UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Analytical results and sample locality map of winter moose pellet samples from the Tanacross quadrangle, Alaska

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STUDIES RELATED TO AMRAP

The U.S. Geological Survey is required by the Alaskan National Interests Lands Conservation Act (Public Law 96-487, 1980), to survey certain Federal lands to determine their mineral resource potential. Results from the Alaskan Mineral Resource Assessment Program (AMRAP) must be made available to the public and be submitted to the President and the Congress. This report presents analytical results of a geochemical survey of the Tanacross quadrangle, Alaska.

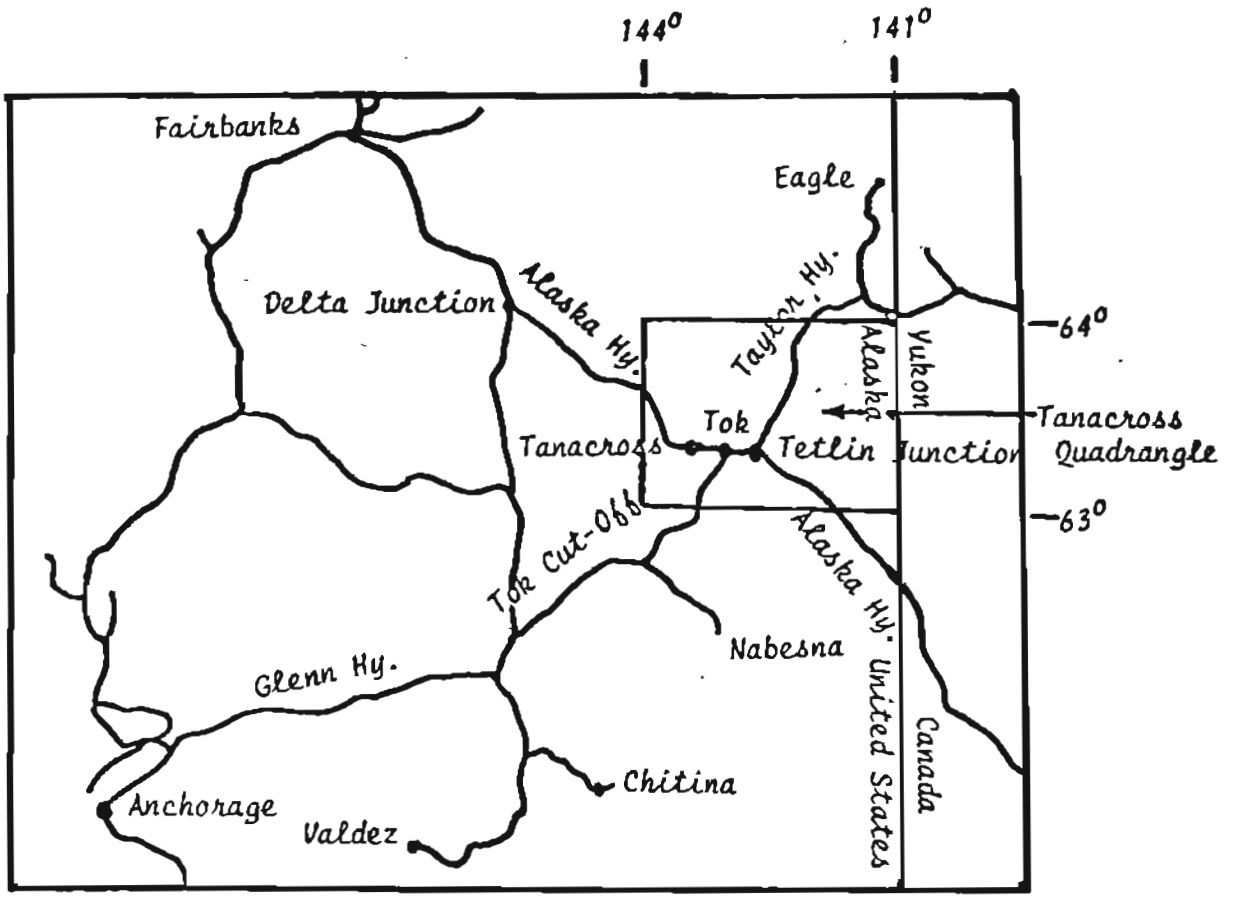
INTRODUCTION

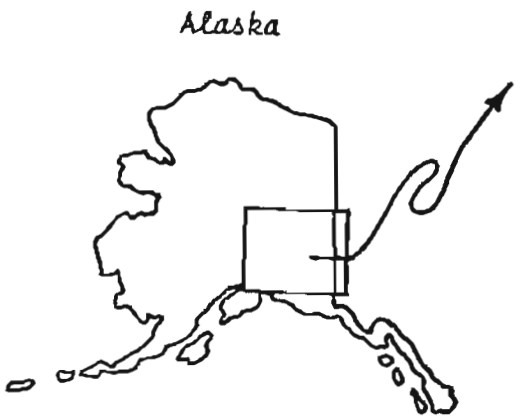
During the summer of 1974, a reconnaissance geochemical survey was conducted in the Tanacross quadrangle, Alaska, in conjunction with mineral resource studies that were being made under the Alaska Mineral Resource Assessment Program (AMRAP).

The Tanacross quadrangle covers about 6,700 mi^2 (17,400 km^2) in east-central Alaska on the Alaska-Canada border and lies about 330 mi (531 km) northeast of Anchorage (fig. 1). Access to the quadrangle is provided on the south by the Alaska and Glenn Highways, on the west by the Alaska Highway, and on the north by the Taylor Highway. Access within the Tanacross quadrangle is provided by the Alaska Highway, which crosses the southern third of the quadrangle and is joined at Tok by the Glenn Highway from Anchorage, Alaska and at Tetlin Junction by the Taylor Highway to Eagle, Alaska.

The Tanana River crosses the southern half of the Tanacross quadrangle and divides the unglaciated, maturely dissected mountains of the Yukon-Tanana Upland in the north from the plains and low rolling hills of the Northway-Tanacross Lowland in the south (Wahrhaftig, 1965). Rugged glaciated mountains of the Alaska Range occupy a roughly triangular area in the southwest corner of the quadrangle. Elevations range from 7,438 ft (2,267 m) in the Alaska Range and 5,541 ft (1,689 m) at Mount Fairplay in the Yukon-Tanana Upland to about 1,500 ft (457 m) in the Northway-Tanana Lowland. Most of the Yukon-Tanana part of the quadrangle has a cover of vegetation.

The Denali fault crosses the extreme southwestern corner of the Tanacross quadrangle and separates the unmetamorphosed terrane of the south from the metamorphosed terrane (Foster and others, 1976, p. 4). The metamorphosed rocks have been intruded by Mesozoic and Tertiary granitic rocks and volcanic rocks (Foster and others, 1976, p. 4). Porphyry copper and molybdenum deposits within the Tanacross quadrangle are generally associated with Tertiary felsic volcanic rocks (Foster and others, 1976, p. 17). Geology of the Tanacross quadrangle is discussed in detail in U.S. Geological Survey Circular 734 (Foster and others, 1976) and on U.S. Geological Survey Map I-593 of the Tanacross quadrangle (Foster, 1970).





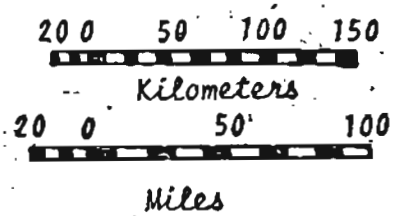


Figure 1. Location map of the Tanacross quadrangle, east-central Alaska.

METHODS OF STUDY

Sample Medium

In a normal geochemical cycle, chemical elements present in rocks are translocated to the resulting soil upon weathering. These elements may then be dissolved by groundwater and taken up by plants. The moose in turn eat selected plants and pass off as fecal pellets those chemical elements not assimilated. Moose range in winter on an average of less than 0.25 miles per day (Berg and Phillips, 1972); therefore, moose pellets probably represent plants eaten in the same drainage basin where collected. If the assumptions in the geochemical cycle of the elements are correct, the elemental composition of moose pellets may be a useful and easily obtainable sampling medium for identifying those basins that contain concentrations of elements possibly related to mineral deposits.

Winter moose pellets collected in Alaska represent mainly the digestion of willow and birch twigs and branches, as those plants comprise 85% on the average of the food eaten by moose in the winter in Alaska according to Spencer and Chatelain (1953).

Sample Collection

Samples of winter moose pellet were collected at 193 sites (fig. 2; plate 1) for an average sampling density of one site per 35 mi^2. These sites were in proximity to streams where sediment samples and heavy-mineral concentrates were also sampled.

Each winter moose pellet sample was composited from several localities within the sampling area that may extend as much as 15 meters from the site plotted on plate 1. Duplicate samples were collected at six sites, bringing the total number of samples analyzed to 199.

Sample Preparation

The pellets were pulverized in a mill and ashed at 450°C in a thermostatically controlled furnace for 24 hours.

Sample Analysis

The ash of the moose pellet samples were analyzed for 35 elements using a semiquantitative, direct-current arc emission spectrographic method described by Mosier (1972) and modified by Curry and others (1975) (table 2). Spectrographic results were obtained by visual comparison of spectra derived from the sample against spectra obtained from standards made from pure oxides and carbonates. Standard concentrations are geometrically spaced over any given order of magnitude of concentration as follows: 100, 50, 20, 10, and so forth. Samples whose concentrations are estimated to fall between those values are assigned values of 70, 30, 15, 7, and so forth. Values determined for the major elements (Fe, Mg, Na, and Ti) are given in weight percent; all others are given in parts per million (micrograms/gram) (table 1).

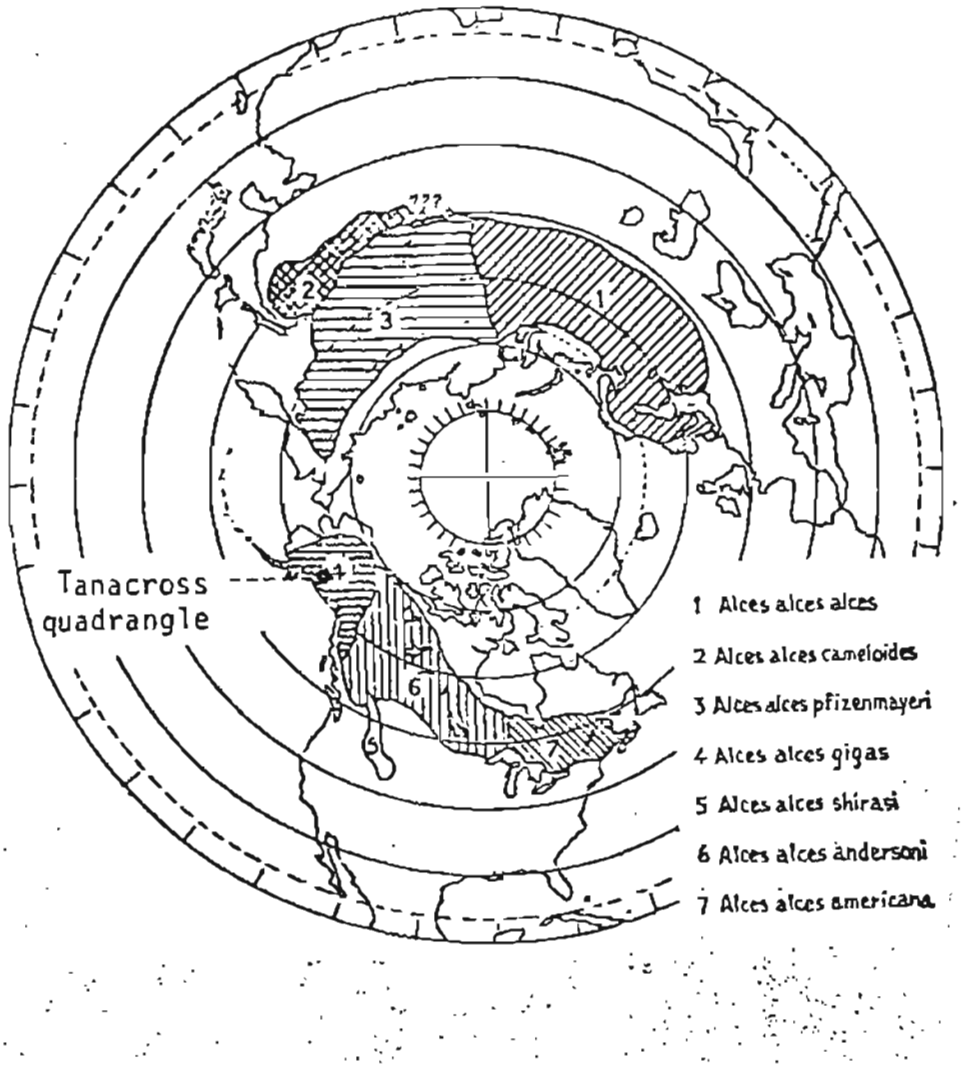


Figure 2. World-wide distribution map of moose.

ROCK ANALYSIS STORAGE SYSTEM

Upon completion of all analytical work, the analytical results were entered into a computer-based file called Rock Analysis Storage System (RASS). 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, 1976).

DESCRIPTION OF DATA TABLE

Table 2 lists the analyses for the samples of winter moose pellets collected in the Tanacross Quadrangle, Alaska. For this table the data are arranged so that column 1 contains the USGS-assigned sample numbers. These numbers correspond to the numbers shown on the site location map (plate 1). Duplicate samples are designated by the letter D before the sample number in the analytical data (table 2). Columns in which the element headings show the letter "s" below the element symbol are emission spectrographic analyses. A letter "N" in the tables indicates that a given element was looked for but not detected at the lower limit of determination shown for that element in table 1. If an element was observed but was below the lowest reporting value, then a "less than" symbol (<) was entered in the tables in front of the lower limit of determination. If an element was observed but was above the highest reporting value, then a "greater than" symbol (>) was entered in the tables in front of the upper limit of determination. Because of the formatting used in the computer program that produced table 2, some of the elements listed in these tables (Fe, Mg, Ti, Ag, and Na) carry one or more nonsignificant digits to the right of the significant digits. The analysts did not determine these elements to the accuracy suggested by the extra zeroes.

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TABLE 1.--Limits of determination for the spectrographic analysis of moose pellets, based on a 5-mg sample

Elements	Lower determination limit	Upper determination limit
	Percent	
Iron (Fe)	0.005	5
Magnesium (Mg)	.01	10
Titanium (Ti)	.001	1
Sodium (Na)	.005	5
	Parts per million	
Manganese (Mn)	10	10,000
Silver (Ag)	0.1	500
Arsenic (As)	200	5,000
Gold (Au)	2	500
Boron (B)	5	1,000
Barium (Ba)	20	20,000
Beryllium (Be)	1	100
Bismuth (Bi)	1	500
Cadmium (Cd)	2	500
Cobalt (Co)	10	1,000
Chromium (Cr)	5	1,000
Copper (Cu)	1	5,000
Lanthanum (La)	20	500
Molybdenum (Mo)	2	500
Niobium (Nb)	50	500
Nickel (Ni)	5	1,000
Lead (Pb)	1	5,000
Antimony (Sb)	50	5,000
Scandium (Sc)	5	100
Tin (Sn)	5	500
Strontium (Sr)	100	5,000
Vanadium (V)	10	1,000
Tungsten (W)	50	1,000
Yttrium (Y)	5	500
Zinc (Zn)	100	20,000
Zirconium (Zr)	10	1,000
Gallium (Ga)	2	100
Germanium (Ge)	2	100
Indium (In)	2	100
Lithium (Li)	200	10,000
Thallium (Tl)	2	100

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.
[N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Bi-ppm s
TX215MP	63 50 55	142 58 30	1.0	5.0	.07	>10,000	.2	500	2,000	N	N
TX216MP	63 49 19	142 54 17	5.0	10.0	.30	>10,000	.3	500	5,000	2	N
TX218MP	63 49 30	142 50 0	>5.0	10.0	.10	>10,000	.1	500	1,500	N	N
TX220MP	63 58 40	142 56 5	2.0	10.0	.10	>10,000	.5	700	5,000	N	N
TX221MP	63 57 0	142 45 50	1.0	5.0	.05	>10,000	.2	500	1,500	N	N
TX222MP	63 58 15	142 46 40	5.0	5.0	.50	>10,000	.5	300	3,000	3	N
TX224MP	63 59 25	142 43 5	2.0	7.0	.20	>10,000	.2	500	7,000	N	N
TX231MP	63 56 5	142 21 45	1.0	5.0	.07	>10,000	.2	300	2,000	N	N
TX241MP	63 51 35	142 7 30	3.0	10.0	.20	>10,000	.7	700	7,000	2	N
TX242MP	63 51 0	142 23 50	1.0	5.0	.10	>10,000	.3	700	3,000	2	N
TX245MP	63 52 50	142 29 20	3.0	7.0	.20	>10,000	.7	500	7,000	1	N
TX247MP	63 49 55	142 28 10	2.0	10.0	.10	>10,000	.2	300	7,000	5	N
TX249MP	63 48 45	142 24 10	3.0	10.0	.30	>10,000	.7	700	7,000	1	N
TX251MP	63 46 20	142 19 15	3.0	10.0	.30	>10,000	.5	700	7,000	3	N
TX253MP	63 45 15	142 6 45	1.0	10.0	.05	>10,000	.5	300	5,000	N	N
TX255MP	63 45 40	142 3 0	2.0	10.0	.10	>10,000	1.0	1,000	7,000	3	N
TX257MP	63 43 35	142 16 10	2.0	10.0	.30	>10,000	.7	700	7,000	N	N
DTX257MP	63 58 25	142 16 10	2.0	10.0	.30	>10,000	.7	700	7,000	N	N
TX259MP	64 0 0	141 47 0	1.0	10.0	.05	>10,000	.5	500	7,000	N	N
TX260MP	63 54 40	141 51 10	.5	5.0	.02	>10,000	.3	500	10,000	N	N
TX262MP	63 54 25	141 58 30	1.0	10.0	.05	>10,000	1.0	700	3,000	N	N
TX264MP	63 49 10	141 47 0	1.0	10.0	.05	>10,000	1.5	700	1,500	N	N
TX265MP	63 52 15	141 52 0	.5	10.0	.01	>10,000	.1	700	2,000	N	N
TX266MP	63 49 50	141 47 0	1.0	7.0	.07	>10,000	.5	500	3,000	N	N
TX268MP	63 49 10	141 51 0	2.0	10.0	.05	>10,000	3.0	700	5,000	2	N
TX269MP	63 52 36	141 55 50	.5	7.0	.02	>10,000	7.0	500	1,500	N	500
TX271MP	63 49 20	141 58 40	1.0	7.0	.07	>10,000	.3	500	1,500	N	7
TX274MP	63 33 35	143 45 32	>5.0	10.0	.50	>10,000	N	500	2,000	N	N
TX276MP	63 33 24	143 36 5	2.0	10.0	.30	>10,000	.2	500	2,000	N	N
TX278MP	63 32 5	143 41 10	2.0	10.0	.50	>10,000	.2	300	5,000	N	N
TX280MP	63 33 0	143 39 10	2.0	10.0	.30	>10,000	.2	500	1,500	N	N
TX282MP	63 30 45	143 33 25	2.0	>10.0	.30	>10,000	.2	500	2,000	N	N
TX284MP	63 29 40	143 32 10	1.0	7.0	.10	>10,000	.2	500	700	N	N
DTX284MP	63 29 40	143 32 10	2.0	10.0	.20	>10,000	.3	500	7,000	1	N
TX286MP	63 28 15	143 36 10	>5.0	5.0	.50	>10,000	.2	300	3,000	2	N
TX288MP	63 27 50	143 38 45	>5.0	5.0	.70	>10,000	.2	300	2,000	N	N
TX291MP	63 56 45	141 42 40	2.0	7.0	.30	>10,000	.7	500	7,000	N	N
TX293MP	63 51 45	141 39 10	1.0	10.0	.05	>10,000	.7	700	5,000	N	N
DTX293MP	63 51 45	141 39 10	2.0	10.0	.07	>10,000	1.0	700	7,000	N	N
TX296MP	63 56 5	141 39 10	2.0	10.0	.05	>10,000	.7	700	7,000	N	N
TX295MP	63 51 0	141 39 0	>5.0	7.0	1.00	>10,000	.7	500	5,000	1	N
TX296MP	63 55 20	141 42 30	1.0	7.0	.02	>10,000	.1	700	2,000	N	N
TX297MP	63 52 55	141 62 10	1.0	10.0	.02	>10,000	.2	500	3,000	N	N
TX298MP	63 54 35	141 33 40	2.0	10.0	.10	>10,000	.7	500	7,000	N	N
TX299MP	63 52 50	141 36 50	1.0	7.0	.07	>10,000	.1	700	3,000	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.

Sample	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s
TX215MP	100	70	10	300	N	30	150	10	N	N
TX216MP	150	200	70	1,000	N	20	200	20	N	N
TX218MP	50	100	10	300	N	50	100	7	N	N
TX220MP	100	100	10	700	N	50	300	15	N	N
TX221MP	150	70	10	500	N	30	150	15	N	N
TX222MP	150	70	70	1,000	N	20	150	15	N	N
TX224MP	150	100	20	700	N	50	200	15	N	N
TX231MP	100	70	N	300	N	30	150	15	N	N
TX241MP	150	100	50	700	N	150	300	15	N	N
TX242MP	150	70	10	300	N	150	150	10	N	N
TX245MP	150	70	30	1,000	N	30	200	20	N	N
TX247MP	150	100	20	500	N	10	150	5	N	N
TX249MP	150	150	70	500	N	30	300	7	N	N
TX251MP	100	70	50	500	N	20	200	15	N	N
TX253MP	150	20	N	300	N	30	150	15	N	N
TX255MP	150	200	15	700	N	70	300	15	N	N
TX257MP	200	50	70	300	N	2	200	20	N	N
DTX257MP	150	50	70	500	N	2	200	20	N	N
TX259MP	150	70	10	700	N	10	150	30	N	N
TX260MP	100	70	N	500	N	10	100	7	N	N
TX262MP	150	70	10	700	N	50	150	10	N	N
TX264MP	150	70	10	700	N	10	150	10	N	N
TX265MP	150	70	N	700	N	20	150	7	N	N
TX266MP	100	100	10	700	N	10	200	20	N	N
TX268MP	100	200	20	1,000	N	70	200	10	N	N
TX269MP	100	20	N	300	N	20	100	500	N	N
TX271MP	100	20	30	300	N	20	100	15	N	N
TX274MP	20	70	100	500	N	70	150	15	10	N
TX276MP	100	150	30	700	N	30	150	100	N	N
TX278MP	100	100	30	700	N	20	300	15	N	N
TX280MP	70	70	30	700	N	30	100	15	N	N
TX282MP	100	70	30	1,000	N	30	200	15	N	N
TX284MP	70	20	10	500	N	20	100	15	N	N
DTX284MP	70	20	50	500	50	30	150	10	N	N
TX286MP	50	50	100	500	N	50	150	20	10	N
TX288MP	10	20	300	300	N	100	150	15	20	N
TX291MP	150	50	70	500	N	20	200	15	N	5
TX293MP	150	70	20	500	N	30	200	15	N	N
DTX293MP	150	50	30	1,000	N	30	200	20	N	N
TX294MP	150	100	15	1,000	N	50	300	30	N	N
TX295MP	100	100	300	700	20	20	300	10	10	5
TX296MP	100	70	10	500	N	30	150	7	N	N
TX297MP	100	70	10	500	N	50	150	10	N	N
TX298MP	100	70	20	700	N	20	200	15	N	N
TX299MP	100	70	10	700	N	15	100	10	N	N

Table 2 — Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Na-pct. s	Ga-ppm s	Li-ppm s
TX215MP	1,500	70	50	N	20,000	N	.5	3	N
TX216MP	5,000	100	N	30	10,000	200	.5	10	N
TX218MP	1,500	100	N	N	10,000	30	.5	5	N
TX220MP	3,000	70	N	N	20,000	20	.5	2	N
TX221MP	1,500	50	N	N	20,000	20	.5	2	N
TX222MP	2,000	150	50	20	10,000	100	.5	10	N
TX224MP	3,000	70	N	N	10,000	20	.3	2	N
TX231MP	1,500	50	N	N	20,000	20	.5	2	N
TX241MP	5,000	100	N	N	20,000	50	.3	5	N
TX242MP	1,500	70	N	N	20,000	50	.5	5	N
TX245MP	5,000	70	N	N	10,000	100	.3	5	N
TX247MP	5,000	70	N	20	10,000	20	.3	3	N
TX249MP	3,000	100	100	20	20,000	200	.5	7	N
TX251MP	5,000	100	50	20	20,000	100	.3	10	N
TX253MP	2,000	70	N	N	20,000	10	.5	2	N
TX255MP	5,000	100	50	20	10,000	10	.3	3	N
TX257MP	5,000	100	N	N	10,000	70	.3	10	N
DTX257MP	5,000	100	N	N	20,000	150	.5	15	N
TX259MP	2,000	50	N	N	20,000	10	.5	2	N
TX260MP	5,000	30	N	N	10,000	10	.3	N	N
TX262MP	2,000	50	N	N	20,000	30	.5	2	N
TX266MP	1,500	50	N	N	15,000	30	.7	2	N
TX265MP	1,500	50	N	N	20,000	10	.7	N	200
TX266MP	2,000	50	N	N	10,000	N	.3	3	N
TX268MP	5,000	100	N	N	20,000	20	.3	3	N
TX269MP	1,500	50	N	N	20,000	10	.3	<2	N
TX271MP	1,500	50	N	N	20,000	50	.3	2	N
TX274MP	2,000	150	N	20	5,000	30	.5	10	N
TX276MP	3,000	70	N	N	10,000	70	.3	3	N
TX278MP	3,000	100	N	<5	10,000	70	.3	5	N
TX280MP	5,000	70	N	N	10,000	50	.3	5	N
TX282MP	5,000	100	N	N	20,000	50	.3	5	N
TX284MP	1,500	50	N	N	10,000	10	1.0	3	N
DTX284MP	5,000	70	N	7	3,000	50	.3	5	N
TX286MP	3,000	150	N	7	5,000	150	.3	15	N
TX288MP	5,000	200	N	7	10,000	300	.5	15	N
TX291MP	2,000	100	N	N	10,000	200	.5	10	N
TX293MP	2,000	70	N	N	20,000	N	.3	2	N
DTX293MP	5,000	70	N	N	20,000	N	.3	2	N
TX294MP	5,000	70	N	N	20,000	N	.3	<2	N
TX295MP	3,000	150	N	10	10,000	300	.3	15	N
TX296MP	1,500	50	N	N	15,000	10	.5	N	N
TX297MP	1,500	100	N	N	10,000	10	.5	N	N
TX298MP	1,500	70	N	N	15,000	10	.5	2	N
TX299MP	1,500	70	N	N	15,000	10	.5	2	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm i	Bi-ppm i
TX300MP	63 53 30	141 31 15	1.0	10.0	.07	>10,000	.5	700	7,000	N	N
TX302MP	63 46 10	141 43 5	2.0	7.0	.10	>10,000	.5	500	2,000	N	N
TX304MP	63 44 35	141 51 15	1.0	7.0	.05	>10,000	.5	700	3,000	N	N
TX305MP	63 43 32	141 23 5	2.0	10.0	.05	>10,000	1.0	700	7,000	N	N
TX306MP	63 45 0	141 20 30	1.0	5.0	.05	>10,000	.1	500	1,500	N	N
TX308MP	63 45 50	141 21 20	1.0	5.0	.07	>10,000	.2	700	1,500	N	N
TX309MP	63 47 10	141 3 15	1.0	7.0	.05	>10,000	.2	300	1,500	N	N
TX310MP	63 44 35	141 21 52	2.0	10.0	.07	>10,000	.7	500	7,000	N	N
TX314MP	63 43 2	141 5 45	2.0	7.0	.10	>10,000	.5	500	5,000	N	N
TX316MP	63 42 10	141 5 40	1.0	7.0	.05	>10,000	.2	500	2,000	N	N
TX318MP	63 39 0	141 3 20	1.0	7.0	.07	>10,000	.5	700	5,000	N	N
TX320MP	63 59 10	141 0 20	1.0	10.0	.07	>10,000	1.0	1,000	7,000	N	N
TX321MP	63 59 10	141 9 0	5.0	10.0	.10	10,000	.5	300	7,000	N	N
TX323MP	63 59 58	141 8 51	2.0	10.0	.07	10,000	.7	300	5,000	N	N
TX325MP	63 57 15	141 0 0	5.0	10.0	.50	10,000	.5	700	5,000	2	N
TX326MP	63 54 22	141 6 56	3.0	10.0	.10	>10,000	.5	500	7,000	N	N
TX328MP	63 53 58	141 3 2	2.0	10.0	.10	>10,000	.3	500	2,000	N	N
TX329MP	63 54 35	141 1 50	5.0	7.0	.30	>10,000	.3	300	7,000	N	N
TX330MP	63 52 0	141 8 22	>5.0	10.0	.30	>10,000	.3	1,000	10,000	5	N
TX332MP	63 51 14	141 10 29	5.0	10.0	.20	>10,000	1.0	1,000	5,000	N	20
TX333MP	63 51 15	141 13 10	2.0	10.0	.20	>10,000	.7	700	7,000	N	1
TX334MP	63 50 37	141 13 12	2.0	10.0	.30	>10,000	.7	500	7,000	N	1
TX337MP	63 49 20	141 28 50	2.0	10.0	.10	>10,000	.7	700	7,000	N	N
TX340MP	63 53 18	141 24 7	.5	7.0	.03	>10,000	N	300	2,000	N	N
TX342MP	63 57 16	141 32 16	.7	7.0	.05	>10,000	.5	500	5,000	N	N
TX343MP	63 57 12	141 21 47	1.0	10.0	.05	>10,000	1.0	500	7,000	N	N
TX347MP	63 54 10	141 30 0	.7	7.0	.05	>10,000	.7	700	5,000	N	N
TX349MP	63 44 10	141 31 0	2.0	10.0	.07	>10,000	.7	1,000	7,000	N	N
TX350MP	63 43 50	141 21 50	5.0	10.0	.20	>10,000	.7	700	7,000	N	N
TX355MP	63 40 25	141 28 5	1.0	7.0	.05	>10,000	.2	700	1,500	N	N
TX356MP	63 39 30	141 38 30	2.0	10.0	.10	>10,000	.3	500	2,000	N	N
DTX356MP	63 59 30	141 38 30	.5	10.0	.03	>10,000	.1	500	1,500	N	N
TX357MP	63 38 40	141 29 0	.5	10.0	.05	>10,000	.1	500	2,000	N	N
TX358MP	63 33 45	141 19 10	2.0	>10.0	.05	>10,000	1.0	1,000	5,000	N	N
TX360MP	63 32 54	141 19 18	.5	5.0	.03	>10,000	.2	300	1,500	N	N
TX362MP	63 35 50	141 0 10	.7	7.0	.05	>10,000	.5	500	2,000	N	N
TX363MP	63 31 25	141 14 20	.7	7.0	.05	>10,000	.2	700	2,000	N	N
TX365MP	63 32 20	141 0 20	1.0	10.0	.05	>10,000	.5	700	5,000	N	N
TX366MP	63 39 30	141 12 57	1.0	10.0	.10	>10,000	1.0	700	5,000	N	N
TX367MP	63 30 20	141 0 40	1.0	10.0	.05	>10,000	1.0	1,000	5,000	N	N
TX371MP	63 32 25	141 7 30	.7	7.0	.03	>10,000	.1	500	1,500	N	N
TX377MP	63 33 30	141 16 0	.3	7.0	.02	>10,000	<.1	500	1,500	N	N
TX385MP	63 6 20	143 15 20	3.0	5.0	.30	>10,000	.7	500	7,000	N	N
TX386MP	63 2 25	143 21 5	2.0	7.0	.20	>10,000	.7	500	3,000	2	N
TX389MP	63 37 5	141 43 50	2.0	10.0	.20	>10,000	.5	700	5,000	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--continued

Sample	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s
TX300MP	200	70	10	700	N	20	150	15	N	N
TX302MP	150	70	10	300	N	50	100	10	N	N
TX304MP	100	100	10	300	N	70	150	5	N	N
TX305MP	100	150	20	700	N	20	200	20	N	N
TX306MP	100	20	N	500	N	10	70	5	N	N
TX308MP	100	30	N	500	N	15	70	10	N	N
TX309MP	100	70	N	300	N	2	150	7	N	N
TX310MP	100	100	20	700	N	50	300	10	N	N
TX314MP	150	70	20	700	N	20	150	10	N	N
TX316MP	100	70	N	300	N	50	100	7	N	N
TX318MP	150	70	10	500	N	30	150	15	N	N
TX320MP	150	70	20	700	N	50	300	10	N	N
TX321MP	150	70	20	500	N	20	200	5	N	N
TX323MP	100	70	20	700	N	20	300	10	N	N
TX325MP	100	70	200	700	100	20	300	10	10	N
TX326MP	150	100	30	700	N	10	200	10	N	N
TX328MP	150	70	20	500	N	15	150	10	N	N
TX329MP	100	70	100	300	N	2	200	10	N	N
TX330MP	100	300	50	1,000	70	30	300	15	N	N
TX332MP	100	100	30	500	N	20	200	20	N	N
TX333MP	150	70	30	700	N	30	300	7	N	N
TX334MP	100	70	30	700	N	30	200	7	N	N
TX337MP	150	70	10	1,000	N	20	300	7	N	N
TX340MP	100	50	N	300	N	10	70	10	N	N
TX342MP	150	70	N	500	N	20	150	15	N	N
TX343MP	100	70	10	700	N	10	150	20	N	N
TX347MP	200	70	N	500	N	15	150	10	N	N
TX349MP	150	150	10	700	N	30	200	10	N	N
TX350MP	100	150	30	1,000	N	100	200	15	N	N
TX355MP	150	70	N	500	N	100	100	10	N	N
TX356MP	150	70	10	500	N	30	100	10	N	N
DTX356MP	150	70	N	300	N	10	70	10	N	N
TX357MP	150	50	N	300	N	100	70	15	N	N
TX358MP	150	150	20	700	N	200	200	10	N	N
TX360MP	150	70	N	300	N	50	100	10	N	N
TX362MP	150	70	30	300	N	150	100	15	N	N
TX363MP	200	70	N	300	N	50	100	7	N	N
TX365MP	200	70	N	700	N	30	150	10	N	N
TX366MP	200	100	20	700	N	20	150	10	N	N
TX367MP	150	70	20	700	N	50	150	15	N	N
TX371MP	150	70	N	300	N	30	150	7	N	N
TX377MP	150	50	N	300	N	70	50	7	N	N
TX385MP	150	70	50	1,000	N	70	150	15	N	N
TX386MP	200	50	50	1,000	N	50	200	20	N	N
TX389MP	150	100	30	1,000	N	50	300	7	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--continued

Sample	Sr-ppm	V-ppm	W-ppm	Y-ppm	Zn-ppm	Zr-ppm	Na-pct.	Ga-ppm	Li-ppm
	s	s	s	s	s	s	s	s	s
TX300MP	1,500	70	N	N	20,000	10	.5	2	N
TX302MP	2,000	100	N	N	10,000	50	.5	5	N
TX304MP	5,000	70	N	N	3,000	20	.2	2	N
TX305MP	2,000	100	N	N	7,000	20	.3	N	N
TX306MP	2,000	50	N	N	7,000	20	.5	2	N
TX308MP	2,000	50	N	N	10,000	50	.5	5	N
TX309MP	1,500	70	N	N	7,000	30	.5	3	N
TX310MP	2,000	100	N	N	10,000	20	.3	<2	N
TX314MP	2,000	100	N	N	20,000	50	.5	7	N
TX316MP	1,500	70	N	N	15,000	10	.3	2	N
TX318MP	2,000	70	N	N	15,000	20	.5	2	200
TX320MP	2,000	70	N	N	15,000	20	.5	<2	N
TX321MP	5,000	70	N	N	10,000	30	.3	5	N
TX323MP	5,000	100	N	20	10,000	20	.3	5	N
TX325MP	2,000	150	N	50	10,000	300	.5	15	N
TX326MP	2,000	100	N	N	10,000	20	.5	2	N
TX328MP	3,000	70	N	N	15,000	50	.5	2	N
TX329MP	1,500	200	N	20	7,000	50	.5	15	N
TX330MP	5,000	150	N	70	10,000	100	.3	10	N
TX332MP	5,000	100	N	N	10,000	50	.3	5	N
TX333MP	2,000	70	N	N	10,000	50	.3	2	N
TX334MP	5,000	100	N	20	10,000	70	.5	5	N
TX337MP	5,000	100	N	N	15,000	20	.5	2	N
TX340MP	1,000	50	N	N	10,000	N	.5	N	200
TX342MP	2,000	100	N	N	20,000	N	.5	<2	N
TX343MP	2,000	70	N	N	15,000	N	.3	<2	N
TX347MP	2,000	70	N	N	15,000	N	.3	<2	N
TX349MP	5,000	100	N	N	15,000	N	.3	<2	N
TX350MP	5,000	150	N	15	15,000	20	.3	5	N
TX355MP	1,500	70	N	N	15,000	N	.3	<2	N
TX356MP	2,000	100	N	10	15,000	20	.3	5	N
DTX356MP	1,500	70	N	N	15,000	N	.3	<2	N
TX357MP	1,500	50	N	N	15,000	N	.3	<2	N
TX358MP	3,000	100	N	N	20,000	10	.3	<2	N
TX360MP	1,500	50	N	N	10,000	N	.5	<2	N
TX362MP	1,500	70	N	N	15,000	N	.7	<2	N
TX363MP	1,500	70	N	N	15,000	N	.5	<2	N
TX365MP	2,000	70	N	N	>20,000	10	.5	<2	N
TX366MP	3,000	100	N	N	>20,000	10	.5	<2	N
TX367MP	2,000	70	N	N	>20,000	10	.5	<2	N
TX371MP	1,000	50	N	N	10,000	N	.5	<2	N
TX377MP	1,000	50	N	N	15,000	N	.5	<2	N
TX385MP	2,000	100	N	20	10,000	100	.3	7	N
TX386MP	2,000	70	N	N	15,000	100	.3	5	N
TX389MP	2,000	100	N	15	15,000	50	.3	5	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--Continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Bi-ppm s
TX395MP	63 41 0	142 22 50	5.0	10.0	.50	>10,000	.7	500	7,000	1	N
TX397MP	63 0 25	143 19 40	5.0	7.0	.50	>10,000	.5	300	5,000	N	N
TX398MP	63 36 5	141 22 50	3.0	10.0	.20	>10,000	.7	500	3,000	N	N
TX399MP	63 29 35	141 29 15	5.0	10.0	.20	>10,000	1.0	500	7,000	2	N
TX402MP	63 41 60	141 49 5	.5	5.0	.02	>10,000	2.0	500	2,000	N	200
TX405MP	63 37 30	142 10 55	5.0	10.0	.20	>10,000	1.0	500	5,000	2	5
TX407MP	63 17 35	143 35 15	5.0	5.0	.50	10,000	.3	300	2,000	1	N
TX411MP	63 27 20	143 56 40	>5.0	10.0	.50	>10,000	.3	500	3,000	1	N
TX412MP	63 26 15	143 52 55	>5.0	5.0	.50	10,000	.3	300	1,500	2	N
TX415MP	63 16 45	143 23 30	3.0	10.0	.20	>10,000	.3	300	2,000	N	N
TX417MP	63 19 55	143 37 5	>5.0	5.0	.30	>10,000	.1	700	2,000	N	N
TX419MP	63 22 15	143 46 50	5.0	7.0	.50	>10,000	.1	300	7,000	1	N
TX420MP	63 22 0	143 32 40	2.0	10.0	.20	>10,000	.7	500	3,000	N	N
TX421MP	63 19 0	143 25 0	>5.0	3.0	.70	7,000	.2	300	2,000	2	N
TX423MP	63 26 55	143 31 0	2.0	10.0	.20	10,000	.2	700	2,000	N	N
TX428MP	63 31 0	143 14 10	2.0	10.0	.20	>10,000	.2	700	1,500	N	N
TX435MP	63 24 15	143 25 40	2.0	10.0	.10	>10,000	.2	700	1,500	N	N
TX437MP	63 28 15	143 8 40	5.0	10.0	.50	10,000	.3	500	5,000	N	N
TX438MP	63 28 18	143 0 50	>5.0	5.0	.70	10,000	.5	300	7,000	5	N
DTX438MP	63 28 18	143 0 50	5.0	10.0	.30	>10,000	.5	500	5,000	N	N
TX439MP	63 30 35	143 2 50	2.0	10.0	.20	>10,000	.2	700	2,000	N	N
TX444MP	63 38 10	142 24 30	1.0	.5	.05	5,000	1.0	150	700	N	N
TX445MP	63 38 55	142 22 25	2.0	>10.0	.07	>10,000	.2	1,000	5,000	N	N
TX447MP	63 37 0	142 21 25	2.0	10.0	.10	>10,000	.1	1,000	10,000	1	N
TX448MP	63 35 40	142 16 30	>5.0	7.0	.50	>10,000	.7	1,000	7,000	3	N
TX450MP	63 34 10	142 16 20	5.0	10.0	.20	>10,000	.7	1,000	10,000	5	N
TX451MP	63 33 55	142 26 20	3.0	7.0	.20	>10,000	.2	1,000	5,000	N	N
TX454MP	63 31 40	142 10 50	3.0	10.0	.20	>10,000	.7	>1,000	5,000	N	N
TX463MP	63 30 45	142 33 50	3.0	10.0	.20	>10,000	.5	700	5,000	N	N
TX466MP	63 28 2	143 42 40	2.0	10.0	.10	>10,000	.3	700	7,000	N	N
TX468MP	63 25 35	142 46 0	3.0	10.0	.20	>10,000	.7	700	10,000	N	N
TX470MP	63 24 25	142 50 30	1.0	10.0	.07	>10,000	.7	1,000	3,000	N	N
TX472MP	63 23 35	142 50 40	1.0	10.0	.07	>10,000	.7	700	7,000	N	N
TX474MP	63 26 10	142 54 5	>5.0	7.0	.20	>10,000	.2	500	1,500	N	N
TX476MP	63 25 5	142 25 35	5.0	10.0	.50	>10,000	.2	500	5,000	1	N
TX478MP	63 26 45	142 24 15	2.0	10.0	.20	>10,000	1.0	500	2,000	N	N
TX480MP	63 14 10	143 24 10	>5.0	3.0	.50	10,000	.2	300	2,000	N	N
TX481MP	63 2 5	143 26 25	2.0	10.0	.30	10,000	.2	500	2,000	N	N
TX483MP	63 6 29	143 22 23	2.0	10.0	.20	>10,000	.7	700	1,500	N	N
TX484MP	63 10 40	143 13 50	1.0	10.0	.10	>10,000	.3	700	1,500	1	N
TX486MP	63 4 30	143 28 50	5.0	10.0	.30	>10,000	.5	500	5,000	5	N
TX487MP	63 4 40	143 9 15	>5.0	5.0	.50	10,000	.5	300	7,000	N	N
TX490MP	63 6 5	143 11 35	5.0	10.0	.30	>10,000	.7	500	7,000	N	N
TX491MP	63 27 5	142 22 0	2.0	10.0	.20	>10,000	.1	700	2,000	1	N
TX492MP	63 10 50	143 0 25	5.0	5.0	.20	>10,000	.3	500	3,000	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--continued

Sample	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s
TX395MP	200	70	100	1,000	50	30	200	10	N	N
TX397MP	200	50	100	1,000	N	20	200	100	N	N
TX398MP	100	150	30	700	N	30	300	15	N	N
TX399MP	200	150	20	1,000	N	100	300	20	N	N
TX402MP	150	70	20	300	N	30	150	300	N	N
TX405MP	150	100	50	700	N	100	200	30	N	N
TX407MP	50	70	70	1,000	100	30	300	20	N	N
TX411MP	70	70	200	500	100	30	200	20	20	N
TX412MP	20	20	100	200	100	30	100	10	20	N
TX415MP	70	20	30	1,000	N	10	300	15	N	15
TX417MP	50	70	50	300	N	20	100	5	N	N
TX419MP	150	50	70	700	N	100	200	30	10	N
TX420MP	150	70	20	700	N	50	200	20	N	N
TX421MP	50	50	70	700	300	10	200	20	20	N
TX423MP	150	70	70	1,000	N	30	300	7	N	N
TX428MP	200	100	20	1,000	N	20	300	10	N	N
TX435MP	100	50	20	1,000	N	100	300	15	N	N
TX437MP	150	50	70	1,000	N	20	200	10	N	N
TX438MP	70	50	100	700	300	20	200	30	30	N
DTX438MP	150	70	100	1,000	N	100	200	15	N	N
TX439MP	100	70	20	500	N	70	150	10	N	N
TX444MP	70	50	20	150	N	10	100	7	N	N
TX445MP	150	200	10	500	N	50	300	7	N	N
TX447MP	100	150	70	1,000	N	100	500	10	N	N
TX448MP	150	100	300	1,000	200	30	500	10	10	5
TX450MP	150	100	30	1,000	N	100	300	10	N	N
TX451MP	100	100	30	700	N	30	200	10	N	N
TX454MP	200	70	50	1,000	N	30	150	50	N	N
TX463MP	70	70	70	1,000	N	30	200	10	N	N
TX464MP	50	70	30	700	N	150	150	20	N	N
TX468MP	100	70	30	1,000	N	50	200	15	N	N
TX470MP	100	70	10	700	N	30	150	15	N	N
TX472MP	100	70	10	700	N	70	150	15	N	N
TX474MP	70	70	50	500	N	20	150	5	N	N
TX476MP	150	70	100	1,000	N	100	300	30	20	N
TX478MP	150	70	20	500	N	50	300	30	N	N
TX480MP	20	100	100	700	150	10	300	20	20	N
TX481MP	150	70	70	1,000	N	20	200	7	N	N
TX483MP	200	100	30	1,000	N	20	300	15	N	N
TX484MP	70	70	20	1,000	N	100	300	15	N	N
TX486MP	100	50	70	1,000	N	20	200	15	N	N
TX487MP	70	70	200	700	100	20	200	30	20	N
TX490MP	150	70	70	1,000	N	100	200	20	N	N
TX491MP	100	70	20	500	N	70	200	20	N	N
TX492MP	100	150	50	1,000	N	50	300	15	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Na-pct. s	Ga-ppm s	Li-ppm s
TX395MP	3,000	200	N	20	15,000	200	.3	10	N
TX397MP	2,000	150	N	15	15,000	70	.3	10	N
TX398MP	2,000	150	N	N	7,000	50	.3	3	N
TX399MP	5,000	150	N	20	10,000	50	.3	3	N
TX402MP	2,000	70	N	N	20,000	10	.3	N	N
TX405MP	5,000	150	N	20	5,000	70	.3	5	N
TX407MP	5,000	150	N	20	7,000	300	.3	15	N
TX411MP	2,000	200	N	30	10,000	300	.3	15	N
TX412MP	2,000	200	N	30	3,000	100	.3	15	N
TX415MP	2,000	100	N	10	10,000	70	.3	10	N
TX417MP	2,000	200	N	20	3,000	100	.3	10	N
TX419MP	3,000	200	N	20	10,000	200	.3	10	N
TX420MP	2,000	100	N	N	10,000	100	.5	7	N
TX421MP	2,000	150	N	70	5,000	300	.3	20	N
TX423MP	3,000	50	N	N	15,000	50	.5	5	N
TX428MP	2,000	70	N	N	20,000	70	.5	7	N
TX435MP	2,000	70	N	N	20,000	50	.5	3	N
TX437MP	2,000	100	N	20	20,000	200	.5	10	N
TX438MP	1,500	300	N	50	5,000	300	.3	30	N
DTX438MP	2,000	100	N	20	10,000	100	.5	10	N
TX439MP	1,500	100	N	N	15,000	50	.5	5	N
TX444MP	2,000	70	N	N	2,000	50	.2	N	N
TX445MP	3,000	100	N	N	10,000	50	.3	<2	N
TX447MP	5,000	100	N	20	10,000	50	.5	5	N
TX448MP	5,000	200	N	100	10,000	300	.5	15	N
TX450MP	5,000	150	N	20	10,000	100	.7	10	N
TX451MP	3,000	100	N	N	10,000	50	.5	10	N
TX454MP	5,000	100	N	N	20,000	50	.5	10	N
TX463MP	3,000	150	N	N	20,000	50	.5	7	N
TX464MP	3,000	100	N	N	10,000	50	.5	5	N
TX468MP	5,000	100	N	N	10,000	50	.5	7	N
TX470MP	2,000	70	N	N	20,000	20	.5	5	N
TX472MP	2,000	70	N	N	10,000	20	.5	5	N
TX474MP	2,000	200	N	20	3,000	70	.3	10	N
TX476MP	5,000	200	N	50	10,000	200	.5	15	N
TX478MP	2,000	100	N	N	15,000	50	.5	7	N
TX480MP	2,000	150	N	100	5,000	300	.3	20	N
TX481MP	3,000	70	N	N	15,000	100	.3	5	N
TX483MP	2,000	100	N	N	20,000	100	.5	7	N
TX484MP	2,000	70	N	N	10,000	100	.3	5	N
TX486MP	2,000	150	N	20	10,000	300	.5	10	N
TX487MP	1,500	300	N	70	3,000	300	.3	30	N
TX490MP	5,000	150	N	20	10,000	150	.5	10	N
TX491MP	1,500	150	N	<5	20,000	30	.5	5	N
TX492MP	2,000	150	N	20	20,000	70	.5	7	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Bi-ppm s
TX496MP	63 29 5	142 14 0	2.0	10.0	.07	>10,000	.3	700	5,000	1	N
TX499MP	63 25 55	142 6 25	2.0	10.0	.20	>10,000	1.0	700	10,000	5	N
TX501MP	63 26 30	142 5 30	>5.0	10.0	.50	>10,000	.7	700	7,000	3	N
TX502MP	63 27 32	142 6 30	5.0	10.0	.20	>10,000	1.0	1,000	10,000	N	N
TX506MP	63 21 5	142 24 0	3.0	10.0	.30	>10,000	.2	1,000	5,000	N	N
TX508MP	63 20 40	142 19 25	2.0	10.0	.20	>10,000	.7	1,000	7,000	N	N
TX509MP	63 16 15	142 17 40	5.0	10.0	.30	>10,000	.7	1,000	3,000	N	N
TX510MP	63 18 58	142 17 35	2.0	10.0	.10	>10,000	.5	500	7,000	N	N
TX514MP	63 16 23	142 13 5	5.0	10.0	.20	>10,000	.7	700	10,000	N	N
TX515MP	63 21 50	142 11 25	2.0	10.0	.10	>10,000	.7	1,000	2,000	N	N
TX517MP	63 21 30	142 12 15	2.0	10.0	.10	>10,000	.7	700	7,000	N	N
TX519MP	63 18 0	142 3 40	1.0	7.0	.07	>10,000	.5	500	5,000	N	N
TX520MP	63 21 35	142 2 0	1.0	10.0	.20	>10,000	.3	1,000	7,000	N	N
TX522MP	63 23 15	142 0 45	2.0	10.0	.20	>10,000	.5	700	7,000	N	N
TX524MP	63 21 5	141 58 45	3.0	10.0	.30	>10,000	.3	1,000	7,000	N	N
TX525MP	63 14 30	142 0 20	3.0	10.0	.30	>10,000	1.0	500	15,000	N	N
TX526MP	63 15 25	141 59 0	2.0	10.0	.20	>10,000	1.0	700	7,000	N	N
TX528MP	63 24 15	141 58 0	3.0	10.0	.50	>10,000	.3	1,000	5,000	N	N
TX532MP	63 26 0	141 50 15	1.0	7.0	.07	>10,000	.1	500	1,500	N	N
TX538MP	63 8 11	142 3 34	3.0	7.0	.30	>10,000	.2	500	2,000	N	N
TX539MP	63 26 25	141 10 25	2.0	10.0	.20	>10,000	1.0	500	7,000	1	N
TX541MP	63 26 38	141 11 8	1.0	7.0	.02	>10,000	.2	500	1,500	N	N
TX542MP	63 25 15	141 3 0	1.0	7.0	.05	>10,000	.5	500	3,000	N	N
TX546MP	63 24 30	141 9 50	2.0	10.0	.07	>10,000	1.5	1,000	7,000	N	N
TX548MP	63 21 30	141 12 5	5.0	10.0	.20	>10,000	.3	700	10,000	N	N
TX549MP	63 20 45	141 0 40	1.0	10.0	.05	>10,000	.1	1,000	3,000	N	N
TX557MP	63 25 45	141 19 50	.5	7.0	.05	>10,000	.3	500	5,000	N	N
TX558MP	63 22 40	141 16 50	2.0	10.0	.20	>10,000	.7	1,000	7,000	N	N
TX558MP	63 22 40	141 16 50	3.0	10.0	.05	>10,000	.2	700	2,000	N	N
TX559MP	63 28 5	141 26 25	2.0	10.0	.07	>10,000	.5	1,000	7,000	2	N
TX560MP	63 23 55	141 18 50	3.0	10.0	.30	>10,000	.3	700	7,000	1	N
TX561MP	63 26 30	141 27 15	1.0	10.0	.05	>10,000	2.0	1,000	5,000	N	N
TX564MP	63 24 20	141 27 30	2.0	10.0	.20	>10,000	.2	700	7,000	N	N
TX565MP	63 30 11	141 39 18	1.0	10.0	.07	>10,000	.1	1,000	2,000	N	N
TX568MP	63 24 0	141 33 40	.5	10.0	.07	>10,000	.2	700	1,500	N	N
TX570MP	63 24 0	141 40 40	.5	10.0	.10	>10,000	.5	700	5,000	N	N
TX572MP	63 25 5	141 44 20	5.0	10.0	.50	>10,000	.5	700	5,000	2	N
TX573MP	63 21 11	141 38 25	2.0	10.0	.20	>10,000	.7	500	5,000	N	N
TX574MP	63 22 5	141 35 56	2.0	10.0	.10	>10,000	.5	700	5,000	2	N
DTX574MP	63 22 5	141 35 56	2.0	10.0	.07	>10,000	.3	700	5,000	3	N
TX577MP	63 16 21	141 29 31	1.0	10.0	.10	>10,000	.5	500	3,000	N	N
TX582MP	63 16 21	141 32 40	2.0	10.0	.10	>10,000	1.0	500	7,000	N	N
TX585MP	63 13 57	141 43 28	2.0	10.0	.10	>10,000	.7	700	5,000	N	N
TX586MP	63 15 52	141 43 42	3.0	10.0	.10	>10,000	.7	1,000	7,000	N	N
TX588MP	63 17 0	141 50 20	1.0	10.0	.10	>10,000	2.0	500	7,000	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--continued

Sample	Cd-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s
TX496MP	150	150	20	500	N	50	300	7	N	N
TX499MP	150	150	70	1,000	N	150	500	15	N	N
TX501MP	150	100	300	1,000	100	50	300	15	15	N
TX502MP	150	100	50	1,500	N	100	300	20	N	N
TX506MP	100	100	50	1,000	N	30	300	10	N	N
TX508MP	150	70	30	1,000	N	30	150	50	N	N
TX509MP	100	100	100	1,000	N	30	300	15	N	N
TX510MP	100	70	30	700	N	150	150	20	N	N
TX514MP	100	50	50	1,000	N	50	200	20	N	N
TX515MP	150	50	10	700	N	30	150	15	N	N
TX517MP	100	50	10	700	N	100	200	15	N	N
TX519MP	150	70	N	500	N	100	150	10	N	N
TX520MP	150	70	30	700	N	100	150	5	N	N
TX522MP	100	50	70	700	N	70	150	10	N	N
TX526MP	150	70	50	1,000	N	50	150	20	N	N
TX525MP	150	100	50	1,000	N	100	200	30	N	N
TX526MP	150	70	30	1,000	N	70	150	20	N	N
TX528MP	100	100	200	1,000	N	50	200	15	N	N
TX532MP	150	20	5	300	N	15	70	5	N	N
TX538MP	100	15	50	700	N	50	70	30	N	N
TX539MP	200	50	30	1,000	N	30	150	15	N	N
TX541MP	200	50	10	300	N	50	100	7	N	N
TX542MP	200	20	N	500	N	70	150	15	N	N
TX546MP	300	70	30	1,000	N	100	200	30	N	N
TX548MP	150	70	50	1,000	N	100	200	15	N	N
TX549MP	150	100	30	500	N	150	300	5	N	N
TX557MP	150	50	N	500	N	70	150	15	N	N
TX558MP	200	70	20	1,000	N	30	150	20	N	N
TX558MP	100	100	10	200	N	70	150	1	N	N
TX559MP	150	70	20	1,000	N	70	150	10	N	N
TX560MP	150	70	20	1,000	50	50	150	15	N	N
TX561MP	200	50	10	700	N	30	150	15	N	N
TX564MP	150	70	30	700	N	30	150	15	N	N
TX565MP	150	70	10	300	N	50	70	7	N	N
TX568MP	150	100	10	500	N	50	300	5	N	N
TX570MP	70	70	10	500	N	300	150	10	N	N
TX572MP	100	100	150	1,000	N	50	300	10	N	N
TX573MP	100	100	30	1,000	N	30	200	15	N	N
TX574MP	100	70	20	700	N	50	150	7	N	N
DTX574MP	100	70	20	1,000	N	50	150	50	N	N
TX577MP	150	50	10	1,000	N	30	150	15	N	N
TX582MP	150	50	50	1,000	N	200	150	150	N	N
TX585MP	150	70	20	1,000	N	20	200	10	N	N
TX586MP	150	150	70	1,000	N	100	150	10	N	N
TX588MP	100	70	20	1,000	N	100	300	10	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska,--continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Na-pct. s	Ga-ppm s	Li-ppm s
TX496MP	3,000	150	N	N	10,000	50	.3	<2	N
TX499MP	5,000	150	N	20	10,000	70	.3	5	N
TX501MP	3,000	200	N	100	10,000	300	.5	15	N
TX502MP	5,000	150	N	20	20,000	50	.5	7	N
TX506MP	5,000	150	N	10	10,000	50	.3	7	N
TX508MP	5,000	100	N	N	20,000	50	.3	5	N
TX509MP	5,000	150	N	N	20,000	70	.3	7	N
TX510MP	5,000	100	N	N	20,000	20	.3	3	N
TX514MP	5,000	150	N	N	10,000	50	.3	7	N
TX515MP	2,000	100	N	N	20,000	50	.3	5	N
TX517MP	2,000	100	N	N	15,000	50	.3	5	N
TX519MP	2,000	70	N	N	10,000	20	.5	2	N
TX520MP	5,000	100	N	10	10,000	50	.5	5	N
TX522MP	5,000	150	N	10	10,000	200	.5	7	N
TX524MP	5,000	150	N	10	20,000	100	.3	7	N
TX525MP	5,000	200	N	10	10,000	100	.5	7	N
TX526MP	5,000	150	N	10	10,000	70	.5	5	N
TX528MP	5,000	200	N	20	5,000	200	.5	10	N
TX532MP	1,500	70	N	N	10,000	10	.5	2	<200
TX538MP	2,000	150	N	N	5,000	20	.3	7	200
TX539MP	3,000	150	N	10	10,000	20	.3	3	N
TX541MP	1,500	50	N	N	15,000	N	.5	N	N
TX542MP	1,500	70	N	N	10,000	N	.5	2	N
TX546MP	5,000	100	N	N	20,000	10	.5	2	N
TX548MP	5,000	150	N	10	10,000	50	.5	5	N
TX549MP	2,000	100	N	N	5,000	N	.3	N	N
TX557MP	1,500	70	N	N	15,000	N	.5	N	N
TX558MP	5,000	100	N	N	20,000	20	.5	3	N
TX558MP	3,000	100	N	N	3,000	10	.2	N	N
TX559MP	5,000	70	N	N	10,000	10	.5	2	N
TX560MP	5,000	100	N	30	10,000	50	.5	5	N
TX561MP	2,000	70	N	N	20,000	20	.5	<2	N
TX564MP	5,000	100	N	N	10,000	100	.5	3	N
TX565MP	1,500	70	N	N	15,000	20	.5	<2	200
TX568MP	5,000	70	N	N	15,000	N	.5	2	N
TX570MP	5,000	70	N	N	7,000	20	.5	7	N
TX572MP	3,000	200	N	20	10,000	150	.5	20	N
TX573MP	5,000	150	N	N	10,000	50	.5	7	N
TX574MP	3,000	70	N	20	10,000	20	.5	5	N
DTX574MP	3,000	70	N	20	10,000	20	.5	3	N
TX577MP	2,000	70	N	N	15,000	10	.5	3	N
TX582MP	3,000	100	N	10	10,000	20	.5	7	N
TX585MP	3,000	100	N	N	15,000	20	.5	7	N
TX586MP	5,000	150	N	10	10,000	70	.5	2	N
TX588MP	3,000	70	N	N	10,000	20	.5	2	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--continued

Sample	Latitude	Longitude	Fe-pct. s	Mg-pct. s	Ti-pct. s	Mn-ppm s	Ag-ppm s	B-ppm s	Ba-ppm s	Be-ppm s	Bi-ppm s
TX595MP	63 17 13	141 16 58	.5	10.0	.07	>10,000	.5	700	2,000	N	N
TX597MP	63 15 35	141 15 0	>5.0	10.0	.70	>10,000	.5	300	7,000	1	N
TX599MP	63 14 28	141 4 5	.7	10.0	.10	>10,000	.5	500	2,000	N	N
TX601MP	63 12 38	141 9 24	.7	10.0	.07	>10,000	.5	500	10,000	N	N
TX606MP	63 6 59	141 7 38	1.0	10.0	.10	>10,000	.5	700	5,000	N	2
TX607MP	63 7 45	141 9 18	1.0	10.0	.07	>10,000	.5	500	10,000	N	50
TX614MP	63 11 53	141 37 28	2.0	>10.0	.30	>10,000	.5	700	5,000	N	N
TX616MP	63 11 47	141 34 59	5.0	>10.0	.50	>10,000	.7	700	7,000	1	N
TX619MP	63 11 10	141 30 0	1.0	10.0	.10	>10,000	.5	500	3,000	N	N
TX621MP	63 10 51	141 28 45	2.0	10.0	.20	>10,000	.7	700	7,000	N	N
TX622MP	63 8 39	141 33 29	.5	10.0	.10	>10,000	.5	500	3,000	N	N
TX623MP	63 8 32	141 36 46	3.0	10.0	.20	>10,000	1.0	700	7,000	2	N
TX625MP	63 6 37	141 33 20	3.0	10.0	.10	>10,000	1.0	500	3,000	1	N
TX626MP	63 7 23	141 25 15	>5.0	10.0	.30	>10,000	.2	500	3,000	N	N
TX628MP	63 4 45	141 25 3	2.0	10.0	.10	>10,000	.7	500	5,000	N	N
TX629MP	63 4 56	141 33 10	2.0	10.0	.10	>10,000	.7	500	5,000	N	N
TX630MP	63 1 20	141 28 30	2.0	10.0	.10	>10,000	.5	500	5,000	N	N
TX631MP	63 3 28	141 22 11	1.0	10.0	.07	>10,000	.2	500	2,000	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska.--continued

Sample	Co-ppm s	Co-ppm s	Cr-ppm s	Cu-ppm s	La-ppm s	Mo-ppm s	Ni-ppm s	Pb-ppm s	Sc-ppm s	Sn-ppm s
TX595MP	150	70	10	700	N	30	150	10	N	N
TX597MP	100	50	70	500	100	50	150	15	15	N
TX599MP	100	50	10	700	N	15	100	10	N	N
TX601MP	100	50	10	500	N	30	100	20	N	N
TX606MP	150	50	15	700	N	15	100	15	N	20
TX607MP	100	20	20	700	N	100	150	100	N	N
TX614MP	150	70	50	700	N	30	150	10	N	N
TX616MP	100	100	70	1,000	N	50	200	10	N	N
TX619MP	150	70	30	500	N	30	150	7	N	N
TX621MP	150	70	70	1,000	N	30	200	7	N	N
TX622MP	150	70	10	500	N	30	200	7	N	N
TX623MP	200	70	50	1,000	N	20	300	15	N	N
TX625MP	150	70	20	700	N	100	150	10	N	N
TX626MP	70	150	70	500	N	70	150	5	N	N
TX628MP	150	50	20	700	N	30	150	15	N	10
TX629MP	150	70	20	1,000	N	70	150	15	N	N
TX630MP	150	70	10	1,000	N	30	150	15	N	5
TX631MP	70	70	5	500	N	50	100	10	N	N

Table 2 -- Spectrographic Analyses of Samples of Winter Moose Pellets Collected in the Tanacross Quadrangle, Alaska,--continued

Sample	Sr-ppm s	V-ppm s	W-ppm s	Y-ppm s	Zn-ppm s	Zr-ppm s	Na-pct. s	Ga-ppm s	Li-ppm s
TX595MP	5,000	70	N	N	10,000	10	.5	2	N
TX597MP	5,000	200	N	50	5,000	300	.5	20	N
TX599MP	2,000	70	N	N	15,000	10	.5	3	N
TX601MP	2,000	70	N	N	15,000	10	.5	2	N
TX606MP	2,000	100	N	N	15,000	20	.5	7	N
TX607MP	2,000	70	N	N	10,000	20	.5	2	N
TX614MP	3,000	150	N	N	20,000	150	.5	7	N
TX616MP	5,000	150	N	20	20,000	150	.5	10	N
TX619MP	2,000	70	N	N	20,000	N	.5	3	N
TX621MP	3,000	150	N	20	15,000	50	.5	5	N
TX622MP	1,500	50	N	N	15,000	20	.5	2	N
TX623MP	3,000	150	N	20	15,000	100	.5	7	N
TX625MP	3,000	100	N	N	10,000	30	.5	2	N
TX626MP	2,000	300	N	20	5,000	50	.3	10	N
TX628MP	2,000	70	N	N	10,000	20	.5	5	N
TX629MP	2,000	100	N	N	10,000	30	.5	5	N
TX630MP	2,000	100	N	N	10,000	20	.5	3	N
TX631MP	1,500	70	N	N	10,000	20	.5	2	200

Table 3. Spectrographic analyses of elements found in three or less winter moose pellet samples

Elements not analyzed: Ca

Elements looked for but not found: Au, As, Ge, In, Tl

The following elements were not detected except in the samples listed:

Nb	TX 330 MP	(100 ppm)
	TX 480 MP	(50 ppm)
	TX 501 MP	(70 ppm)
Sb	TX 262 MP	(50 ppm)
	TX 411 MP	(50 ppm)