	50	50	N	20	1	N	1,000	50	2,000	N
M140BS1	N	N	N	N	50	50	N	<5	1	N	700	50	2,000	N

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M141BS1	63 59 15	155 5 7	.1	3	.1	.01	>10,000	.2	200	2,000	N
M142BS1	63 52 26	155 16 46	.1	2	.1	.005	>10,000	1	150	2,000	N
M144BS1	63 57 8	155 19 31	.1	2	.1	.005	>10,000	1	100	1,000	N
M145BS1	63 58 27	155 16 37	.1	3	.2	.007	>10,000	1.5	700	1,500	N
M146BS1	63 56 44	155 12 11	.1	2	.2	.005	>10,000	.2	150	700	N
M147BS1	63 56 32	155 11 29	.2	5	.2	.015	10,000	.3	100	2,000	N
M148BS1	63 57 25	155 10 16	.15	2	.2	.01	>10,000	.1	150	500	N
M149BS1	63 55 21	155 6 51	.2	3	.2	.01	>10,000	.1	300	500	N
M152BS1	63 33 22	154 11 46	.15	2	.3	.01	>10,000	.5	500	200	N
M154BS1	63 33 51	154 2 47	.15	2	.3	.01	>10,000	.5	200	700	N
M160BS1	63 31 26	154 2 6	.1	2	.2	.01	>10,000	.5	500	700	N
M171BS1	63 7 38	155 8 42	.2	3	.2	.015	>10,000	1.5	200	1,000	N
M176BS1	63 14 21	154 53 29	.05	2	.2	.005	>10,000	1	200	700	N
M177BS1	63 17 29	154 46 44	.1	2	.2	.005	>10,000	1	200	700	N
M178BS1	63 16 7	154 46 38	.05	3	.1	.005	>10,000	1.5	200	1,500	N
M179BS1	63 20 32	154 41 28	.07	2	.2	.005	>10,000	1	300	700	N
M180BS1	63 18 15	154 41 35	.1	2	.1	.005	>10,000	.5	200	1,000	N
M181BS1	63 22 39	154 41 3	.05	2	.2	.005	10,000	1	500	1,000	N
M182BS1	63 21 1	154 38 26	.1	3	.2	.007	>10,000	.5	70	300	N
M184BS1	63 21 11	154 37 22	.1	2	.2	.007	>10,000	.5	300	500	N
M185BS1	63 23 40	154 46 20	.2	2	.2	.007	>10,000	1	500	700	N
M187BS1	63 21 2	154 53 4	.1	5	.15	.007	>10,000	2	200	2,000	N
M188BS1	63 23 3	154 47 46	.1	5	.2	.01	>10,000	1	100	1,000	N
M189BS1	63 21 15	154 59 1	.1	5	.1	.007	>10,000	2	150	3,000	N
M190BS1	63 20 39	154 56 56	.3	3	.2	.01	5,000	1.5	150	1,000	N
M191BS1	63 20 7	155 3 38	.2	5	.2	.01	>10,000	.5	100	3,000	N
M195BS1	63 26 11	155 7 52	.2	3	.3	.01	>10,000	1.5	500	200	N
M197BS1	63 26 39	155 16 32	.05	2	.2	.003	>10,000	.5	300	200	N
M199BS1	63 46 21	153 52 50	.1	5	.2	.003	>10,000	1.5	300	700	N
M207BS1	63 58 11	153 18 17	.07	5	.2	.01	>10,000	.5	500	2,000	N
M208BS1	63 56 59	153 12 34	.1	2	.2	.003	>10,000	1	500	700	N
M210BS1	63 58 1	153 3 43	.1	2	.15	.005	>10,000	1	100	700	N
M211BS1	63 56 39	153 7 17	.1	2	.2	.005	>10,000	1.5	100	2,000	N
M212BS1	63 56 2	153 0 32	.1	2	.2	.005	>10,000	.2	150	700	N
M213BS1	63 52 44	153 5 29	.1	2	.15	.005	>10,000	.5	150	1,000	N
M214BS1	63 43 52	154 4 17	.1	2	.2	.005	10,000	.2	150	1,000	N
M215BS1	63 51 24	153 19 25	.2	2	.2	.005	>10,000	1.5	150	2,000	N
M220BS1	63 45 38	153 12 14	.2	2	.1	.005	>10,000	2	150	1,000	N
M221BS1	63 46 21	153 2 33	.05	1.5	.1	.003	10,000	1	70	700	N
M224BS1	63 51 47	153 8 23	.1	3	.1	.01	10,000	.2	500	2,000	N
M225BS1	63 51 50	153 3 30	.1	2	.15	.007	>10,000	1.5	200	1,500	N
M226BS1	63 53 13	153 15 1	.3	2	.15	.02	>10,000	1.5	100	2,000	N
M231BS1	63 50 44	153 25 25	.1	3	.1	.007	>10,000	2	500	3,000	N
M246BS1	63 26 58	154 19 29	.2	3	.2	.02	3,000	1	150	1,000	N
M250BS1	63 43 47	154 20 7	.1	1.5	.15	.01	>10,000	1.5	150	1,000	N
M251BS1	63 44 5	154 20 26	.1	2	.2	.01	>10,000	1	150	700	N
M252BS1	63 43 42	154 15 29	.1	2	.2	.005	>10,000	1.5	300	3,000	N
M257BS1	63 55 17	154 23 23	.5	2	.5	.1	5,000	1	200	5,000	N
M261BS1	63 57 57	154 9 51	.1	2	.2	.005	>10,000	.7	300	1,500	N
M265BS1	63 50 24	154 5 49	.1	2	.2	.005	>10,000	.7	150	1,000	N
M276BS1	63 14 4	153 50 38	.15	3	.3	.01	10,000	1	150	1,000	N
M279BS1	63 25 31	154 29 15	.2	2	.3	.01	5,000	1	500	3,000	N
M281BS1	63 19 38	154 9 55	.15	5	.3	.01	>10,000	.5	300	1,000	N
M282BS1	63 20 15	154 0 55	.1	3	.2	.01	>10,000	.3	100	3,000	N
M283BS1	63 16 37	154 16 41	.2	5	.2	.01	>10,000	3	200	2,000	N
M284BS1	63 1 45	153 4 32	.2	5	.1	.01	>10,000	1	150	2,000	N
M285BS1	63 2 36	153 7 58	.15	5	.1	.01	>10,000	5	150	3,000	N
M286BS1	63 3 50	153 10 57	.2	5	.3	.01	>10,000	2	100	1,500	N
M287BS1	63 6 55	153 6 27	.1	3	.2	.005	>10,000	1	200	3,000	N
M288BS1	63 8 43	153 2 14	.15	5	.3	.01	>10,000	.5	200	700	N

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M141BS1	N	N	N	<5	50	30	N	20	N	N	2,000	50	2,000	N
M142BS1	N	N	N	N	50	50	N	30	N	N	1,000	50	2,000	N
M144BS1	N	N	N	N	70	50	N	50	1	N	500	50	2,000	N
M145BS1	N	N	N	N	70	50	N	20	1	N	700	50	2,000	N
M146BS1	N	N	N	N	50	30	N	30	1	N	500	30	3,000	N
M147BS1	N	N	N	N	50	30	N	20	3	N	2,000	20	3,000	N
M148BS1	N	N	N	N	50	30	N	20	1	N	500	30	2,000	N
M149BS1	N	N	N	N	50	30	N	20	1	N	1,500	30	2,000	N
M152BS1	N	N	N	N	100	30	70	70	5	N	5,000	50	2,000	N
M154BS1	N	N	N	N	100	30	70	15	2	N	200	30	2,000	N
M160BS1	N	N	N	N	100	30	70	<5	2	N	1,000	30	3,000	N
M171BS1	N	N	N	<5	70	30	70	30	1	N	1,000	50	2,000	N
M176BS1	N	N	N	N	70	30	70	10	2	N	300	30	3,000	N
M177BS1	N	N	N	N	70	30	70	5	2	N	700	30	5,000	N
M178BS1	N	N	N	N	70	50	70	30	1	N	700	50	2,000	N
M179BS1	N	N	N	N	70	50	70	20	1	N	700	50	3,000	N
M180BS1	N	N	N	N	100	30	70	20	2	N	500	20	3,000	N
M181BS1	N	N	N	N	100	30	70	10	2	N	1,000	10	3,000	N
M182BS1	N	N	N	N	50	50	70	<5	1	N	500	70	3,000	N
M184BS1	N	N	N	N	50	50	70	10	1	N	500	70	3,000	N
M185BS1	N	N	N	N	50	30	70	20	2	N	700	50	2,000	N
M187BS1	N	N	N	15	70	50	70	50	1	N	1,000	70	3,000	N
M188BS1	N	N	N	N	50	50	70	15	2	N	1,000	50	2,000	N
M189BS1	N	N	N	5	70	50	70	50	1	N	1,000	70	2,000	N
M190BS1	N	N	N	N	100	30	70	50	3	N	1,000	<5	3,000	N
M191BS1	N	N	N	<5	70	30	70	30	1	N	700	20	3,000	N
M195BS1	N	N	N	<5	70	50	70	10	3	N	100	50	3,000	N
M197BS1	N	N	N	N	70	30	70	10	1	N	200	30	2,000	N
M199BS1	N	N	N	N	100	50	70	20	5	N	500	70	5,000	N
M207BS1	N	N	N	<5	50	30	70	<5	1	N	5,000	30	2,000	N
M208BS1	N	N	N	N	50	50	70	<5	1	N	300	70	2,000	N
M210BS1	N	N	30	N	50	50	70	50	5	N	500	50	2,000	N
M211BS1	N	2	10	N	50	50	70	70	1	N	700	50	2,000	N
M212BS1	N	N	N	N	70	50	70	50	1	N	500	50	3,000	N
M213BS1	N	N	10	<5	50	30	70	50	1	N	1,000	30	2,000	N
M214BS1	N	N	N	N	50	30	70	5	2	N	1,000	20	3,000	N
M215BS1	N	N	10	<5	70	50	70	50	1	N	1,500	50	2,000	N
M220BS1	N	N	N	<5	30	50	70	30	1	N	1,000	50	2,000	N
M221BS1	N	N	N	N	70	<20	70	100	1	N	500	10	2,000	N
M224BS1	N	N	N	<5	50	50	70	5	2	N	5,000	20	3,000	N
M225BS1	N	N	N	<5	70	50	70	50	1	N	500	30	2,000	N
M226BS1	N	N	N	10	70	50	70	100	10	N	1,000	30	3,000	50
M231BS1	N	N	N	<5	50	50	70	10	5	N	2,000	30	2,000	N
M246BS1	N	N	N	10	70	50	70	10	5	N	500	10	2,000	N
M250BS1	N	N	N	<5	50	50	70	20	2	N	700	50	2,000	N
M251BS1	N	N	N	<5	50	50	70	10	1	N	500	50	2,000	N
M252BS1	N	N	N	<5	70	50	70	30	1	N	700	70	2,000	N
M257BS1	N	N	N	30	70	50	70	20	5	N	2,000	15	2,000	30
M261BS1	N	N	N	<5	70	50	70	30	1	N	500	70	2,000	N
M265BS1	N	N	N	<5	50	50	70	50	1	N	300	50	2,000	N
M276BS1	N	N	N	<5	70	50	70	10	10	N	3,000	20	5,000	N
M279BS1	N	N	N	<5	70	30	70	20	5	N	3,000	10	2,000	N
M281BS1	N	N	N	<5	70	50	70	30	10	N	1,000	50	3,000	N
M282BS1	N	N	N	<5	70	30	70	10	3	N	3,000	20	2,000	N
M283BS1	N	N	<5	<5	70	50	70	50	1	N	2,000	50	2,000	N
M284BS1	N	N	N	<5	50	50	70	15	1	N	700	70	3,000	N
M285BS1	N	N	N	<5	70	50	70	50	1	N	3,000	50	2,000	N
M286BS1	N	N	N	<5	70	50	70	20	1	N	3,000	50	2,000	N
M287BS1	N	N	N	<5	50	50	70	20	1	N	300	100	2,000	N
M288BS1	N	N	N	<5	70	50	70	50	1	N	300	70	3,000	N

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M289BS1	63 14 4	153 4 41	.2	5	.3	.01	>10,000	1.5	150	3,000	N
M290BS1	63 13 25	153 10 1	.15	2	.15	.01	>10,000	1.5	200	5,000	N
M291BS1	63 12 10	153 15 36	.2	3	.2	.005	>10,000	1	150	700	N
M292BS1	63 37 5	155 21 28	.1	2	.15	.005	>10,000	1	200	700	N
M293BS1	63 41 22	155 34 18	.1	3	.5	.005	>10,000	2	100	1,500	N
M294BS1	63 44 51	155 39 58	.5	3	.3	.05	>10,000	1	500	1,000	N
M295BS1	63 43 57	155 42 9	.5	5	.2	.05	10,000	.5	1,000	700	N
M296BS1	63 42 54	155 44 20	.2	3	.2	.02	10,000	.5	500	3,000	N
M297BS1	63 45 16	155 48 48	.15	5	.15	.01	>10,000	.5	300	3,000	N
M298BS1	63 42 10	155 55 48	.1	3	.2	.01	>10,000	1.5	200	3,000	N
M299BS1	63 41 12	155 56 21	.1	2	.2	.01	>10,000	1.5	200	1,000	N
M300BS1	63 40 7	155 54 36	.2	5	.15	.01	>10,000	.2	1,000	2,000	N
M301BS1	63 38 39	155 47 39	.15	3	.3	.01	>10,000	2	300	1,500	N
M302BS1	63 36 36	155 58 0	.2	5	.3	.01	10,000	.5	500	1,500	N
M303BS1	63 35 28	155 58 28	.3	3	.3	.005	>10,000	1	200	300	N
M306BS1	63 32 52	155 51 23	.15	5	.2	.005	>10,000	.7	300	700	N
M310BS1	63 27 32	154 39 5	.1	--	.3	--	--	1.5	--	5,000	1
M311BS1	63 30 20	154 36 2	.1	--	1	--	--	.5	--	1,500	.5
M316BS1	63 38 17	155 34 25	1	--	.5	--	--	.15	--	500	.5
M317BS1	63 36 28	155 29 18	.15	--	.3	--	--	1.5	--	7,000	.5
M318BS1	63 40 1	155 29 1	.1	--	.3	--	--	.5	--	700	1
M319BS1	63 40 23	155 23 48	.1	--	.5	--	--	1	--	5,000	1
M320BS1	63 42 28	155 20 37	.07	--	.7	--	--	1	--	2,000	1
M321BS1	63 44 20	155 17 49	.05	--	.5	--	--	.7	--	2,000	1
M322BS1	63 43 41	155 14 57	.07	--	.2	--	--	.15	--	1,500	1
M323BS1	63 46 23	155 12 51	.07	--	.5	--	--	1.5	--	5,000	.5
M325BS1	63 48 49	155 11 39	.1	--	.7	--	--	.1	--	700	.5
M326BS1	63 47 0	155 15 52	.07	--	.5	--	--	.2	--	7,000	1
M328BS1	63 39 21	155 5 44	.2	--	.3	--	--	.7	--	7,000	.7
M329BS1	63 42 23	155 5 37	.07	--	.2	--	--	1.5	--	7,000	1
M331BS1	63 42 33	155 9 42	.07	--	.3	--	--	1	--	5,000	.7
M332BS1	63 41 4	155 13 8	.1	--	.3	--	--	1	--	5,000	.7
M333BS1	63 39 15	155 16 47	.5	--	.5	--	--	1	--	7,000	.7
M334BS1	63 38 58	155 17 47	.07	--	.2	--	--	2	--	10,000	1
M335BS1	63 36 35	155 17 21	.07	--	.3	--	--	3	--	2,000	.7
M336BS1	63 34 2	155 15 18	.07	--	.3	--	--	1	--	2,000	1
M339BS1	63 33 29	153 13 53	.07	--	.1	--	--	1.5	--	3,000	2
M340BS1	63 34 40	153 12 17	.1	--	.5	--	--	.3	--	2,000	1
M343BS1	63 39 13	153 7 22	.1	--	.3	--	--	.7	--	1,500	1
M344BS1	63 42 25	153 6 30	.07	--	.7	--	--	1	--	7,000	1
M349BS1	63 29 32	153 13 42	.1	--	.5	--	--	.7	--	1,000	1
M350BS1	63 21 34	154 47 14	.1	--	.7	--	--	2	--	7,000	.5
M351BS1	63 23 2	154 51 53	.07	--	.3	--	--	1	--	7,000	.5
M357BS1	63 30 12	154 48 15	.1	--	.3	--	--	.7	--	1,500	.7
M359BS1	63 34 34	154 49 57	.07	--	.5	--	--	.5	--	2,000	1
M360BS1	63 32 51	154 58 31	.07	--	.3	--	--	.7	--	500	1
M363BS1	63 48 49	153 39 45	.07	--	.5	--	--	.2	--	2,000	.7
M368BS1	63 50 26	153 33 49	.07	--	.3	--	--	.15	--	3,000	1
M380BS1	63 55 19	153 47 16	.07	--	.3	--	--	1	--	2,000	<.5
M383BS1	63 51 52	153 52 15	.07	--	.3	--	--	.7	--	7,000	.5
M387BS1	63 47 17	154 36 22	.1	--	.3	--	--	1	--	7,000	.5
M392BS1	63 49 20	154 42 56	.1	--	.3	--	--	.5	--	10,000	.7
M393BS1	63 51 21	154 45 24	.1	--	.3	--	--	.15	--	1,500	1
M397BS1	63 56 21	154 28 31	.1	--	.3	--	--	.2	--	3,000	.7
M398BS1	63 58 44	154 32 41	.1	--	.5	--	--	1	--	7,000	.7
M399BS1	63 48 47	154 51 2	.1	--	.5	--	--	.7	--	7,000	.5
M400BS1	63 45 18	155 49 44	.07	--	.5	--	--	.3	--	300	.7
M401BS1	63 47 7	155 53 36	.07	--	.3	--	--	1	--	1,500	1
M402BS1	63 48 24	155 56 12	.07	--	.3	--	--	.5	--	2,000	1
M403BS1	63 50 21	155 55 30	.1	--	.7	--	--	.7	--	7,000	.7

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M289BS1	N	N	N	<5	70	50	70	70	1	N	2,000	50	3,000	N
M290BS1	N	N	N	<5	50	50	70	30	1	N	1,500	70	3,000	N
M291BS1	N	N	N	<5	50	50	70	20	1	N	700	50	2,000	N
M292BS1	N	N	N	<5	50	50	70	70	<1	N	500	50	2,000	N
M293BS1	N	N	20	<5	70	50	70	70	<1	N	1,000	50	2,000	N
M294BS1	N	N	N	5	70	50	70	70	10	N	700	50	2,000	N
M295BS1	N	N	N	10	70	50	70	50	10	N	1,000	20	2,000	N
M296BS1	N	N	20	5	70	50	70	70	3	N	1,000	20	2,000	N
M297BS1	N	N	N	<5	50	50	70	50	N	N	1,000	50	2,000	N
M298BS1	N	N	N	<5	70	50	70	70	<1	N	1,000	50	2,000	N
M299BS1	N	N	N	<5	50	50	70	70	<1	N	500	30	2,000	N
M300BS1	N	N	N	<5	50	50	70	50	1	N	2,000	30	2,000	N
M301BS1	N	N	10	<5	70	50	70	70	5	N	700	50	3,000	N
M302BS1	N	N	N	<5	100	50	70	50	7	N	1,000	20	2,000	N
M303BS1	N	N	N	<5	70	50	70	20	2	N	700	50	2,000	N
M306BS1	N	N	N	<5	70	50	70	10	1	N	2,000	30	2,000	N
M310BS1	N	N	N	N	70	--	N	30	5	N	3,000	--	2,000	--
M311BS1	N	N	5	N	100	--	N	150	7	N	2,000	--	1,000	--
M316BS1	N	N	5	N	70	--	N	70	7	N	300	--	1,500	--
M317BS1	N	<1	<5	N	50	--	N	150	2	N	1,500	--	2,000	--
M318BS1	N	1	N	N	70	--	N	50	1	N	700	--	2,000	--
M319BS1	N	1.5	30	N	100	--	N	200	5	N	1,500	--	1,500	--
M320BS1	N	N	7	N	100	--	N	70	<1	N	500	--	700	--
M321BS1	N	N	10	N	100	--	N	70	1	N	1,000	--	1,000	--
M322BS1	N	<1	N	N	100	--	N	30	1	N	2,000	--	1,000	--
M323BS1	N	1	7	N	100	--	N	100	3	N	1,500	--	1,500	--
M325BS1	N	1.5	5	N	100	--	N	100	3	N	1,000	--	1,000	--
M326BS1	N	<1	N	N	70	--	N	50	<1	N	1,000	--	700	--
M328BS1	N	1.5	20	N	150	--	N	20	5	N	1,500	--	1,000	--
M329BS1	N	N	<5	N	50	--	N	100	2	N	1,500	--	1,500	--
M331BS1	N	N	N	N	50	--	N	50	1.5	N	1,000	--	1,500	--
M332BS1	N	2	10	N	70	--	N	150	1	N	1,000	--	1,000	--
M333BS1	N	1	10	N	100	--	N	150	3	N	1,000	--	2,000	--
M334BS1	N	1.5	20	N	70	--	N	100	1	N	1,500	--	1,500	--
M335BS1	N	1.5	7	N	150	--	N	100	1.5	N	700	--	1,500	--
M336BS1	N	N	N	N	100	--	N	70	1	N	1,000	--	3,000	--
M339BS1	N	N	N	N	100	--	N	70	2	N	1,000	--	1,000	--
M340BS1	N	<1	5	N	100	--	N	150	1	N	500	--	2,000	--
M343BS1	N	N	N	N	70	--	N	30	3	N	500	--	2,000	--
M344BS1	N	N	5	N	100	--	N	150	1	N	1,500	--	1,000	--
M349BS1	N	N	<5	N	100	--	N	30	3	N	700	--	2,000	--
M350BS1	N	N	5	N	150	--	N	300	2	N	1,000	--	1,000	--
M351BS1	N	N	N	N	100	--	N	50	3	N	2,000	--	1,500	--
M357BS1	N	1.5	5	N	100	--	N	50	3	N	1,000	--	1,500	--
M359BS1	N	N	<5	N	100	--	N	20	<1	N	1,500	--	1,000	--
M360BS1	N	N	<5	N	200	--	N	100	2	N	500	--	1,500	--
M363BS1	N	N	N	N	50	--	N	5	1.5	N	700	--	2,000	--
M368BS1	N	N	N	N	50	--	N	5	1	N	1,000	--	3,000	--
M380BS1	N	N	<5	N	100	--	N	50	15	N	700	--	1,500	--
M383BS1	N	N	N	N	50	--	N	15	3	N	2,000	--	2,000	--
M387BS1	N	N	N	N	100	--	N	50	5	N	1,500	--	2,000	--
M392BS1	N	N	5	N	150	--	N	100	1.5	<5	2,000	--	2,000	--
M393BS1	N	N	N	N	100	--	N	30	1	N	500	--	2,000	--
M397BS1	N	N	15	N	150	--	N	100	3	N	1,000	--	1,500	--
M398BS1	N	N	7	N	100	--	<5	70	1	N	700	--	1,000	--
M399BS1	N	N	7	N	100	--	N	100	1	N	1,500	--	1,500	--
M400BS1	N	N	N	N	70	--	N	15	5	N	200	--	2,000	--
M401BS1	N	<1	N	N	70	--	N	50	3	N	500	--	1,500	--
M402BS1	N	N	N	N	70	--	N	70	1	N	700	--	1,500	--
M403BS1	N	<1	10	N	50	--	N	100	1	N	500	--	1,500	--

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M404BS1	63 49 41	155 48 45	.07	--	.3	--	--	1.5	--	7,000	1
M405BS1	63 51 35	155 48 31	.07	--	.15	--	--	.15	--	5,000	.7
M406BS1	63 54 53	155 58 30	.07	--	.3	--	--	.5	--	5,000	1
M407BS1	63 56 8	155 48 19	.07	--	.5	--	--	2	--	1,000	.5
M408BS1	63 56 33	155 42 17	.1	--	.3	--	--	.5	--	10,000	1
M409BS1	63 54 1	155 43 7	.07	--	.3	--	--	1	--	2,000	1
M410BS1	63 54 22	155 42 40	.1	--	.3	--	--	1	--	1,000	1
M411BS1	63 56 32	155 39 1	.1	--	.2	--	--	.7	--	7,000	.7
M412BS1	63 58 57	155 39 34	.1	--	.2	--	--	1.5	--	3,000	1
M413BS1	63 58 5	155 34 58	.07	--	.15	--	--	.3	--	7,000	.5
M414BS1	63 59 41	155 32 3	.1	--	.3	--	--	.2	--	5,000	.5
M416BS1	63 49 49	155 18 38	.07	--	.3	--	--	.5	--	1,500	.5
M417BS1	63 50 5	155 18 15	.05	--	.2	--	--	.3	--	1,500	.7
M421BS1	63 54 34	155 22 18	.07	--	.5	--	--	.7	--	2,000	.7
M422BS1	63 56 10	155 24 58	.07	--	.5	--	--	.5	--	10,000	.5
M423BS1	63 46 5	155 21 47	.1	--	.3	--	--	.1	--	7,000	.7
M424BS1	63 57 43	155 10 11	.1	--	.2	--	--	.5	--	1,500	.5
M426BS1	63 58 44	155 21 56	.07	--	.3	--	--	.7	--	5,000	<.5
M427BS1	63 56 52	155 33 17	.07	--	.15	--	--	.5	--	7,000	1
M428BS1	63 56 43	155 31 39	1	--	.3	--	--	.2	--	7,000	.5
M429BS1	63 54 12	155 36 37	.07	--	.5	--	--	.7	--	5,000	.7
M430BS1	63 54 0	155 35 46	.07	--	.3	--	--	.7	--	1,500	.5
M432BS1	63 51 46	155 31 12	.07	--	.3	--	--	.15	--	7,000	1
M433BS1	63 51 5	155 30 38	.15	--	.5	--	--	.2	--	1,000	.5
M437BS1	63 48 25	155 37 45	.07	--	.2	--	--	.2	--	2,000	.7
M444BS1	63 10 21	155 51 33	.07	--	.3	--	--	.5	--	2,000	1
M445BS1	63 44 24	155 24 54	.1	--	.2	--	--	.7	--	10,000	.5
M446BS1	63 45 17	155 27 5	.07	--	.5	--	--	.7	--	7,000	<.5
M448BS1	63 49 36	155 35 23	.07	--	.7	--	--	.5	--	7,000	.7
M449BS1	63 49 11	155 40 56	.2	--	.2	--	--	.5	--	1,000	.7
M450BS1	63 46 49	155 38 32	.07	--	.3	--	--	.15	--	7,000	1
M451BS1	63 46 13	155 35 21	.07	--	.2	--	--	.7	--	7,000	<.5
M453BS1	63 43 27	155 31 44	.1	--	.3	--	--	1.5	--	2,000	.5
M454BS1	63 41 26	155 30 8	.1	--	.3	--	--	2	--	7,000	1
M455BS1	63 40 42	155 35 34	.07	--	.3	--	--	1	--	1,000	.7
M457BS1	63 40 15	155 47 0	.5	--	.5	--	--	1	--	7,000	.5
M458BS1	63 44 10	155 52 5	.1	--	.3	--	--	.15	--	7,000	.5
M459BS1	63 42 18	155 51 33	.05	--	.005	--	--	N	--	300	N
M460BS1	63 40 38	155 50 1	.07	--	.3	--	--	.5	--	7,000	.5
M461BS1	63 35 36	155 56 34	.05	--	.2	--	--	.5	--	2,000	.7
M466BS1	63 31 19	155 45 17	.07	--	.3	--	--	.5	--	3,000	.5
M467BS1	63 31 50	155 39 34	.07	--	.3	--	--	.7	--	2,000	.5
M469BS1	63 57 58	154 41 28	.07	--	.3	--	--	1	--	1,000	.7
M473BS1	63 56 36	154 52 1	.07	--	.3	--	--	.7	--	1,500	<.5
M474BS1	63 53 33	154 56 29	.07	--	.15	--	--	1	--	3,000	.7
M477BS1	63 44 33	154 16 44	.07	--	.3	--	--	.15	--	2,000	.5
M485BS1	63 22 23	155 10 3	.07	--	.2	--	--	.5	--	1,500	1
M486BS1	63 20 45	155 11 42	.07	--	.5	--	--	.2	--	700	.7
M487BS1	63 24 13	155 16 51	.07	--	.3	--	--	.7	--	5,000	.5
M489BS1	63 31 51	155 30 47	.07	--	.3	--	--	.5	--	7,000	.7
M493BS1	63 54 53	154 51 28	.05	--	.3	--	--	1	--	7,000	.5
M494BS1	63 52 34	154 53 37	.05	--	.3	--	--	.15	--	1,500	.7
M497BS1	63 46 38	154 58 12	.07	--	.2	--	--	.5	--	7,000	1
M498BS1	63 47 19	154 52 6	.07	--	.3	--	--	.7	--	7,000	1
M499BS1	63 44 31	154 56 24	.07	--	.3	--	--	.7	--	5,000	.5
M500BS1	63 43 7	154 57 33	.05	--	.3	--	--	1.5	--	1,500	.7
M501BS1	63 41 54	154 49 37	.05	--	.15	--	--	.7	--	3,000	.7
M502BS1	63 42 45	154 46 4	.05	--	.5	--	--	<.1	--	2,000	.7
M504BS1	63 37 52	154 35 56	.07	--	.15	--	--	1	--	7,000	.7
M505BS1	63 40 3	154 35 19	.07	--	.2	--	--	<.1	--	5,000	.5

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M404BS1	N	N	5	N	50	--	N	70	1	N	1,000	--	1,000	--
M405BS1	N	N	<5	N	70	--	N	30	1	N	500	--	2,000	--
M406BS1	N	N	7	N	50	--	N	100	1	N	1,000	--	1,500	--
M407BS1	N	N	N	N	100	--	N	30	1.5	N	300	--	3,000	--
M408BS1	N	N	7	N	50	--	N	100	1	N	1,500	--	1,500	--
M409BS1	N	N	5	N	70	--	N	200	1	N	500	--	5,000	--
M410BS1	N	N	5	N	50	--	N	100	1.5	N	700	--	1,000	--
M411BS1	N	N	N	N	50	--	N	100	1	N	1,000	--	2,000	--
M412BS1	N	N	10	N	50	--	N	150	5	N	1,500	--	2,000	--
M413BS1	N	N	<5	N	50	--	N	200	1	N	700	--	1,000	--
M414BS1	N	N	<5	N	50	--	N	50	2	N	1,000	--	2,000	--
M416BS1	N	N	N	N	70	--	N	50	2	N	1,500	--	1,500	--
M417BS1	N	7	N	N	50	--	N	50	1.5	N	700	--	700	--
M421BS1	N	N	N	N	50	--	<5	70	1	N	700	--	1,000	--
M422BS1	N	N	5	N	50	--	N	100	1	N	1,000	--	1,500	--
M423BS1	N	N	<5	N	30	--	N	15	2	N	2,000	--	1,500	--
M424BS1	N	N	N	N	50	--	N	20	2	N	700	--	1,500	--
M426BS1	N	N	5	N	70	--	N	100	2	N	1,500	--	1,500	--
M427BS1	N	N	5	N	30	--	N	50	1	N	1,000	--	1,000	--
M428BS1	N	N	<5	N	50	--	N	20	1.5	N	1,500	--	2,000	--
M429BS1	N	1.5	<5	N	100	--	N	70	3	N	1,000	--	2,000	--
M430BS1	N	N	N	N	50	--	N	30	1.5	N	500	--	1,000	--
M432BS1	N	1.5	30	N	70	--	N	70	1	N	1,500	--	700	--
M433BS1	N	N	<5	N	70	--	N	70	5	N	700	--	1,000	--
M437BS1	N	2	<5	N	70	--	N	150	1	N	500	--	1,000	--
M444BS1	N	N	N	N	50	--	N	15	1	N	1,500	--	1,500	--
M445BS1	N	N	N	N	50	--	N	70	1	N	3,000	--	700	--
M446BS1	N	<1	N	N	70	--	N	50	5	N	2,000	--	700	--
M448BS1	N	3	70	N	150	--	N	150	1.5	N	1,000	--	1,000	--
M449BS1	N	N	N	N	30	--	N	20	3	N	5,000	--	2,000	--
M450BS1	N	N	10	N	50	--	N	100	1	N	1,000	--	700	--
M451BS1	N	N	5	N	70	--	N	100	2	N	1,000	--	700	--
M453BS1	N	N	<5	N	70	--	N	200	5	N	1,500	--	1,000	--
M454BS1	N	1.5	10	N	70	--	N	150	5	N	1,000	--	700	--
M455BS1	N	1	N	N	50	--	N	150	3	N	500	--	2,000	--
M457BS1	N	N	5	N	70	--	N	100	3	N	1,500	--	2,000	--
M458BS1	N	N	15	N	70	--	N	70	1.5	N	1,000	--	1,000	--
M459BS1	N	N	N	N	10	--	N	15	1	N	<100	--	500	--
M460BS1	N	N	7	N	70	--	N	150	2	N	1,000	--	1,000	--
M461BS1	N	N	N	N	70	--	N	50	<1	N	1,500	--	2,000	--
M466BS1	N	2	N	N	100	--	N	70	1.5	N	1,500	--	2,000	--
M467BS1	N	<1	<5	N	50	--	N	100	2	N	1,500	--	2,000	--
M469BS1	N	N	N	N	50	--	N	20	2	N	300	--	2,000	--
M473BS1	N	N	7	N	70	--	N	100	2	N	700	--	1,500	--
M474BS1	N	N	<5	N	70	--	N	70	1.5	N	1,000	--	700	--
M477BS1	N	N	N	N	50	--	N	30	1	N	1,500	--	1,000	--
M485BS1	N	N	N	N	50	--	N	20	2	N	1,000	--	2,000	--
M486BS1	N	N	N	N	50	--	N	30	1.5	N	500	--	1,500	--
M487BS1	N	N	<5	N	70	--	N	70	1	N	1,000	--	1,500	--
M489BS1	N	N	N	N	50	--	N	20	1.5	N	3,000	--	2,000	--
M493BS1	N	1	50	N	70	--	20	150	1.5	N	700	--	1,000	--
M494BS1	N	N	N	N	50	--	N	50	1	N	1,000	--	1,000	--
M497BS1	N	N	7	N	30	--	N	100	1.5	N	1,000	--	1,500	--
M498BS1	N	N	<5	N	70	--	30	100	1	N	1,000	--	1,500	--
M499BS1	N	N	15	N	100	--	N	200	1	N	1,000	--	1,500	--
M500BS1	N	N	N	N	50	--	N	20	1	N	500	--	3,000	--
M501BS1	N	N	<5	N	20	--	N	50	1	N	1,000	--	1,500	--
M502BS1	N	N	N	N	70	--	N	70	<1	N	300	--	500	--
M504BS1	N	N	5	N	50	--	N	150	1	N	1,000	--	1,500	--
M505BS1	N	N	N	N	30	--	N	10	1.5	N	1,500	--	1,000	--

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be
M506BS1	63 39 55	154 46 41	.05	--	.3	--	--	.7	--	7,000	.5
M510BS1	63 41 25	153 37 38	.05	--	.5	--	--	.5	--	1,500	.5
M515BS1	63 28 56	153 58 24	.07	--	.3	--	--	.15	--	500	.7

Table 4. Results of analyses of samples of the ash of black spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Bi	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M506BS1	N	N	5	N	70	--	N	100	1	N	1,500	--	2,000	--
M510BS1	N	N	N	N	100	--	N	7	1.5	N	2,000	--	1,500	--
M515BS1	N	N	<5	N	70	--	N	70	1	N	300	--	700	--

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown; --, no data]

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be	S-Bi
M004BS2	63 9 43	154 56 2	.2	2	.5	.05	>10,000	2	300	700	N	N
M005BS2	63 12 54	154 55 26	.2	2	.5	.03	>10,000	1	300	1,000	N	200
M006BS2	63 11 0	154 50 5	.2	2	.5	.05	>10,000	2	500	700	N	N
M007BS2	63 12 34	154 51 16	.3	2	.5	.05	>10,000	1.5	300	700	N	N
M008BS2	63 12 36	154 45 48	.3	2	.5	.07	>10,000	1.5	300	500	N	N
M010BS2	63 15 37	154 38 43	.2	3	.5	.05	>10,000	2	300	1,500	N	N
M015BS2	63 19 18	154 24 55	.3	2	.5	.07	5,000	2	300	1,000	N	N
M018BS2	63 21 5	154 28 40	.3	2	.3	.05	>10,000	2	500	1,000	N	N
M019BS2	63 22 34	154 20 50	.2	3	.5	.05	>10,000	2	300	500	N	N
M020BS2	63 24 6	154 15 57	.3	3	.5	.05	2,000	1.5	300	700	N	N
M025BS2	63 31 50	155 9 17	.2	2	.5	.05	>10,000	2	200	700	N	N
M026BS2	63 33 53	155 3 27	.2	2	.5	.05	5,000	2	200	1,000	N	N
M028BS2	63 32 40	154 56 39	.2	2	.5	.02	>10,000	2	300	500	N	N
M032BS2	63 28 39	154 45 45	.2	2	.5	.02	>10,000	2	500	1,000	N	N
M039BS2	63 28 38	154 30 35	.2	3	.5	.03	>10,000	3	500	3,000	N	N
M041BS2	63 27 5	154 33 24	.3	3	.5	.07	>10,000	3	500	1,000	N	N
M043BS2	63 29 37	154 38 2	.2	3	.5	.05	>10,000	2	500	1,000	N	N
M047BS2	63 33 37	154 38 11	.3	3	.5	.1	>10,000	2	500	3,000	N	N
M048BS2	63 35 34	154 38 36	.2	3	.3	.03	>10,000	1	300	500	N	N
M049BS2	63 33 43	154 39 1	.2	3	.7	.05	>10,000	5	300	2,000	N	N
M052BS2	63 35 10	154 21 13	.2	3	.5	.03	>10,000	1.5	500	700	N	N
M060BS2	63 40 18	154 20 1	.2	5	.5	.05	>10,000	2	500	5,000	N	N
M063BS2	63 39 4	154 25 43	.3	3	.5	.07	>10,000	1.5	500	500	N	N
M064BS2	63 43 2	154 33 19	.15	3	.3	--	>10,000	2	--	1,500	N	N
M068BS2	63 3 48	154 49 38	.5	3	.5	--	2,000	1	--	1,500	N	N
M070BS2	63 6 0	154 51 24	.07	2	.3	--	>10,000	2	--	1,000	N	N
M071BS2	63 2 57	154 55 16	.5	5	.3	--	>10,000	1.5	--	10,000	N	N
M072BS2	63 5 29	154 56 0	.2	2	.3	--	10,000	1.5	--	1,000	N	N
M073BS2	63 3 8	155 3 47	.2	3	.3	--	>10,000	2	--	700	N	N
M074BS2	63 1 31	154 58 32	.2	3	.3	--	>10,000	1	--	700	N	N
M076BS2	63 2 29	155 6 20	.15	2	.2	--	>10,000	2	--	1,000	N	N
M078BS2	63 1 15	155 19 34	.2	3	.3	--	7,000	3	--	3,000	N	5
M080BS2	63 22 16	155 26 26	.2	3	.2	--	>10,000	3	--	2,000	N	N
M084BS2	63 28 7	155 28 50	.3	5	.2	--	>10,000	2	--	2,000	N	N
M093BS2	63 18 10	155 30 40	.2	5	.2	--	>10,000	2	--	1,500	N	N
M094BS2	63 19 35	155 22 26	.5	5	.3	--	>10,000	2	--	1,000	N	N
M097BS2	63 16 56	155 42 15	.3	3	.3	--	10,000	1.5	--	1,500	N	N
M098BS2	63 1 50	155 31 44	.3	5	.5	--	>10,000	2	--	1,000	N	N
M099BS2	63 0 47	155 40 25	.2	5	.5	--	>10,000	1.5	--	1,000	N	N
M100BS2	63 0 40	155 49 28	.2	3	.3	--	>10,000	2	--	700	N	N
M101BS2	63 3 1	155 51 42	.2	2	.5	--	>10,000	2	--	1,000	N	N
M102BS2	63 2 59	155 54 52	.5	3	.5	--	>10,000	1.5	--	500	N	N
M103BS2	63 5 20	155 48 8	.2	5	.5	--	>10,000	1.5	--	700	N	N
M105BS2	63 4 53	155 52 12	.3	5	.3	--	>10,000	1.5	--	700	N	N
M106BS2	63 7 24	155 57 52	.2	3	.3	--	>10,000	1.5	--	2,000	N	50
M108BS2	63 11 57	155 49 39	.3	3	.3	--	>10,000	2	--	3,000	N	N
M109BS2	63 12 44	155 49 28	.2	2	.5	.02	>10,000	2	300	700	N	N
M110BS2	63 14 9	155 55 17	.3	3	.5	.02	>10,000	1	500	500	N	N
M113BS2	63 12 56	155 42 29	.2	3	.5	.02	>10,000	1.5	300	1,500	N	N
M114BS2	63 20 24	155 55 46	.3	2	.5	.05	10,000	1.5	300	3,000	N	N
M121BS2	63 22 36	155 49 39	.1	3	.3	.01	>10,000	1	300	1,000	N	N
M125BS2	63 28 13	155 44 59	.2	5	.5	.03	>10,000	2	300	500	N	N
M129BS2	63 29 42	155 46 23	.2	3	.5	.03	>10,000	1	300	700	N	N
M130BS2	63 25 52	155 59 37	.2	2	.5	.03	>10,000	1	500	700	N	N
M131BS2	63 52 47	155 9 15	.2	3	.5	.05	2,000	1.5	300	2,000	N	N
M133BS2	63 51 50	155 7 54	.2	3	.5	.1	>10,000	2	200	3,000	N	N
M135BS2	63 51 36	155 3 28	.2	3	.7	.1	>10,000	2	300	2,000	N	N
M137BS2	63 54 26	155 3 5	.3	3	.7	.1	>10,000	2	300	2,000	N	N
M139BS2	63 54 47	155 3 1	.2	3	.5	.05	>10,000	1	300	1,000	N	N
M140BS2	63 56 17	155 3 32	.2	3	.5	.05	>10,000	2	200	500	N	N

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M004BS2	10	20	5	150	50	N	70	15	N	N	300	50	N	2,000	10
M005BS2	10	10	10	150	50	N	70	100	N	N	300	50	N	3,000	N
M006BS2	10	5	5	150	50	N	20	20	N	N	300	50	N	3,000	10
M007BS2	5	10	15	150	50	N	30	20	N	N	500	50	N	3,000	20
M008BS2	5	5	7	150	50	N	30	30	N	N	200	50	N	5,000	20
M010BS2	20	30	10	200	50	N	150	30	N	N	700	50	N	3,000	10
M015BS2	5	5	5	150	50	N	15	20	N	N	1,000	50	N	5,000	10
M018BS2	2	5	5	150	50	10	50	20	N	N	700	50	N	3,000	10
M019BS2	1	10	<5	200	50	<5	30	20	N	N	200	30	N	3,000	10
M020BS2	1	5	<5	150	50	<5	15	20	N	N	700	20	N	3,000	10
M025BS2	1	N	<5	100	50	N	20	20	N	N	1,000	30	N	3,000	10
M026BS2	1	5	<5	150	50	N	30	15	N	N	3,000	20	N	3,000	10
M028BS2	2	N	<5	150	50	N	50	30	N	N	2,000	30	N	3,000	10
M032BS2	1	15	<5	150	50	N	50	10	N	N	2,000	30	N	3,000	10
M039BS2	1	15	5	200	50	N	200	20	N	N	5,000	30	N	3,000	10
M041BS2	5	10	5	200	50	N	50	50	N	N	3,000	50	N	5,000	20
M043BS2	10	15	5	200	50	N	50	30	N	N	2,000	50	N	3,000	20
M047BS2	3	10	10	200	50	N	50	50	N	N	5,000	50	N	5,000	20
M048BS2	2	N	<5	200	50	N	30	10	N	N	3,000	30	N	3,000	10
M049BS2	2	20	<5	200	50	N	50	20	N	N	1,500	30	N	5,000	10
M052BS2	2	20	5	150	50	N	100	20	N	N	1,000	50	N	3,000	10
M060BS2	2	15	5	200	50	N	200	30	N	N	3,000	30	N	5,000	10
M063BS2	1	10	10	200	<20	N	30	20	N	N	2,000	30	N	2,000	10
M064BS2	<1	30	<5	200	50	N	100	15	N	N	500	20	N	5,000	--
M068BS2	N	30	30	150	50	N	100	10	N	N	500	20	N	2,000	--
M070BS2	N	10	10	100	50	N	20	50	N	N	700	20	N	3,000	--
M071BS2	1	20	15	200	50	N	50	50	N	N	3,000	50	N	5,000	--
M072BS2	N	10	5	150	50	N	30	15	N	5	1,500	20	N	3,000	--
M073BS2	1	15	5	200	50	N	50	20	N	10	500	30	N	3,000	--
M074BS2	1	15	7	150	50	N	30	20	N	<5	1,000	20	N	3,000	--
M076BS2	2	10	5	150	50	N	50	20	N	N	300	20	N	3,000	--
M078BS2	N	20	5	150	50	N	70	20	N	10	2,000	20	N	3,000	--
M080BS2	N	10	5	150	50	N	50	20	N	N	1,500	30	N	3,000	--
M084BS2	1	10	5	150	50	N	30	20	N	N	1,500	20	N	3,000	--
M093BS2	1	30	<5	200	50	N	70	10	N	N	1,500	20	N	3,000	--
M094BS2	1	15	10	200	50	N	50	30	N	N	700	30	N	3,000	--
M097BS2	N	30	5	150	50	N	70	20	N	N	700	20	N	3,000	--
M098BS2	1	20	5	200	50	N	50	20	N	N	1,500	20	N	3,000	--
M099BS2	2	20	<5	150	50	N	50	15	N	N	1,000	20	N	3,000	--
M100BS2	3	15	<5	150	50	N	30	15	N	N	300	20	N	2,000	--
M101BS2	3	30	N	100	50	N	70	10	N	N	700	20	N	2,000	--
M102BS2	N	30	15	150	50	N	70	10	N	20	100	20	N	3,000	--
M103BS2	N	<5	<5	150	50	N	30	15	N	N	500	20	N	3,000	--
M105BS2	N	<5	<5	200	50	N	30	15	N	N	700	30	N	3,000	--
M106BS2	1	<5	<5	150	50	N	20	100	N	N	1,000	30	N	3,000	--
M108BS2	3	30	<5	200	50	N	100	30	N	N	1,000	30	N	3,000	--
M109BS2	<1	10	<5	150	30	N	50	20	N	N	500	30	N	3,000	N
M110BS2	N	10	<5	200	50	N	50	20	N	N	200	30	N	3,000	N
M113BS2	N	20	<5	100	50	N	30	20	N	10	1,500	30	N	5,000	N
M114BS2	<1	20	10	150	50	N	70	20	N	10	1,000	30	N	3,000	20
M121BS2	5	10	<5	100	50	N	20	10	N	10	300	30	N	2,000	<10
M125BS2	20	<5	5	200	50	N	20	20	N	10	500	30	N	5,000	<10
M129BS2	N	<5	<5	150	50	N	20	10	N	10	500	50	N	3,000	<10
M130BS2	N	10	5	150	50	N	30	30	N	<5	700	30	N	2,000	10
M131BS2	N	<5	<5	200	50	N	20	15	N	7	2,000	10	N	3,000	<10
M133BS2	N	20	<5	200	50	N	50	15	N	N	700	50	N	3,000	20
M135BS2	N	15	<5	150	50	N	200	30	N	10	1,500	50	N	3,000	20
M137BS2	N	10	10	200	50	N	30	30	N	10	1,500	50	N	3,000	20
M139BS2	N	10	5	150	50	N	50	10	N	7	1,500	50	N	3,000	10
M140BS2	N	<5	5	150	50	N	20	20	N	5	700	30	N	3,000	10

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be	S-Bi
M141BS2	63 59 15	155 5 7	.3	5	.5	.1	>10,000	2	300	3,000	N	N
M142BS2	63 52 26	155 16 46	.2	2	.3	.02	>10,000	1.5	200	1,000	N	N
M144BS2	63 57 8	155 19 31	.2	3	.3	.02	>10,000	2	200	1,000	N	N
M145BS2	63 58 27	155 16 37	.2	3	.5	.03	>10,000	2	300	1,000	N	N
M146BS2	63 56 44	155 12 11	.2	3	.5	.02	>10,000	.5	200	1,000	N	N
M147BS2	63 56 32	155 11 29	.3	3	.5	.1	5,000	1	200	3,000	N	N
M148BS2	63 57 25	155 10 16	.3	5	.5	.1	>10,000	1	500	700	N	N
M149BS2	63 55 21	155 6 51	.3	5	.5	.05	>10,000	1.5	300	3,000	N	N
M152BS2	63 33 22	154 11 46	.3	5	.3	.03	>10,000	1	300	5,000	N	N
M154BS2	63 33 51	154 2 47	.3	5	.3	.03	10,000	1.5	300	700	N	N
M160BS2	63 31 26	154 2 6	.2	2	.5	.02	10,000	1	300	700	N	N
M171BS2	63 7 38	155 8 42	.3	3	.5	.05	>10,000	2	300	2,000	N	N
M176BS2	63 14 21	154 53 29	.2	3	.3	.02	10,000	2	300	2,000	N	N
M177BS2	63 17 29	154 46 44	.3	2	.3	.05	10,000	2	300	700	N	N
M178BS2	63 16 7	154 46 38	.3	3	.3	.05	>10,000	5	300	2,000	N	N
M179BS2	63 20 32	154 41 28	.3	3	.3	.05	>10,000	1.5	300	2,000	N	N
M180BS2	63 18 15	154 41 35	.15	3	.5	.03	5,000	.7	300	2,000	N	2
M181BS2	63 22 39	154 41 3	.15	2	.3	.02	5,000	2	300	1,000	N	N
M182BS2	63 21 1	154 38 26	.5	3	.5	.05	>10,000	1.5	300	700	N	N
M184BS2	63 21 11	154 37 22	.3	3	.2	.03	>10,000	1.5	300	700	N	7
M185BS2	63 23 40	154 46 20	.3	3	.3	.02	>10,000	1.5	300	1,000	N	N
M187BS2	63 21 2	154 53 4	.2	3	.3	.02	>10,000	1.5	300	1,000	N	1
M188BS2	63 23 3	154 47 46	.5	3	.3	.03	>10,000	1.5	300	1,500	N	10
M189BS2	63 21 15	154 59 1	.2	3	.3	.02	>10,000	1.5	300	3,000	N	1
M190BS2	63 20 39	154 56 56	1.5	5	.3	.07	7,000	2	300	7,000	N	N
M191BS2	63 20 7	155 3 38	1	5	.5	.1	>10,000	1	300	10,000	N	N
M195BS2	63 26 11	155 7 52	.5	3	.5	.05	>10,000	1.5	300	500	N	1
M197BS2	63 26 39	155 16 32	.3	3	.5	.05	>10,000	1.5	300	500	N	1
M199BS2	63 46 21	153 52 50	.3	5	.5	.03	>10,000	1.5	300	700	N	N
M207BS2	63 58 11	153 18 17	.3	5	.5	.03	7,000	1.5	300	1,000	N	N
M208BS2	63 56 59	153 12 34	.3	3	.5	.05	>10,000	2	500	1,000	N	N
M210BS2	63 58 1	153 3 43	.3	3	.3	.05	>10,000	2	300	2,000	N	N
M211BS2	63 56 39	153 7 17	.2	3	.3	.03	>10,000	2	200	3,000	N	N
M212BS2	63 56 2	153 0 32	.3	3	.3	.05	>10,000	1.5	300	1,000	N	N
M213BS2	63 52 44	153 5 29	.2	3	.3	.05	10,000	1.5	200	1,500	N	N
M214BS2	63 43 52	154 4 17	.3	2	.3	.05	5,000	1.5	200	1,000	N	2
M215BS2	63 51 24	153 19 25	.3	2	.3	.03	>10,000	2	200	1,500	N	N
M220BS2	63 45 38	153 12 14	1.5	3	.5	.2	>10,000	3	500	2,000	N	N
M221BS2	63 46 21	153 2 33	.2	2	.3	.03	10,000	1.5	200	2,000	N	N
M224BS2	63 51 47	153 8 23	1	5	.3	.2	10,000	2	500	5,000	N	N
M225BS2	63 51 50	153 3 30	.5	2	.5	.05	10,000	2	300	1,500	N	N
M226BS2	63 53 13	153 15 1	2	2	.5	.2	7,000	2	500	2,000	N	N
M231BS2	63 50 44	153 25 25	.5	5	.5	.1	>10,000	5	500	7,000	N	N
M246BS2	63 26 58	154 19 29	.5	5	.5	.07	2,000	1	200	700	N	N
M250BS2	63 43 47	154 20 7	.5	5	.5	.05	>10,000	3	300	3,000	N	N
M251BS2	63 44 5	154 20 26	.3	2	.5	.05	>10,000	2	300	700	N	N
M252BS2	63 43 42	154 15 29	.2	3	.7	.02	>10,000	2	500	3,000	N	N
M257BS2	63 55 17	154 23 23	.5	3	.5	.1	3,000	2	300	3,000	N	N
M261BS2	63 57 57	154 9 51	.2	2	.5	.03	>10,000	5	500	1,000	N	N
M265BS2	63 50 24	154 5 49	.3	2	.5	.05	>10,000	2	300	2,000	N	N
M276BS2	63 14 4	153 50 38	.5	5	1	.03	7,000	2	300	2,000	N	N
M279BS2	63 25 31	154 29 15	.5	3	.5	.03	5,000	1.5	300	3,000	N	N
M281BS2	63 19 38	154 9 55	.3	2	.3	.02	>10,000	1.5	300	700	N	N
M282BS2	63 20 15	154 0 55	.2	2	.5	.02	7,000	1.5	200	1,500	N	N
M283BS2	63 16 37	154 16 41	.3	3	.5	.05	>10,000	3	300	3,000	N	N
M284BS2	63 1 45	153 4 32	.5	5	.5	.1	>10,000	2	300	2,000	N	N
M285BS2	63 2 36	153 7 58	.3	5	.5	.05	>10,000	5	300	5,000	N	N
M286BS2	63 3 50	153 10 57	.3	3	.7	.05	10,000	2	200	2,000	N	N
M287BS2	63 6 55	153 6 27	.3	3	.7	.05	>10,000	2	300	1,000	N	N
M288BS2	63 8 43	153 2 14	.3	3	.5	.07	>10,000	1	500	1,500	N	N

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M141BS2	N	10	7	200	<20	N	50	20	N	10	3,000	50	N	5,000	20
M142BS2	N	20	<5	150	50	N	50	10	N	5	500	20	N	3,000	<10
M144BS2	N	30	<5	200	50	N	200	15	N	N	500	30	N	3,000	10
M145BS2	N	<5	<5	150	50	N	50	20	N	N	500	30	N	3,000	10
M146BS2	N	<5	<5	150	50	N	50	15	N	N	500	20	N	3,000	<10
M147BS2	N	10	10	150	50	N	50	30	N	<5	1,500	30	N	3,000	10
M148BS2	N	<5	10	300	50	N	70	30	N	5	1,000	30	N	3,000	10
M149BS2	5	<5	7	200	50	N	70	15	N	N	1,500	30	N	3,000	10
M152BS2	N	N	5	200	50	N	100	20	N	N	5,000	50	N	5,000	10
M154BS2	N	N	<5	300	50	N	50	20	N	N	200	30	N	3,000	10
M160BS2	N	N	<5	150	50	N	15	20	N	N	700	30	N	3,000	10
M171BS2	N	<5	15	150	50	N	70	30	N	5	1,000	50	N	3,000	10
M176BS2	N	<5	5	150	50	N	20	20	N	<5	700	30	N	5,000	<10
M177BS2	N	N	5	150	50	N	20	20	N	N	700	30	N	3,000	10
M178BS2	N	N	10	150	50	N	50	30	N	N	1,000	50	N	3,000	10
M179BS2	N	N	20	200	50	N	30	20	N	N	1,000	50	N	3,000	10
M180BS2	N	<5	10	200	50	N	20	10	N	N	700	20	N	2,000	<10
M181BS2	N	N	<5	150	50	N	10	15	N	N	1,000	20	N	3,000	<10
M182BS2	N	N	10	200	50	N	50	30	N	N	500	50	N	3,000	20
M184BS2	N	N	5	150	50	N	20	30	N	N	300	30	N	3,000	10
M185BS2	N	N	5	150	50	N	30	20	N	N	1,000	30	N	3,000	10
M187BS2	N	N	5	150	50	N	70	20	N	N	1,000	30	N	3,000	10
M188BS2	N	N	5	150	N	N	30	50	N	10	1,000	30	N	3,000	10
M189BS2	N	50	5	200	50	N	100	15	N	N	1,000	30	N	3,000	10
M190BS2	N	10	5	200	50	N	150	20	N	N	5,000	30	N	5,000	10
M191BS2	N	30	20	200	50	N	150	30	N	N	3,000	50	N	5,000	20
M195BS2	N	N	7	200	50	N	20	30	N	N	200	50	N	3,000	10
M197BS2	N	N	5	150	50	N	30	20	N	N	500	30	N	3,000	10
M199BS2	N	15	7	300	50	N	100	20	N	N	300	50	N	3,000	10
M207BS2	N	<5	5	150	50	N	20	20	N	N	2,000	20	N	2,000	10
M208BS2	N	N	7	200	50	N	30	30	N	N	700	50	N	3,000	20
M210BS2	2	50	15	150	50	N	200	20	N	N	1,000	50	N	5,000	10
M211BS2	2	30	5	200	50	N	300	20	N	N	1,000	30	N	3,000	10
M212BS2	N	<5	5	200	50	N	50	20	N	10	700	30	N	5,000	<10
M213BS2	N	20	7	200	50	N	50	15	N	N	1,500	20	N	3,000	<10
M214BS2	N	N	5	150	50	N	20	20	N	N	1,000	20	N	3,000	<10
M215BS2	N	20	5	150	50	N	100	20	N	N	1,000	20	N	3,000	<10
M220BS2	N	30	20	200	50	N	100	50	N	N	1,000	50	N	5,000	50
M221BS2	N	20	<5	150	50	N	150	10	N	N	700	20	N	3,000	<10
M224BS2	N	20	20	200	50	N	100	50	N	N	5,000	50	N	5,000	30
M225BS2	N	20	5	200	50	N	70	20	N	5	500	20	N	3,000	20
M226BS2	N	30	30	150	50	N	300	20	N	10	700	50	10	5,000	200
M231BS2	1	<5	15	200	50	N	20	50	N	N	3,000	50	N	10,000	20
M246BS2	1	<5	7	150	50	N	20	20	N	N	300	20	N	3,000	<10
M250BS2	N	20	10	150	50	N	50	20	N	N	2,000	50	N	3,000	<10
M251BS2	N	<5	10	150	50	N	20	30	N	N	700	30	N	3,000	<10
M252BS2	N	20	5	200	50	N	200	20	N	5	700	50	N	3,000	<10
M257BS2	2	<5	10	200	50	N	50	20	N	5	2,000	20	N	5,000	20
M261BS2	N	10	5	200	50	N	50	50	N	N	500	30	N	3,000	10
M265BS2	1	10	10	150	50	N	100	20	N	N	300	20	N	3,000	<10
M276BS2	N	N	10	200	50	N	20	30	N	N	3,000	20	N	5,000	10
M279BS2	N	N	5	200	50	N	30	30	N	N	3,000	20	N	5,000	10
M281BS2	2	10	5	200	<20	N	50	10	N	N	300	20	N	2,000	<10
M282BS2	N	<5	5	200	<20	N	20	20	N	N	2,000	20	N	2,000	N
M283BS2	1	30	5	200	50	N	70	20	N	N	2,000	30	N	5,000	10
M284BS2	1	15	5	200	50	N	30	50	N	N	1,000	50	N	5,000	10
M285BS2	20	30	10	200	50	N	200	20	N	N	3,000	50	N	5,000	<10
M286BS2	N	<5	10	200	50	N	50	20	N	N	2,000	30	N	3,000	10
M287BS2	N	20	10	200	50	N	70	30	N	N	700	50	N	3,000	10
M288BS2	1	20	10	200	50	N	100	50	N	N	700	50	N	5,000	10

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be	S-Bi
M289BS2	63 14 4	153 4 41	.3	3	.5	.07	>10,000	2	200	3,000	N	N
M290BS2	63 13 25	153 10 1	.5	5	.7	.1	>10,000	5	500	7,000	N	N
M291BS2	63 12 10	153 15 36	.5	5	.7	.07	>10,000	2	300	1,000	N	20
M292BS2	63 37 5	155 21 28	.3	3	.7	.05	>10,000	2	300	1,500	N	N
M293BS2	63 41 22	155 34 18	.2	3	.5	.02	>10,000	1.5	200	1,000	N	N
M294BS2	63 44 51	155 39 58	.2	5	.5	.05	>10,000	1.5	500	1,000	N	N
M295BS2	63 43 57	155 42 9	1	5	.5	.1	10,000	1	500	1,500	N	N
M296BS2	63 42 54	155 44 20	.2	3	.7	.1	10,000	1.5	500	3,000	N	N
M297BS2	63 45 16	155 48 48	.3	5	.5	.05	>10,000	1.5	300	3,000	N	N
M298BS2	63 42 10	155 55 48	.2	2	.5	.02	>10,000	1.5	200	2,000	N	N
M299BS2	63 41 12	155 56 21	.2	5	.5	.03	>10,000	2	300	2,000	N	N
M300BS2	63 40 7	155 54 36	.3	5	.5	.07	>10,000	1.5	500	3,000	N	N
M301BS2	63 38 39	155 47 39	.15	2	.5	.01	>10,000	1.5	300	1,000	N	N
M302BS2	63 36 36	155 58 0	.15	3	.7	.02	5,000	1.5	300	1,000	N	N
M303BS2	63 35 28	155 58 28	.3	5	.5	.05	>10,000	1.5	500	700	N	N
M306BS2	63 32 52	155 51 23	.3	5	.5	.07	>10,000	1.5	500	1,500	N	N
M310BS2	63 27 32	154 39 5	.7	--	.7	--	--	1.5	--	7,000	.5	N
M311BS2	63 30 20	154 36 2	.2	--	.7	--	--	1	--	3,000	.5	N
M316BS2	63 38 17	155 34 25	1	--	1	--	--	.2	--	1,500	.7	N
M317BS2	63 36 28	155 29 18	1	--	.7	--	--	1	--	10,000	.5	N
M318BS2	63 40 1	155 29 1	.5	--	.7	--	--	1.5	--	1,500	.5	N
M319BS2	63 40 23	155 23 48	.2	--	.5	--	--	1	--	7,000	.5	N
M320BS2	63 42 28	155 20 37	.5	--	.7	--	--	1.5	--	7,000	1	N
M321BS2	63 44 20	155 17 49	.2	--	.7	--	--	1	--	10,000	.7	N
M322BS2	63 43 41	155 14 57	.3	--	1	--	--	N	--	5,000	1	N
M323BS2	63 46 23	155 12 51	.15	--	.7	--	--	2	--	7,000	.5	N
M325BS2	63 48 49	155 11 39	.2	--	5	--	--	.7	--	7,000	.7	N
M326BS2	63 47 0	155 15 52	.3	--	.7	--	--	.7	--	10,000	.7	N
M328BS2	63 39 21	155 5 44	.15	--	.7	--	--	1.5	--	10,000	.7	N
M329BS2	63 42 23	155 5 37	.3	--	.7	--	--	1	--	10,000	1	N
M331BS2	63 42 33	155 9 42	.2	--	.7	--	--	2	--	5,000	.7	N
M332BS2	63 41 4	155 13 8	.15	--	.7	--	--	1	--	7,000	.5	N
M333BS2	63 39 15	155 16 47	.7	--	.5	--	--	1	--	10,000	.5	N
M334BS2	63 38 58	155 17 47	.2	--	.7	--	--	1.5	--	10,000	.5	N
M335BS2	63 36 35	155 17 21	.2	--	.7	--	--	1.5	--	5,000	.5	N
M336BS2	63 34 2	155 15 18	.3	--	.7	--	--	1.5	--	7,000	.5	N
M339BS2	63 33 29	153 13 53	.3	--	1	--	--	1.5	--	5,000	.7	N
M340BS2	63 34 40	153 12 17	.2	--	.7	--	--	1.5	--	5,000	.7	N
M343BS2	63 39 13	153 7 22	.5	--	1	--	--	1.5	--	7,000	.5	N
M344BS2	63 42 25	153 6 30	.3	--	1	--	--	2	--	7,000	<.5	N
M349BS2	63 29 32	153 13 42	.5	--	1	--	--	.7	--	3,000	.5	N
M350BS2	63 21 34	154 47 14	.5	--	.7	--	--	1.5	--	10,000	.5	N
M351BS2	63 23 2	154 51 53	.3	--	.7	--	--	1	--	10,000	<.5	2
M357BS2	63 30 12	154 48 15	.2	--	.7	--	--	1	--	3,000	.5	N
M359BS2	63 34 34	154 49 57	.3	--	.7	--	--	.7	--	3,000	<.5	N
M360BS2	63 32 51	154 58 31	.2	--	1	--	--	1	--	1,500	<.5	N
M363BS2	63 48 49	153 39 45	.3	--	.7	--	--	.7	--	5,000	.5	N
M368BS2	63 50 26	153 33 49	.5	--	1	--	--	.7	--	7,000	.5	N
M380BS2	63 55 19	153 47 16	.15	--	.5	--	--	.7	--	2,000	.5	N
M383BS2	63 51 52	153 52 15	.3	--	.5	--	--	1	--	10,000	<.5	N
M387BS2	63 47 17	154 36 22	.2	--	.5	--	--	1	--	10,000	.5	N
M392BS2	63 49 20	154 42 56	.3	--	.5	--	--	.7	--	15,000	<.5	N
M393BS2	63 51 21	154 45 24	.2	--	.5	--	--	1	--	5,000	<.5	N
M397BS2	63 56 21	154 28 31	.2	--	.5	--	--	.5	--	7,000	N	N
M398BS2	63 58 44	154 32 41	.1	--	.3	--	--	1	--	7,000	<.5	N
M399BS2	63 48 47	154 51 2	.2	--	.7	--	--	1	--	10,000	.5	N
M400BS2	63 45 18	155 49 44	.3	--	1	--	--	.7	--	1,000	.5	N
M401BS2	63 47 7	155 53 36	.2	--	.5	--	--	1.5	--	3,000	.7	N
M402BS2	63 48 24	155 56 12	.3	--	.7	--	--	1	--	2,000	.5	N
M403BS2	63 50 21	155 55 30	.2	--	.7	--	--	.7	--	7,000	<.5	N

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M289BS2	N	20	10	150	50	N	100	30	N	N	1,000	50	N	5,000	10
M290BS2	10	30	20	200	50	N	100	100	N	N	2,000	70	N	5,000	20
M291BS2	2	30	10	200	50	N	70	100	N	N	1,500	50	N	3,000	10
M292BS2	5	30	<5	200	50	N	150	20	N	N	1,000	50	N	3,000	10
M293BS2	2	30	<5	150	<20	N	70	20	N	N	700	30	N	2,000	<10
M294BS2	2	30	70	150	<20	N	300	10	N	N	700	30	N	3,000	20
M295BS2	2	50	15	150	50	N	100	15	N	<5	2,000	30	N	3,000	20
M296BS2	N	30	10	200	50	N	100	15	N	<5	2,000	30	N	3,000	20
M297BS2	N	20	10	200	50	N	100	15	N	N	700	50	N	3,000	10
M298BS2	N	10	<5	150	50	N	50	20	N	N	1,000	30	N	3,000	<10
M299BS2	1	30	<5	200	50	N	100	20	N	N	1,000	50	N	3,000	<10
M300BS2	N	20	<5	200	50	N	100	20	N	N	2,000	30	N	5,000	10
M301BS2	N	20	<5	100	<20	N	70	10	N	N	500	20	N	2,000	<10
M302BS2	N	<5	<5	150	<20	N	30	10	N	N	1,000	10	N	3,000	<10
M303BS2	N	15	<5	300	50	N	30	30	N	N	1,000	70	N	3,000	<10
M306BS2	1	15	10	300	50	N	50	20	N	N	3,000	50	N	3,000	15
M310BS2	2	5	N	300	--	N	70	50	N	N	5,000	--	<10	5,000	--
M311BS2	1.5	10	N	300	--	N	200	15	N	N	2,000	--	N	3,000	--
M316BS2	1.5	20	N	200	--	N	150	7	N	N	500	--	20	2,000	--
M317BS2	1	15	N	150	--	N	300	10	N	N	1,500	--	<10	3,000	--
M318BS2	2	7	N	200	--	N	70	15	N	N	700	--	N	5,000	--
M319BS2	7	70	N	150	--	N	200	5	N	N	1,000	--	N	3,000	--
M320BS2	1.5	50	N	500	--	N	200	15	N	N	1,500	--	N	5,000	--
M321BS2	3	70	N	200	--	N	200	7	N	N	1,500	--	N	3,000	--
M322BS2	2	50	N	200	--	N	70	3	N	N	2,000	--	<10	1,000	--
M323BS2	7	30	N	150	--	N	150	10	N	N	1,500	--	N	5,000	--
M325BS2	5	70	N	300	--	7	300	7	N	N	3,000	--	20	2,000	--
M326BS2	1.5	7	N	200	--	N	70	15	N	N	2,000	--	N	5,000	--
M328BS2	5	70	N	300	--	N	300	5	N	N	1,500	--	N	3,000	--
M329BS2	1	15	N	200	--	N	200	10	N	N	2,000	--	N	5,000	--
M331BS2	1	7	N	300	--	N	100	7	N	N	1,000	--	N	3,000	--
M332BS2	5	50	N	150	--	N	150	7	N	N	1,500	--	N	3,000	--
M333BS2	2	50	N	200	--	N	300	10	N	N	1,000	--	N	5,000	--
M334BS2	20	70	N	150	--	N	200	10	N	N	1,500	--	N	3,000	--
M335BS2	2	20	N	200	--	N	100	5	N	N	1,000	--	N	2,000	--
M336BS2	3	20	N	200	--	N	150	10	N	N	2,000	--	N	5,000	--
M339BS2	N	15	N	150	--	10	100	10	N	N	1,500	--	N	3,000	--
M340BS2	1.5	15	N	300	--	N	150	10	N	N	700	--	<10	5,000	--
M343BS2	1	7	N	200	--	N	70	50	N	N	1,000	--	<10	5,000	--
M344BS2	1	10	N	150	--	N	100	10	N	N	1,500	--	N	1,500	--
M349BS2	1.5	20	N	200	--	N	70	20	N	N	1,000	--	<10	2,000	--
M350BS2	N	10	N	300	--	N	300	10	N	N	1,000	--	N	1,500	--
M351BS2	N	7	N	200	--	N	100	20	N	N	1,500	--	N	2,000	--
M357BS2	5	15	N	150	--	N	70	10	N	N	1,000	--	N	2,000	--
M359BS2	<1	7	N	150	--	N	70	15	N	N	1,500	--	N	1,500	--
M360BS2	N	10	N	500	--	N	100	10	N	N	700	--	N	2,000	--
M363BS2	1	<5	N	200	--	N	20	15	N	N	700	--	N	1,500	--
M368BS2	1	<5	N	300	--	N	30	15	N	N	1,000	--	N	3,000	--
M380BS2	<1	5	N	100	--	N	50	7	N	N	500	--	N	1,500	--
M383BS2	<1	<5	N	150	--	N	30	20	N	N	2,000	--	N	2,000	--
M387BS2	1.5	<5	N	200	--	N	70	10	N	N	1,500	--	N	2,000	--
M392BS2	N	10	N	200	--	N	150	7	N	N	1,500	--	N	1,500	--
M393BS2	1.5	7	N	200	--	N	70	15	N	N	500	--	N	2,000	--
M397BS2	<1	15	N	150	--	N	100	5	N	N	1,000	--	N	1,000	--
M398BS2	1	10	N	150	--	N	70	3	N	N	700	--	N	700	--
M399BS2	2	20	N	200	--	N	150	7	N	N	1,500	--	N	1,500	--
M400BS2	N	<5	N	150	--	N	20	20	N	<5	300	--	N	2,000	--
M401BS2	2	5	N	150	--	N	70	15	N	N	1,000	--	N	1,500	--
M402BS2	N	<5	N	150	--	N	50	30	N	N	700	--	N	1,500	--
M403BS2	3	15	N	100	--	N	70	10	N	N	700	--	N	1,500	--

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be	S-Bi
M404BS2	63 49 41	155 48 45	.2	--	.7	--	--	1	--	10,000	.5	N
M405BS2	63 51 35	155 48 31	.3	--	1	--	--	.5	--	7,000	.7	N
M406BS2	63 54 53	155 58 30	.5	--	1	--	--	.7	--	7,000	.5	N
M407BS2	63 56 8	155 48 19	.5	--	1	--	--	.7	--	1,500	.7	N
M408BS2	63 56 33	155 42 17	.3	--	1	--	--	1	--	10,000	.5	N
M409BS2	63 54 1	155 43 7	.3	--	1	--	--	1.5	--	5,000	.7	N
M410BS2	63 54 22	155 42 40	.5	--	1	--	--	.7	--	1,500	<.5	N
M411BS2	63 56 32	155 39 1	.3	--	1	--	--	1	--	10,000	.5	N
M412BS2	63 58 57	155 39 34	.2	--	.7	--	--	1.5	--	5,000	.5	N
M413BS2	63 58 5	155 34 58	.3	--	1	--	--	1	--	10,000	.5	N
M414BS2	63 59 41	155 32 3	.5	--	1	--	--	.7	--	10,000	.5	N
M416BS2	63 49 49	155 18 38	.3	--	.7	--	--	1.5	--	5,000	.5	N
M417BS2	63 50 5	155 18 15	.2	--	.7	--	--	.5	--	5,000	.5	N
M421BS2	63 54 34	155 22 18	.3	--	1	--	--	1	--	7,000	.7	N
M422BS2	63 56 10	155 24 58	.5	--	.7	--	--	1	--	15,000	.5	N
M423BS2	63 46 5	155 21 47	.5	--	2	--	--	.3	--	15,000	1	N
M424BS2	63 57 43	155 10 11	.5	--	.7	--	--	1.5	--	7,000	.7	N
M426BS2	63 58 44	155 21 56	.3	--	.5	--	--	1	--	10,000	.5	N
M427BS2	63 56 52	155 33 17	.7	--	1	--	--	2	--	20,000	.7	N
M428BS2	63 56 43	155 31 39	.5	--	1	--	--	.7	--	15,000	.5	N
M429BS2	63 54 12	155 36 37	.5	--	1	--	--	1.5	--	10,000	.5	N
M430BS2	63 54 0	155 35 46	.3	--	.7	--	--	1.5	--	3,000	.5	N
M432BS2	63 51 46	155 31 12	.3	--	1	--	--	1	--	7,000	.5	N
M433BS2	63 51 5	155 30 38	.5	--	1	--	--	1	--	7,000	.5	N
M437BS2	63 48 25	155 37 45	.3	--	.7	--	--	.5	--	7,000	.5	N
M444BS2	63 10 21	155 51 33	.2	--	.7	--	--	1	--	5,000	.5	N
M445BS2	63 44 24	155 24 54	.5	--	.7	--	--	1.5	--	20,000	.5	N
M446BS2	63 45 17	155 27 5	.3	--	.7	--	--	2	--	15,000	.5	N
M448BS2	63 49 36	155 35 23	.1	--	.5	--	--	.7	--	15,000	.5	N
M449BS2	63 49 11	155 40 56	.7	--	.7	--	--	1	--	5,000	1	N
M450BS2	63 46 49	155 38 32	.3	--	.7	--	--	1	--	7,000	.7	N
M451BS2	63 46 13	155 35 21	.1	--	.7	--	--	1.5	--	10,000	.5	N
M453BS2	63 43 27	155 31 44	.3	--	.5	--	--	2	--	10,000	.5	N
M454BS2	63 41 26	155 30 8	.2	--	.5	--	--	2	--	10,000	.5	N
M455BS2	63 40 42	155 35 34	.2	--	.7	--	--	1.5	--	2,000	.5	N
M457BS2	63 40 15	155 47 0	1	--	1	--	--	1.5	--	20,000	1	N
M458BS2	63 44 10	155 52 5	.2	--	.7	--	--	1	--	10,000	.7	N
M459BS2	63 42 18	155 51 33	.3	--	1	--	--	1	--	15,000	1	N
M460BS2	63 40 38	155 50 1	.15	--	.7	--	--	1	--	10,000	<.5	N
M461BS2	63 35 36	155 56 34	.3	--	.7	--	--	2	--	7,000	.5	N
M466BS2	63 31 19	155 45 17	.2	--	.7	--	--	1.5	--	5,000	<.5	N
M467BS2	63 31 50	155 39 34	.5	--	1	--	--	1	--	7,000	.5	N
M469BS2	63 57 58	154 41 28	.3	--	.7	--	--	.5	--	3,000	.5	N
M473BS2	63 56 36	154 52 1	.15	--	.5	--	--	.7	--	7,000	<.5	N
M474BS2	63 53 33	154 56 29	.2	--	.5	--	--	1.5	--	7,000	.5	N
M477BS2	63 44 33	154 16 44	.3	--	.7	--	--	.7	--	2,000	<.5	N
M485BS2	63 22 23	155 10 3	.3	--	.7	--	--	1	--	3,000	.5	N
M486BS2	63 20 45	155 11 42	.5	--	1	--	--	1.5	--	1,500	.5	N
M487BS2	63 24 13	155 16 51	.2	--	.7	--	--	1.5	--	7,000	.5	N
M489BS2	63 31 51	155 30 47	.2	--	.7	--	--	1	--	10,000	.5	N
M493BS2	63 54 53	154 51 28	.15	--	.7	--	--	2	--	10,000	.5	N
M494BS2	63 52 34	154 53 37	.2	--	.7	--	--	.5	--	5,000	.5	N
M497BS2	63 46 38	154 58 12	.5	--	1	--	--	1.5	--	10,000	.5	N
M498BS2	63 47 19	154 52 6	.3	--	.7	--	--	.7	--	7,000	.5	N
M499BS2	63 44 31	154 56 24	.2	--	.7	--	--	.7	--	7,000	<.5	N
M500BS2	63 43 7	154 57 33	.2	--	.7	--	--	1.5	--	2,000	<.5	N
M501BS2	63 41 54	154 49 37	.2	--	.7	--	--	1.5	--	7,000	.5	N
M502BS2	63 42 45	154 46 4	.2	--	1	--	--	.7	--	5,000	<.5	N
M504BS2	63 37 52	154 35 56	.3	--	.7	--	--	1	--	10,000	.5	N
M505BS2	63 40 3	154 35 19	.3	--	.7	--	--	.7	--	10,000	.7	N

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M404BS2	<1	15	N	100	--	N	100	10	N	N	1,500	--	N	1,000	--
M405BS2	1	10	N	200	--	N	100	15	N	N	1,000	--	<10	2,000	--
M406BS2	2	20	N	200	--	N	200	20	N	N	1,500	--	N	3,000	--
M407BS2	N	<5	N	200	--	N	70	15	N	N	500	--	N	5,000	--
M408BS2	<1	30	N	200	--	N	200	10	N	N	2,000	--	N	3,000	--
M409BS2	2	50	N	300	--	N	500	7	N	N	700	--	N	5,000	--
M410BS2	<1	20	N	200	--	N	200	10	N	N	1,000	--	N	2,000	--
M411BS2	1	30	N	200	--	N	200	15	N	N	1,000	--	N	7,000	--
M412BS2	1.5	30	N	200	--	N	200	15	N	N	1,500	--	N	5,000	--
M413BS2	N	10	N	200	--	N	500	20	N	N	700	--	N	3,000	--
M414BS2	1	10	N	200	--	N	100	15	N	N	1,000	--	<10	5,000	--
M416BS2	N	5	N	200	--	N	70	10	N	N	2,000	--	N	5,000	--
M417BS2	3	10	N	200	--	N	100	10	N	N	1,500	--	N	3,000	--
M421BS2	<1	7	N	200	--	N	70	10	N	N	1,000	--	N	3,000	--
M422BS2	1.5	30	N	200	--	N	150	15	N	N	1,500	--	N	5,000	--
M423BS2	2	20	N	300	--	N	70	15	N	N	5,000	--	20	3,000	--
M424BS2	1	5	N	200	--	N	70	20	N	N	1,500	--	N	5,000	--
M426BS2	N	10	N	200	--	N	300	5	N	N	1,500	--	N	2,000	--
M427BS2	5	50	N	200	--	N	150	20	N	N	1,500	--	20	5,000	--
M428BS2	3	7	N	200	--	N	100	15	N	N	1,500	--	N	7,000	--
M429BS2	7	15	N	200	--	N	200	20	N	N	1,000	--	N	3,000	--
M430BS2	1	5	N	200	--	N	100	15	N	N	1,000	--	N	2,000	--
M432BS2	5	100	N	200	--	N	150	15	N	N	1,000	--	N	2,000	--
M433BS2	2	20	N	300	--	N	200	20	N	N	1,000	--	N	5,000	--
M437BS2	1.5	15	N	150	--	N	150	10	N	N	700	--	N	5,000	--
M444BS2	1	<5	N	200	--	N	50	10	N	N	1,500	--	N	5,000	--
M445BS2	<1	7	N	200	--	N	200	20	N	N	3,000	--	N	5,000	--
M446BS2	1.5	7	N	200	--	N	150	15	N	N	3,000	--	N	5,000	--
M448BS2	15	70	N	150	--	N	150	5	N	N	1,000	--	N	2,000	--
M449BS2	3	15	N	300	--	N	100	20	N	N	700	--	30	5,000	--
M450BS2	3	30	N	150	--	N	150	10	N	N	1,000	--	N	3,000	--
M451BS2	5	10	N	150	--	N	200	7	N	N	1,500	--	N	5,000	--
M453BS2	<1	10	N	500	--	N	500	10	N	N	3,000	--	N	7,000	--
M454BS2	5	30	N	200	--	N	200	7	N	N	2,000	--	N	5,000	--
M455BS2	2	<5	N	200	--	N	100	10	N	N	1,000	--	N	3,000	--
M457BS2	5	20	N	300	--	N	300	15	N	<5	3,000	--	30	7,000	--
M458BS2	2	50	N	300	--	N	150	7	N	N	1,500	--	N	3,000	--
M459BS2	1.5	15	N	300	--	N	100	30	N	N	2,000	--	<10	7,000	--
M460BS2	2	15	N	200	--	N	100	7	N	N	1,000	--	N	3,000	--
M461BS2	1.5	10	N	200	--	N	70	20	N	N	1,500	--	N	5,000	--
M466BS2	15	7	N	150	--	N	100	7	N	N	2,000	--	N	3,000	--
M467BS2	5	10	N	200	--	N	300	15	N	N	3,000	--	N	5,000	--
M469BS2	1	7	N	150	--	N	70	15	N	N	700	--	N	3,000	--
M473BS2	<1	20	N	150	--	N	200	7	N	N	1,000	--	N	2,000	--
M474BS2	7	15	N	200	--	N	150	10	N	N	1,500	--	N	3,000	--
M477BS2	1	5	N	150	--	N	70	10	N	N	1,500	--	N	3,000	--
M485BS2	1	10	N	200	--	N	100	20	N	N	1,000	--	N	5,000	--
M486BS2	1	7	N	200	--	N	100	15	N	N	1,000	--	N	5,000	--
M487BS2	<1	10	N	200	--	N	100	15	N	N	2,000	--	N	3,000	--
M489BS2	1	7	N	200	--	N	100	15	N	N	3,000	--	N	5,000	--
M493BS2	10	70	N	150	--	10	150	5	N	N	1,000	--	N	3,000	--
M494BS2	1	10	N	200	--	N	100	7	N	N	1,500	--	N	3,000	--
M497BS2	2	70	N	200	--	N	300	15	N	N	2,000	--	<10	5,000	--
M498BS2	N	20	N	150	--	10	200	7	N	N	1,000	--	N	3,000	--
M499BS2	1.5	70	N	200	--	N	200	5	N	N	1,500	--	N	2,000	--
M500BS2	1.5	<5	N	200	--	N	50	10	N	N	500	--	N	5,000	--
M501BS2	2	20	N	150	--	N	150	15	N	N	1,500	--	N	3,000	--
M502BS2	N	7	N	200	--	N	100	7	N	N	1,000	--	N	3,000	--
M504BS2	1.5	30	N	200	--	N	200	15	N	N	1,500	--	N	3,000	--
M505BS2	<1	5	N	300	--	N	70	20	N	N	3,000	--	N	5,000	--

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Be	S-Bi
M506BS2	63 39 55	154 46 41	.2	--	.7	--	--	1	--	10,000	<.5	N
M510BS2	63 41 25	153 37 38	.1	--	.3	--	--	.7	--	3,000	.5	N
M515BS2	63 28 56	153 58 24	.15	--	.5	--	--	.5	--	1,000	<.5	N

Table 5. Results of analyses of samples of the ash of black spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M506BS2	1	20	N	200	--	N	200	7	N	N	1,500	--	N	3,000	--
M510BS2	N	N	N	150	--	<5	15	5	N	N	3,000	--	N	2,000	--
M515BS2	N	7	N	200	--	N	150	5	N	N	500	--	N	1,500	--

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown; --, no data]

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M009WS1	63 14 58	154 40 45	.2	1	.3	.01	5,000	N	150	700	N
M011WS1	63 18 13	154 32 49	.2	1	.3	.01	700	N	150	1,500	N
M012WS1	63 17 52	154 31 41	.5	3	.3	.02	1,000	N	300	500	N
M013WS1	63 18 25	154 28 52	.2	2	.3	.005	1,000	N	150	1,500	N
M014WS1	63 17 13	154 28 33	.2	3	.5	.01	1,500	N	150	300	N
M016WS1	63 20 23	154 20 30	.3	5	.5	.01	1,000	N	150	1,000	N
M017WS1	63 22 33	154 26 19	.2	2	.3	.01	1,000	N	200	700	N
M021WS1	63 26 11	154 53 30	.3	1.5	.3	.01	10,000	N	150	200	N
M022WS1	63 26 49	155 1 23	.5	1	.3	.05	7,000	N	150	1,000	N
M029WS1	63 30 19	154 56 45	.3	1	.2	.01	7,000	N	200	1,000	N
M030WS1	63 28 24	154 52 33	.2	1	1	.01	5,000	N	200	700	N
M031WS1	63 25 8	154 52 1	.2	2	.3	.01	2,000	N	200	2,000	N
M033WS1	63 27 46	154 44 35	.2	1.5	.2	.007	7,000	N	200	2,000	N
M034WS1	63 27 29	154 38 14	.2	2	.3	.002	3,000	N	150	1,000	N
M035WS1	63 25 13	154 38 2	.1	2	.3	.002	3,000	N	300	2,000	N
M036WS1	63 25 13	154 39 6	.3	5	.2	.05	3,000	N	300	3,000	N
M037WS1	63 26 24	154 34 37	.2	2	.5	.01	3,000	N	150	1,500	N
M038WS1	63 25 52	154 30 10	.2	2	.1	.02	3,000	N	150	2,000	N
M040WS1	63 30 33	154 17 49	.5	2	.3	.02	3,000	N	200	1,500	N
M042WS1	63 31 11	154 23 6	1.5	5	.3	.01	7,000	N	150	2,000	N
M045WS1	63 31 9	154 36 18	.2	3	.3	.001	3,000	N	100	700	N
M046WS1	63 32 9	154 42 4	.2	2	.2	.002	3,000	N	100	1,000	N
M050WS1	63 31 58	154 26 20	.2	3	.5	.002	2,000	N	200	2,000	10
M051WS1	63 34 54	154 28 22	.5	2	.5	.01	5,000	N	200	2,000	N
M053WS1	63 34 5	154 29 12	.5	2	.3	.01	7,000	N	200	2,000	N
M054WS1	63 35 14	154 16 18	.15	2	.3	.01	7,000	N	150	1,500	N
M055WS1	63 34 58	154 21 18	.2	1.5	.3	.01	3,000	N	200	3,000	N
M056WS1	63 37 43	154 12 46	.2	.07	.7	.005	200	N	150	700	N
M057WS1	63 37 2	154 14 32	.5	2	.2	.01	5,000	N	150	1,500	N
M058WS1	63 39 53	154 9 14	.2	1	.7	.01	300	N	150	1,000	N
M059WS1	63 39 54	154 12 28	.2	2	.2	.01	5,000	N	150	2,000	N
M062WS1	63 40 32	154 26 34	.1	1	.1	.002	2,000	N	150	1,500	N
M065WS1	63 37 38	154 29 28	.5	1.5	.1	.01	2,000	N	500	2,000	N
M066WS1	63 42 48	154 29 50	.3	1.5	.1	.005	1,500	N	200	2,000	N
M067WS1	63 5 28	154 47 28	.1	2	.1	.07	3,000	N	200	1,500	N
M069WS1	63 6 2	154 53 9	.2	2	.3	.01	7,000	N	150	1,000	N
M075WS1	63 0 17	155 15 14	.2	1	.3	.02	1,500	.5	150	1,500	N
M077WS1	63 0 8	155 26 0	.2	5	.07	.02	5,000	N	150	3,000	N
M079WS1	63 2 12	155 28 26	.3	2	.2	.01	5,000	N	150	1,000	N
M081WS1	63 24 11	155 25 54	.1	3	.05	.015	7,000	2	200	1,500	N
M082WS1	63 24 46	155 23 34	.5	3	.2	.015	3,000	N	200	3,000	N
M085WS1	63 28 15	155 31 43	.7	3	.3	.015	2,000	N	200	3,000	N
M086WS1	63 24 23	155 35 19	.2	3	.3	.01	>10,000	N	150	200	N
M087WS1	63 28 1	155 35 6	.3	3	.15	.01	7,000	N	200	2,000	N
M088WS1	63 23 8	155 34 29	.2	2	2	.01	7,000	N	100	200	N
M089WS1	63 23 31	155 38 24	.3	2	.07	.015	7,000	N	200	2,000	N
M090WS1	63 22 23	155 38 16	.1	1	.2	.002	5,000	N	100	500	N
M092WS1	63 19 37	155 33 15	.2	1	.2	.03	2,000	N	500	700	N
M095WS1	63 17 2	155 37 50	1	5	.1	.02	2,000	N	200	2,000	N
M096WS1	63 21 41	155 21 13	.2	2	.3	.01	5,000	N	150	700	N
M104WS1	63 5 3	155 56 8	.2	5	.2	.01	3,000	N	200	2,000	N
M107WS1	63 9 17	155 57 18	.1	2	.3	.01	3,000	N	300	1,000	N
M111WS1	63 13 13	155 59 44	.1	2	.2	.01	10,000	N	150	300	N
M112WS1	63 13 48	155 45 16	.1	2	.3	.01	5,000	N	150	1,500	N
M115WS1	63 16 49	155 58 22	.2	3	.3	.01	2,000	N	200	1,500	N
M116WS1	63 20 41	155 46 43	.1	2	.15	.005	1,000	N	200	1,500	N
M117WS1	63 21 12	155 50 1	.1	5	.5	.01	>10,000	N	150	2,000	N
M118WS1	63 20 23	155 46 33	.15	3	.3	.01	7,000	N	200	1,500	N
M119WS1	63 17 47	155 40 55	.15	5	.5	.01	5,000	N	200	1,500	N
M120WS1	63 23 33	155 46 20	.1	2	.2	.015	1,500	N	150	2,000	N

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-Ga	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M009WS1	N	N	N	100	N	N	N	20	1	N	300	10	500	N
M011WS1	N	N	N	100	N	<20	N	10	3	N	1,500	5	700	N
M012WS1	N	N	N	150	N	<20	N	5	2	N	300	5	1,000	N
M013WS1	N	N	<5	150	N	<20	N	10	1	N	500	<5	1,000	N
M014WS1	N	N	N	100	N	<20	N	5	1	N	300	<5	1,000	N
M016WS1	N	N	N	150	N	<20	30	<5	5	N	1,000	<5	1,000	N
M017WS1	N	N	N	100	N	<20	<5	10	2	N	500	<5	1,000	N
M021WS1	1	N	N	100	10	<20	N	30	3	N	500	10	1,000	N
M022WS1	1	5	5	150	N	<20	N	100	5	N	500	10	700	N
M029WS1	1	<5	<5	150	N	<20	N	30	1	N	1,000	20	700	N
M030WS1	2	N	N	200	N	<20	N	100	2	N	700	10	2,000	N
M031WS1	N	N	5	100	N	<20	N	30	<1	N	5,000	5	200	N
M033WS1	N	N	N	100	N	<20	N	20	<1	N	500	15	500	N
M034WS1	N	N	N	150	N	<20	N	70	1	N	1,500	10	1,000	N
M035WS1	N	N	<5	100	N	<20	N	70	<1	N	1,500	10	700	N
M036WS1	N	N	5	100	N	<20	N	15	3	N	2,000	5	500	N
M037WS1	N	N	<5	150	N	<20	N	50	1	N	1,500	5	1,000	N
M038WS1	1	N	<5	70	N	<20	N	20	1	N	2,000	10	500	N
M040WS1	1	N	15	70	N	<20	N	20	1	N	2,000	10	500	N
M042WS1	N	N	<5	100	N	<20	N	50	2	N	5,000	10	1,000	N
M045WS1	N	5	5	150	N	<20	N	100	<1	N	500	5	200	N
M046WS1	N	N	N	100	N	<20	N	15	<1	N	1,000	5	500	N
M050WS1	N	N	<5	150	N	<20	N	10	20	N	3,000	7	500	N
M051WS1	N	N	<5	150	N	<20	N	50	1	N	2,000	10	1,000	N
M053WS1	N	N	10	100	N	<20	N	50	1	N	5,000	20	700	N
M054WS1	N	N	N	100	N	<20	N	50	1	N	2,000	20	1,000	N
M055WS1	N	N	5	100	N	<20	N	50	<1	N	2,000	10	500	N
M056WS1	N	N	<5	150	N	<20	N	10	1	N	700	5	700	N
M057WS1	N	N	<5	100	N	<20	<5	50	2	N	2,000	10	500	N
M058WS1	N	N	10	150	<2	<20	N	5	2	N	300	5	1,000	N
M059WS1	N	N	10	30	N	<20	N	30	5	N	2,000	20	500	N
M062WS1	N	<5	<5	70	N	<20	N	70	<1	N	500	10	500	N
M065WS1	N	N	20	50	2	<20	N	20	2	N	1,500	10	700	N
M066WS1	N	N	20	50	<2	<20	N	20	1	N	1,000	10	700	N
M067WS1	2	<5	50	20	2	<20	N	50	1	N	1,000	20	200	N
M069WS1	N	5	10	100	N	<20	N	50	2	200	700	10	500	N
M075WS1	N	N	10	70	2	<20	N	15	2	N	500	5	1,000	N
M077WS1	N	N	20	50	N	<20	N	20	1	N	2,000	10	300	N
M079WS1	N	N	5	100	N	<20	<5	10	2	N	1,000	10	1,500	N
M081WS1	1	<5	5	100	N	<20	N	15	3	N	2,000	15	1,000	N
M082WS1	1	<5	15	150	N	<20	10	30	2	N	1,000	10	500	N
M085WS1	1	<5	<5	100	N	<20	N	50	2	N	1,500	10	1,000	N
M086WS1	N	<5	<5	150	N	<20	<5	30	<1	N	300	20	1,000	N
M087WS1	N	<5	10	70	N	<20	N	15	<1	N	1,500	10	500	N
M088WS1	N	<5	<5	100	N	<20	N	10	1	N	300	10	500	N
M089WS1	N	<5	<5	100	N	<20	N	10	1	N	1,000	10	500	N
M090WS1	N	N	N	100	2	N	N	15	1	N	200	5	1,000	N
M092WS1	N	N	10	100	N	N	N	10	2	N	1,500	5	1,000	N
M095WS1	N	<5	20	100	N	N	N	30	1	N	700	10	500	N
M096WS1	N	N	N	100	N	N	N	20	1	N	500	5	1,000	N
M104WS1	N	N	10	100	N	<20	N	30	1	N	2,000	5	100	N
M107WS1	N	N	5	150	N	<20	N	30	2	N	1,500	10	700	N
M111WS1	<1	N	5	100	N	<20	N	10	2	N	500	20	700	N
M112WS1	<1	<5	10	150	N	<20	N	20	1	N	500	10	1,000	N
M115WS1	N	N	10	150	N	<20	N	30	1	N	700	10	1,000	N
M116WS1	N	N	5	100	N	<20	N	30	1	N	500	5	500	N
M117WS1	<1	10	5	150	N	<20	10	70	N	N	1,000	20	500	N
M118WS1	<1	5	10	100	N	<20	N	30	1	N	700	20	1,000	N
M119WS1	N	N	<5	100	N	<20	N	30	2	N	700	15	1,000	N
M120WS1	N	N	<5	100	N	<20	N	50	1	N	700	15	700	N

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M122WS1	63 23 48	155 45 45	.1	2	.5	.01	1,500	N	150	2,000	N
M123WS1	63 26 43	155 47 12	.1	3	.3	.01	5,000	N	200	2,000	N
M124WS1	63 26 23	155 42 31	.15	2	.5	.005	2,000	N	150	1,500	N
M126WS1	63 26 13	155 42 31	.2	3	.3	.01	2,000	N	200	3,000	N
M127WS1	63 29 9	155 57 50	.15	3	.7	.01	7,000	N	150	300	N
M128WS1	63 26 10	155 59 34	.5	3	.3	.02	7,000	N	500	1,500	N
M132WS1	63 29 6	155 53 23	.1	3	.2	.01	2,000	N	200	3,000	N
M134WS1	63 29 18	155 53 52	.1	2	.3	.01	2,000	N	300	2,000	N
M136WS1	63 29 14	155 37 5	.5	3	.2	.01	5,000	N	200	2,000	N
M138WS1	63 29 26	155 37 10	.15	3	.3	.007	3,000	N	150	1,500	N
M143WS1	63 54 35	155 18 34	.15	5	.2	.02	5,000	N	300	3,000	N
M150WS1	63 31 30	154 14 54	.15	5	.3	.01	2,000	N	150	1,500	N
M151WS1	63 33 15	154 13 27	.1	3	.3	.007	>10,000	N	200	1,500	N
M153WS1	63 34 28	154 10 0	.1	1.5	.15	.01	7,000	N	150	2,000	N
M155WS1	63 34 14	154 4 5	.1	1.5	.2	.01	2,000	N	150	1,500	N
M156WS1	63 33 33	154 2 56	.1	2	.15	.01	700	N	50	700	N
M157WS1	63 36 30	154 4 23	.2	3	.7	.015	1,500	<.1	200	1,500	N
M158WS1	63 30 53	154 11 13	.1	2	.5	.005	700	N	150	700	N
M159WS1	63 33 50	153 57 29	.15	2	.15	.015	1,500	N	200	2,000	N
M161WS1	63 34 56	153 58 42	.1	3	.3	.01	1,500	N	150	2,000	N
M162WS1	63 34 57	153 54 28	.1	3	.2	.01	1,000	N	100	1,500	N
M163WS1	63 43 21	153 54 38	.1	2	.15	.01	2,000	N	200	2,000	N
M164WS1	63 39 46	153 55 54	.15	2	.15	.01	2,000	N	300	3,000	N
M165WS1	63 44 51	153 55 24	.1	2	.15	.01	500	3	150	3,000	N
M166WS1	63 39 51	153 50 21	.1	5	.1	.015	500	N	100	1,500	N
M167WS1	63 41 43	153 42 46	.1	5	.1	.02	500	N	100	2,000	N
M168WS1	63 45 50	153 47 48	.15	2	.1	.01	2,000	N	200	3,000	N
M169WS1	63 39 26	153 44 39	.15	3	.2	.01	1,000	N	100	2,000	N
M170WS1	63 41 23	153 43 42	.2	2	.2	.01	1,000	N	100	1,000	N
M172WS1	63 9 13	155 3 22	.2	3	.2	.01	2,000	N	200	2,000	N
M175WS1	63 14 47	154 52 45	.15	3	.15	.01	7,000	N	200	2,000	N
M183WS1	63 22 35	154 31 35	.15	2	.3	.015	5,000	N	200	2,000	N
M186WS1	63 23 14	154 44 30	.1	2	.2	.01	1,500	N	150	2,000	N
M192WS1	63 20 42	155 0 27	.2	3	.3	.02	1,500	N	150	2,000	N
M193WS1	63 23 29	155 5 11	.15	3	.5	.01	10,000	N	200	3,000	N
M194WS1	63 21 30	155 7 15	2	5	.15	.02	5,000	N	200	7,000	N
M196WS1	63 24 47	155 3 51	.1	1	.3	.005	2,000	N	200	5,000	N
M198WS1	63 25 47	155 12 40	.2	2	.5	.01	2,000	N	200	2,000	N
M200WS1	63 28 16	155 21 16	1	5	.3	.01	2,000	N	200	2,000	N
M201WS1	63 46 40	153 48 48	.15	1.5	.3	.005	1,000	N	100	1,500	N
M202WS1	63 49 19	153 47 37	.07	1	.5	.01	1,500	N	70	700	N
M203WS1	63 52 0	153 37 38	.1	1.5	.2	.01	300	N	150	2,000	N
M204WS1	63 54 48	153 33 33	.1	2	.3	.01	1,000	N	100	1,000	N
M205WS1	63 56 22	153 33 12	.1	2	.1	.005	1,500	N	100	700	N
M206WS1	63 54 46	153 29 54	.1	2	1.5	.02	1,500	1	100	2,000	N
M209WS1	63 57 5	153 5 28	.2	2	.3	.005	1,500	N	100	2,000	N
M216WS1	63 50 30	153 18 21	.2	1.5	.2	.005	1,000	N	50	2,000	N
M217WS1	63 49 0	153 13 31	.1	2	.2	.01	3,000	N	100	1,500	N
M218WS1	63 47 44	153 16 53	.1	2	.3	.01	2,000	N	200	2,000	N
M219WS1	63 46 25	153 19 15	.15	2	.2	.01	1,000	N	70	1,500	N
M222WS1	63 49 36	153 5 59	.1	2	.1	.01	1,500	N	70	2,000	N
M223WS1	63 51 4	153 9 2	.7	1.5	.1	.01	1,500	N	70	2,000	N
M227WS1	63 54 46	153 14 2	.1	2	.2	.005	3,000	N	70	2,000	N
M228WS1	63 55 19	153 20 52	.1	1.5	.07	.01	700	N	200	2,000	N
M229WS1	63 53 33	153 23 19	.2	2	.07	.01	5,000	N	150	2,000	N
M230WS1	63 53 47	153 21 41	.1	2	.07	.01	3,000	N	150	2,000	N
M232WS1	63 48 51	153 28 38	.15	1	.1	.01	1,000	N	100	2,000	N
M233WS1	63 28 59	154 15 26	.1	2	.15	.01	5,000	N	200	1,000	N
M234WS1	63 29 24	154 25 28	.1	2	.07	.01	3,000	N	150	3,000	N
M235WS1	63 30 0	154 4 10	.1	2	.15	.01	1,000	N	100	3,000	N

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-Ga	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M122WS1	N	N	<5	150	N	<20	N	50	1	N	700	15	1,000	N
M123WS1	N	N	<5	150	N	<20	N	30	1	N	1,500	10	1,000	N
M124WS1	N	N	<5	150	N	<20	N	15	1.5	N	100	10	1,000	N
M126WS1	N	N	15	100	N	<20	N	30	1	N	200	10	1,000	N
M127WS1	N	N	<5	150	N	<20	N	30	5	N	500	10	1,000	N
M128WS1	N	<5	20	100	<2	<20	N	70	2	N	700	20	700	N
M132WS1	N	<5	<5	100	N	<20	N	70	<1	N	1,000	10	1,000	N
M134WS1	N	N	<5	100	N	<20	N	30	<1	N	2,000	10	1,000	N
M136WS1	N	N	<5	100	N	<20	N	70	<1	N	3,000	10	1,000	N
M138WS1	N	N	<5	150	N	<20	N	30	1	N	1,000	10	1,500	N
M143WS1	N	N	50	100	N	<20	N	10	<1	N	5,000	10	500	N
M150WS1	N	N	N	100	N	<20	N	30	1	N	3,000	10	1,000	N
M151WS1	N	N	50	100	N	<20	N	30	<1	N	1,500	20	700	N
M153WS1	N	N	<5	100	N	<20	N	50	<1	N	2,000	10	500	N
M155WS1	N	N	<5	50	N	<20	N	<5	1	N	500	5	1,500	N
M156WS1	N	N	<5	30	N	<20	N	<5	<1	N	500	5	1,000	N
M157WS1	N	N	20	100	N	<20	N	<5	1	N	1,000	5	1,000	N
M158WS1	N	N	20	70	N	<20	N	<5	<1	N	300	5	1,000	N
M159WS1	N	N	20	70	N	<20	5	5	1	N	500	5	1,000	N
M161WS1	N	N	30	100	N	<20	10	<5	5	N	2,000	5	500	N
M162WS1	N	N	10	100	N	<20	N	<5	1	N	3,000	5	1,500	N
M163WS1	N	N	10	50	N	<20	N	50	1	N	700	5	500	N
M164WS1	N	N	10	30	N	<20	N	10	1	N	2,000	5	1,000	N
M165WS1	N	N	10	30	N	<20	N	<5	1	N	2,000	5	1,000	N
M166WS1	N	N	10	20	N	<20	N	<5	1	N	500	5	1,000	N
M167WS1	N	N	10	50	N	<20	N	<5	1	N	1,500	5	1,500	N
M168WS1	N	N	10	50	N	<20	N	<5	1	N	1,000	5	500	N
M169WS1	<1	N	20	70	N	<20	N	<5	1	N	700	5	500	N
M170WS1	<1	N	20	30	N	<20	N	<5	<1	N	500	5	300	N
M172WS1	<1	N	20	150	N	<20	N	20	<1	N	1,500	5	500	N
M175WS1	N	N	20	150	N	<20	N	30	<1	N	700	10	500	N
M183WS1	N	N	10	100	N	<20	N	10	2	N	700	10	1,000	N
M186WS1	N	N	N	150	N	<20	N	50	1	N	1,500	5	1,000	N
M192WS1	N	N	20	70	N	<20	N	30	1	N	700	10	500	N
M193WS1	N	10	<5	150	N	<20	N	100	<1	N	700	10	700	N
M194WS1	N	<5	20	50	N	<20	N	20	<1	N	1,000	5	500	N
M196WS1	N	N	20	50	N	<20	N	50	<1	N	1,000	10	1,000	N
M198WS1	N	N	30	100	N	<20	N	20	1	N	1,000	10	500	N
M200WS1	N	N	20	50	N	<20	N	10	1	N	300	5	500	N
M201WS1	N	N	N	20	N	N	N	<5	<1	N	700	5	1,000	N
M202WS1	N	N	N	50	N	<20	N	5	1	N	300	5	1,500	N
M203WS1	N	N	10	50	N	<20	N	<5	1	N	1,000	5	1,000	N
M204WS1	N	N	N	30	N	<20	N	<5	1	N	1,500	5	2,000	N
M205WS1	N	N	N	50	N	<20	N	50	1	N	500	5	1,000	N
M206WS1	N	N	10	50	N	<20	N	10	5	N	2,000	5	2,000	N
M209WS1	N	N	10	70	N	<20	10	100	1	N	1,500	10	1,000	N
M216WS1	N	N	20	50	N	<20	N	50	2	N	1,000	10	1,000	N
M217WS1	N	N	10	30	N	<20	<5	30	2	N	1,000	10	1,000	N
M218WS1	N	N	N	100	N	<20	20	20	1	N	2,000	5	1,500	N
M219WS1	N	N	20	50	N	<20	10	20	5	N	700	10	500	N
M222WS1	N	N	20	50	N	<20	<5	50	1	N	500	10	500	N
M223WS1	N	N	20	50	N	<20	N	50	<1	N	1,000	5	1,000	N
M227WS1	N	<5	20	50	N	<20	N	50	10	N	700	5	1,000	N
M228WS1	N	N	20	20	N	<20	N	5	<1	N	1,500	5	500	N
M229WS1	N	N	10	50	N	<20	N	5	1	N	700	10	1,000	N
M230WS1	N	N	20	20	N	<20	N	5	<1	N	1,500	10	500	N
M232WS1	N	N	20	50	N	<20	5	5	<1	N	1,500	5	2,000	N
M233WS1	N	N	5	100	N	<20	N	5	1	N	300	10	1,000	N
M234WS1	N	N	20	20	N	<20	N	15	<1	N	5,000	5	1,000	N
M235WS1	N	N	20	50	N	<20	20	5	<1	N	2,000	5	1,000	N

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M236WS1	63 28 41	154 8 14	.2	2	.2	.007	500	N	300	1,000	N
M237WS1	63 29 6	154 7 42	.1	2	.15	.007	500	N	100	700	N
M238WS1	63 25 44	154 3 43	.15	2	.2	.01	5,000	N	200	3,000	N
M239WS1	63 28 41	154 6 28	.15	1	.2	.01	2,000	N	100	1,000	N
M240WS1	63 27 34	154 9 27	.1	1	.2	.01	700	N	200	2,000	N
M241WS1	63 27 9	154 10 23	.1	1.5	.1	.01	700	N	150	700	N
M242WS1	63 25 51	154 10 32	.15	1.5	.15	.01	1,500	N	100	2,000	N
M243WS1	63 25 9	154 12 8	.1	1.5	.07	.01	700	N	200	2,000	N
M244WS1	63 24 25	154 8 0	.05	.5	.02	.01	700	N	70	700	N
M245WS1	63 22 14	154 11 13	.05	.5	.1	.002	1,500	N	70	1,000	N
M247WS1	63 26 34	154 22 37	.2	2	.15	.05	1,000	N	200	3,000	N
M248WS1	63 26 20	154 25 3	.15	2	.3	.01	1,000	N	150	1,500	N
M249WS1	63 24 52	154 23 31	.1	2	.15	.01	1,000	N	300	1,500	N
M253WS1	63 47 43	154 13 20	.1	1	.1	.01	1,500	2	100	2,000	N
M254WS1	63 48 17	154 18 17	.1	2	.1	.01	2,000	N	100	2,000	N
M255WS1	63 51 14	154 24 3	.2	2	.2	.01	1,000	N	70	2,000	N
M256WS1	63 53 2	154 28 1	.1	2	1	.007	1,000	N	50	1,500	N
M258WS1	63 55 28	154 24 5	.1	2	.2	.005	1,000	N	150	1,000	N
M259WS1	63 55 42	154 21 36	.15	2	.15	.01	2,000	N	150	1,500	N
M260WS1	63 58 54	154 21 9	.15	2	.3	.01	1,000	3	100	3,000	N
M262WS1	63 56 46	154 11 29	.15	3	.3	.01	700	N	150	3,000	N
M263WS1	63 56 25	154 11 20	.1	2	.5	.005	1,500	N	500	2,000	N
M264WS1	63 52 36	154 10 33	.1	1	.1	.005	3,000	N	150	1,500	N
M266WS1	63 49 10	154 4 21	.1	2	.2	.01	3,000	N	150	1,500	N
M267WS1	63 46 22	154 8 13	.1	2	.1	.01	2,000	N	100	3,000	N
M268WS1	63 44 50	154 7 46	.005	.7	.05	.01	500	N	50	1,500	N
M269WS1	63 43 44	154 7 9	.15	2	.3	.01	2,000	N	300	2,000	N
M270WS1	63 42 12	154 4 54	.15	2	.5	.005	700	N	100	1,500	N
M271WS1	63 6 35	154 8 33	.15	2	.5	.01	2,000	N	200	1,500	N
M272WS1	63 7 12	153 56 13	.2	2	.3	.01	2,000	N	150	3,000	N
M273WS1	63 10 13	153 54 27	.2	1	.5	.005	1,000	N	150	700	N
M274WS1	63 10 21	153 54 0	.05	1	.15	.005	3,000	N	150	1,000	N
M275WS1	63 13 51	153 50 6	.15	1	.3	.002	1,000	N	100	2,000	N
M277WS1	63 17 42	153 53 29	.5	5	.15	.01	2,000	N	150	2,000	N
M278WS1	63 11 19	154 2 11	.2	1	.15	.005	2,000	N	100	2,000	N
M280WS1	63 19 11	154 20 30	.1	2	.3	.005	5,000	N	100	2,000	N
M304WS1	63 36 10	155 57 7	.1	2	.07	.007	5,000	N	150	5,000	N
M305WS1	63 33 15	155 59 28	.1	2	.2	.005	7,000	N	300	2,000	N
M309WS1	63 27 46	154 32 36	.2	5	.5	.02	>10,000	.5	700	500	N
M312WS1	63 37 41	154 6 37	2	3	.7	.1	2,000	.2	200	300	N
M313WS1	63 41 37	154 3 51	.2	5	.7	.03	3,000	1.5	200	1,000	N
M314WS1	63 41 52	154 3 18	.2	3	.5	.03	2,000	.7	200	1,000	N
M315WS1	63 27 35	154 17 35	.2	5	.3	.03	2,000	.5	500	700	N
M327WS1	63 41 12	155 0 41	.2	5	.7	.02	10,000	1	200	1,000	N
M330WS1	63 43 20	155 7 56	.3	3	.2	.02	>10,000	1	200	3,000	N
M337WS1	63 30 56	155 24 11	.2	5	.3	.02	5,000	.7	300	700	N
M341WS1	63 36 17	153 6 59	.7	7	.15	.05	10,000	.2	200	3,000	N
M342WS1	63 36 5	153 7 4	.5	7	.15	.05	>10,000	.5	500	2,000	N
M345WS1	63 31 41	153 2 2	.3	7	.15	.05	>10,000	.1	200	1,000	N
M347WS1	63 30 8	153 6 47	.1	3	.5	.02	>10,000	.1	500	700	N
M352WS1	63 23 0	154 52 15	.5	5	.3	.05	10,000	.5	200	3,000	N
M353WS1	63 26 39	154 57 42	.2	3	.3	.015	10,000	.5	150	500	N
M354WS1	63 25 13	154 57 50	.2	3	.3	.02	5,000	1	300	2,000	N
M355WS1	63 25 55	155 3 24	.5	5	.3	.02	10,000	.2	500	3,000	N
M356WS1	63 25 13	155 8 53	.2	5	.5	.02	3,000	1	200	700	N
M361WS1	63 46 5	153 35 32	.3	5	.3	.05	10,000	1	200	5,000	N
M362WS1	63 46 0	153 41 47	.2	5	.3	.03	10,000	1	200	2,000	N
M364WS1	63 47 49	153 35 42	.3	5	.3	.03	5,000	.5	500	3,000	N
M366WS1	63 47 41	153 31 23	.3	5	.15	.02	3,000	.5	150	3,000	N
M367WS1	63 50 29	153 34 31	.2	5	.5	.02	2,000	1	300	2,000	N

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-Ga	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M236WS1	N	N	20	50	N	<20	5	5	1	N	1,000	5	1,000	N
M237WS1	N	N	5	50	N	<20	<5	<5	1	N	500	5	1,000	N
M238WS1	N	N	20	50	N	<20	N	5	<1	N	2,000	5	1,000	N
M239WS1	N	N	20	50	N	<20	N	<5	1	N	300	10	1,000	N
M240WS1	N	N	<5	50	N	<20	N	<5	1	N	1,500	5	1,000	N
M241WS1	N	N	10	50	N	<20	N	<5	<1	N	500	5	1,000	N
M242WS1	N	N	10	50	N	<20	N	10	<1	N	700	5	1,500	N
M243WS1	N	N	<5	20	N	<20	<5	<5	<1	N	1,500	5	700	N
M244WS1	N	N	<5	10	N	<20	N	<5	<1	N	300	10	<100	N
M245WS1	N	N	10	50	N	<20	N	15	<1	N	300	10	500	N
M247WS1	N	N	20	15	N	<20	N	15	1	N	1,500	10	1,000	N
M248WS1	N	N	15	50	N	<20	10	5	1	N	700	5	1,000	N
M249WS1	N	N	10	15	N	<20	N	<5	1	N	1,000	5	1,000	N
M253WS1	N	N	<5	30	N	<20	N	30	<1	N	500	5	1,000	N
M254WS1	N	N	<5	30	N	<20	N	5	<1	N	700	5	1,000	N
M255WS1	N	N	<5	70	N	<20	N	10	<1	N	700	5	1,500	N
M256WS1	N	N	10	70	N	<20	N	20	<1	N	300	5	1,000	N
M258WS1	N	N	20	50	N	<20	N	10	<1	N	300	5	1,000	N
M259WS1	N	N	10	50	N	<20	N	5	<1	N	1,500	5	500	N
M260WS1	N	N	10	100	N	<20	N	30	<1	N	2,000	<5	1,000	N
M262WS1	N	N	10	100	N	<20	N	<5	1	N	3,000	5	1,000	N
M263WS1	N	N	10	100	N	<20	N	<5	1	N	1,500	5	1,500	N
M264WS1	N	N	10	20	N	<20	N	<5	<1	N	1,000	5	1,000	N
M266WS1	N	N	10	20	N	<20	N	10	<1	N	700	5	1,000	N
M267WS1	N	N	10	15	N	<20	N	15	5	N	700	5	700	N
M268WS1	N	N	<5	10	N	<20	N	<5	<1	N	1,500	5	500	N
M269WS1	N	N	20	30	N	<20	N	<5	1	N	5,000	5	1,500	N
M270WS1	N	N	20	50	N	<20	N	<5	1	N	1,500	5	1,000	N
M271WS1	N	N	20	50	N	<20	N	10	1	N	2,000	5	1,000	N
M272WS1	N	N	20	30	N	<20	N	20	1	N	2,000	5	1,000	N
M273WS1	N	N	15	50	N	<20	N	30	2	N	700	10	1,000	N
M274WS1	N	N	N	20	N	<20	N	<5	1	N	1,000	10	1,000	N
M275WS1	N	N	10	70	N	<20	N	20	1	N	1,500	5	1,000	N
M277WS1	N	N	10	30	N	<20	N	5	1	N	2,000	5	1,000	N
M278WS1	N	N	10	30	N	<20	N	10	<1	N	3,000	5	1,000	N
M280WS1	N	N	20	30	N	<20	N	10	1	N	5,000	10	1,000	N
M304WS1	N	N	10	20	N	<20	N	30	<1	N	5,000	10	1,000	N
M305WS1	N	N	5	50	N	<20	N	10	1	N	1,000	10	1,000	N
M309WS1	10	<5	<5	100	--	N	N	70	20	N	1,000	20	3,000	10
M312WS1	N	<5	10	50	--	N	N	20	20	N	500	50	2,000	30
M313WS1	N	N	<5	100	--	N	30	15	20	N	1,500	20	3,000	10
M314WS1	N	<5	<5	70	--	N	20	10	10	N	2,000	10	3,000	<10
M315WS1	N	<5	<5	100	--	N	N	10	10	N	3,000	10	3,000	<10
M327WS1	N	10	<5	150	--	N	N	150	15	N	2,000	20	2,000	<10
M330WS1	N	10	<5	70	--	N	<5	100	10	N	2,000	20	2,000	10
M337WS1	N	<5	N	150	--	N	10	100	10	N	1,000	20	2,000	<10
M341WS1	N	N	<5	70	--	N	N	20	10	N	2,000	20	3,000	10
M342WS1	N	N	<5	50	--	N	N	20	15	N	2,000	50	3,000	<10
M345WS1	N	<5	<5	70	--	N	N	30	20	N	2,000	30	2,000	<10
M347WS1	N	N	<5	100	--	N	N	30	10	N	1,000	20	3,000	<10
M352WS1	N	<5	5	100	--	N	N	100	15	N	2,000	20	1,500	<10
M353WS1	N	<5	<5	150	--	N	N	150	10	N	500	20	1,000	<10
M354WS1	N	<5	<5	150	--	N	N	100	10	N	1,500	10	3,000	<10
M355WS1	N	<5	<5	100	--	N	N	50	15	N	2,000	20	3,000	<10
M356WS1	N	10	<5	100	--	N	N	200	10	N	500	10	2,000	N
M361WS1	N	10	5	70	--	N	N	50	15	N	5,000	20	3,000	10
M362WS1	N	10	<5	150	--	N	N	200	10	N	1,000	15	3,000	10
M364WS1	N	N	5	100	--	N	N	20	10	N	5,000	15	2,000	<10
M366WS1	N	N	5	70	--	N	N	20	10	N	2,000	15	2,000	<10
M367WS1	N	N	N	150	--	N	N	30	10	N	3,000	10	3,000	<10

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M369WS1	63 52 27	153 38 0	.2	5	.2	.02	1,000	1	200	1,500	N
M370WS1	63 56 36	153 40 1	.15	2	.3	.01	5,000	1	200	2,000	N
M372WS1	63 58 20	153 31 25	.2	5	.2	.02	5,000	.5	500	3,000	N
M373WS1	63 59 18	153 36 7	.2	5	.3	.02	7,000	1	300	2,000	N
M374WS1	63 59 46	153 40 4	1	3	.3	.1	7,000	.2	200	3,000	N
M375WS1	63 45 57	153 55 12	.2	5	.2	.02	2,000	.2	200	2,000	N
M376WS1	63 51 34	153 48 5	.2	5	.2	.02	2,000	.2	200	700	N
M377WS1	63 51 40	153 47 23	.2	5	.2	.02	3,000	1	200	1,500	N
M378WS1	63 52 43	153 45 44	.1	3	.05	.015	1,000	.2	500	1,000	N
M379WS1	63 54 42	153 47 50	.3	5	.1	.02	10,000	.2	500	3,000	N
M381WS1	63 56 24	153 50 53	.3	5	.15	.05	10,000	.2	700	1,500	N
M382WS1	63 59 26	153 50 1	.2	5	.2	.02	10,000	.5	150	3,000	N
M384WS1	63 50 59	153 53 12	.2	5	.15	.05	5,000	.2	200	3,000	N
M385WS1	63 47 52	153 58 9	.2	5	.1	.02	5,000	.2	200	2,000	N
M386WS1	63 45 50	154 30 17	.2	5	.15	.02	3,000	.2	50	2,000	N
M388WS1	63 47 37	154 35 40	.2	5	.2	.02	5,000	.2	150	1,000	N
M389WS1	63 48 44	154 31 7	.2	5	.1	.03	5,000	.2	150	1,000	N
M390WS1	63 50 23	154 33 35	.2	5	.15	.02	700	.2	50	1,000	N
M391WS1	63 49 26	154 38 8	.2	5	.3	.02	7,000	.5	200	2,000	N
M394WS1	63 54 8	154 42 42	.3	5	.3	.03	10,000	1	500	1,000	N
M395WS1	63 54 49	154 35 20	.2	5	.2	.02	3,000	.7	100	2,000	N
M396WS1	63 54 51	154 36 2	.5	3	.2	.1	3,000	.5	70	2,000	N
M415WS1	63 59 42	155 32 31	.5	5	.3	.02	10,000	.7	500	3,000	N
M418WS1	63 49 56	155 15 14	.3	5	.3	.02	>10,000	.7	200	5,000	N
M419WS1	63 52 29	155 25 6	.3	5	.2	.015	10,000	1.5	700	1,500	N
M420WS1	63 52 29	155 24 34	.3	3	.3	.01	5,000	1.5	150	700	N
M435WS1	63 45 23	155 47 58	1	5	.5	.1	5,000	.5	200	2,000	N
M436WS1	63 48 31	155 45 19	.1	2	.2	.01	5,000	.5	150	700	N
M439WS1	63 12 18	155 45 17	.3	5	.15	.05	>10,000	.5	300	2,000	N
M440WS1	63 13 52	155 50 47	.2	5	.3	.02	5,000	.7	200	1,000	N
M441WS1	63 15 42	155 51 1	.2	3	.2	.02	5,000	1	500	3,000	N
M442WS1	63 14 47	155 55 22	.2	5	.3	.02	10,000	.5	200	3,000	N
M443WS1	63 14 59	155 54 51	.3	5	.3	.02	5,000	.5	500	3,000	N
M447WS1	63 48 15	155 31 20	.2	3	.3	.02	3,000	1	500	3,000	N
M452WS1	63 44 56	155 28 51	.2	7	.15	.03	7,000	.5	500	5,000	N
M456WS1	63 40 30	155 46 5	.2	5	.1	.05	>10,000	.5	200	5,000	N
M464WS1	63 33 18	155 46 3	.3	5	.15	.01	7,000	1	500	1,000	N
M465WS1	63 33 30	155 46 31	3	5	.2	.5	>10,000	.5	500	3,000	N
M468WS1	63 55 38	154 39 50	.1	3	.2	.01	2,000	1.5	150	1,000	N
M470WS1	63 57 58	154 48 46	.1	3	.2	.02	5,000	1	50	1,500	N
M471WS1	63 57 16	154 53 39	.5	5	.07	.02	10,000	.5	500	3,000	N
M472WS1	63 57 35	154 53 20	.7	3	.1	.01	2,000	1	200	1,000	N
M475WS1	63 41 0	154 18 24	.3	5	.2	.02	10,000	.5	700	3,000	N
M479WS1	63 46 54	154 17 28	.1	2	.15	.02	2,000	.5	150	3,000	N
M480WS1	63 40 20	153 52 35	.1	2	.3	.02	5,000	.2	200	2,000	N
M481WS1	63 40 34	153 50 44	.2	3	.15	.02	3,000	.2	200	3,000	N
M482WS1	63 35 1	153 53 48	.1	2	.1	.01	2,000	.2	200	1,500	N
M483WS1	63 33 40	153 45 20	.3	2	.1	.03	5,000	.2	500	2,000	N
M484WS1	63 7 43	154 53 40	.1	2	.15	.02	7,000	1	300	500	N
M488WS1	63 25 32	155 32 3	.2	2	.2	.02	7,000	.7	500	300	N
M490WS1	63 31 40	155 27 11	.5	5	.2	.02	10,000	.2	300	300	N
M492WS1	63 36 21	155 2 32	.2	5	.15	.01	>10,000	.5	500	300	N
M495WS1	63 51 45	154 55 51	.3	5	.07	.03	>10,000	.2	300	3,000	N
M503WS1	63 34 58	154 43 36	.1	3	.1	.03	>10,000	.2	300	1,500	N
M507WS1	63 43 12	153 29 43	.1	2	.1	.02	2,000	.2	50	1,500	N
M508WS1	63 44 0	153 27 59	.1	3	.1	.02	5,000	.2	200	5,000	N
M509WS1	63 41 3	153 33 57	.2	5	.07	.02	7,000	.2	100	5,000	N
M511WS1	63 41 26	153 39 10	.2	5	.1	.02	7,000	.2	200	2,000	N
M512WS1	63 31 28	153 59 6	.2	3	.07	.03	10,000	1	200	1,000	N
M513WS1	63 30 38	153 56 40	.2	5	.15	.03	10,000	1	200	3,000	N

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-Ga	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M369WS1	N	N	<5	50	--	N	<5	15	5	N	1,500	<5	2,000	<10
M370WS1	N	N	5	100	--	<20	N	10	10	N	1,500	10	3,000	N
M372WS1	N	<5	10	70	--	<20	N	30	10	N	5,000	20	3,000	<10
M373WS1	N	N	5	150	--	<20	5	20	10	N	5,000	20	3,000	<10
M374WS1	N	20	20	70	--	<20	<5	70	15	N	2,000	20	2,000	10
M375WS1	N	N	5	70	--	<20	<5	10	15	N	2,000	10	3,000	<10
M376WS1	N	N	<5	100	--	<20	30	10	20	N	2,000	10	3,000	<10
M377WS1	N	N	<5	100	--	<20	30	10	15	N	5,000	10	3,000	<10
M378WS1	N	N	<5	50	--	<20	N	10	2	N	2,000	10	2,000	N
M379WS1	N	N	10	100	--	<20	<5	30	10	N	3,000	30	3,000	<10
M381WS1	N	N	10	70	--	<20	N	30	10	N	1,000	20	3,000	N
M382WS1	N	10	<5	100	--	<20	N	30	10	N	2,000	20	3,000	N
M384WS1	N	N	<5	70	--	<20	<5	10	15	N	2,000	20	3,000	<10
M385WS1	N	N	<5	50	--	<20	N	<5	5	N	1,500	20	3,000	<10
M386WS1	N	N	<5	100	--	<20	N	<5	5	N	1,500	20	3,000	<10
M388WS1	N	N	<5	150	--	<20	10	50	10	N	700	20	3,000	<10
M389WS1	N	N	5	70	--	<20	N	15	2	N	700	20	3,000	10
M390WS1	N	N	<5	150	--	<20	<5	20	5	N	700	10	3,000	<10
M391WS1	N	N	<5	150	--	<20	<5	20	10	N	1,000	20	3,000	<10
M394WS1	N	N	10	100	--	<20	N	50	30	N	300	20	3,000	10
M395WS1	N	N	<5	70	--	<20	N	10	2	N	2,000	10	3,000	<10
M396WS1	N	N	10	100	--	<20	N	10	5	N	2,000	20	3,000	<10
M415WS1	N	20	<5	150	--	<20	10	200	2	N	2,000	20	3,000	<10
M418WS1	N	10	10	100	--	<20	N	100	2	N	3,000	20	3,000	<10
M419WS1	N	<5	<5	150	--	<20	N	50	10	N	1,500	20	3,000	10
M420WS1	N	N	<5	150	--	<20	<5	50	5	N	700	10	2,000	10
M435WS1	N	15	15	150	--	<20	<5	30	20	N	1,000	20	3,000	50
M436WS1	N	N	<5	100	--	<20	N	70	5	N	200	10	1,500	<10
M439WS1	N	N	<5	100	--	<20	<5	30	10	N	1,000	50	2,000	<10
M440WS1	N	<5	<5	150	--	<20	N	50	10	N	700	20	2,000	N
M441WS1	N	N	<5	100	--	<20	N	20	10	N	2,000	10	2,000	N
M442WS1	N	<5	<5	100	--	<20	N	50	15	N	2,000	20	2,000	<10
M443WS1	N	N	10	100	--	<20	N	30	15	N	1,500	10	3,000	<10
M447WS1	N	<5	<5	150	--	<20	10	200	10	N	1,000	10	3,000	<10
M452WS1	N	N	<5	100	--	<20	<5	70	10	N	5,000	20	3,000	20
M456WS1	N	10	<5	50	--	<20	N	100	5	N	2,000	20	3,000	10
M464WS1	N	10	<5	200	--	<20	N	100	10	N	2,000	20	2,000	<10
M465WS1	N	20	50	150	--	<20	N	50	20	N	5,000	150	3,000	200
M468WS1	N	N	<5	100	--	<20	<5	20	10	N	500	10	2,000	N
M470WS1	N	N	<5	70	--	<20	N	30	5	N	3,000	10	2,000	<10
M471WS1	N	N	5	100	--	<20	N	50	5	N	5,000	10	2,000	<10
M472WS1	N	N	<5	100	--	<20	N	30	3	N	2,000	10	1,000	N
M475WS1	N	N	5	70	--	<20	N	50	5	N	5,000	10	1,500	<10
M479WS1	N	N	<5	100	--	<20	N	30	2	N	2,000	10	3,000	<10
M480WS1	N	N	<5	100	--	<20	20	10	5	N	1,500	10	3,000	<10
M481WS1	N	N	5	100	--	<20	N	10	10	N	2,000	10	3,000	<10
M482WS1	N	N	<5	100	--	<20	N	20	1	N	2,000	10	1,000	<10
M483WS1	N	N	<5	70	--	<20	<5	20	10	N	3,000	20	3,000	<10
M484WS1	N	15	<5	70	--	<20	N	30	10	N	200	20	3,000	N
M488WS1	N	N	<5	70	--	<20	N	20	5	N	1,500	20	3,000	N
M490WS1	N	N	<5	150	--	<20	<5	100	10	N	2,000	10	3,000	<10
M492WS1	N	N	<5	100	--	<20	<5	100	1	N	1,000	30	2,000	N
M495WS1	N	20	<5	50	--	<20	N	100	2	N	2,000	20	2,000	N
M503WS1	N	N	<5	70	--	<20	N	70	2	N	1,000	20	3,000	N
M507WS1	N	N	<5	50	--	<20	N	<5	2	N	2,000	10	2,000	<10
M508WS1	N	N	<5	70	--	<20	<5	<5	2	N	5,000	10	3,000	<10
M509WS1	N	N	<5	50	--	<20	10	10	1	N	5,000	20	2,000	<10
M511WS1	N	N	<5	100	--	<20	<5	30	10	N	3,000	20	2,000	<10
M512WS1	N	<5	<5	50	--	<20	<5	20	5	N	1,500	20	2,000	<10
M513WS1	N	N	<5	100	--	<20	<5	10	5	N	3,000	20	3,000	<10

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M514WS1	63 27 15	153 51 2	.2	2	.2	.02	10,000	2	500	2,000	N
M516WS1	63 24 10	153 59 44	.2	5	.2	.02	10,000	1	200	2,000	N

Table 6. Results of analyses of samples of the ash of white spruce leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-Ga	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Zn	S-Zr
M514WS1	N	<5	<5	100	--	<20	N	30	5	N	1,000	20	3,000	<10
M516WS1	N	10	<5	150	--	<20	N	30	10	N	2,000	20	2,000	<10

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown; --, no data]

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M009WS2	63 14 58	154 40 45	.2	2	.5	.02	10,000	1.5	200	1,000	N
M011WS2	63 18 13	154 32 49	.2	2	1	.02	700	2	200	1,000	N
M012WS2	63 17 52	154 31 41	.2	2	.7	.02	1,000	1	200	700	N
M013WS2	63 18 25	154 28 52	.5	2	1	.03	1,500	5	200	3,000	N
M014WS2	63 17 13	154 28 33	.2	1.5	1	.02	1,500	2	200	700	N
M016WS2	63 20 23	154 20 30	.2	2	1	.02	700	1	100	1,000	N
M017WS2	63 22 33	154 26 19	.3	2	1	.02	700	.1	200	1,000	N
M021WS2	63 26 11	154 53 30	.2	2	.5	.02	10,000	N	150	1,000	N
M022WS2	63 26 49	155 1 23	.1	2	.5	.01	10,000	N	150	1,000	N
M029WS2	63 30 19	154 56 45	.15	2	.5	.01	7,000	N	200	1,000	N
M030WS2	63 28 24	154 52 33	.15	3	.2	.007	>10,000	.1	200	1,000	N
M031WS2	63 25 8	154 52 1	.3	3	1	.05	3,000	.2	200	3,000	1
M033WS2	63 27 46	154 44 35	.2	3	.7	.02	3,000	.1	200	3,000	N
M034WS2	63 27 29	154 38 14	.1	2	.5	.01	2,000	.2	150	700	N
M035WS2	63 25 13	154 38 2	.1	2	.3	.01	3,000	.1	200	2,000	N
M036WS2	63 25 13	154 39 6	.3	3	.3	.03	2,000	1	200	3,000	N
M037WS2	63 26 24	154 34 37	.1	2	.5	.01	2,000	1	200	1,000	N
M038WS2	63 25 52	154 30 10	.3	3	.5	.02	2,000	.5	200	3,000	N
M040WS2	63 30 33	154 17 49	.5	2	1	.05	3,000	1	200	1,500	N
M042WS2	63 31 11	154 23 6	.2	3	1	.02	5,000	.7	200	2,000	N
M045WS2	63 31 9	154 36 18	.15	3	.3	.01	5,000	.7	150	700	N
M046WS2	63 32 9	154 42 4	.15	2	.3	.01	3,000	.5	200	1,000	N
M050WS2	63 31 58	154 26 20	.1	2	1	.01	2,000	.5	200	1,000	N
M051WS2	63 34 54	154 28 22	.2	2	.7	.02	5,000	1.5	200	2,000	N
M053WS2	63 34 5	154 29 12	.2	2	1	.03	5,000	1	200	1,000	N
M054WS2	63 35 14	154 16 18	.1	3	.5	.01	1,000	1	200	1,000	N
M055WS2	63 34 58	154 21 18	.2	2	1	.02	3,000	1.5	200	3,000	N
M056WS2	63 37 43	154 12 46	.05	2	.2	.007	3,000	1.5	200	1,000	N
M057WS2	63 37 2	154 14 32	.2	2	1	.01	3,000	1.5	200	1,000	N
M058WS2	63 39 53	154 9 14	.1	3	.07	.007	2,000	N	200	1,000	N
M059WS2	63 39 54	154 12 28	.1	2	.3	.02	3,000	.2	200	1,000	N
M062WS2	63 40 32	154 26 34	.1	2	.5	.01	3,000	1	200	5,000	N
M065WS2	63 37 38	154 29 28	.3	2	.3	.05	3,000	1	200	3,000	N
M066WS2	63 42 48	154 29 50	.3	2	.5	.07	2,000	.5	200	1,500	N
M067WS2	63 5 28	154 47 28	.3	2	.5	.05	3,000	2	200	1,000	N
M069WS2	63 6 2	154 53 9	.15	2	.3	.01	3,000	1	150	1,500	N
M075WS2	63 0 17	155 15 14	.2	2	.1	.01	10,000	N	500	3,000	N
M077WS2	63 0 8	155 26 0	.5	5	.3	.1	10,000	2	200	3,000	N
M079WS2	63 2 12	155 28 26	.2	3	.5	.02	3,000	1	300	3,000	N
M081WS2	63 24 11	155 25 54	.2	3	.5	.01	5,000	1	200	1,000	N
M082WS2	63 24 46	155 23 34	.2	3	.3	.01	3,000	.5	200	3,000	N
M085WS2	63 28 15	155 31 43	.1	3	.5	.007	1,500	1.5	200	2,000	N
M086WS2	63 24 23	155 35 19	.05	2	.3	.007	10,000	1.5	200	200	N
M087WS2	63 28 1	155 35 6	.1	2	.5	.007	3,000	1.5	200	700	N
M088WS2	63 23 8	155 34 29	.15	2	.3	.01	5,000	1	200	500	N
M089WS2	63 23 31	155 38 24	.15	2	.5	.01	3,000	1	200	1,000	N
M090WS2	63 22 23	155 38 16	.3	2	.7	.05	2,000	1	200	3,000	N
M092WS2	63 19 37	155 33 15	.3	2	.5	.05	5,000	1	200	2,000	N
M095WS2	63 17 2	155 37 50	.3	3	.5	.05	2,000	1	200	1,000	N
M096WS2	63 21 41	155 21 13	.3	2	.5	.05	700	1	200	15,000	N
M104WS2	63 5 3	155 56 8	.2	2	.7	.02	1,000	1	200	1,000	N
M107WS2	63 9 17	155 57 18	.15	2	.7	.02	3,000	1	200	700	N
M111WS2	63 13 13	155 59 44	.05	3	.5	.01	10,000	.2	200	500	N
M112WS2	63 13 48	155 45 16	.1	2	.5	.01	7,000	1	200	1,000	N
M115WS2	63 16 49	155 58 22	.1	2	.5	.007	1,500	.5	200	1,000	N
M116WS2	63 20 41	155 46 43	.15	3	.7	.01	1,000	1	200	2,000	N
M117WS2	63 21 12	155 50 1	.1	2	.5	.005	10,000	1	200	1,000	N
M118WS2	63 20 23	155 46 33	.1	2	.5	.01	5,000	1	200	1,000	N
M119WS2	63 17 47	155 40 55	.1	2	.5	.007	2,000	1	200	1,000	N
M120WS2	63 23 33	155 46 20	.07	2	.3	.005	700	.7	200	1,500	N

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M009WS2	10	<5	15	150	<20	N	30	10	N	700	20	N	2,000	N
M011WS2	N	N	<5	200	<20	N	15	10	N	1,000	10	N	3,000	N
M012WS2	N	N	<5	150	<20	N	5	20	N	300	10	N	5,000	N
M013WS2	3	<5	20	200	<20	N	30	15	N	1,000	15	N	2,000	20
M014WS2	N	N	5	150	<20	N	10	15	N	700	15	N	5,000	10
M016WS2	N	N	<5	100	<20	N	5	15	N	1,000	10	N	3,000	N
M017WS2	N	N	5	100	<20	N	10	10	N	700	10	N	3,000	N
M021WS2	N	<5	<5	100	<20	N	30	15	N	700	20	N	3,000	N
M022WS2	N	10	N	150	<20	N	50	10	N	700	20	N	3,000	N
M029WS2	1	<5	<5	150	<20	N	20	15	N	700	15	N	3,000	N
M030WS2	15	<5	N	100	<20	N	500	10	N	700	20	N	2,000	100
M031WS2	2	<5	5	200	<20	N	50	30	N	5,000	10	N	5,000	10
M033WS2	2	<5	5	200	<20	N	50	15	N	1,000	10	N	3,000	N
M034WS2	1	<5	5	100	<20	N	50	3	N	1,000	10	N	3,000	N
M035WS2	3	10	<5	150	<20	N	50	3	N	1,000	10	N	3,000	N
M036WS2	N	<5	5	150	<20	N	30	10	N	2,000	10	N	3,000	10
M037WS2	N	5	<5	150	<20	N	30	10	N	1,000	10	N	3,000	10
M038WS2	N	10	10	200	<20	N	30	10	N	2,000	10	N	3,000	10
M040WS2	1	10	15	150	<20	N	30	30	N	2,000	20	N	3,000	10
M042WS2	1	5	5	150	<20	N	30	15	N	5,000	20	N	5,000	10
M045WS2	10	15	<5	150	<20	N	100	20	N	1,500	10	N	3,000	N
M046WS2	N	<5	<5	150	<20	N	20	10	N	2,000	10	N	3,000	N
M050WS2	N	N	<5	150	<20	N	10	10	N	3,000	10	N	5,000	N
M051WS2	N	10	5	150	<20	N	50	10	N	3,000	10	N	5,000	<10
M053WS2	N	10	5	150	<20	N	30	15	N	3,000	10	N	3,000	<10
M054WS2	1	15	<5	150	<20	N	50	5	N	3,000	10	N	3,000	<10
M055WS2	1	<5	7	200	<20	N	50	15	N	3,000	15	N	3,000	10
M056WS2	1	N	<5	100	<20	N	10	3	N	3,000	10	N	3,000	<10
M057WS2	N	10	5	150	<20	N	50	10	N	2,000	15	N	3,000	10
M058WS2	N	N	<5	50	<20	N	<5	1	N	500	10	N	2,000	<10
M059WS2	N	<5	5	100	<20	N	30	3	N	2,000	10	N	2,000	10
M062WS2	N	20	<5	150	<20	N	70	3	N	3,000	10	N	3,000	<10
M065WS2	N	<5	15	150	<20	N	30	15	N	3,000	15	N	3,000	10
M066WS2	N	<5	15	150	<20	N	20	15	5	1,000	15	N	5,000	10
M067WS2	N	20	15	100	<20	N	70	10	N	700	10	N	3,000	10
M069WS2	1	20	5	150	<20	N	50	7	N	700	10	N	3,000	<10
M075WS2	N	10	10	100	<20	N	50	2	<5	500	15	N	2,000	<10
M077WS2	N	20	20	200	<20	N	50	30	5	3,000	20	N	5,000	<10
M079WS2	N	15	20	200	<20	N	30	15	N	3,000	10	N	3,000	10
M081WS2	N	20	5	150	<20	N	20	5	N	3,000	10	N	3,000	<10
M082WS2	1	10	5	150	<20	N	30	15	N	2,000	10	N	5,000	N
M085WS2	1	15	<5	100	<20	N	50	5	N	2,000	10	N	3,000	<10
M086WS2	N	N	N	150	<20	N	20	2	N	200	10	N	3,000	N
M087WS2	N	N	<5	150	<20	N	15	2	N	700	10	N	3,000	<10
M088WS2	N	<5	<5	150	<20	N	30	15	10	700	10	N	3,000	<10
M089WS2	N	<5	<5	150	<20	N	20	10	N	700	10	N	3,000	<10
M090WS2	N	10	10	150	<20	N	50	15	N	1,000	15	N	3,000	10
M092WS2	N	10	10	150	<20	N	20	15	N	2,000	15	N	5,000	10
M095WS2	N	10	5	150	<20	5	20	20	N	3,000	15	N	5,000	20
M096WS2	N	<5	10	150	<20	<5	15	10	N	700	15	N	3,000	10
M104WS2	N	10	<5	150	<20	N	20	5	N	1,000	10	N	3,000	10
M107WS2	N	<5	<5	150	<20	N	20	15	N	1,000	10	N	5,000	<10
M111WS2	1	N	N	100	<20	N	20	2	N	1,000	20	N	2,000	<10
M112WS2	1	10	<5	100	<20	N	20	5	N	500	10	N	3,000	<10
M115WS2	N	N	<5	70	<20	N	20	3	N	700	10	N	2,000	N
M116WS2	N	10	5	200	<20	N	50	5	<5	700	10	N	2,000	N
M117WS2	1	20	<5	100	<20	N	30	5	N	700	20	N	3,000	N
M118WS2	1	10	5	150	<20	N	20	10	N	700	10	N	3,000	20
M119WS2	N	10	<5	100	<20	<5	20	7	<5	700	10	N	3,000	10
M120WS2	N	N	<5	150	<20	N	30	7	N	500	10	N	3,000	N

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M122WS2	63 23 48	155 45 45	.15	2	.7	.01	1,000	1	300	1,000	N
M123WS2	63 26 43	155 47 12	.05	2	.5	.005	2,000	1	300	1,500	N
M124WS2	63 26 23	155 42 31	.07	1	.7	.005	500	1	200	1,000	N
M126WS2	63 26 13	155 42 31	.2	1.5	.7	.01	1,000	1.5	200	2,000	N
M127WS2	63 29 9	155 57 50	.1	2	.7	.005	5,000	1	200	200	N
M128WS2	63 26 10	155 59 34	.3	2	.7	.05	7,000	1.5	200	1,000	N
M132WS2	63 29 6	155 53 23	.1	2	.3	.005	1,500	1	200	1,500	N
M134WS2	63 29 18	155 53 52	.2	2	.5	.01	2,000	2	200	1,000	N
M136WS2	63 29 14	155 37 5	.15	2	.7	.007	5,000	1	200	1,000	N
M138WS2	63 29 26	155 37 10	.1	2	.5	.007	2,000	.2	200	1,000	N
M143WS2	63 54 35	155 18 34	.2	3	.3	.01	2,000	.2	200	2,000	N
M150WS2	63 31 30	154 14 54	.2	2	.5	.01	10,000	1	200	300	N
M151WS2	63 33 15	154 13 27	.2	3	.3	.01	3,000	1	200	1,000	N
M153WS2	63 34 28	154 10 0	.2	2	.3	.01	5,000	1	200	1,000	N
M155WS2	63 34 14	154 4 5	.15	2	.3	.01	1,500	1	200	700	N
M156WS2	63 33 33	154 2 56	.3	2	.5	.05	1,500	.5	200	1,000	N
M157WS2	63 36 30	154 4 23	.1	2	.5	.01	1,000	1	200	500	N
M158WS2	63 30 53	154 11 13	.3	2	.5	.02	1,500	1	200	1,000	N
M159WS2	63 33 50	153 57 29	.2	2	.3	.02	1,500	1	200	2,000	N
M161WS2	63 34 56	153 58 42	.2	2	.3	.02	1,500	1.5	150	1,000	N
M162WS2	63 34 57	153 54 28	.2	2	.3	.01	3,000	1	150	1,000	N
M163WS2	63 43 21	153 54 38	.2	2	.5	.01	2,000	1	200	2,000	N
M164WS2	63 39 46	153 55 54	.2	1.5	.3	.01	2,000	.7	150	2,000	N
M165WS2	63 44 51	153 55 24	.1	5	.3	.005	300	2	150	1,000	N
M166WS2	63 39 51	153 50 21	.2	2	.3	.05	500	1	150	1,000	N
M167WS2	63 41 43	153 42 46	.15	3	.3	.01	500	1	150	2,000	N
M168WS2	63 45 50	153 47 48	.2	3	.5	.02	1,000	1.5	200	2,000	N
M169WS2	63 39 26	153 44 39	.15	1	.3	.02	1,000	.5	150	2,000	N
M170WS2	63 41 23	153 43 42	.1	2	.3	.01	500	.2	100	700	N
M172WS2	63 9 13	155 3 22	.2	1.5	.3	.015	1,000	1	200	1,000	N
M175WS2	63 14 47	154 52 45	.2	2	.5	.015	3,000	1.5	150	1,500	N
M183WS2	63 22 35	154 31 35	.2	2	.3	.015	3,000	1	200	2,000	N
M186WS2	63 23 14	154 44 30	.1	2	.3	.005	700	.2	200	3,000	N
M192WS2	63 20 42	155 0 27	.2	2	.5	.01	2,000	1	200	3,000	N
M193WS2	63 23 29	155 5 11	.1	2	.5	.01	7,000	1	150	3,000	N
M194WS2	63 21 30	155 7 15	.3	2	.5	.01	3,000	1	150	3,000	N
M196WS2	63 24 47	155 3 51	.1	1	.5	.01	3,000	1	200	500	N
M198WS2	63 25 47	155 12 40	.1	.7	.3	.01	1,500	1.5	200	500	N
M200WS2	63 28 16	155 21 16	.15	2	.3	.02	3,000	1.5	150	700	N
M201WS2	63 46 40	153 48 48	.15	2	.7	.03	5,000	.7	150	1,000	N
M202WS2	63 49 19	153 47 37	.1	2	.5	.01	700	1	200	1,000	N
M203WS2	63 52 0	153 37 38	.2	3	.5	.02	500	10	200	1,000	N
M204WS2	63 54 48	153 33 33	.1	3	.5	.01	500	.2	200	1,000	N
M205WS2	63 56 22	153 33 12	.1	2	.5	.01	1,500	1	150	1,000	N
M206WS2	63 54 46	153 29 54	.2	2	.5	.02	1,500	1.5	200	1,000	N
M209WS2	63 57 5	153 5 28	.1	1	.7	.01	1,000	1	200	1,000	N
M216WS2	63 50 30	153 18 21	.2	3	.3	.02	1,500	1	150	1,000	N
M217WS2	63 49 0	153 13 31	.1	2	.5	.01	2,000	1	200	1,000	N
M218WS2	63 47 44	153 16 53	.1	2	.3	.07	700	1	150	2,000	N
M219SW2	63 46 25	153 19 15	.15	3	.3	.02	1,500	.5	150	1,000	N
M222WS2	63 49 36	153 5 59	.3	2	.3	.02	1,500	1.5	150	2,000	N
M223WS2	63 51 4	153 9 2	.3	2	.5	.02	1,000	1	150	1,500	N
M227WS2	63 54 46	153 14 2	.3	2	.3	.05	5,000	1.5	150	5,000	N
M228WS2	63 55 19	153 20 52	.3	2	.5	.05	1,000	1.5	200	3,000	N
M229WS2	63 53 33	153 23 19	.3	3	.5	.05	2,000	1	200	2,000	N
M230WS2	63 53 47	153 21 41	.2	2	.5	.02	1,500	1	200	1,000	N
M232WS2	63 48 51	153 28 38	.2	2	.5	.02	700	1.5	200	2,000	N
M233WS2	63 28 59	154 15 26	.15	2	.5	.02	3,000	1.5	200	7,000	N
M234WS2	63 29 24	154 25 28	.3	3	.5	.015	3,000	1	200	2,000	N
M235WS2	63 30 0	154 4 10	.15	2	.5	.01	1,000	1	200	2,000	N

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M122WS2	N	N	<5	200	<20	N	50	5	N	500	10	N	3,000	10
M123WS2	N	<5	<5	150	<20	N	30	5	5	1,000	10	N	3,000	<10
M124WS2	N	N	<5	150	<20	N	10	3	N	1,000	10	N	3,000	<10
M126WS2	N	N	<5	150	<20	N	20	10	<5	1,000	10	N	3,000	<10
M127WS2	N	N	<5	150	<20	N	20	3	<5	300	10	N	3,000	<10
M128WS2	N	10	7	100	<20	N	30	10	<5	700	15	N	3,000	<10
M132WS2	N	10	<5	150	<20	N	50	5	N	1,000	10	N	3,000	<10
M134WS2	N	N	<5	150	<20	N	20	10	N	3,000	10	N	3,000	<10
M136WS2	N	10	<5	150	<20	N	30	5	N	2,000	10	N	3,000	<10
M138WS2	N	<5	<5	150	<20	N	30	3	N	1,000	10	N	3,000	<10
M143WS2	N	10	5	100	<20	<5	20	3	N	2,000	10	N	3,000	<10
M150WS2	N	20	<5	150	<20	N	20	15	N	700	10	N	3,000	<10
M151WS2	N	10	<5	150	<20	N	30	15	N	2,000	10	N	3,000	<10
M153WS2	N	N	5	150	<20	N	100	10	N	1,000	10	N	2,000	<10
M155WS2	N	N	5	150	<20	N	10	10	N	500	10	N	3,000	N
M156WS2	N	N	10	150	<20	N	15	15	N	700	10	N	2,000	<10
M157WS2	N	N	N	100	<20	<5	10	5	N	500	10	N	3,000	N
M158WS2	N	N	10	200	<20	N	15	20	N	500	10	N	3,000	<10
M159WS2	N	N	5	200	<20	N	15	10	N	3,000	10	N	3,000	<10
M161WS2	N	N	5	150	<20	N	10	10	N	3,000	10	N	3,000	<10
M162WS2	N	N	5	150	<20	10	10	5	N	2,000	10	N	2,000	<10
M163WS2	N	N	10	150	<20	N	50	10	N	1,500	10	N	3,000	10
M164WS2	N	N	5	100	<20	N	10	15	N	1,000	10	N	3,000	<10
M165WS2	N	N	<5	150	<20	N	15	5	N	1,000	10	N	3,000	N
M166WS2	N	N	5	100	<20	<5	10	20	5	700	10	N	3,000	<10
M167WS2	N	N	5	100	<20	N	10	30	10	700	10	N	2,000	N
M168WS2	N	N	5	150	<20	5	10	10	N	1,000	10	N	3,000	<10
M169WS2	N	N	5	150	<20	N	15	10	N	700	10	N	2,000	N
M170WS2	N	N	<5	100	<20	N	10	1	N	500	10	N	2,000	N
M172WS2	N	10	5	100	<20	N	20	10	N	1,000	10	N	3,000	<10
M175WS2	N	N	5	150	<20	N	20	5	N	500	10	N	2,000	<10
M183WS2	N	N	5	150	<20	N	15	20	N	700	10	N	3,000	<10
M186WS2	N	N	<5	150	<20	N	30	5	N	2,000	10	N	3,000	<10
M192WS2	N	10	10	100	<20	N	20	7	N	700	10	N	3,000	<10
M193WS2	N	20	<5	150	<20	N	100	5	N	700	10	N	3,000	<10
M194WS2	N	20	10	150	<20	N	50	10	N	700	10	N	3,000	10
M196WS2	N	10	<5	200	<20	N	20	3	N	700	--	N	2,000	10
M198WS2	N	N	<5	100	<20	N	10	3	N	1,000	--	N	2,000	10
M200WS2	N	10	<5	100	<20	N	20	10	N	700	--	N	3,000	10
M201WS2	N	10	5	150	<20	N	20	10	N	1,000	--	N	2,000	10
M202WS2	N	N	<5	100	<20	N	15	2	N	500	10	N	2,000	N
M203WS2	N	N	<5	200	<20	N	15	5	N	700	10	N	3,000	N
M204WS2	N	N	5	100	<20	N	10	5	N	1,000	10	N	2,000	N
M205WS2	N	N	5	100	<20	N	30	10	N	700	10	N	2,000	N
M206WS2	N	N	<5	200	<20	N	20	10	N	1,500	10	N	5,000	<10
M209WS2	N	10	<5	100	<20	N	50	10	N	500	10	N	2,000	<10
M216WS2	N	20	<5	150	<20	N	50	10	N	700	10	N	2,000	<10
M217WS2	N	<5	<5	100	<20	N	20	10	N	700	10	N	3,000	N
M218WS2	N	N	<5	150	<20	10	20	3	N	1,500	10	N	2,000	N
M219SW2	N	<5	<5	100	<20	<5	20	10	N	700	10	N	3,000	<10
M222WS2	N	<5	5	150	<20	N	30	15	5	700	15	N	2,000	<10
M223WS2	N	15	<5	100	<20	N	30	10	<5	700	15	N	5,000	<10
M227WS2	N	20	5	100	<20	N	30	10	N	2,000	15	N	3,000	30
M228WS2	N	<5	5	100	<20	N	15	10	N	1,500	15	N	3,000	10
M229WS2	N	<5	5	100	<20	N	10	30	N	700	15	N	3,000	10
M230WS2	N	<5	20	300	<20	<5	20	10	70	700	10	N	2,000	10
M232WS2	N	N	<5	150	<20	<5	10	10	<5	700	10	N	3,000	10
M233WS2	N	N	<5	150	<20	N	10	10	N	200	10	N	3,000	<10
M234WS2	N	N	5	150	<20	N	15	10	N	2,000	10	N	2,000	<10
M235WS2	N	N	<5	150	<20	5	10	10	N	1,500	10	N	2,000	<10

Table 7. Results of analyses of samples of the ash of white spruce stems from the medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M236WS2	63 28 41	154 8 14	.2	2	.5	.01	1,500	1	200	1,000	N
M237WS2	63 29 6	154 7 42	.1	1	.5	.007	1,000	.7	150	500	N
M238WS2	63 25 44	154 3 43	.2	2	.5	.02	200	1	200	1,000	N
M239WS2	63 28 41	154 6 28	.2	2	.5	.05	2,000	1	150	700	N
M240WS2	63 27 34	154 9 27	.2	2	.5	.02	700	1	150	2,000	N
M241WS2	63 27 9	154 10 23	.2	2	.5	.02	700	1	150	700	N
M242WS2	63 25 51	154 10 32	.2	2	.3	.01	1,000	2	150	1,000	N
M243WS2	63 25 9	154 12 8	.2	3	.5	.02	700	1.5	200	1,000	N
M244WS2	63 24 25	154 8 0	.1	2	.3	.007	1,000	1	150	1,000	N
M245WS2	63 22 14	154 11 13	.15	1	.3	.007	1,000	1	150	1,000	N
M247WS2	63 26 34	154 22 37	.3	1	.7	.05	700	1	200	3,000	N
M248WS2	63 26 20	154 25 3	.2	2	.5	.02	1,000	1	200	2,000	N
M249WS2	63 24 52	154 23 31	.3	2	.5	.02	1,000	.5	200	1,000	N
M253WS2	63 47 43	154 13 20	.2	2	.5	.05	1,000	2	200	3,000	N
M254WS2	63 48 17	154 18 17	.2	3	.7	.02	1,000	1.5	150	3,000	N
M255WS2	63 51 14	154 24 3	.2	2	1.5	.02	700	1.5	200	1,000	N
M256WS2	63 53 2	154 28 1	.2	3	1	.01	700	1.5	150	1,000	N
M258WS2	63 55 28	154 24 5	.15	2	1	.01	500	1.5	200	700	N
M259WS2	63 55 42	154 21 36	.3	2	1	.01	1,000	1	150	700	N
M260WS2	63 58 54	154 21 9	.1	2	1	.01	1,000	2	200	1,000	N
M262WS2	63 56 46	154 11 29	.2	3	1	.02	1,000	1	200	1,000	N
M263WS2	63 56 25	154 11 20	.2	5	2	.02	1,500	1.5	200	2,000	N
M264WS2	63 52 36	154 10 33	.1	2	.5	.02	1,500	1	150	1,000	N
M266WS2	63 49 10	154 4 21	.2	3	1	.02	3,000	1	200	1,000	N
M267WS2	63 46 22	154 8 13	.2	2	1	.02	1,500	1.5	150	1,500	N
M268WS2	63 44 50	154 7 46	.2	2	.7	.02	500	1.5	150	1,000	N
M269WS2	63 43 44	154 7 9	.2	1	.5	.01	500	1	200	700	N
M270WS2	63 42 12	154 4 54	.2	1.5	1	.02	500	1.5	200	700	N
M271WS2	63 6 35	154 8 33	.3	2	.5	.02	2,000	1	200	1,000	N
M272WS2	63 7 12	153 56 13	.3	2	.7	.02	1,500	1	150	1,000	N
M273WS2	63 10 13	153 54 27	.2	1	1	.01	700	.7	200	700	N
M274WS2	63 10 21	153 54 0	.2	2	1	.02	2,000	.5	200	1,000	N
M275WS2	63 13 51	153 50 6	.05	.7	.5	.005	300	.2	150	1,000	N
M277WS2	63 17 42	153 53 29	.5	3	1	.05	1,500	1	200	1,000	N
M278WS2	63 11 19	154 2 11	.5	3	1	.05	1,000	1	200	1,000	N
M280WS2	63 19 11	154 20 30	.2	2	.7	.02	2,000	1	150	1,000	N
M304WS2	63 36 10	155 57 7	.5	3	.3	.03	3,000	1	200	3,000	N
M305WS2	63 33 15	155 59 28	.1	2	.5	.01	3,000	1.5	200	1,500	N
M309WS2	63 27 46	154 32 36	.2	3	.5	.03	10,000	1	150	700	N
M312WS2	63 37 41	154 6 37	1.5	2	.5	.2	1,000	1	200	700	N
M313WS2	63 41 37	154 3 51	.2	3	.5	.07	1,000	1.5	150	1,000	N
M314WS2	63 41 52	154 3 18	.5	3	.7	.05	1,000	2	200	2,000	N
M315WS2	63 27 35	154 17 35	.3	3	.3	.05	1,000	1	150	700	N
M327WS2	63 41 12	155 0 41	.1	3	.5	.02	5,000	1	200	1,500	N
M330WS2	63 43 20	155 7 56	.2	2	.3	.03	10,000	1.5	150	2,000	N
M337WS2	63 30 56	155 24 11	.1	3	.3	.02	2,000	1	200	1,000	N
M341WS2	63 36 17	153 6 59	.5	3	.5	.1	2,000	1	200	2,000	N
M342WS2	63 36 5	153 7 4	1	3	.5	.07	>10,000	1	300	3,000	N
M345WS2	63 31 41	153 2 2	1	3	.5	.15	5,000	1.5	200	700	N
M347WS2	63 30 8	153 6 47	.1	1.5	.5	.02	2,000	1	150	500	N
M352WS2	63 23 0	154 52 15	.2	3	.5	.05	2,000	1	150	1,000	N
M353WS2	63 26 39	154 57 42	.1	3	.5	.02	5,000	.5	150	700	N
M354WS2	63 25 13	154 57 50	.1	3	.5	.02	3,000	2	300	3,000	N
M355WS2	63 25 55	155 3 24	.3	3	.5	.05	3,000	1.5	200	3,000	N
M356WS2	63 25 13	155 8 53	.2	3	.5	.02	1,500	1.5	150	1,000	N
M361WS2	63 46 5	153 35 32	.3	3	.7	.05	1,500	2	150	1,500	N
M362WS2	63 46 0	153 41 47	.1	1.5	.3	.02	2,000	1	200	1,000	N
M364WS2	63 47 49	153 35 42	.2	3	.5	.05	1,000	1	200	1,500	N
M366WS2	63 47 41	153 31 23	.2	3	.5	.05	1,000	1.5	200	1,500	N
M367WS2	63 50 29	153 34 31	.1	1.5	.3	.01	700	1	200	1,000	N

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M236WS2	N	N	5	150	<20	N	15	15	N	1,000	10	N	3,000	<10
M237WS2	N	N	<5	150	<20	N	10	5	N	300	10	N	1,500	<10
M238WS2	N	N	<5	200	<20	N	10	10	N	2,000	10	N	2,000	10
M239WS2	N	N	5	200	<20	N	20	20	5	500	20	N	5,000	10
M240WS2	N	N	7	200	<20	N	20	10	<5	1,000	10	N	5,000	<10
M241WS2	N	N	<5	150	<20	N	15	10	N	500	10	N	3,000	<10
M242WS2	N	N	5	200	<20	N	20	15	N	500	10	N	5,000	<10
M243WS2	N	N	10	150	<20	<5	20	15	N	2,000	10	N	5,000	<10
M244WS2	N	N	<5	150	<20	N	20	5	N	2,000	10	N	2,000	<10
M245WS2	N	<5	<5	100	<20	N	20	5	N	700	10	N	2,000	<10
M247WS2	N	10	20	200	<20	N	30	20	5	1,000	10	N	3,000	<10
M248WS2	N	N	5	150	<20	20	15	5	N	1,000	10	N	3,000	<10
M249WS2	N	N	15	100	<20	N	15	15	N	1,000	10	N	2,000	<10
M253WS2	N	N	15	150	<20	N	30	15	N	1,000	15	N	5,000	<10
M254WS2	N	N	5	150	<20	N	15	10	N	1,000	10	N	5,000	<10
M255WS2	N	N	5	150	<20	N	15	10	N	700	10	N	3,000	<10
M256WS2	N	N	<5	150	<20	N	15	10	N	700	10	N	3,000	<10
M258WS2	N	N	<5	100	<20	N	15	5	N	500	10	N	2,000	<10
M259WS2	N	N	10	100	<20	N	20	10	<5	1,000	10	N	2,000	<10
M260WS2	N	N	<5	200	<20	<5	20	10	N	2,000	15	N	5,000	<10
M262WS2	N	N	5	150	<20	<5	15	15	N	2,000	10	N	3,000	<10
M263WS2	N	N	10	200	<20	N	20	15	N	5,000	10	N	5,000	<10
M264WS2	N	N	<5	100	<20	5	10	10	N	700	10	N	3,000	<10
M266WS2	N	N	7	200	<20	N	15	10	N	700	10	N	3,000	<10
M267WS2	N	N	<5	100	<20	<5	20	10	N	700	10	N	3,000	<10
M268WS2	N	N	5	200	<20	5	15	10	N	2,000	10	N	3,000	<10
M269WS2	N	N	<5	150	<20	N	10	10	N	1,000	10	N	3,000	<10
M270WS2	N	N	<5	150	<20	N	10	10	N	1,000	10	N	3,000	<10
M271WS2	N	N	7	150	<20	<5	20	10	N	2,000	10	N	2,000	<10
M272WS2	N	<5	5	100	<20	N	20	15	N	1,000	10	N	2,000	<10
M273WS2	N	<5	5	100	<20	N	20	10	N	700	10	N	2,000	N
M274WS2	N	<5	7	150	<20	N	20	10	N	1,000	10	N	2,000	<10
M275WS2	N	N	N	70	<20	N	10	1	N	700	10	N	2,000	N
M277WS2	N	<5	10	150	<20	<5	20	10	N	2,000	10	N	3,000	10
M278WS2	N	<5	10	200	<20	10	20	15	N	2,000	10	N	3,000	10
M280WS2	N	<5	10	200	<20	N	20	10	N	2,000	10	N	3,000	<10
M304WS2	N	20	5	150	<20	N	30	15	N	3,000	10	N	3,000	10
M305WS2	5	<5	<5	150	<20	N	20	10	N	1,000	10	N	3,000	<10
M309WS2	20	10	5	150	20	N	20	20	N	1,000	20	N	3,000	N
M312WS2	N	10	50	100	20	N	20	20	N	500	50	<10	2,000	150
M313WS2	N	N	5	150	20	N	10	10	N	1,000	20	N	2,000	10
M314WS2	N	<5	20	200	20	N	20	15	N	2,000	20	N	3,000	10
M315WS2	N	N	10	200	20	N	10	15	N	500	20	N	2,000	10
M327WS2	N	20	<5	150	20	N	70	10	N	2,000	10	N	2,000	<10
M330WS2	N	20	<5	70	20	N	30	10	15	2,000	20	N	2,000	<10
M337WS2	N	20	<5	200	20	N	50	5	N	3,000	10	N	3,000	<10
M341WS2	N	10	10	100	30	N	70	20	N	3,000	20	N	3,000	10
M342WS2	5	20	10	100	20	N	30	20	N	3,000	20	N	3,000	10
M345WS2	N	20	15	100	20	N	30	20	N	200	20	N	3,000	20
M347WS2	2	N	<5	100	N	N	10	10	N	500	10	N	1,000	N
M352WS2	N	10	<5	100	20	N	50	15	N	1,000	20	N	3,000	10
M353WS2	N	N	<5	100	20	N	50	10	N	700	10	N	3,000	<10
M354WS2	N	20	<5	200	20	N	70	5	N	1,500	10	N	3,000	10
M355WS2	N	15	5	150	20	N	50	20	N	1,000	20	N	3,000	10
M356WS2	N	15	<5	100	20	N	70	15	N	500	10	N	2,000	<10
M361WS2	N	15	5	100	<20	N	20	15	N	700	10	N	2,000	<10
M362WS2	N	<5	<5	150	20	N	20	7	N	500	20	N	2,000	<10
M364WS2	N	N	<5	150	<20	N	20	5	N	2,000	20	N	2,000	<10
M366WS2	N	N	<5	150	30	N	20	5	N	1,000	10	N	3,000	<10
M367WS2	N	N	<5	100	<20	N	15	5	N	1,500	10	N	2,000	N

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M369WS2	63 52 27	153 38 0	.2	3	.5	.02	700	1	200	1,500	N
M370WS2	63 56 36	153 40 1	.2	1	.5	.03	1,500	2	200	1,500	N
M372WS2	63 58 20	153 31 25	.2	1	.7	.03	1,000	1	200	1,000	N
M373WS2	63 59 18	153 36 7	.2	2	.5	.03	1,000	1	200	1,000	N
M374WS2	63 59 46	153 40 4	1.5	2	.5	.2	2,000	.5	150	3,000	N
M375WS2	63 45 57	153 55 12	.2	3	.5	.03	1,000	1	200	1,000	N
M376WS2	63 51 34	153 48 5	.1	2	.3	.02	1,000	1	200	500	N
M377WS2	63 51 40	153 47 23	.15	2	.2	.05	700	2	150	1,000	N
M378WS2	63 52 43	153 45 44	.2	2	.2	.05	3,000	1	200	1,500	N
M379WS2	63 54 42	153 47 50	.3	2	.3	.05	2,000	1	200	3,000	N
M381WS2	63 56 24	153 50 53	.2	2	.5	.02	1,000	.2	150	500	N
M382WS2	63 59 26	153 50 1	.2	3	.3	.05	2,000	1.5	150	3,000	N
M384WS2	63 50 59	153 53 12	.2	5	.3	.05	1,500	1	150	2,000	N
M385WS2	63 47 52	153 58 9	.2	2	.5	.05	500	1.5	200	1,000	N
M386WS2	63 45 50	154 30 17	.2	3	.3	.05	1,000	1	100	1,500	N
M388WS2	63 47 37	154 35 40	.3	5	.3	.05	1,500	1	100	3,000	N
M389WS2	63 48 44	154 31 7	.3	5	.3	.07	1,500	1	150	1,000	N
M390WS2	63 50 23	154 33 35	.1	5	.3	.02	300	.5	100	1,000	N
M391WS2	63 49 26	154 38 8	.1	5	.3	.05	2,000	1.5	200	3,000	N
M394WS2	63 54 8	154 42 42	.2	2	.3	.05	2,000	1	150	700	N
M395WS2	63 54 49	154 35 20	.1	3	.2	.02	700	1	100	1,000	N
M396WS2	63 54 51	154 36 2	.5	2	.3	.2	700	1	150	700	N
M415WS2	63 59 42	155 32 31	.2	3	.3	.03	2,000	.2	150	3,000	N
M418WS2	63 49 56	155 15 14	.2	2	.5	.03	2,000	1	150	1,500	N
M419WS2	63 52 29	155 25 6	.2	2	.3	.02	2,000	2	200	700	N
M420WS2	63 52 29	155 24 34	.2	2	.5	.05	1,500	1.5	150	700	N
M435WS2	63 45 23	155 47 58	1	3	.3	.15	1,500	.5	200	1,500	N
M436WS2	63 48 31	155 45 19	.1	2	.3	.02	3,000	.5	150	1,000	N
M439WS2	63 12 18	155 45 17	.3	2	.3	.03	700	.2	200	3,000	N
M440WS2	63 13 52	155 50 47	.2	3	.5	.03	2,000	.5	200	3,000	N
M441WS2	63 15 42	155 51 1	.3	3	.5	.03	2,000	.2	200	5,000	N
M442WS2	63 14 47	155 55 22	.2	3	.5	.02	2,000	.2	200	5,000	N
M443WS2	63 14 59	155 54 51	.2	2	.5	.03	2,000	1	200	3,000	N
M447WS2	63 48 15	155 31 20	.1	1.5	.2	.01	1,000	.5	200	1,000	N
M452WS2	63 44 56	155 28 51	.2	2	.3	.02	1,000	1	200	1,000	N
M456WS2	63 40 30	155 46 5	.2	2	.5	.03	2,000	1	200	5,000	N
M464WS2	63 33 18	155 46 3	.1	2	.2	.02	2,000	.5	150	1,000	N
M465WS2	63 33 30	155 46 31	2	2	.5	.1	2,000	.5	300	700	N
M468WS2	63 55 38	154 39 50	.2	2	.3	.02	500	1	200	2,000	N
M470WS2	63 57 58	154 48 46	.2	3	.5	.03	2,000	1.5	100	1,000	N
M471WS2	63 57 16	154 53 39	.2	3	.3	.03	700	.5	200	2,000	N
M472WS2	63 57 35	154 53 20	.2	2	.2	.02	2,000	.5	150	1,000	N
M475WS2	63 41 0	154 18 24	.3	3	.5	.05	2,000	.5	200	5,000	N
M479WS2	63 46 54	154 17 28	.2	2	.5	.02	1,000	2	150	2,000	N
M480WS2	63 40 20	153 52 35	.2	2	.3	.02	1,500	.5	150	1,000	N
M481WS2	63 40 34	153 50 44	.15	2	.3	.02	500	1	150	1,000	N
M482WS2	63 35 1	153 53 48	.15	2	.3	.02	700	1	150	2,000	N
M483WS2	63 33 40	153 45 20	.3	3	.5	.05	2,000	1	300	2,000	N
M484WS2	63 7 43	154 53 40	.2	3	.3	.03	7,000	1	200	2,000	N
M488WS2	63 25 32	155 32 3	.2	3	.5	.05	3,000	2	200	3,000	N
M490WS2	63 31 40	155 27 11	.2	2	.2	.02	1,500	.2	200	1,500	N
M492WS2	63 36 21	155 2 32	.2	3	.3	.02	10,000	.2	200	500	N
M495WS2	63 51 45	154 55 51	.3	2	.3	.05	5,000	.2	200	1,000	N
M503WS2	63 34 58	154 43 36	.2	2	.2	.02	1,500	.2	200	1,000	N
M507WS2	63 43 12	153 29 43	2	1.5	.2	.03	700	.7	200	1,000	N
M508WS2	63 44 0	153 27 59	.05	.5	.3	.01	200	.5	150	700	N
M509WS2	63 41 3	153 33 57	.3	.5	.3	.05	2,000	.2	200	5,000	N
M511WS2	63 41 26	153 39 10	.2	.3	.3	.03	2,000	.5	200	5,000	N
M512WS2	63 31 28	153 59 6	.3	.2	.2	.02	2,000	1.5	150	1,000	N
M513WS2	63 30 38	153 56 40	.2	.2	.3	.02	2,000	1.5	200	3,000	N

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M369WS2	N	N	<5	150	20	N	15	10	N	1,500	10	N	2,000	<10
M370WS2	N	<5	<5	150	<20	N	10	10	N	2,000	20	N	3,000	<10
M372WS2	N	<5	<5	150	<20	N	20	10	N	2,000	20	N	2,000	<10
M373WS2	N	N	5	150	<20	N	20	10	N	2,000	20	N	3,000	<10
M374WS2	N	20	20	150	20	N	50	20	N	1,000	50	<10	3,000	50
M375WS2	N	N	<5	150	<20	N	15	20	N	700	20	N	3,000	<10
M376WS2	N	N	<5	150	<20	10	10	5	N	1,000	10	N	3,000	N
M377WS2	N	N	<5	150	20	<5	20	10	N	3,000	10	N	3,000	N
M378WS2	N	<5	5	150	20	N	20	15	N	1,500	10	N	2,000	<10
M379WS2	N	<5	5	150	20	N	20	15	N	2,000	30	N	3,000	10
M381WS2	N	N	<5	100	N	N	15	10	N	500	20	N	1,500	<10
M382WS2	N	N	5	150	20	N	15	10	N	2,000	10	N	3,000	<10
M384WS2	N	<5	5	150	20	N	20	15	N	1,500	10	N	3,000	10
M385WS2	N	N	5	150	<20	N	15	15	N	700	15	N	3,000	10
M386WS2	N	N	5	150	20	N	10	15	N	1,000	10	N	3,000	10
M388WS2	N	N	10	200	20	N	50	10	N	1,000	20	N	3,000	10
M389WS2	N	<5	10	150	20	N	10	20	N	1,000	20	N	3,000	10
M390WS2	N	N	<5	150	20	N	10	5	N	500	10	N	3,000	N
M391WS2	N	N	5	150	20	N	10	5	N	2,000	10	N	3,000	<10
M394WS2	N	N	5	100	<20	N	15	10	N	3,000	20	N	1,000	<10
M395WS2	N	N	5	100	20	N	10	5	N	1,500	10	N	2,000	<10
M396WS2	N	N	10	200	20	N	10	10	N	1,000	50	<10	3,000	20
M415WS2	N	30	5	150	<20	N	30	10	N	1,500	10	N	2,000	10
M418WS2	N	N	5	150	<20	N	20	10	N	1,500	10	N	2,000	10
M419WS2	N	N	<5	150	<20	N	30	10	N	1,000	20	N	3,000	N
M420WS2	N	N	<5	150	<20	N	30	10	N	1,000	20	N	5,000	N
M435WS2	N	15	20	150	<20	N	20	10	N	700	30	N	3,000	200
M436WS2	N	N	<5	100	<20	N	50	10	N	500	10	N	3,000	<10
M439WS2	N	10	20	150	20	N	30	20	N	1,000	20	N	2,000	<10
M440WS2	N	10	20	200	20	N	30	10	N	1,500	10	N	3,000	<10
M441WS2	N	<5	5	200	20	N	20	20	N	2,000	10	N	3,000	<10
M442WS2	N	15	<5	150	20	N	50	10	N	2,000	10	N	3,000	<10
M443WS2	N	N	5	100	20	N	20	10	N	2,000	10	N	2,000	<10
M447WS2	1	N	N	100	<20	N	50	2	N	700	10	N	2,000	N
M452WS2	N	<5	N	150	<20	N	50	2	N	1,000	10	N	3,000	N
M456WS2	N	20	10	150	20	N	100	5	N	1,500	10	N	1,000	<10
M464WS2	N	10	<5	150	20	N	20	5	N	2,000	10	N	2,000	N
M465WS2	N	10	10	100	20	N	20	20	N	1,500	20	N	3,000	50
M468WS2	N	<5	7	200	20	N	20	10	N	1,000	<5	N	1,500	<10
M470WS2	N	N	5	150	20	N	50	10	N	2,000	10	N	3,000	<10
M471WS2	N	10	5	150	<20	N	20	15	N	2,000	10	N	2,000	N
M472WS2	N	N	<5	100	20	N	20	10	N	700	10	N	2,000	N
M475WS2	N	10	10	200	20	N	50	20	N	3,000	20	N	2,000	N
M479WS2	N	N	5	200	20	N	20	5	N	1,000	10	N	3,000	N
M480WS2	N	N	5	100	20	N	10	5	N	1,000	10	N	2,000	N
M481WS2	N	N	<5	200	20	N	10	2	N	500	10	N	2,000	N
M482WS2	N	N	5	150	20	N	20	2	N	2,000	10	N	2,000	N
M483WS2	N	N	10	200	N	N	50	10	N	2,000	20	N	5,000	10
M484WS2	N	20	5	150	<20	N	50	10	N	700	20	N	3,000	10
M488WS2	N	<5	5	200	<20	N	20	15	N	1,500	20	N	3,000	10
M490WS2	N	<5	<5	150	N	N	30	5	N	1,500	10	N	2,000	N
M492WS2	N	20	<5	150	<20	N	30	10	N	1,500	20	N	3,000	N
M495WS2	N	10	5	150	<20	N	30	20	N	1,000	20	N	3,000	10
M503WS2	N	10	5	100	<20	N	50	5	N	1,000	10	N	2,000	N
M507WS2	N	N	5	100	<20	N	10	10	N	2,000	20	N	2,000	N
M508WS2	N	N	N	150	N	N	<5	2	N	700	10	N	1,000	N
M509WS2	N	N	10	200	<20	N	20	10	N	3,000	20	N	3,000	20
M511WS2	N	<5	100	200	<20	N	70	10	N	3,000	20	N	3,000	10
M512WS2	N	<5	<5	150	<20	N	20	15	N	700	20	N	1,000	<10
M513WS2	N	N	<5	200	<20	N	20	7	N	2,000	20	N	3,000	<10

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Mg%	S-Na%	S-Ti%	S-Mn	S-Ag	S-B	S-Ba	S-Bi
M514WS2	63 27 15	153 51 2	.3	.2	.3	.03	2,000	1.5	200	2,000	N
M516WS2	63 24 10	153 59 44	.1	.3	.3	.02	2,000	1	200	7,000	N

Table 7. Results of analyses of samples of the ash of white spruce stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cr	S-Cu	S-La	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-V	S-Y	S-Zn	S-Zr
M514WS2	N	10	<5	100	<20	N	50	15	N	500	20	N	3,000	<10
M516WS2	N	<5	<5	150	<20	N	20	5	N	2,000	10	N	2,000	N

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown; --, no data]

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M056T1	63 37 43	154 12 46	.05	.3	.2	1,500	N	N
M058T1	63 39 53	154 9 14	.1	.5	7	1,500	<.5	N
M060T1	63 40 18	154 20 1	.07	.7	1	1,500	.7	N
M062T1	63 40 32	154 26 34	.07	1	.3	1,500	.5	N
M063T1	63 39 4	154 25 43	.1	1.5	.3	700	<.5	N
M065T1	63 37 38	154 29 28	.05	.5	.2	2,000	.7	N
M066T1	63 42 48	154 29 50	.1	1	.1	1,500	<.5	N
M070T1	63 6 0	154 51 24	.1	.3	.1	2,000	.7	N
M072T1	63 5 29	154 56 0	.15	1	.3	1,500	.5	N
M073T1	63 3 8	155 3 47	.07	1	.3	2,000	1	N
M074T1	63 1 31	154 58 32	.1	1	.15	2,000	.5	N
M076T1	63 2 29	155 6 20	.07	.5	.1	3,000	<.5	N
M077T1	63 0 8	155 26 0	.07	.5	.1	2,000	.5	N
M078T1	63 1 15	155 19 34	.1	.7	.15	5,000	.5	N
M080T1	63 22 16	155 26 26	.1	.7	N	2,000	.5	N
M081T1	63 24 11	155 25 54	.1	2	.15	1,500	1	N
M083T1	63 27 42	155 24 9	.1	1.5	.1	5,000	.7	N
M084T1	63 28 7	155 28 50	.07	1	.2	1,000	.5	N
M085T1	63 28 15	155 31 43	.07	.7	N	2,000	.5	N
M091T1	63 20 12	155 37 55	.1	.7	.1	2,000	.5	N
M094T1	63 19 35	155 22 26	.1	.3	.15	7,000	.5	N
M096T1	63 21 41	155 21 13	.1	.7	.2	5,000	.7	N
M097T1	63 16 56	155 42 15	.1	1	<.1	2,000	.5	N
M098T1	63 1 50	155 31 44	.1	.5	.5	2,000	.5	N
M099T1	63 0 47	155 40 25	.15	.7	.2	700	<.5	N
M101T1	63 3 1	155 51 42	.1	.3	.7	7,000	.5	N
M102T1	63 2 59	155 54 52	.1	.7	.5	3,000	.5	N
M103T1	63 5 20	155 48 8	.07	1	.15	1,000	<.5	N
M104T1	63 5 3	155 56 8	.05	.3	.1	7,000	.5	N
M105T1	63 4 53	155 52 12	.07	.7	.2	500	.7	N
M106T1	63 7 24	155 57 52	.15	.5	<.1	1,500	.5	N
M108T1	63 11 57	155 49 39	.1	.5	.15	7,000	1	N
M109T1	63 12 44	155 49 28	.07	.3	.5	2,000	.5	N
M110T1	63 14 9	155 55 17	.1	.5	.15	3,000	.7	N
M112T1	63 13 48	155 45 16	.07	.3	.1	5,000	.5	N
M113T1	63 12 56	155 42 29	.07	.5	.15	2,000	.5	N
M114T1	63 20 24	155 55 46	.07	.5	3	5,000	.5	N
M115T1	63 16 49	155 58 22	.07	.5	.1	7,000	.7	N
M116T1	63 20 41	155 46 43	.07	.7	.2	5,000	.5	N
M118T1	63 20 23	155 46 33	.07	.5	.15	2,000	N	N
M123T1	63 26 43	155 47 12	.07	.7	.2	1,500	.5	N
M124T1	63 26 23	155 42 31	.07	1	.3	3,000	<.5	N
M125T1	63 28 13	155 44 59	.07	.5	.2	7,000	.7	N
M126T1	63 26 13	155 42 31	.07	1	.15	7,000	.5	N
M127T1	63 29 9	155 57 50	.1	.5	<.1	2,000	<.5	N
M128T1	63 26 10	155 59 34	.05	.7	.15	7,000	1	N
M129T1	63 29 42	155 46 23	.07	.7	.5	5,000	1	N
M130T1	63 25 52	155 59 37	.1	.7	<.1	2,000	N	N
M131T1	63 52 47	155 9 15	.1	.5	1	3,000	.5	N
M132T1	63 29 6	155 53 23	.07	.7	.2	7,000	.7	N
M133T1	63 51 50	155 7 54	.07	1	.1	1,500	.5	N
M134T1	63 29 18	155 53 52	.1	1	.15	5,000	.5	<1
M138T1	63 29 26	155 37 10	.07	2	N	7,000	1	N
M140T1	63 56 17	155 3 32	.1	1	.1	1,000	.7	N
M142T1	63 52 26	155 16 46	.1	1	.2	2,000	N	N
M143T1	63 54 35	155 18 34	.1	1	.2	1,500	<.5	N
M145T1	63 58 27	155 16 37	.07	.7	.15	1,500	.5	N
M150T1	63 31 30	154 14 54	.1	2	.5	7,000	.7	N
M158T1	63 30 53	154 11 13	.1	1.5	.15	700	<.5	<1
M159T1	63 33 50	153 57 29	.2	1	1	1,500	<.5	<1

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Zn
M056T1	10	5	200	N	150	2	N	2,000	N	1,000
M058T1	2	<5	200	N	15	5	<5	1,000	N	1,500
M060T1	1.5	15	200	N	150	2	N	1,000	N	1,000
M062T1	1	7	200	N	200	2	<5	500	N	700
M063T1	<1	<5	150	N	70	2	10	300	N	1,500
M065T1	1	7	200	N	300	2	<5	700	N	1,500
M066T1	1.5	5	200	<5	70	5	10	1,500	N	1,000
M070T1	5	<5	200	N	100	5	N	2,000	N	1,500
M072T1	<1	N	150	N	100	7	N	3,000	N	1,000
M073T1	10	10	300	N	200	2	N	700	N	1,000
M074T1	5	10	200	N	100	2	5	1,500	N	1,000
M076T1	3	7	150	50	150	2	N	1,000	N	700
M077T1	1.5	5	150	<5	200	2	N	1,000	N	1,000
M078T1	1	10	300	N	300	7	N	1,500	N	1,000
M080T1	N	<5	150	N	150	10	<5	1,500	N	1,000
M081T1	5	15	200	N	70	7	50	1,500	N	2,000
M083T1	15	20	300	N	200	5	N	1,000	N	1,500
M084T1	3	5	200	N	70	2	<5	2,000	N	700
M085T1	<1	N	200	N	100	2	<5	3,000	N	1,500
M091T1	3	7	200	N	70	2	<5	3,000	N	1,000
M094T1	N	5	300	N	100	1.5	N	5,000	N	1,500
M096T1	5	20	300	N	100	2	<5	1,500	N	1,500
M097T1	<1	10	150	N	100	7	N	500	N	1,500
M098T1	N	7	200	N	100	7	N	1,000	N	1,000
M099T1	N	10	200	N	100	7	<5	300	N	1,000
M101T1	7	20	300	N	200	5	10	1,000	N	700
M102T1	5	70	200	N	200	7	N	1,000	N	1,000
M103T1	1.5	<5	150	N	30	3	N	1,000	N	1,500
M104T1	3	10	150	N	150	5	N	2,000	N	1,500
M105T1	1	15	200	N	200	30	15	200	N	1,000
M106T1	<1	5	150	N	70	2	5	1,000	N	1,000
M108T1	5	50	300	N	200	3	15	700	N	1,000
M109T1	10	20	150	N	200	5	N	500	N	1,500
M110T1	5	20	150	N	100	7	N	500	N	1,500
M112T1	10	10	200	N	150	10	<5	1,000	N	1,500
M113T1	1	7	200	N	100	5	N	700	N	1,000
M114T1	15	7	200	N	100	10	N	700	N	700
M115T1	15	5	200	N	150	5	5	2,000	N	1,500
M116T1	10	5	150	N	150	7	N	1,000	N	1,500
M118T1	5	<5	150	N	100	7	N	1,000	N	1,000
M123T1	3	<5	200	N	50	2	N	700	N	1,000
M124T1	2	<5	150	N	70	3	<5	2,000	N	700
M125T1	30	7	300	N	200	1.5	N	1,500	N	2,000
M126T1	3	<5	200	N	100	5	5	1,500	N	1,500
M127T1	N	5	150	N	70	3	N	3,000	N	700
M128T1	1.5	15	200	N	150	2	N	500	N	1,500
M129T1	10	15	200	N	200	5	N	1,500	N	1,500
M130T1	N	7	150	N	150	3	<5	700	N	1,000
M131T1	3	N	150	N	20	10	N	3,000	N	1,000
M132T1	15	10	200	N	200	2	<5	2,000	N	1,500
M133T1	1.5	5	150	N	100	7	<5	1,000	N	1,000
M134T1	20	N	150	N	100	5	7	>5,000	N	1,500
M138T1	20	10	200	N	200	<1	N	2,000	N	500
M140T1	2	5	150	N	50	3	N	1,500	N	2,000
M142T1	1	<5	150	<5	150	3	<5	1,000	N	1,000
M143T1	1	N	200	5	20	5	N	5,000	N	1,500
M145T1	<1	N	150	N	70	3	N	700	N	700
M150T1	2	20	150	N	100	10	N	5,000	N	2,000
M158T1	2	N	200	N	10	7	<5	1,000	N	1,000
M159T1	10	N	200	N	70	7	N	3,000	N	1,500

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M160T1	63 31 26	154 2 6	.1	2	.1	1,500	<.5	N
M161T1	63 34 56	153 58 42	.1	.7	.5	2,000	.5	N
M162T1	63 34 57	153 54 28	.07	1	.3	1,500	.5	<1
M164T1	63 39 46	153 55 54	.15	1	.5	1,500	.5	N
M165T1	63 44 51	153 55 24	.07	1	.2	7,000	.5	N
M168T1	63 45 50	153 47 48	.07	1.5	.5	1,500	.5	1
M170T1	63 41 23	153 43 42	.1	1	.15	1,500	.5	N
M171T1	63 7 38	155 8 42	.2	.5	.7	7,000	.5	N
M172T1	63 9 13	155 3 22	.07	.7	.2	1,500	.5	<1
M175T1	63 14 47	154 52 45	.07	.7	.1	1,500	.7	N
M176T1	63 14 21	154 53 29	.07	1.5	.15	2,000	.7	N
M177T1	63 17 29	154 46 44	.07	.7	.2	2,000	.7	N
M178T1	63 16 7	154 46 38	.05	1	.2	2,000	.5	N
M179T1	63 20 32	154 41 28	.15	.7	.3	5,000	<.5	N
M180T1	63 18 15	154 41 35	.15	1.5	<.1	7,000	.7	N
M181T1	63 22 39	154 41 3	.05	1	.1	7,000	.7	N
M183T1	63 22 35	154 31 35	.07	.7	1	1,500	.5	N
M187T1	63 21 2	154 53 4	.07	.7	.7	5,000	.5	<1
M195T1	63 26 11	155 7 52	.2	.5	.5	7,000	.5	<1
M197T1	63 26 39	155 16 32	.1	1	1.5	2,000	.7	N
M198T1	63 25 47	155 12 40	.07	.7	.1	10,000	.7	N
M199T1	63 46 21	153 52 50	.07	1	.2	1,500	1	N
M200T1	63 28 16	155 21 16	.07	1	.15	1,500	.5	5
M201T1	63 46 40	153 48 48	.07	.7	.15	1,500	.5	N
M202T1	63 49 19	153 47 37	.07	.7	<.1	1,500	.7	N
M203T1	63 52 0	153 37 38	.1	.7	.1	1,500	.5	N
M204T1	63 54 48	153 33 33	.1	1	.15	1,000	<.5	N
M205T1	63 56 22	153 33 12	.1	1	.5	5,000	.5	<1
M206T1	63 54 46	153 29 54	.1	.7	1	3,000	.5	<1
M207T1	63 58 11	153 18 17	.1	.5	.15	2,000	.5	N
M208T1	63 56 59	153 12 34	.07	.7	.1	700	.7	N
M209T1	63 57 5	153 5 28	.07	.3	N	7,000	.7	<1
M210T1	63 58 1	153 3 43	.07	.3	.1	7,000	3	N
M213T1	63 52 44	153 5 29	.07	.7	1	1,500	.5	N
M214T1	63 43 52	154 4 17	.07	.7	.15	2,000	.5	5
M215T1	63 51 24	153 19 25	.07	.7	.2	7,000	.5	N
M216T1	63 50 30	153 18 21	.1	.7	.2	5,000	.7	1
M217T1	63 49 0	153 13 31	.07	1	N	7,000	.7	<1
M218T1	63 47 44	153 16 53	.1	.3	.1	7,000	.5	N
M219T1	63 46 25	153 19 15	.07	.7	.1	3,000	.5	N
M220T1	63 45 38	153 12 14	.07	.7	.1	10,000	.7	N
M221T1	63 46 21	153 2 33	.07	.7	.2	10,000	.7	N
M222T1	63 49 36	153 5 59	.07	1	.3	10,000	1	<1
M223T1	63 51 4	153 9 2	.05	1	.2	10,000	.5	<1
M224T1	63 51 47	153 8 23	.07	.5	.3	3,000	.7	N
M225T1	63 51 50	153 3 30	.07	1	.5	700	.5	N
M226T1	63 53 13	153 15 1	.07	1.5	.1	2,000	.5	N
M227T1	63 54 46	153 14 2	.07	.5	.2	7,000	1	N
M229T1	63 53 33	153 23 19	.07	.5	.1	2,000	.5	N
M230T1	63 53 47	153 21 41	.1	.5	.3	3,000	.5	<1
M231T1	63 50 44	153 25 25	.07	1.5	.2	1,000	<.5	N
M232T1	63 48 51	153 28 38	.07	.7	.1	7,000	.5	N
M233T1	63 28 59	154 15 26	.07	.7	.15	700	.5	N
M237T1	63 29 6	154 7 42	.1	.5	.1	1,000	<.5	N
M238T1	63 25 44	154 3 43	.07	1.5	<.1	2,000	<.5	N
M239T1	63 28 41	154 6 28	.05	1	.1	1,000	<.5	N
M242T1	63 25 51	154 10 32	.07	.7	.15	2,000	.5	N
M246T1	63 26 58	154 19 29	.1	1	<.1	700	N	N
M247T1	63 26 34	154 22 37	.07	.7	N	1,500	.5	N
M248T1	63 26 20	154 25 3	.07	.5	.5	1,500	.5	N

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Zn
M160T1	5	<5	200	N	50	10	N	3,000	N	1,000
M161T1	10	5	200	N	70	5	7	>5,000	N	1,000
M162T1	3	<5	200	N	30	7	N	3,000	N	1,000
M164T1	20	<5	200	N	70	7	N	1,500	N	1,000
M165T1	10	7	300	N	150	1.5	N	5,000	N	500
M168T1	50	5	200	N	70	5	N	1,500	N	1,500
M170T1	2	N	200	N	15	5	N	1,000	N	700
M171T1	1.5	7	300	10	200	7	5	1,000	N	2,000
M172T1	N	<5	150	N	30	5	N	5,000	N	1,000
M175T1	10	5	150	N	100	2	N	500	N	1,000
M176T1	7	10	150	N	50	3	N	1,000	N	1,000
M177T1	5	<5	150	N	30	7	N	2,000	N	1,500
M178T1	2	7	150	N	70	3	5	700	N	1,000
M179T1	1	10	200	N	200	10	5	3,000	N	1,000
M180T1	7	N	150	N	30	7	5	1,500	N	1,500
M181T1	5	15	300	N	50	10	5	3,000	N	700
M183T1	10	<5	200	15	30	5	N	1,500	N	700
M187T1	2	30	300	N	300	50	5	700	N	1,500
M195T1	1	7	150	N	30	15	<5	2,000	N	1,500
M197T1	<1	20	300	N	300	7	<5	1,000	N	1,500
M198T1	N	10	200	N	100	1.5	5	2,000	N	1,500
M199T1	2	10	200	20	150	3	N	500	N	1,500
M200T1	1	5	200	<5	50	2	5	5,000	N	1,000
M201T1	10	<5	150	N	30	2	<5	1,500	N	1,000
M202T1	5	N	150	N	30	2	N	1,000	N	1,000
M203T1	7	N	150	N	70	5	N	700	N	2,000
M204T1	N	N	150	5	10	5	N	1,500	N	700
M205T1	20	5	200	15	150	10	N	2,000	N	1,000
M206T1	15	N	200	N	50	15	5	>5,000	N	2,000
M207T1	5	<5	150	N	70	2	N	5,000	N	700
M208T1	1.5	5	150	N	50	3	N	200	N	1,500
M209T1	15	7	200	N	200	2	<5	2,000	N	1,000
M210T1	15	70	300	N	300	5	10	1,000	N	1,000
M213T1	1	5	100	N	100	5	7	700	N	1,500
M214T1	15	10	200	N	100	7	<5	3,000	N	1,500
M215T1	1.5	15	200	N	150	2	N	1,000	N	1,500
M216T1	5	10	150	N	100	2	<5	2,000	N	2,000
M217T1	1	10	200	N	200	1.5	N	3,000	N	700
M218T1	7	10	200	20	150	1	<5	>5,000	N	700
M219T1	10	5	200	N	100	1	5	3,000	N	1,500
M220T1	<1	10	200	N	200	1.5	N	1,500	N	1,000
M221T1	2	10	200	N	300	5	N	2,000	N	1,000
M222T1	1	7	150	N	150	1	N	1,000	N	1,000
M223T1	10	20	200	N	200	1	N	3,000	N	1,500
M224T1	5	7	200	7	150	3	7	5,000	N	700
M225T1	<1	5	150	N	100	2	N	300	N	1,500
M226T1	2	5	150	N	70	2	N	700	N	1,500
M227T1	3	15	200	N	200	2	N	2,000	N	1,000
M229T1	5	<5	150	N	70	2	<5	1,000	N	700
M230T1	5	5	150	N	70	2	<5	3,000	N	1,000
M231T1	1	N	150	N	15	7	5	1,000	N	2,000
M232T1	10	N	200	10	100	3	<5	1,500	N	700
M233T1	10	5	150	N	70	5	N	500	N	700
M237T1	15	N	150	N	30	10	30	700	N	1,500
M238T1	5	<5	200	N	100	2	5	3,000	N	700
M239T1	1.5	N	200	N	30	5	7	1,000	N	700
M242T1	20	N	200	N	100	2	<5	2,000	N	1,000
M246T1	10	<5	150	N	20	5	15	700	N	700
M247T1	10	N	200	<5	50	2	<5	1,500	N	1,000
M248T1	5	<5	150	N	50	1	5	1,500	N	1,000

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M249T1	63 24 52	154 23 31	.07	.3	.5	1,500	.5	N
M250T1	63 43 47	154 20 7	.2	.5	.2	1,500	.5	N
M251T1	63 44 5	154 20 26	.07	.2	.1	5,000	.5	N
M253T1	63 47 43	154 13 20	.05	.3	.15	7,000	.5	N
M254T1	63 48 17	154 18 17	.1	.5	.1	3,000	<.5	N
M255T1	63 51 14	154 24 3	.1	.3	.15	7,000	.7	N
M256T1	63 53 2	154 28 1	.07	.5	.15	2,000	<.5	N
M257T1	63 55 17	154 23 23	.5	.7	.2	2,000	.5	N
M258T1	63 55 28	154 24 5	.1	.3	N	1,500	.5	N
M259T1	63 55 42	154 21 36	.2	.5	.1	700	.5	N
M260T1	63 58 54	154 21 9	.07	.3	.1	5,000	.5	N
M262T1	63 56 46	154 11 29	.07	.3	N	3,000	<.5	N
M263T1	63 56 25	154 11 20	.1	.3	N	3,000	<.5	1
M264T1	63 52 36	154 10 33	.2	.3	.3	2,000	<.5	N
M265T1	63 50 24	154 5 49	.07	.7	.1	2,000	5	N
M266T1	63 49 10	154 4 21	.1	.3	.15	5,000	.5	N
M267T1	63 46 22	154 8 13	.07	.5	.7	2,000	<.5	1
M268T1	63 44 50	154 7 46	.1	.7	.2	2,000	<.5	<1
M270T1	63 42 12	154 4 54	.1	.3	3	2,000	.5	N
M271T1	63 6 35	154 8 33	.07	.5	.1	2,000	.5	N
M272T1	63 7 12	153 56 13	.1	.7	.15	1,000	<.5	N
M276T1	63 14 4	153 50 38	.07	.3	N	1,500	<.5	N
M278T1	63 11 19	154 2 11	.1	.5	<.1	2,000	.5	N
M280T1	63 19 11	154 20 30	.1	.5	.5	5,000	.5	15
M281T1	63 19 38	154 9 55	.1	.5	.15	7,000	.5	7
M284T1	63 1 45	153 4 32	.07	.5	.2	7,000	.7	N
M285T1	63 2 36	153 7 58	.1	.2	.1	7,000	.5	5
M286T1	63 3 50	153 10 57	.1	.7	.2	5,000	.5	7
M288T1	63 8 43	153 2 14	.1	.3	.2	7,000	.7	7
M289T1	63 14 4	153 4 41	.07	.3	.15	5,000	.5	5
M290T1	63 13 25	153 10 1	.07	.3	.15	7,000	.5	3
M291T1	63 12 10	153 15 36	.07	.5	.2	5,000	<.5	N
M292T1	63 37 5	155 21 28	.07	.3	.7	7,000	.5	N
M293T1	63 41 22	155 34 18	.1	.5	.5	10,000	.5	N
M294T1	63 44 51	155 39 58	.1	.7	.2	2,000	.5	N
M295T1	63 43 57	155 42 9	.1	.3	.1	10,000	.7	N
M296T1	63 42 54	155 44 20	.1	.3	.15	10,000	<.5	1
M297T1	63 45 16	155 48 48	.07	.3	.3	7,000	.5	N
M298T1	63 42 10	155 55 48	.07	.3	.3	7,000	1	N
M299T1	63 41 12	155 56 21	.07	.5	.15	5,000	.7	N
M300T1	63 40 7	155 54 36	.05	.7	.1	5,000	.5	N
M301T1	63 38 39	155 47 39	.07	.5	.1	7,000	.5	N
M302T1	63 36 36	155 58 0	.1	.7	N	1,500	<.5	N
M303T1	63 35 28	155 58 28	.1	.7	.1	3,000	.5	N
M304T1	63 36 10	155 57 7	.1	.5	.1	3,000	.5	N
M306T1	63 32 52	155 51 23	.07	.3	.1	2,000	.7	N
M312T1	63 37 41	154 6 37	.1	.5	.1	500	<.5	N
M313T1	63 41 37	154 3 51	.1	.5	.1	1,000	<.5	N
M314T1	63 41 52	154 3 18	.1	.5	.1	700	<.5	N
M316T1	63 38 17	155 34 25	.1	.2	.5	2,000	.5	<1
M317T1	63 36 28	155 29 18	.15	.7	.3	2,000	.5	N
M318T1	63 40 1	155 29 1	.07	.5	1	1,000	.5	N
M320T1	63 42 28	155 20 37	.1	.3	.7	2,000	.5	N
M321T1	63 44 20	155 17 49	.07	.2	.5	2,000	.5	<1
M322T1	63 43 41	155 14 57	.1	.5	.2	7,000	.5	<1
M323T1	63 46 23	155 12 51	.1	.5	.15	1,500	<.5	N
M324T1	63 47 40	155 4 46	.1	.3	1.5	700	N	N
M325T1	63 48 49	155 11 39	.1	.3	.1	2,000	.5	N
M326T1	63 47 0	155 15 52	.07	.5	.1	2,000	<.5	N
M328T1	63 39 21	155 5 44	.1	.5	.2	3,000	.5	N

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Zn
M249T1	N	<5	150	<5	10	3	5	1,000	N	700
M250T1	5	N	200	N	70	7	15	1,000	N	2,000
M251T1	15	<5	200	5	70	2	N	5,000	N	1,000
M253T1	<1	5	150	N	200	<1	N	1,500	N	700
M254T1	2	5	200	N	100	2	5	2,000	N	1,500
M255T1	10	10	200	N	100	2	<5	5,000	N	1,000
M256T1	3	N	200	<5	50	1	<5	1,000	N	700
M257T1	3	5	200	N	100	3	<5	1,000	N	1,500
M258T1	1	N	150	N	30	3	5	1,500	N	700
M259T1	<1	7	150	N	70	2	N	200	N	1,500
M260T1	7	5	300	N	150	1.5	5	1,500	N	700
M262T1	5	5	200	5	70	1	<5	2,000	N	1,000
M263T1	7	7	300	N	50	1.5	<5	5,000	N	700
M264T1	N	N	150	N	20	1	N	2,000	N	1,000
M265T1	N	5	200	N	100	2	<5	300	N	1,500
M266T1	5	5	200	N	100	1.5	5	2,000	N	1,000
M267T1	5	<5	200	N	50	10	<5	5,000	N	700
M268T1	1.5	<5	200	N	150	50	15	500	N	1,000
M270T1	2	N	150	N	30	10	5	3,000	N	700
M271T1	5	N	150	N	70	10	N	1,500	N	1,000
M272T1	1	N	150	N	50	7	<5	300	N	1,500
M276T1	N	N	150	N	20	1.5	N	2,000	N	1,000
M278T1	7	N	150	20	50	2	5	2,000	N	1,000
M280T1	5	<5	200	N	70	15	N	>5,000	N	700
M281T1	7	10	200	N	200	7	10	1,500	N	1,000
M284T1	3	10	300	N	150	1.5	N	1,000	N	1,500
M285T1	10	10	200	N	150	5	5	1,500	N	700
M286T1	2	<5	300	N	100	5	<5	5,000	N	500
M288T1	2	15	300	N	300	3	N	700	N	1,000
M289T1	N	N	150	N	100	7	N	1,000	N	1,000
M290T1	1.5	10	200	N	150	5	N	1,000	N	1,500
M291T1	2	7	150	N	70	30	<5	1,000	N	1,000
M292T1	2	30	150	N	300	2	50	1,000	N	1,000
M293T1	3	10	200	N	300	2	<5	1,500	N	1,000
M294T1	1.5	20	200	N	150	5	N	300	N	1,000
M295T1	1	10	200	N	150	1.5	N	3,000	N	1,500
M296T1	1	15	200	<5	200	1	<5	1,000	N	1,000
M297T1	2	5	200	N	100	1.5	<5	700	N	1,000
M298T1	1	7	150	N	200	1.5	N	1,500	N	1,500
M299T1	<1	15	200	N	150	1	N	700	N	1,500
M300T1	N	5	200	N	150	1	<5	3,000	N	1,000
M301T1	1.5	7	200	N	300	2	N	1,000	N	1,000
M302T1	N	10	150	N	30	7	<5	1,500	N	700
M303T1	2	N	200	N	70	2	<5	>5,000	N	1,000
M304T1	N	10	150	N	30	3	N	5,000	N	1,500
M306T1	2	N	150	N	70	1	N	5,000	N	2,000
M312T1	3	N	150	50	50	20	5	700	100	700
M313T1	1.5	N	150	50	50	10	<5	1,000	<50	1,000
M314T1	7	N	150	30	30	10	<5	1,500	200	1,000
M316T1	10	15	300	7	300	10	<5	1,000	N	1,000
M317T1	7	10	200	10	200	10	<5	700	N	700
M318T1	1	10	200	7	150	10	N	500	N	1,000
M320T1	10	7	200	30	150	7	N	500	N	700
M321T1	3	7	200	20	200	5	N	1,500	N	1,000
M322T1	10	7	150	N	100	20	5	3,000	N	1,500
M323T1	1	N	200	N	150	7	N	700	N	700
M324T1	1.5	<5	150	N	100	20	5	200	N	1,000
M325T1	2	5	150	20	150	15	5	1,000	N	1,500
M326T1	5	5	200	15	70	7	N	1,500	N	700
M328T1	2	7	200	N	100	5	N	1,000	N	1,000

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M329T1	63 42 23	155 5 37	.3	.3	.2	7,000	.5	N
M330T1	63 43 20	155 7 56	.1	.5	.15	1,500	<.5	N
M331T1	63 42 33	155 9 42	.15	.7	.5	7,000	.7	N
M332T1	63 41 4	155 13 8	.07	.5	.1	3,000	.5	N
M333T1	63 39 15	155 16 47	.15	.3	.1	7,000	.7	N
M334T1	63 38 58	155 17 47	.1	.7	.2	2,000	<.5	N
M335T1	63 36 35	155 17 21	.07	.5	.1	7,000	.5	N
M336T1	63 34 2	155 15 18	.15	.5	N	3,000	.5	N
M337T1	63 30 56	155 24 11	.15	.7	.1	700	.5	N
M338T1	63 32 32	153 14 9	.1	.3	.2	5,000	1	N
M339T1	63 33 29	153 13 53	.07	.5	.1	3,000	1	N
M340T1	63 34 40	153 12 17	.2	.5	.1	5,000	.7	N
M341T1	63 36 17	153 6 59	.7	.5	.1	7,000	.5	N
M342T1	63 36 5	153 7 4	.1	.3	N	700	<.5	N
M343T1	63 39 13	153 7 22	.15	.5	.1	500	.5	N
M344T1	63 42 25	153 6 30	.1	.7	N	2,000	.5	N
M345T1	63 31 41	153 2 2	.15	.3	.1	1,500	.5	N
M346T1	63 31 1	153 3 31	.1	.2	N	10,000	1	N
M347T1	63 30 8	153 6 47	.1	.5	N	2,000	<.5	N
M348T1	63 28 20	153 8 11	.1	.5	.1	5,000	.7	N
M349T1	63 29 32	153 13 42	.07	.3	.1	3,000	.7	N
M351T1	63 23 2	154 51 53	.1	.5	N	5,000	.5	N
M352T1	63 23 0	154 52 15	.1	.5	N	3,000	<.5	N
M356T1	63 25 13	155 8 53	.07	.3	.15	7,000	<.5	N
M359T1	63 34 34	154 49 57	.2	.3	.1	5,000	.5	N
M361T1	63 46 5	153 35 32	.1	.7	.1	1,500	.5	N
M362T1	63 46 0	153 41 47	.07	.3	.3	5,000	<.5	N
M363T1	63 48 49	153 39 45	.07	.3	<.1	1,500	N	N
M364T1	63 47 49	153 35 42	.07	.5	.3	1,500	<.5	N
M365T1	63 47 26	153 33 33	.07	.5	N	1,500	.5	N
M366T1	63 47 41	153 31 23	.07	.3	.7	2,000	.5	N
M367T1	63 50 29	153 34 31	.07	.5	.1	5,000	.5	N
M368T1	63 50 26	153 33 49	.15	.5	.5	1,500	.5	N
M369T1	63 52 27	153 38 0	.1	.5	.1	1,000	<.5	<1
M370T1	63 56 36	153 40 1	.1	.5	.15	7,000	.7	N
M372T1	63 58 20	153 31 25	.1	.7	.7	700	.5	<1
M373T1	63 59 18	153 36 7	.1	.3	N	1,500	.5	<1
M374T1	63 59 46	153 40 4	.1	.5	.3	7,000	.5	N
M375T1	63 45 57	153 55 12	.07	.5	N	1,500	<.5	N
M376T1	63 51 34	153 48 5	.07	.5	N	1,500	<.5	N
M377T1	63 51 40	153 47 23	.1	.7	.1	2,000	.7	N
M378T1	63 52 43	153 45 44	.07	.3	N	1,500	N	<1
M379T1	63 54 42	153 47 50	.07	.7	.5	5,000	.5	N
M380T1	63 55 19	153 47 16	.07	.3	.1	2,000	<.5	N
M381T1	63 56 24	153 50 53	.07	.5	N	1,500	.5	N
M382T1	63 59 26	153 50 1	.1	.3	.2	5,000	.7	N
M383T1	63 51 52	153 52 15	.1	.3	.1	1,500	.5	N
M384T1	63 50 59	153 53 12	.15	.5	<.1	1,500	<.5	N
M385T1	63 47 52	153 58 9	.1	.5	.1	5,000	.7	N
M386T1	63 45 50	154 30 17	.2	.3	.3	1,500	.5	N
M387T1	63 47 17	154 36 22	.1	.7	.5	2,000	.5	N
M388T1	63 47 37	154 35 40	.2	.3	.3	7,000	.5	N
M389T1	63 48 44	154 31 7	.15	.7	<.1	700	.5	N
M390T1	63 50 23	154 33 35	.1	.2	.1	3,000	1	N
M391T1	63 49 26	154 38 8	.3	.5	.1	7,000	.7	N
M392T1	63 49 20	154 42 56	.2	.3	.1	5,000	.5	N
M393T1	63 51 21	154 45 24	.1	.7	<.1	2,000	1	N
M394T1	63 54 8	154 42 42	.15	.3	.1	1,500	.5	N
M395T1	63 54 49	154 35 20	.2	.5	.1	1,500	.7	N
M396T1	63 54 51	154 36 2	.1	.2	.1	3,000	.7	N

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Zn
M329T1	5	20	300	N	200	20	5	1,000	N	1,000
M330T1	1.5	10	200	N	150	10	<5	500	N	700
M331T1	3	7	500	N	200	10	5	1,500	N	1,500
M332T1	1	7	200	N	150	5	20	700	N	1,000
M333T1	1.5	20	200	N	200	7	<5	1,000	N	1,500
M334T1	1.5	7	200	N	150	50	10	500	N	1,000
M335T1	5	20	300	N	300	7	N	500	N	1,000
M336T1	2	5	150	N	50	7	N	1,000	N	1,500
M337T1	5	<5	200	N	50	20	7	1,000	N	1,000
M338T1	15	5	200	N	200	7	5	1,500	N	1,000
M339T1	7	7	200	7	150	10	N	1,000	N	1,500
M340T1	10	7	200	N	150	10	N	1,000	N	1,000
M341T1	5	10	200	20	200	15	<5	2,000	N	1,500
M342T1	2	N	150	N	100	7	N	700	N	700
M343T1	1.5	7	150	30	100	10	<5	300	N	1,000
M344T1	3	7	150	N	150	10	N	1,000	N	700
M345T1	10	5	200	20	150	10	<5	1,500	N	1,000
M346T1	1	10	200	N	200	5	N	5,000	N	1,500
M347T1	20	N	150	N	70	5	N	1,000	N	1,000
M348T1	15	20	200	N	300	20	N	1,000	N	1,000
M349T1	1	20	150	N	100	10	5	1,000	N	1,000
M351T1	2	5	150	N	100	7	N	1,500	N	1,000
M352T1	5	5	200	70	100	15	<5	2,000	N	1,000
M356T1	30	5	150	50	150	10	N	1,000	N	2,000
M359T1	1	7	150	10	200	7	N	1,000	N	1,000
M361T1	10	5	150	20	70	5	N	500	N	1,000
M362T1	20	10	200	N	200	7	<5	1,000	N	1,000
M363T1	7	<5	150	30	50	3	N	1,000	N	700
M364T1	1	N	100	50	30	10	<5	2,000	N	1,500
M365T1	7	<5	150	7	50	5	N	2,000	N	1,500
M366T1	15	5	200	<5	70	5	<5	1,500	N	1,000
M367T1	10	7	300	5	100	7	N	3,000	N	1,000
M368T1	3	<5	200	N	70	10	<5	1,000	N	700
M369T1	5	<5	150	5	30	7	<5	1,500	N	1,000
M370T1	20	N	300	N	50	7	5	2,000	N	1,000
M372T1	5	N	200	N	30	15	N	2,000	N	1,000
M373T1	5	<5	200	5	100	10	N	1,500	N	700
M374T1	15	5	200	20	100	7	N	5,000	<50	1,000
M375T1	1	N	300	<5	30	10	N	1,000	N	700
M376T1	<1	N	200	10	15	7	N	3,000	N	700
M377T1	10	5	200	30	70	50	N	5,000	N	1,000
M378T1	<1	N	150	10	10	10	N	1,500	N	500
M379T1	5	7	300	5	100	7	N	3,000	N	1,000
M380T1	1	7	200	<5	150	10	N	500	N	1,000
M381T1	10	<5	150	N	30	7	N	700	N	1,000
M382T1	1.5	7	200	N	100	5	N	1,000	N	1,000
M383T1	7	N	200	N	50	10	N	1,500	N	1,000
M384T1	3	<5	200	5	30	15	N	1,000	N	1,000
M385T1	7	<5	300	50	100	7	N	1,500	N	1,000
M386T1	15	<5	300	N	50	7	10	1,500	N	1,000
M387T1	15	N	200	7	100	10	N	1,500	N	1,000
M388T1	10	5	500	50	200	10	5	5,000	N	1,000
M389T1	1	<5	200	N	70	7	N	700	N	1,000
M390T1	10	10	200	N	150	5	N	1,500	N	1,000
M391T1	10	<5	200	50	70	7	N	1,500	N	1,500
M392T1	1	10	500	5	300	5	N	1,000	N	2,000
M393T1	2	5	150	N	100	5	N	500	N	2,000
M394T1	1.5	10	300	30	300	7	N	300	N	1,000
M395T1	20	10	500	50	100	10	N	2,000	100	1,500
M396T1	10	7	500	N	70	3	N	3,000	N	1,500

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M397T1	63 56 21	154 28 31	.1	.3	N	2,000	.7	N
M398T1	63 58 44	154 32 41	.15	.7	N	2,000	.5	N
M399T1	63 48 47	154 51 2	.1	.3	.1	2,000	.7	N
M400T1	63 45 18	155 49 44	.1	.5	.1	2,000	.7	N
M401T1	63 47 7	155 53 36	.1	.3	.2	5,000	1	N
M403T1	63 50 21	155 55 30	.1	.5	.2	1,500	.5	N
M404T1	63 49 41	155 48 45	.07	.3	.1	10,000	.7	N
M408T1	63 56 33	155 42 17	.07	.3	.7	10,000	.5	N
M409T1	63 54 1	155 43 7	.1	.3	.1	10,000	.5	N
M410T1	63 54 22	155 42 40	.07	.3	.1	5,000	1	N
M411T1	63 56 32	155 39 1	.2	.2	N	7,000	.7	N
M412T1	63 58 57	155 39 34	.15	.3	.15	700	.7	N
M413T1	63 58 5	155 34 58	.07	.2	N	1,500	1	N
M415T1	63 59 42	155 32 31	.1	.3	N	10,000	.5	N
M416T1	63 49 49	155 18 38	.07	.3	N	7,000	.7	N
M417T1	63 50 5	155 18 15	.15	.5	.15	1,500	.5	N
M418T1	63 49 56	155 15 14	.1	.3	.15	7,000	.5	N
M419T1	63 52 29	155 25 6	.05	.5	N	7,000	.7	N
M420T1	63 52 29	155 24 34	.1	.3	.2	3,000	.5	N
M422T1	63 56 10	155 24 58	.1	.2	.15	10,000	1	N
M423T1	63 46 5	155 21 47	.1	.3	.1	2,000	.5	N
M427T1	63 56 52	155 33 17	.1	.5	.1	5,000	1	N
M428T1	63 56 43	155 31 39	.1	.5	<.1	2,000	<.5	N
M429T1	63 54 12	155 36 37	.15	.3	.1	7,000	.5	N
M432T1	63 51 46	155 31 12	.07	.5	.5	5,000	1	N
M433T1	63 51 5	155 30 38	.2	.5	.1	1,500	.5	N
M435T1	63 45 23	155 47 58	.15	.3	N	10,000	.5	N
M436T1	63 48 31	155 45 19	.1	.3	.7	7,000	.5	N
M437T1	63 48 25	155 37 45	.07	.3	N	1,500	.5	N
M440T1	63 13 52	155 50 47	.1	.2	N	10,000	.7	N
M441T1	63 15 42	155 51 1	.1	.5	N	5,000	.5	N
M443T1	63 14 59	155 54 51	.15	.7	.3	5,000	.7	N
M444T1	63 10 21	155 51 33	.1	.7	N	1,500	<.5	N
M445T1	63 44 24	155 24 54	.1	.5	1	2,000	N	N
M446T1	63 45 17	155 27 5	.1	.3	N	5,000	.5	N
M447T1	63 48 15	155 31 20	.1	.5	N	2,000	N	N
M448T1	63 49 36	155 35 23	.1	.7	.3	2,000	.5	N
M449T1	63 49 11	155 40 56	.15	.5	.1	10,000	.7	N
M450T1	63 46 49	155 38 32	.2	.5	N	1,500	.7	N
M451T1	63 46 13	155 35 21	.1	.3	.1	5,000	.5	N
M452T1	63 44 56	155 28 51	.15	.3	.1	7,000	.5	N
M453T1	63 43 27	155 31 44	.15	.5	.15	1,500	N	N
M454T1	63 41 26	155 30 8	.2	.3	.2	2,000	.5	N
M455T1	63 40 42	155 35 34	.1	.5	.5	1,000	<.5	N
M459T1	63 42 18	155 51 33	.1	.3	.1	7,000	<.5	N
M461T1	63 35 36	155 56 34	1	.5	.15	3,000	<.5	N
M462T1	63 36 36	155 52 0	.1	.3	.15	1,500	.5	N
M464T1	63 33 18	155 46 3	.15	.3	.1	2,000	.5	N
M465T1	63 33 30	155 46 31	.15	.3	<.1	1,500	.5	N
M467T1	63 31 50	155 39 34	.1	.3	.2	7,000	.5	N
M468T1	63 55 38	154 39 50	.15	.5	.5	2,000	.5	N
M470T1	63 57 58	154 48 46	.1	.3	.5	7,000	<.5	N
M471T1	63 57 16	154 53 39	.1	.3	N	3,000	<.5	N
M472T1	63 57 35	154 53 20	.1	.2	N	2,000	.5	N
M473T1	63 56 36	154 52 1	.2	.5	.1	700	.7	N
M474T1	63 53 33	154 56 29	.07	.5	N	1,500	.7	N
M475T1	63 41 0	154 18 24	.1	.3	N	5,000	.5	N
M477T1	63 44 33	154 16 44	.1	.3	.1	2,000	.5	N
M479T1	63 46 54	154 17 28	.1	.3	N	3,000	.5	N
M480T1	63 40 20	153 52 35	.07	.5	N	2,000	<.5	N

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Zn
M397T1	10	5	300	N	200	2	N	500	N	2,000
M398T1	2	20	500	<5	300	10	N	700	N	1,500
M399T1	<1	20	300	N	200	10	N	500	N	1,500
M400T1	3	5	300	30	100	15	N	500	N	3,000
M401T1	2	15	500	N	300	7	<5	700	N	2,000
M403T1	1.5	7	500	15	300	7	N	300	N	1,500
M404T1	1.5	15	300	N	300	2	N	1,000	N	1,500
M408T1	3	15	500	10	300	7	N	1,000	N	1,500
M409T1	15	30	500	N	700	5	N	1,000	N	2,000
M410T1	3	20	300	50	300	3	N	1,000	100	2,000
M411T1	3	7	300	N	200	5	N	1,000	N	2,000
M412T1	5	50	200	N	300	10	N	3,000	N	3,000
M413T1	5	15	300	N	700	1.5	N	1,000	N	1,500
M415T1	1.5	20	300	N	300	5	N	2,000	N	2,000
M416T1	1	<5	150	N	150	2	N	5,000	N	700
M417T1	5	10	200	N	150	7	N	1,000	N	700
M418T1	10	5	200	N	100	3	N	2,000	N	1,000
M419T1	5	10	200	N	150	10	N	1,500	N	1,500
M420T1	7	5	300	10	150	5	N	2,000	N	1,000
M422T1	20	30	300	N	200	5	N	3,000	N	1,500
M423T1	5	<5	200	N	70	7	N	2,000	N	700
M427T1	2	50	300	N	200	5	N	700	N	1,500
M428T1	N	7	200	10	150	7	N	1,000	N	700
M429T1	15	15	300	N	200	10	N	1,500	N	700
M432T1	1.5	10	200	N	200	10	N	1,500	N	2,000
M433T1	<1	5	200	N	70	5	N	2,000	N	1,500
M435T1	10	5	200	N	100	7	N	3,000	N	700
M436T1	20	10	300	15	300	7	N	1,000	N	1,000
M437T1	2	<5	200	N	100	7	N	300	N	1,500
M440T1	7	10	300	N	200	5	N	3,000	N	1,000
M441T1	3	5	150	N	100	7	N	700	N	1,000
M443T1	5	5	300	15	150	30	<5	1,500	N	1,500
M444T1	<1	<5	200	N	50	10	N	1,000	N	1,000
M445T1	1	5	200	N	100	7	N	700	N	2,000
M446T1	3	7	200	30	200	7	N	2,000	N	1,000
M447T1	15	N	200	N	100	7	N	2,000	N	1,000
M448T1	3	5	200	N	150	15	N	700	N	1,500
M449T1	5	20	150	<5	100	10	N	1,500	N	1,500
M450T1	1.5	7	300	N	150	7	N	500	N	1,500
M451T1	15	<5	200	N	200	15	N	1,000	N	700
M452T1	10	7	300	N	200	5	N	2,000	N	700
M453T1	1.5	7	300	<5	200	15	N	1,500	N	1,000
M454T1	1	10	300	N	200	7	N	500	N	1,500
M455T1	10	10	200	N	100	10	N	500	N	2,000
M459T1	1	7	150	N	150	7	N	500	N	1,000
M461T1	1	5	200	<5	100	10	<5	2,000	N	1,500
M462T1	1	5	200	N	150	7	N	700	N	2,000
M464T1	2	5	200	N	150	7	N	1,500	N	1,000
M465T1	3	N	200	N	50	10	N	1,500	N	700
M467T1	20	15	300	N	300	7	N	2,000	N	1,500
M468T1	10	5	200	N	70	10	<5	1,000	N	1,500
M470T1	7	5	300	<5	200	7	N	5,000	N	700
M471T1	7	<5	200	7	50	3	N	5,000	N	1,000
M472T1	5	7	200	N	100	5	N	2,000	N	1,000
M473T1	1	7	200	N	100	7	N	300	N	3,000
M474T1	1	<5	150	N	70	7	N	500	N	1,500
M475T1	1.5	N	200	10	70	10	5	3,000	N	1,500
M477T1	3	5	200	N	200	7	N	1,000	N	700
M479T1	1	N	200	7	100	10	N	1,500	N	1,000
M480T1	3	<5	150	50	30	10	<5	3,000	N	700

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M482T1	63 35 1	153 53 48	.1	.3	.1	5,000	.5	N
M483T1	63 33 40	153 45 20	.2	.5	.5	2,000	.5	<1
M484T1	63 7 43	154 53 40	.1	.5	<.1	1,500	.7	N
M485T1	63 22 23	155 10 3	.07	.5	.15	5,000	.5	N
M486T1	63 20 45	155 11 42	.2	.7	N	1,000	.5	N
M487T1	63 24 13	155 16 51	.1	.3	<.1	7,000	.7	N
M489T1	63 31 51	155 30 47	.07	.5	<.1	1,000	<.5	N
M490T1	63 31 40	155 27 11	.3	.5	N	1,000	1	N
M492T1	63 36 21	155 2 32	.07	.5	<.1	1,500	.7	N
M493T1	63 54 53	154 51 28	.07	.3	.1	3,000	1	N
M495T1	63 51 45	154 55 51	.1	.5	.1	1,500	.7	N
M496T1	63 48 12	154 57 12	.07	.3	.15	2,000	<.5	N
M497T1	63 46 38	154 58 12	.1	.1	N	10,000	1	N
M498T1	63 47 19	154 52 6	.07	.2	N	7,000	1	N
M500T1	63 43 7	154 57 33	.07	.3	N	2,000	.7	N
M501T1	63 41 54	154 49 37	.1	.3	.1	7,000	.5	N
M502T1	63 42 45	154 46 4	.1	.3	.1	7,000	.5	N
M503T1	63 34 58	154 43 36	.07	.2	N	5,000	.5	N
M504T1	63 37 52	154 35 56	.1	.5	N	1,500	<.5	<1
M505T1	63 40 3	154 35 19	.1	.3	<.1	1,500	<.5	N
M506T1	63 39 55	154 46 41	.1	.3	.15	7,000	1	N
M507T1	63 43 12	153 29 43	.1	.5	N	3,000	.5	N
M508T1	63 44 0	153 27 59	.07	.5	N	1,500	N	N
M509T1	63 41 3	153 33 57	.15	.3	N	2,000	<.5	N
M510T1	63 41 25	153 37 38	.1	.3	N	2,000	.5	N
M512T1	63 31 28	153 59 6	.3	.7	.15	1,500	<.5	N
M513T1	63 30 38	153 56 40	.1	.2	N	3,000	.5	N
M514T1	63 27 15	153 51 2	.1	.3	N	2,000	<.5	N
M516T1	63 24 10	153 59 44	.1	.2	N	3,000	.5	N

Table 8. Results of analyses of samples of the ash of tamarack leaves from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Zn
M482T1	1.5	5	200	30	200	7	<5	1,500	N	700
M483T1	1.5	N	200	<5	70	30	<5	3,000	N	1,500
M484T1	10	5	300	N	70	10	N	300	N	2,000
M485T1	3	7	300	N	70	10	<5	1,500	N	2,000
M486T1	N	7	150	N	70	10	N	300	N	1,000
M487T1	1	15	200	N	200	7	N	1,500	N	1,500
M489T1	1.5	N	200	N	50	5	N	1,500	N	1,500
M490T1	<1	10	300	N	150	7	N	500	N	2,000
M492T1	1.5	N	150	N	30	10	N	500	N	1,500
M493T1	3	20	300	<5	300	2	N	700	N	1,500
M495T1	3	5	200	N	70	5	N	1,000	N	2,000
M496T1	2	5	200	N	100	3	N	1,000	N	1,500
M497T1	1	20	200	N	300	1.5	N	1,500	N	1,000
M498T1	5	50	300	N	300	1	N	1,500	N	1,000
M500T1	1	5	150	N	100	2	N	700	N	1,500
M501T1	5	20	150	N	150	3	N	1,500	N	1,000
M502T1	1.5	20	200	<5	200	2	N	1,000	N	2,000
M503T1	7	5	300	50	200	2	N	5,000	150	700
M504T1	1	5	200	N	150	5	N	1,500	N	1,000
M505T1	2	5	200	30	70	10	N	2,000	N	1,000
M506T1	1.5	30	200	N	300	1.5	N	1,500	N	1,000
M507T1	N	<5	150	N	50	3	N	1,000	N	1,500
M508T1	<1	7	200	5	100	1.5	N	1,000	N	700
M509T1	1.5	5	300	10	70	5	N	5,000	N	1,000
M510T1	3	7	200	N	100	3	N	>5,000	N	1,000
M512T1	<1	N	200	N	15	15	N	2,000	N	2,000
M513T1	5	5	300	<5	150	5	N	1,000	N	1,000
M514T1	5	5	500	N	150	5	N	500	N	1,000
M516T1	10	<5	300	N	70	7	N	>5,000	N	700

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska

[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown; --, no data]

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M056T2	63 37 43	154 12 46	.15	2	.5	2,000	.5	N
M058T2	63 39 53	154 9 14	.2	1	.5	2,000	.5	N
M060T2	63 40 18	154 20 1	.1	2	.7	5,000	.7	N
M062T2	63 40 32	154 26 34	.1	2	.7	5,000	<.5	3
M063T2	63 39 4	154 25 43	.15	1	1	2,000	1	N
M065T2	63 37 38	154 29 28	.1	.7	.15	7,000	.5	N
M066T2	63 42 48	154 29 50	.3	3	.3	7,000	.5	N
M070T2	63 6 0	154 51 24	.2	2	.3	7,000	.7	N
M072T2	63 5 29	154 56 0	.3	2	.5	5,000	.5	N
M073T2	63 3 8	155 3 47	.15	2	.2	5,000	.5	N
M074T2	63 1 31	154 58 32	.15	1	.15	7,000	.7	N
M076T2	63 2 29	155 6 20	.2	2	.5	7,000	<.5	N
M077T2	63 0 8	155 26 0	.2	2	.3	7,000	.5	N
M078T2	63 1 15	155 19 34	.2	2	.2	3,000	.5	N
M080T2	63 22 16	155 26 26	.2	1	.2	5,000	.5	N
M081T2	63 24 11	155 25 54	.3	1.5	.3	5,000	.7	N
M083T2	63 27 42	155 24 9	.5	>5	.7	7,000	.5	N
M084T2	63 28 7	155 28 50	.2	1	.2	2,000	.5	N
M085T2	63 28 15	155 31 43	.2	1.5	.2	7,000	.5	N
M091T2	63 20 12	155 37 55	.2	1	.15	3,000	<.5	N
M094T2	63 19 35	155 22 26	.3	>5	.1	10,000	.5	N
M096T2	63 21 41	155 21 13	.2	2	.2	7,000	.5	N
M097T2	63 16 56	155 42 15	.3	2	.5	10,000	.5	N
M098T2	63 1 50	155 31 44	.15	1	.15	2,000	.7	N
M099T2	63 0 47	155 40 25	.2	1.5	.3	1,500	.5	N
M101T2	63 3 1	155 51 42	.2	2	.3	5,000	.5	<1
M102T2	63 2 59	155 54 52	.2	1.5	.5	7,000	.7	1
M103T2	63 5 20	155 48 8	.15	1	.2	1,500	.7	N
M104T2	63 5 3	155 56 8	.1	1.5	.15	5,000	.7	N
M105T2	63 4 53	155 52 12	.1	2	.2	1,000	1	N
M106T2	63 7 24	155 57 52	.2	1.5	.3	2,000	.7	N
M108T2	63 11 57	155 49 39	.2	.5	.15	7,000	1	N
M109T2	63 12 44	155 49 28	.2	1.5	.1	2,000	.5	<1
M110T2	63 14 9	155 55 17	.15	1	.3	7,000	.7	N
M112T2	63 13 48	155 45 16	.2	.7	.2	7,000	1	N
M113T2	63 12 56	155 42 29	.15	1	.2	3,000	.5	N
M114T2	63 20 24	155 55 46	.2	.7	.7	7,000	.5	20
M115T2	63 16 49	155 58 22	.15	1.5	.2	7,000	.7	N
M116T2	63 20 41	155 46 43	.2	1	.2	7,000	.5	1
M118T2	63 20 23	155 46 33	.2	.7	.2	7,000	.5	N
M123T2	63 26 43	155 47 12	.2	1	.7	3,000	.5	N
M124T2	63 26 23	155 42 31	.2	1.5	.15	7,000	.5	<1
M125T2	63 28 13	155 44 59	.15	1	.2	7,000	.5	N
M126T2	63 26 13	155 42 31	.3	1	.15	10,000	.7	N
M127T2	63 29 9	155 57 50	.2	.7	.1	5,000	.5	<1
M128T2	63 26 10	155 59 34	.1	1.5	.2	5,000	.7	N
M129T2	63 29 42	155 46 23	.2	1.5	.2	5,000	1	N
M130T2	63 25 52	155 59 37	.3	1.5	.2	7,000	.5	1.5
M131T2	63 52 47	155 9 15	.2	2	.2	5,000	.5	1.5
M132T2	63 29 6	155 53 23	.3	2	.3	10,000	.5	1
M133T2	63 51 50	155 7 54	.15	2	.15	3,000	.7	N
M134T2	63 29 18	155 53 52	.2	.7	.2	5,000	.5	N
M138T2	63 29 26	155 37 10	.15	1.5	.1	7,000	.5	N
M140T2	63 56 17	155 3 32	.3	2	.3	1,500	1	N
M142T2	63 52 26	155 16 46	.15	1.5	.2	5,000	<.5	N
M143T2	63 54 35	155 18 34	.3	1	.3	3,000	.5	N
M145T2	63 58 27	155 16 37	.3	1	.2	7,000	.5	<1
M150T2	63 31 30	154 14 54	.3	3	.5	7,000	.5	<1
M158T2	63 30 53	154 11 13	.5	2	.1	1,500	.5	<1
M159T2	63 33 50	153 57 29	.15	1.5	.1	1,500	.5	<1

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Y	S-Zn
M056T2	20	5	200	5	150	5	N	2,000	N	N	1,500
M058T2	3	<5	150	30	15	15	5	1,500	N	N	2,000
M060T2	7	50	200	N	100	3	N	1,500	N	N	1,500
M062T2	1.5	10	300	N	150	5	<5	700	N	N	2,000
M063T2	1	<5	300	10	50	7	15	1,000	N	N	3,000
M065T2	7	15	300	N	200	5	N	1,000	N	N	2,000
M066T2	10	7	300	20	50	20	5	2,000	N	N	1,500
M070T2	15	5	300	N	70	7	N	1,500	N	N	2,000
M072T2	<1	5	200	N	100	10	N	3,000	N	N	2,000
M073T2	20	10	200	N	100	3	N	1,000	N	N	1,000
M074T2	10	10	300	N	70	5	N	3,000	N	N	1,500
M076T2	10	10	200	20	100	10	N	1,000	N	N	1,000
M077T2	3	15	200	N	150	15	N	1,000	N	N	1,500
M078T2	1	7	300	N	150	10	7	1,500	N	N	1,500
M080T2	<1	7	300	N	150	10	N	2,000	N	N	1,500
M081T2	10	10	150	N	50	20	N	3,000	N	N	2,000
M083T2	7	20	300	N	100	20	<5	1,500	N	N	2,000
M084T2	2	<5	200	N	30	10	N	5,000	N	N	1,500
M085T2	1	<5	300	N	70	7	N	>5,000	N	N	2,000
M091T2	3	5	200	N	50	7	N	5,000	N	N	1,500
M094T2	<1	10	300	N	100	5	N	5,000	N	N	1,000
M096T2	10	10	300	N	100	10	N	1,500	N	N	2,000
M097T2	3	15	200	N	100	10	N	1,000	N	N	2,000
M098T2	5	5	200	N	100	2	N	1,500	N	N	1,500
M099T2	<1	10	200	N	70	10	N	500	N	N	2,000
M101T2	3	10	300	N	100	10	<5	1,500	N	N	1,000
M102T2	3	30	200	N	100	15	N	1,500	N	N	1,000
M103T2	1.5	<5	200	N	50	7	<5	1,500	N	N	1,000
M104T2	5	7	200	N	70	7	N	3,000	N	N	1,500
M105T2	2	15	200	N	150	7	N	500	N	N	1,500
M106T2	1	<5	300	N	50	10	<5	2,000	N	N	1,500
M108T2	5	30	200	N	100	7	N	1,500	N	N	2,000
M109T2	10	10	200	N	100	10	N	700	N	N	2,000
M110T2	5	50	200	N	70	10	N	1,500	N	N	1,500
M112T2	20	15	500	N	150	10	N	2,000	N	N	3,000
M113T2	1.5	5	200	N	70	10	N	1,500	N	N	2,000
M114T2	15	7	150	N	70	20	N	1,500	N	N	700
M115T2	20	5	200	N	70	5	5	2,000	N	N	1,500
M116T2	10	7	200	N	100	10	N	2,000	N	N	2,000
M118T2	10	7	200	N	100	20	<5	2,000	N	N	2,000
M123T2	3	<5	200	N	30	15	N	2,000	N	N	1,500
M124T2	3	<5	200	N	70	20	7	5,000	N	N	1,500
M125T2	70	10	500	N	150	7	N	3,000	N	N	3,000
M126T2	7	5	300	N	100	10	N	5,000	N	N	2,000
M127T2	<1	<5	200	N	50	10	N	>5,000	N	N	1,000
M128T2	2	10	300	N	100	5	N	5,000	N	N	1,000
M129T2	20	10	200	N	100	7	N	1,500	N	N	1,500
M130T2	<1	10	300	N	100	7	N	1,500	N	N	2,000
M131T2	5	<5	200	N	20	7	N	>5,000	N	N	1,000
M132T2	30	20	500	N	150	10	N	2,000	N	N	2,000
M133T2	2	5	150	N	50	10	N	1,000	N	N	1,500
M134T2	20	<5	700	N	70	10	50	>5,000	N	N	1,000
M138T2	30	7	300	N	100	3	N	2,000	N	N	700
M140T2	3	5	200	N	50	10	N	1,500	N	N	3,000
M142T2	5	5	300	N	150	5	N	1,500	N	N	1,500
M143T2	2	<5	200	N	30	10	5	>5,000	N	N	2,000
M145T2	<1	<5	200	N	30	7	N	1,000	N	N	2,000
M150T2	1	15	300	N	100	30	N	3,000	N	N	2,000
M158T2	3	<5	200	N	15	30	<5	2,000	N	N	2,000
M159T2	15	N	200	N	50	10	N	5,000	N	N	2,000

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M160T2	63 31 26	154 2 6	.2	2	.1	1,500	.7	N
M161T2	63 34 56	153 58 42	.1	2	.2	2,000	.5	N
M162T2	63 34 57	153 54 28	.1	2	.15	2,000	.5	N
M164T2	63 39 46	153 55 54	.1	1.5	.3	5,000	.5	N
M165T2	63 44 51	153 55 24	.1	1.5	.5	3,000	.5	N
M168T2	63 45 50	153 47 48	.07	2	.2	2,000	.5	N
M170T2	63 41 23	153 43 42	.1	2	.1	1,500	.5	N
M171T2	63 7 38	155 8 42	.2	2	.5	5,000	.5	N
M172T2	63 9 13	155 3 22	.2	1.5	N	1,500	.5	N
M175T2	63 14 47	154 52 45	.15	2	.1	3,000	.7	N
M176T2	63 14 21	154 53 29	.1	1.5	.15	5,000	.7	N
M177T2	63 17 29	154 46 44	.15	1	.2	2,000	.7	N
M178T2	63 16 7	154 46 38	.15	1.5	.2	1,500	.5	N
M179T2	63 20 32	154 41 28	.3	2	.15	7,000	.5	N
M180T2	63 18 15	154 41 35	.2	5	.15	7,000	.5	N
M181T2	63 22 39	154 41 3	.1	1.5	.1	7,000	1	N
M183T2	63 22 35	154 31 35	.3	3	.7	2,000	.5	7
M187T2	63 21 2	154 53 4	.2	2	.5	7,000	.5	N
M195T2	63 26 11	155 7 52	.2	1.5	.5	7,000	.5	N
M197T2	63 26 39	155 16 32	.15	1.5	.5	2,000	.5	<1
M198T2	63 25 47	155 12 40	.2	3	.2	7,000	.7	N
M199T2	63 46 21	153 52 50	.15	1.5	.3	5,000	.7	N
M200T2	63 28 16	155 21 16	.2	2	.15	3,000	.5	N
M201T2	63 46 40	153 48 48	.15	1	.2	3,000	.5	N
M202T2	63 49 19	153 47 37	.15	1	.1	2,000	.5	<1
M203T2	63 52 0	153 37 38	.15	2	.15	3,000	.5	N
M204T2	63 54 48	153 33 33	.2	2	.15	1,500	<.5	1
M205T2	63 56 22	153 33 12	.15	2	.2	7,000	.5	N
M206T2	63 54 46	153 29 54	.2	1	.3	2,000	.5	N
M207T2	63 58 11	153 18 17	.2	1	.2	2,000	.7	<1
M208T2	63 56 59	153 12 34	.2	1.5	.1	1,500	1	N
M209T2	63 57 5	153 5 28	.1	.7	.15	7,000	.7	N
M210T2	63 58 1	153 3 43	.15	2	.2	7,000	1	N
M213T2	63 52 44	153 5 29	.15	1.5	.15	5,000	.5	N
M214T2	63 43 52	154 4 17	.1	1	.1	1,500	.7	N
M215T2	63 51 24	153 19 25	.1	1.5	.15	5,000	.5	N
M216T2	63 50 30	153 18 21	.1	1.5	.5	5,000	.7	N
M217T2	63 49 0	153 13 31	.2	1.5	.1	7,000	.5	1
M218T2	63 47 44	153 16 53	.2	1	.2	7,000	.7	<1
M219T2	63 46 25	153 19 15	.1	1.5	.2	7,000	.7	N
M220T2	63 45 38	153 12 14	.15	1	.2	7,000	.5	N
M221T2	63 46 21	153 2 33	.2	2	.5	7,000	.5	N
M222T2	63 49 36	153 5 59	.15	3	.3	7,000	.7	N
M223T2	63 51 4	153 9 2	.2	2	.2	7,000	<.5	N
M224T2	63 51 47	153 8 23	.2	.7	.2	7,000	1	N
M225T2	63 51 50	153 3 30	.15	1	.2	1,500	1	N
M226T2	63 53 13	153 15 1	.2	1.5	.2	7,000	1	N
M227T2	63 54 46	153 14 2	.15	1	.2	7,000	.5	N
M229T2	63 53 33	153 23 19	.15	1	.2	3,000	.5	N
M230T2	63 53 47	153 21 41	.2	1	.3	3,000	.5	N
M231T2	63 50 44	153 25 25	.1	.7	.3	1,500	.7	N
M232T2	63 48 51	153 28 38	.15	.7	.1	7,000	.5	N
M233T2	63 28 59	154 15 26	.5	1	.2	2,000	.5	1
M237T2	63 29 6	154 7 42	.2	2	.3	1,500	.5	N
M238T2	63 25 44	154 3 43	.1	.7	.1	5,000	.5	N
M239T2	63 28 41	154 6 28	.15	2	.1	1,500	<.5	<1
M242T2	63 25 51	154 10 32	.15	2	.15	2,000	<.5	N
M246T2	63 26 58	154 19 29	.3	1.5	.7	1,500	<.5	<1
M247T2	63 26 34	154 22 37	.07	.7	.1	2,000	N	N
M248T2	63 26 20	154 25 3	.2	1	.1	2,000	.5	N

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Y	S-Zn
M160T2	5	5	200	N	30	15	<5	3,000	N	N	1,000
M161T2	30	5	200	N	50	7	7	>5,000	N	N	1,500
M162T2	5	<5	300	N	30	10	<5	>5,000	N	N	1,500
M164T2	30	<5	200	N	70	7	N	2,000	N	N	1,500
M165T2	20	<5	300	N	70	7	N	5,000	N	N	1,000
M168T2	30	5	300	N	70	3	7	2,000	N	N	1,000
M170T2	2	N	200	N	5	7	N	1,500	N	N	700
M171T2	2	5	500	<5	150	7	N	1,000	N	N	2,000
M172T2	N	<5	300	N	20	5	10	5,000	N	N	1,000
M175T2	20	5	500	N	200	2	N	700	N	N	1,500
M176T2	20	20	300	N	50	7	N	1,500	N	N	1,500
M177T2	10	<5	300	N	50	5	<5	2,000	N	N	2,000
M178T2	7	7	200	N	100	7	5	700	N	N	1,500
M179T2	1	7	500	N	150	15	20	5,000	N	N	1,500
M180T2	7	N	300	N	30	10	N	2,000	N	N	2,000
M181T2	20	10	300	N	50	3	5	>5,000	N	N	1,000
M183T2	20	<5	300	15	50	30	15	2,000	N	N	2,000
M187T2	2	20	700	N	200	7	15	1,000	N	N	2,000
M195T2	2	10	200	N	100	15	<5	3,000	N	N	3,000
M197T2	1	5	200	N	150	7	<5	1,000	N	N	1,500
M198T2	<1	10	300	N	150	7	5	2,000	N	N	2,000
M199T2	1.5	5	200	N	100	5	N	1,000	N	N	2,000
M200T2	2	<5	300	N	70	30	N	>5,000	N	N	1,000
M201T2	15	<5	150	N	30	5	N	2,000	N	N	1,000
M202T2	10	N	150	N	30	7	N	1,500	N	N	1,500
M203T2	7	N	200	N	70	10	N	1,000	N	N	1,500
M204T2	N	N	150	N	10	5	N	3,000	N	N	1,000
M205T2	30	5	500	N	100	5	5	3,000	N	N	700
M206T2	20	<5	300	N	70	7	<5	>5,000	N	N	1,500
M207T2	10	5	300	N	50	7	7	>5,000	N	N	1,000
M208T2	2	7	150	N	50	10	N	700	N	N	2,000
M209T2	30	10	200	N	150	5	<5	3,000	N	N	1,000
M210T2	20	70	200	N	200	5	<5	1,500	N	N	1,500
M213T2	1	<5	150	N	100	5	N	1,500	N	N	1,000
M214T2	50	10	300	N	50	2	N	5,000	N	N	1,500
M215T2	2	10	200	N	150	3	N	1,000	N	N	1,500
M216T2	7	10	200	N	70	5	N	1,500	N	N	2,000
M217T2	<1	10	300	N	100	7	N	3,000	N	N	1,000
M218T2	15	15	500	15	200	7	<5	>5,000	N	N	1,000
M219T2	20	<5	300	N	50	7	N	>5,000	N	N	1,500
M220T2	<1	10	200	N	150	3	N	1,500	N	N	700
M221T2	2	10	300	N	100	5	<5	2,000	N	N	2,000
M222T2	10	7	200	N	150	5	N	1,000	N	N	1,500
M223T2	20	15	500	N	150	5	N	3,000	N	N	1,500
M224T2	10	5	300	N	100	10	<5	>5,000	N	N	1,500
M225T2	<1	<5	200	N	70	3	N	700	N	N	1,500
M226T2	2	7	200	N	100	10	N	1,500	N	N	3,000
M227T2	5	10	200	N	100	10	<5	2,000	N	N	2,000
M229T2	10	5	200	N	100	10	N	1,500	N	N	2,000
M230T2	2	<5	200	N	70	7	N	5,000	N	N	1,500
M231T2	N	N	200	N	20	5	<5	1,500	N	N	2,000
M232T2	15	<5	300	N	70	7	5	2,000	N	N	1,000
M233T2	10	5	300	N	70	7	5	1,000	N	N	1,000
M237T2	15	7	500	N	50	20	<5	1,500	N	N	2,000
M238T2	5	<5	300	N	100	5	N	3,000	N	N	1,500
M239T2	3	N	300	N	30	5	10	1,000	N	N	1,000
M242T2	30	5	300	N	70	10	5	2,000	N	N	700
M246T2	5	<5	200	N	30	70	5	1,000	N	N	1,000
M247T2	15	<5	300	N	20	5	<5	2,000	N	N	1,500
M248T2	7	5	200	N	50	5	7	1,500	N	N	1,000

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M249T2	63 24 52	154 23 31	.15	.3	.15	3,000	.5	<1
M250T2	63 43 47	154 20 7	.15	.7	.2	1,500	.5	N
M251T2	63 44 5	154 20 26	.1	.7	30	5,000	<.5	N
M253T2	63 47 43	154 13 20	.1	.7	.15	7,000	.5	N
M254T2	63 48 17	154 18 17	.1	.7	.2	5,000	.5	1
M255T2	63 51 14	154 24 3	.15	1	<.1	5,000	.7	N
M256T2	63 53 2	154 28 1	.1	.7	.15	2,000	N	<1
M257T2	63 55 17	154 23 23	.2	.7	.5	5,000	.5	N
M258T2	63 55 28	154 24 5	.2	1.5	.2	3,000	.7	N
M259T2	63 55 42	154 21 36	.15	2	.1	1,500	.5	N
M260T2	63 58 54	154 21 9	.15	1	.15	7,000	<.5	N
M262T2	63 56 46	154 11 29	.15	1	.2	7,000	.5	N
M263T2	63 56 25	154 11 20	.15	.7	.15	5,000	.5	N
M264T2	63 52 36	154 10 33	.15	.5	.1	2,000	N	N
M265T2	63 50 24	154 5 49	.1	.7	.3	5,000	1	N
M266T2	63 49 10	154 4 21	.2	.5	.5	5,000	.5	N
M267T2	63 46 22	154 8 13	.15	.7	.5	2,000	.5	<1
M268T2	63 44 50	154 7 46	.2	1	.3	2,000	N	N
M270T2	63 42 12	154 4 54	.2	1.5	.3	1,500	<.5	<1
M271T2	63 6 35	154 8 33	.15	1.5	.5	3,000	.7	N
M272T2	63 7 12	153 56 13	.1	1	.15	1,500	.5	N
M276T2	63 14 4	153 50 38	.15	2	.1	1,500	.5	N
M278T2	63 11 19	154 2 11	.15	1.5	.1	1,500	N	N
M280T2	63 19 11	154 20 30	.2	1.5	.2	3,000	.5	30
M281T2	63 19 38	154 9 55	.1	1.5	.15	5,000	.5	N
M284T2	63 1 45	153 4 32	.1	2	.5	5,000	.5	N
M285T2	63 2 36	153 7 58	.1	1	.2	7,000	<.5	10
M286T2	63 3 50	153 10 57	.2	2	.7	3,000	.5	15
M288T2	63 8 43	153 2 14	.15	1	.2	5,000	.5	20
M289T2	63 14 4	153 4 41	.15	1	.2	7,000	.5	10
M290T2	63 13 25	153 10 1	.1	1.5	.5	7,000	<.5	N
M291T2	63 12 10	153 15 36	.15	1.5	.7	5,000	.5	N
M292T2	63 37 5	155 21 28	.2	.7	.7	7,000	.5	N
M293T2	63 41 22	155 34 18	.1	.7	.5	10,000	<.5	N
M294T2	63 44 51	155 39 58	.1	1	.3	3,000	.5	N
M295T2	63 43 57	155 42 9	.2	1	.15	5,000	.5	<1
M296T2	63 42 54	155 44 20	.1	.7	.2	7,000	<.5	N
M297T2	63 45 16	155 48 48	.15	.7	.3	7,000	.5	N
M298T2	63 42 10	155 55 48	.15	.7	.3	5,000	.5	N
M299T2	63 41 12	155 56 21	.2	.7	.2	5,000	.5	N
M300T2	63 40 7	155 54 36	.15	1	.2	3,000	<.5	N
M301T2	63 38 39	155 47 39	.1	1.5	.2	5,000	<.5	N
M302T2	63 36 36	155 58 0	.2	.7	.15	2,000	.5	N
M303T2	63 35 28	155 58 28	.1	.5	.15	2,000	.5	N
M304T2	63 36 10	155 57 7	.2	1	.5	2,000	<.5	N
M306T2	63 32 52	155 51 23	.15	.7	.1	2,000	.7	N
M312T2	63 37 41	154 6 37	.15	.7	.2	700	<.5	N
M314T2	63 41 52	154 3 18	.2	.7	.1	1,500	.5	N
M316T2	63 38 17	155 34 25	.2	1	.3	7,000	.7	N
M317T2	63 36 28	155 29 18	.5	1.5	.5	10,000	1	N
M318T2	63 40 1	155 29 1	.15	1.5	1	2,000	.7	N
M320T2	63 42 28	155 20 37	.1	.5	.3	7,000	.7	N
M321T2	63 44 20	155 17 49	.1	.7	.5	10,000	.5	N
M322T2	63 43 41	155 14 57	.2	.7	.5	7,000	.7	N
M323T2	63 46 23	155 12 51	.15	1	.5	7,000	.7	N
M324T2	63 47 40	155 4 46	.2	1	.5	3,000	.5	N
M325T2	63 48 49	155 11 39	.2	1	.3	2,000	.5	N
M326T2	63 47 0	155 15 52	.1	.7	.2	7,000	.5	N
M328T2	63 39 21	155 5 44	.15	1	.7	5,000	1	N
M329T2	63 42 23	155 5 37	.15	.7	.5	7,000	.5	N

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Y	S-Zn
M249T2	N	N	200	N	10	5	<5	2,000	N	N	1,000
M250T2	2	<5	200	N	70	7	<5	1,500	N	N	2,000
M251T2	20	<5	300	N	70	5	<5	5,000	N	N	1,500
M253T2	1	7	200	N	200	2	<5	1,500	N	N	1,000
M254T2	3	5	200	N	70	5	N	3,000	N	N	1,500
M255T2	15	7	300	N	70	7	N	5,000	N	N	1,000
M256T2	5	<5	200	N	70	2	<5	1,500	N	N	1,000
M257T2	5	5	300	N	70	3	5	1,500	N	N	1,500
M258T2	2	<5	300	N	50	7	5	2,000	N	N	1,500
M259T2	N	10	200	N	70	1.5	N	300	N	N	1,000
M260T2	10	5	300	N	100	2	N	2,000	N	N	700
M262T2	7	7	200	N	100	5	<5	5,000	N	N	1,000
M263T2	10	5	200	N	50	7	5	5,000	N	N	1,000
M264T2	N	N	200	N	30	1.5	N	2,000	N	N	1,000
M265T2	3	10	300	N	100	3	<5	500	N	N	1,500
M266T2	10	5	500	N	100	5	10	2,000	N	N	2,000
M267T2	7	<5	200	N	50	30	N	5,000	N	N	1,000
M268T2	2	5	200	N	100	10	7	500	N	N	2,000
M270T2	2	<5	200	5	50	50	50	5,000	N	N	1,000
M271T2	3	5	200	20	100	10	N	2,000	N	N	1,500
M272T2	5	<5	200	N	50	3	N	500	N	N	2,000
M276T2	N	<5	200	N	30	2	<5	5,000	N	N	1,500
M278T2	7	N	300	50	70	2	<5	3,000	N	N	1,000
M280T2	7	<5	200	50	100	20	N	5,000	<50	N	1,000
M281T2	10	10	300	N	150	5	<5	2,000	N	N	1,000
M284T2	10	15	500	N	150	7	10	1,000	N	N	2,000
M285T2	20	15	500	30	150	10	N	1,500	N	N	1,000
M286T2	1.5	5	500	70	100	20	20	5,000	100	N	1,000
M288T2	5	15	300	N	150	20	N	700	N	N	1,500
M289T2	1	7	200	20	100	15	5	1,500	200	N	1,500
M290T2	5	10	500	N	150	100	5	1,500	N	N	2,000
M291T2	5	10	200	N	100	50	<5	1,500	N	N	1,500
M292T2	3	20	300	50	200	10	<5	1,500	N	N	1,500
M293T2	10	20	500	N	500	3	<5	2,000	N	N	1,000
M294T2	1.5	7	200	N	100	5	N	700	300	N	1,500
M295T2	2	5	300	N	100	10	N	3,000	N	N	1,500
M296T2	2	10	200	N	200	1.5	7	1,500	N	N	1,500
M297T2	7	7	500	N	100	5	N	1,000	N	N	1,500
M298T2	5	7	500	N	150	5	N	1,000	N	N	1,500
M299T2	3	7	300	N	70	7	N	700	N	N	1,500
M300T2	<1	<5	200	30	70	5	<5	2,000	N	N	1,000
M301T2	7	7	200	N	150	3	<5	1,000	N	N	1,000
M302T2	N	N	150	30	50	10	<5	1,500	100	N	700
M303T2	10	5	200	30	50	5	5	3,000	N	N	700
M304T2	N	N	200	N	70	7	N	5,000	N	N	1,000
M306T2	15	N	200	20	50	20	N	5,000	N	N	2,000
M312T2	7	N	200	N	20	10	N	2,000	N	N	1,000
M314T2	10	<5	200	<5	20	10	N	>5,000	N	N	700
M316T2	15	20	300	N	150	7	N	2,000	N	N	1,500
M317T2	10	20	500	N	200	10	N	2,000	N	N	2,000
M318T2	1.5	15	300	N	100	7	N	1,000	N	N	1,500
M320T2	20	20	300	N	100	7	N	1,000	N	N	1,000
M321T2	5	10	200	N	150	3	N	2,000	N	N	1,000
M322T2	10	10	200	10	70	10	N	>5,000	N	N	2,000
M323T2	3	5	200	N	100	7	N	1,500	N	N	1,500
M324T2	1.5	5	300	N	100	10	N	700	N	N	2,000
M325T2	5	5	150	N	50	10	N	1,500	N	N	2,000
M326T2	10	7	200	N	30	7	N	2,000	N	N	1,000
M328T2	3	15	200	N	100	7	N	1,500	N	N	2,000
M329T2	5	50	300	N	300	10	N	1,000	N	N	1,000

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M330T2	63 43 20	155 7 56	.15	1	.5	2,000	.5	N
M331T2	63 42 33	155 9 42	.1	.5	.3	7,000	.7	N
M332T2	63 41 4	155 13 8	.15	1	.2	7,000	.5	N
M333T2	63 39 15	155 16 47	.2	1	.5	10,000	.7	N
M334T2	63 38 58	155 17 47	.2	.7	.5	10,000	.7	N
M335T2	63 36 35	155 17 21	.1	1	.5	10,000	.5	N
M336T2	63 34 2	155 15 18	.2	.7	.2	10,000	.7	N
M337T2	63 30 56	155 24 11	.1	.5	.1	1,500	.5	N
M338T2	63 32 32	153 14 9	.2	.5	.5	5,000	1	N
M339T2	63 33 29	153 13 53	.15	.7	.3	5,000	.5	N
M340T2	63 34 40	153 12 17	.2	.5	.5	7,000	.7	N
M341T2	63 36 17	153 6 59	.3	2	.5	5,000	.5	3
M342T2	63 36 5	153 7 4	.3	1	<.1	2,000	<.5	N
M343T2	63 39 13	153 7 22	.3	.7	.3	1,500	.5	N
M344T2	63 42 25	153 6 30	.2	.7	.3	7,000	.5	N
M345T2	63 31 41	153 2 2	.2	.7	.15	2,000	.7	N
M346T2	63 31 1	153 3 31	.2	.5	.1	10,000	.5	N
M347T2	63 30 8	153 6 47	.2	1	.2	5,000	<.5	N
M348T2	63 28 20	153 8 11	.2	.5	.3	7,000	.5	N
M349T2	63 29 32	153 13 42	.15	.7	.2	5,000	.5	N
M351T2	63 23 2	154 51 53	.3	1	.2	5,000	.5	N
M352T2	63 23 0	154 52 15	.3	.7	.2	7,000	.5	N
M356T2	63 25 13	155 8 53	.3	.7	.5	7,000	.5	N
M359T2	63 34 34	154 49 57	.1	.5	.2	7,000	.5	N
M361T2	63 46 5	153 35 32	.1	1.5	.2	5,000	<.5	N
M362T2	63 46 0	153 41 47	.1	.5	.2	7,000	.5	N
M363T2	63 48 49	153 39 45	.15	1.5	.15	2,000	.5	N
M364T2	63 47 49	153 35 42	.2	1	.3	5,000	.5	N
M365T2	63 47 26	153 33 33	.1	1	.15	5,000	<.5	N
M366T2	63 47 41	153 31 23	.15	.7	.3	7,000	.5	N
M367T2	63 50 29	153 34 31	.1	.5	.2	7,000	.5	N
M368T2	63 50 26	153 33 49	.2	.7	.1	5,000	.5	N
M369T2	63 52 27	153 38 0	.3	.7	N	2,000	.5	N
M370T2	63 56 36	153 40 1	.2	.7	.2	7,000	.5	N
M372T2	63 58 20	153 31 25	.2	.7	.5	1,500	.5	N
M373T2	63 59 18	153 36 7	.2	.7	.2	5,000	.5	N
M374T2	63 59 46	153 40 4	.15	.7	.3	7,000	.7	N
M375T2	63 45 57	153 55 12	.15	1	.3	2,000	.7	N
M376T2	63 51 34	153 48 5	.2	.7	.1	2,000	<.5	N
M377T2	63 51 40	153 47 23	.2	.7	N	3,000	.5	N
M378T2	63 52 43	153 45 44	.2	1.5	.1	1,500	<.5	<1
M379T2	63 54 42	153 47 50	.2	.7	.2	7,000	.5	N
M380T2	63 55 19	153 47 16	.15	1	.3	5,000	.7	N
M381T2	63 56 24	153 50 53	.2	1	1	5,000	.5	N
M382T2	63 59 26	153 50 1	.15	.5	.15	5,000	.5	N
M383T2	63 51 52	153 52 15	.2	.5	.2	3,000	.5	N
M384T2	63 50 59	153 53 12	.3	.7	.1	3,000	.5	<1
M385T2	63 47 52	153 58 9	.15	.5	.15	5,000	<.5	N
M386T2	63 45 50	154 30 17	.2	.7	.3	3,000	.5	N
M387T2	63 47 17	154 36 22	.1	.5	.3	3,000	<.5	N
M388T2	63 47 37	154 35 40	.2	.7	.5	7,000	.5	<1
M389T2	63 48 44	154 31 7	.3	1	.2	2,000	.5	N
M390T2	63 50 23	154 33 35	.1	.7	.15	1,500	N	1
M391T2	63 49 26	154 38 8	.2	1	.2	7,000	.5	N
M392T2	63 49 20	154 42 56	.15	.7	.3	5,000	.5	N
M393T2	63 51 21	154 45 24	.5	.7	.3	7,000	.7	N
M394T2	63 54 8	154 42 42	.3	.7	.3	2,000	.5	N
M395T2	63 54 49	154 35 20	.2	1	.5	2,000	.5	N
M396T2	63 54 51	154 36 2	.2	.7	.5	5,000	.5	N
M397T2	63 56 21	154 28 31	.1	.7	.15	2,000	.5	N

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Y	S-Zn
M330T2	1	20	200	N	150	10	N	1,000	N	N	1,500
M331T2	7	10	300	N	200	10	N	1,500	N	N	2,000
M332T2	2	10	200	N	100	7	N	1,500	N	N	2,000
M333T2	2	20	500	30	200	10	N	1,500	N	N	2,000
M334T2	2	7	300	N	70	15	N	1,000	N	N	2,000
M335T2	10	30	300	N	300	7	N	1,000	N	N	2,000
M336T2	3	7	200	N	70	10	N	3,000	N	N	2,000
M337T2	2	5	150	N	50	7	N	1,500	N	N	1,000
M338T2	50	7	200	N	100	10	N	2,000	N	N	2,000
M339T2	15	10	200	N	100	7	N	1,500	N	N	1,500
M340T2	10	15	200	N	100	10	N	2,000	N	N	1,500
M341T2	15	7	200	N	100	30	N	2,000	N	N	2,000
M342T2	3	<5	200	N	50	15	N	1,500	N	N	1,500
M343T2	1	5	200	N	100	7	N	1,000	N	N	1,500
M344T2	7	10	200	N	100	10	N	2,000	N	N	2,000
M345T2	20	5	300	N	100	7	N	2,000	N	N	1,500
M346T2	2	7	200	N	150	10	N	3,000	N	N	1,000
M347T2	30	<5	200	N	50	10	N	1,500	N	N	2,000
M348T2	20	20	300	N	150	15	N	2,000	N	N	2,000
M349T2	2	30	200	N	70	7	N	1,500	N	N	2,000
M351T2	1.5	5	200	N	100	15	N	2,000	N	N	1,500
M352T2	5	5	150	N	70	15	N	2,000	N	N	1,000
M356T2	50	7	300	N	150	10	N	1,500	N	N	3,000
M359T2	2	10	200	N	100	10	N	1,500	N	N	1,500
M361T2	20	7	150	N	50	5	N	1,000	N	N	1,500
M362T2	20	20	200	N	100	10	N	2,000	N	N	1,500
M363T2	10	<5	200	N	30	10	N	2,000	N	N	1,000
M364T2	1	<5	300	N	30	10	N	>5,000	N	N	1,500
M365T2	7	5	200	N	30	7	N	3,000	N	N	1,000
M366T2	10	7	300	N	50	10	<5	>5,000	N	N	1,000
M367T2	20	7	300	N	30	7	N	>5,000	N	N	1,000
M368T2	5	5	300	N	30	10	N	2,000	N	N	1,000
M369T2	10	<5	300	N	20	15	N	2,000	N	N	1,500
M370T2	30	5	300	N	30	7	N	3,000	N	N	1,000
M372T2	5	<5	200	N	20	10	N	5,000	N	N	1,500
M373T2	5	7	300	N	70	5	N	3,000	N	N	1,000
M374T2	30	5	200	N	50	10	N	5,000	N	N	1,500
M375T2	3	N	200	10	20	10	N	1,500	N	N	1,000
M376T2	N	N	300	7	15	7	N	>5,000	N	N	1,000
M377T2	10	5	300	5	50	7	N	>5,000	N	N	1,000
M378T2	N	N	150	N	10	7	N	2,000	N	N	700
M379T2	3	5	200	N	50	10	N	5,000	N	N	1,500
M380T2	1.5	10	200	N	100	10	N	700	N	N	1,500
M381T2	10	<5	300	N	30	20	N	1,500	N	N	2,000
M382T2	1.5	5	200	N	70	7	N	1,500	N	N	1,000
M383T2	10	<5	200	30	50	7	N	2,000	N	N	1,500
M384T2	3	5	200	N	30	20	N	1,500	N	N	1,000
M385T2	7	N	300	15	50	10	N	1,500	N	N	1,000
M386T2	30	5	200	5	30	7	N	2,000	N	N	1,000
M387T2	20	<5	150	10	100	5	N	1,500	N	N	700
M388T2	20	5	200	N	70	10	N	5,000	N	N	1,500
M389T2	1	<5	200	50	70	15	N	1,500	N	N	2,000
M390T2	20	5	150	<5	50	10	N	1,000	N	N	1,000
M391T2	20	5	200	15	50	7	N	2,000	N	N	5,000
M392T2	1.5	10	300	15	150	7	N	1,500	N	N	2,000
M393T2	5	10	150	20	70	10	N	700	N	N	3,000
M394T2	2	7	300	N	100	15	N	500	N	N	3,000
M395T2	30	10	300	20	70	10	N	3,000	N	N	2,000
M396T2	20	7	500	N	30	10	N	5,000	N	N	1,500
M397T2	20	7	150	50	100	5	N	700	N	N	2,000

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M398T2	63 58 44	154 32 41	.3	.7	.1	5,000	.7	N
M399T2	63 48 47	154 51 2	.15	.5	.2	5,000	1	N
M400T2	63 45 18	155 49 44	.15	.7	.2	7,000	.7	N
M401T2	63 47 7	155 53 36	.2	.7	.5	7,000	.7	N
M403T2	63 50 21	155 55 30	.2	.7	.7	2,000	.7	N
M404T2	63 49 41	155 48 45	.2	.7	.5	7,000	.7	N
M408T2	63 56 33	155 42 17	.2	1	.3	10,000	.5	N
M409T2	63 54 1	155 43 7	.15	.7	.2	7,000	.5	N
M410T2	63 54 22	155 42 40	.2	.7	.3	7,000	.7	N
M411T2	63 56 32	155 39 1	.5	1	.2	7,000	1	N
M412T2	63 58 57	155 39 34	.3	.7	.2	1,500	1	N
M413T2	63 58 5	155 34 58	.15	.7	.5	3,000	.5	7
M415T2	63 59 42	155 32 31	.7	1	.1	10,000	.7	N
M416T2	63 49 49	155 18 38	.2	.7	<.1	7,000	.5	N
M417T2	63 50 5	155 18 15	.2	1	<.1	7,000	.7	N
M418T2	63 49 56	155 15 14	.2	1	.5	7,000	.7	N
M419T2	63 52 29	155 25 6	.15	1	.1	7,000	.7	N
M420T2	63 52 29	155 24 34	.2	1	.2	5,000	.5	N
M422T2	63 56 10	155 24 58	.2	.7	.3	10,000	1	N
M423T2	63 46 5	155 21 47	.3	1.5	.3	5,000	.5	N
M427T2	63 56 52	155 33 17	.3	1	.3	7,000	1	N
M428T2	63 56 43	155 31 39	.3	1	N	7,000	.5	N
M429T2	63 54 12	155 36 37	.2	.7	.2	7,000	.5	N
M432T2	63 51 46	155 31 12	.2	.7	.5	7,000	.7	N
M433T2	63 51 5	155 30 38	.2	1	.1	3,000	.7	N
M435T2	63 45 23	155 47 58	.2	.7	.2	10,000	.7	N
M436T2	63 48 31	155 45 19	.15	1	.5	7,000	.7	N
M437T2	63 48 25	155 37 45	.2	.5	.2	2,000	.5	N
M440T2	63 13 52	155 50 47	.15	.5	.1	7,000	.7	N
M441T2	63 15 42	155 51 1	.15	.7	.1	10,000	.7	N
M443T2	63 14 59	155 54 51	.3	1	<.1	15,000	.7	N
M445T2	63 44 24	155 24 54	.2	1	.5	7,000	.7	N
M446T2	63 45 17	155 27 5	.15	.7	.3	5,000	.7	N
M447T2	63 48 15	155 31 20	.2	.7	N	5,000	.5	N
M448T2	63 49 36	155 35 23	.1	.7	.5	7,000	.7	N
M449T2	63 49 11	155 40 56	.1	.7	.2	7,000	.5	N
M451T2	63 46 13	155 35 21	.3	.7	.3	10,000	.7	N
M452T2	63 44 56	155 28 51	.1	.7	.5	7,000	.7	N
M453T2	63 43 27	155 31 44	.2	1	.3	7,000	.5	N
M454T2	63 41 26	155 30 8	.1	.7	.3	5,000	.5	N
M455T2	63 40 42	155 35 34	.15	1	.3	1,500	.7	N
M459T2	63 42 18	155 51 33	.1	.7	.3	7,000	1	N
M461T2	63 35 36	155 56 34	.5	.7	.5	7,000	.5	N
M462T2	63 36 36	155 52 0	.2	.7	.2	1,500	.5	N
M464T2	63 33 18	155 46 3	.2	1	.2	5,000	.7	N
M465T2	63 33 30	155 46 31	.1	1	.15	1,500	.5	N
M467T2	63 31 50	155 39 34	.15	1	.7	5,000	.5	N
M468T2	63 55 38	154 39 50	.1	.7	.5	1,500	<.5	N
M470T2	63 57 58	154 48 46	.15	.7	.15	5,000	.7	N
M471T2	63 57 16	154 53 39	.1	1	.2	1,500	N	N
M473T2	63 56 36	154 52 1	.3	.7	.2	1,500	.7	N
M474T2	63 53 33	154 56 29	.3	1	.15	3,000	.7	N
M475T2	63 41 0	154 18 24	.2	1	.3	7,000	.5	N
M477T2	63 44 33	154 16 44	.1	.7	.1	7,000	<.5	N
M479T2	63 46 54	154 17 28	.1	1	.2	5,000	.5	N
M480T2	63 40 20	153 52 35	.07	1	.2	2,000	<.5	N
M482T2	63 35 1	153 53 48	.1	.7	.2	7,000	.5	N
M483T2	63 33 40	153 45 20	.3	1	.15	2,000	<.5	N
M484T2	63 7 43	154 53 40	.15	1	.5	2,000	.5	N
M485T2	63 22 23	155 10 3	.2	.7	.3	7,000	.7	N

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Y	S-Zn
M398T2	5	15	200	N	150	7	N	1,500	N	N	1,500
M399T2	1.5	30	150	N	100	5	N	1,000	N	N	2,000
M400T2	3	7	200	20	70	7	N	1,000	N	N	3,000
M401T2	5	15	300	20	100	10	N	700	N	N	2,000
M403T2	10	7	500	20	200	7	N	500	N	N	2,000
M404T2	5	10	200	50	150	10	N	1,000	N	N	2,000
M408T2	10	20	500	N	200	10	N	1,000	N	N	1,500
M409T2	30	30	500	N	300	7	N	1,500	N	N	2,000
M410T2	7	30	500	N	300	7	N	1,500	N	N	2,000
M411T2	5	15	300	50	150	10	N	1,500	N	N	2,000
M412T2	5	50	200	N	300	10	N	5,000	N	20	5,000
M413T2	20	20	500	N	500	7	N	1,000	N	N	5,000
M415T2	5	15	300	N	200	15	N	3,000	N	<10	3,000
M416T2	7	<5	200	N	150	7	N	5,000	N	N	1,500
M417T2	5	20	300	N	150	7	N	2,000	N	N	1,500
M418T2	20	5	500	N	100	15	N	2,000	N	N	2,000
M419T2	10	7	200	N	100	7	N	1,500	N	N	1,000
M420T2	15	<5	200	N	100	10	N	5,000	N	N	15,000
M422T2	20	20	500	N	200	7	N	2,000	N	N	2,000
M423T2	5	5	200	N	70	20	N	5,000	N	N	2,000
M427T2	3	20	300	5	150	10	N	1,000	N	N	2,000
M428T2	1	5	300	<5	100	10	N	1,500	N	N	1,500
M429T2	30	10	500	N	150	5	N	1,500	N	N	1,000
M432T2	1.5	15	300	10	150	10	N	1,500	N	N	3,000
M433T2	1	5	200	N	70	7	N	5,000	N	N	3,000
M435T2	10	5	200	N	70	7	N	500	N	N	1,000
M436T2	30	15	500	N	200	7	N	1,000	N	N	2,000
M437T2	3	<5	200	N	70	5	N	500	N	N	2,000
M440T2	7	7	200	N	150	7	N	2,000	N	N	1,500
M441T2	10	10	200	N	100	10	N	1,500	N	N	1,500
M443T2	5	5	500	N	100	30	N	1,500	N	<10	2,000
M445T2	5	5	200	10	70	10	N	1,000	N	N	3,000
M446T2	10	7	300	N	150	7	N	3,000	N	N	1,000
M447T2	20	N	200	N	100	7	N	5,000	N	N	1,500
M448T2	5	7	200	N	200	7	N	1,000	N	N	1,500
M449T2	5	20	200	<5	300	5	N	1,000	N	N	1,000
M451T2	10	10	500	N	200	10	N	2,000	N	N	1,500
M452T2	20	20	500	N	150	5	N	2,000	N	N	1,500
M453T2	2	15	500	N	200	15	N	5,000	N	N	1,500
M454T2	3	10	300	N	200	5	N	1,000	N	N	1,000
M455T2	20	20	200	20	70	10	N	1,000	N	N	2,000
M459T2	5	10	300	N	150	5	N	700	N	N	1,000
M461T2	1	7	300	5	100	7	N	5,000	N	N	1,500
M462T2	3	5	150	50	70	10	N	1,000	N	N	1,500
M464T2	7	7	200	N	100	10	N	5,000	N	N	1,000
M465T2	5	N	200	N	30	10	N	3,000	N	N	1,000
M467T2	50	15	500	N	150	10	N	2,000	N	N	2,000
M468T2	15	5	200	N	50	7	N	1,000	N	N	1,000
M470T2	10	7	300	N	150	10	N	5,000	N	N	1,000
M471T2	15	5	200	N	20	10	N	3,000	N	N	1,000
M473T2	<1	5	300	N	70	15	N	700	N	N	2,000
M474T2	N	5	150	30	50	15	N	1,000	N	N	2,000
M475T2	<1	N	300	N	50	15	N	5,000	N	N	1,500
M477T2	10	10	300	N	200	5	N	1,000	N	N	700
M479T2	N	N	200	N	70	5	N	1,500	N	N	700
M480T2	10	N	200	20	50	7	N	2,000	N	N	700
M482T2	5	7	300	20	150	7	N	1,500	N	N	1,000
M483T2	<1	N	200	<5	30	10	N	2,000	N	N	1,000
M484T2	30	5	500	N	100	7	N	700	N	N	2,000
M485T2	2	10	500	N	50	10	N	3,000	N	N	2,000

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	LATITUDE	LONGITUD	S-Fe%	S-Na%	S-Ag	S-Ba	S-Be	S-Bi
M486T2	63 20 45	155 11 42	.5	1.5	.2	7,000	.5	N
M487T2	63 24 13	155 16 51	.2	.7	.15	7,000	.5	N
M489T2	63 31 51	155 30 47	.15	1	.2	1,500	.5	N
M490T2	63 31 40	155 27 11	.3	1	.2	2,000	1	N
M492T2	63 36 21	155 2 32	.15	.7	.2	1,500	.5	N
M493T2	63 54 53	154 51 28	.07	.7	.3	5,000	.5	N
M495T2	63 51 45	154 55 51	.1	.7	.5	2,000	.5	N
M496T2	63 48 12	154 57 12	.1	.5	.3	5,000	.5	N
M497T2	63 46 38	154 58 12	.15	.7	.7	10,000	.5	N
M498T2	63 47 19	154 52 6	.1	.7	.3	7,000	<.5	N
M500T2	63 43 7	154 57 33	.2	1	.3	3,000	.5	N
M501T2	63 41 54	154 49 37	.15	.7	.2	7,000	.5	N
M503T2	63 34 58	154 43 36	.2	1	.5	5,000	<.5	N
M504T2	63 37 52	154 35 56	.2	1	.2	5,000	.5	N
M505T2	63 40 3	154 35 19	.1	.7	.2	1,500	.7	N
M506T2	63 39 55	154 46 41	.15	1	.3	10,000	.7	N
M507T2	63 43 12	153 29 43	.2	.7	.1	5,000	.7	N
M508T2	63 44 0	153 27 59	.15	1	N	2,000	.5	N
M509T2	63 41 3	153 33 57	.2	.7	.1	5,000	.5	N
M510T2	63 41 25	153 37 38	.15	1	.1	2,000	.5	N
M511T2	63 41 26	153 39 10	.15	.7	N	7,000	.5	N
M512T2	63 31 28	153 59 6	.5	.7	.15	2,000	.5	N
M513T2	63 30 38	153 56 40	.15	.7	.2	3,000	.5	N
M514T2	63 27 15	153 51 2	.2	1	.2	7,000	.5	N
M516T2	63 24 10	153 59 44	.07	.5	<.1	5,000	<.5	N

Table 9. Results of analyses of samples of the ash of tamarack stems from the Medfra quadrangle, Alaska--Continued

Sample	S-Cd	S-Co	S-Cu	S-Mo	S-Ni	S-Pb	S-Sn	S-Sr	S-W	S-Y	S-Zn
M486T2	N	7	200	N	70	30	N	1,000	N	20	3,000
M487T2	N	10	300	15	100	10	N	1,500	N	N	1,000
M489T2	2	5	300	N	50	7	N	2,000	N	N	2,000
M490T2	1.5	15	300	N	100	20	N	1,000	N	20	3,000
M492T2	1	<5	200	N	30	5	N	1,000	N	N	2,000
M493T2	10	20	300	30	200	5	N	1,000	N	N	1,500
M495T2	7	<5	200	N	30	5	N	1,000	N	N	3,000
M496T2	2	5	200	N	70	7	N	1,000	N	N	1,500
M497T2	3	30	300	50	150	7	N	1,500	N	N	2,000
M498T2	7	20	500	N	200	3	N	1,000	N	N	1,000
M500T2	3	7	500	N	100	7	N	700	N	N	1,500
M501T2	7	30	200	N	150	7	N	1,000	N	N	1,500
M503T2	10	7	300	50	100	7	N	2,000	N	N	1,000
M504T2	1.5	7	200	N	100	10	N	2,000	N	N	1,500
M505T2	2	5	200	N	50	5	N	2,000	N	N	1,000
M506T2	3	30	300	N	200	5	N	1,500	N	N	1,000
M507T2	<1	5	150	N	50	7	N	1,500	N	N	1,000
M508T2	N	<5	200	N	50	2	N	1,500	N	N	700
M509T2	2	5	200	N	50	15	N	>5,000	N	N	1,500
M510T2	5	7	300	N	70	5	N	5,000	N	N	700
M511T2	20	15	300	N	150	5	N	3,000	N	N	700
M512T2	<1	<5	150	30	50	10	N	2,000	N	N	2,000
M513T2	15	<5	500	5	100	7	N	1,500	N	N	1,000
M514T2	10	5	300	N	70	7	N	1,000	N	N	2,000
M516T2	20	5	500	N	150	2	N	5,000	N	N	700