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Platinum group elements in native gold, alluvium concentrates, and mineralized rock concentrates from some gold mining districts of Alaska

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INTRODUCTION

A study of gold-producing districts in Alaska was begun by the U.S. Geological Survey (USGS) in 1982 and continued with participation of the Alaska Division of Geological and Geophysical Surveys (ADGGS) beginning in 1983. One aim of the study was to chemically characterize samples of native gold from active mines. Another objective was to determine whether concentrates from mining operations contain valuable commodities in addition to gold.

Occurrences of platinum group elements were identified in 100 native gold samples (table 2) and in 234 heavy-mineral concentrates (table 3) from 213 localities (plate 1) from many of the larger placer mining districts of central and northern Alaska. Platinum, palladium, rhodium, ruthenium, osmium, and iridium, collectively known as the platinum group elements (PGE), are among the rarest and most valuable metals in the earth's crust. PGE have occasionally been reported in several mining districts in Alaska by analyses of sluice concentrates from placer mining, bullion, native gold, and by-products from mining of other metals. Detections of these elements, however, are unknown or unreported in the majority of mining operations, the reasons being: (1) the difficulty of obtaining reliable analyses for PGE, and (2) minerals that carry PGE (for example, natural alloys of PGE such as platinum and osmiridium, alloys of platinum with iron, chromium, and nickel, and compounds of platinum with arsenic or sulfur such as sperrylite, cooperite, and froodite) are often very difficult to see in concentrates because of their small particle size and their similarity in appearance to other minerals such as magnetite. Moreover, some PGE alloys and minerals that contain PGE are ferro- and paramagnetic (Mertie, 1969) and thus may accompany magnetite in magnetic separation methods.

The purpose of this report is to release the analytical data for platinum-group elements (PGE) detected in native gold and concentrates of alluvium or mineralized rocks from mines and prospects from many of the larger mining districts of central and northern Alaska.

The analytical data reported here are best used as indicators of potential sources of PGE. They cannot be used to determine the content of PGE in a placer or lode deposit, but might give an indication of a potential by-product of gold mining. Although the sluice concentrates generally were obtained directly from miners, they were grab samples rather than representative samples. The fire assay determinations on the concentrates give a reasonably accurate value for the six PGE in the sample actually assayed, but much more detailed sampling is required to know the content of PGE in the deposit being mined. The emission spectrographic analyses were made on 5-mg samples of hand-picked gold grains recovered by mining operations; they show the presence or absence of platinum or palladium or both in the deposit from which they came--nothing more.

It is important for the reader to remember that sluice box and pan-concentrate samples may contain appreciable amounts of various heavy minerals which accumulate, with unpredictable efficiency, through the concentrating process. Consequently when a split of a sample is analyzed, the value of ore-related elements may be considerably elevated. It follows then that anomalous values for ore-related elements in concentrate samples, for example platinum, shows the presence of the metal in the stream environment but does not necessarily indicate an economic lode or placer deposit. However, the mineralogical and chemical data may indicate a potential source for the metal.

SAMPLING AND ANALYTICAL METHODS

Two types of samples were collected and analyzed: (1) native gold, and (2) concentrates of alluvium or mineralized rock from mines and prospects. Native gold was usually obtained from concentrates by panning and hand picking with the aid of a binocular microscope; in some instances, however, miners donated native gold (which they had already removed from their concentrates). Most of the concentrates of alluvium were from sluices, and most of the concentrates from crushed mineralized rock were obtained by hand panning.

Emission spectrographic analyses using a technique described by Mosier (1975) were made on native gold samples (table 2) collected from mining districts of central and northern Alaska. Spectrographic results were obtained by visual comparison of spectra derived from the sample against spectra obtained from standards made from pure oxides, graphite, and 99.999 percent metallic gold. Pure Al_2O_3 was added to the standards and samples as a co-distillation agent. 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, and so forth. Standard concentrations are based on a 5-mg gold sample weight. Because of the nature of native gold, it is often difficult to weigh precisely 5-mg samples; and in many instances there was less than 5-mg of gold available for analysis. Therefore, the reported concentration values (table 1) are corrected to reflect a 5-mg sample weight by the following formula:

$$\text{reported concentration value} = \text{determined value} \times \frac{5}{\text{sample weight}}.$$

The trace-element content of natural gold varies greatly from grain to grain as well as from deposit to deposit and this creates a problem in determining the precision of the analytical technique. However, studies using artificial melts show that the precision of the analytical method far exceeds the natural variance of trace elements in native gold (Mosier, 1975).

Rosenblum and others (1986) report that in the Goodnews Bay, Alaska area PGE minerals may occur as discrete grains in magnetic concentrates and as inclusions in magnetite, and that the fine-grained fraction of concentrates contain the greatest amount of PGE. They also report that fine grinding of magnetite before fusion produced increases in recovered PGE, perhaps indicating some type of chemical losses during fusion of coarser grains of magnetite. Therefore, in the laboratory the concentrate samples of alluvium were air dried and pulverized to a powder consistency and the mineralized rocks were crushed, hand panned, and pulverized to a powder consistency. These concentrates were then analyzed for 34 elements (table 3) using a semiquantitative, direct-current arc emission spectrographic method (Grimes and Marranzino, 1968). As with the analytical method for gold, spectrographic results were obtained by visual comparison of spectra derived from samples against spectra obtained from standards made from pure oxides and carbonates with the same geometrical interval spacing of concentrations. The precision of the analytical method for the nonmagnetic fraction is approximately plus or minus one reporting interval at the 83 percent confidence level and plus or minus two reporting intervals at the 96 percent confidence level (Motooka and Grimes, 1976).

Fire-assay analyses for the six PGE were performed on the pulverized alluvium and the mineralized rock concentrates. The fire-assay procedure consists of a nickel sulfide fusion and an inductively coupled plasma-mass spectrometric (ICP-MS) detection system. The method is currently being used in USGS laboratories in the Branch of Geochemistry in Denver, Colorado. Determinations of PGE in standards have shown the method yields reproducible results. However, erratically and sparsely distributed, discrete metallic PGE particles make determination of precision. When available, several 10-g splits were analyzed as replicates from the same sample, and the results inspire considerable confidence in the reported values.

Table 1 lists the lower limits of determination for emission spectrographic analysis and fire-assay/ICP mass spectrographic analysis.

DESCRIPTION OF GOLD DATA TABLE 2

The analytical results for native gold samples are given in weight percent and are presented by site numbers (column 6) for their respective mining district and or 1:250,000 quadrangle (column 5) which are keyed to plate 1.

If an element was not detected at the lower limit of detection, "--" is entered. The values under R=Au/Ag, Au/Cu, Ag/Cu, and R/Cu are alloy ratios that are part of gold signatures (Antweiler and Campbell, 1976). Because the corrected values shown in this table are computer generated, these results often carry more digits than are significant. The analysts did not determine these values to the accuracy suggested by the extra digits.

Column descriptions for table 2 are:

Column	Description
1	USGS-assigned sample number
2	Latitude
3	Longitude
Lo/Pl	Lode gold sample or placer gold sample 1 = lode 2 = placer
Di/Qu	Mining district(s) and or 1:250,000 quadrangle(s) 1.00 = Koyukuck-Chandalar mining district 2.00 = Manley Hot Springs, Tofty, Eureka, and Ramport mining districts 3.00 = Tolovana (Livengood) mining district 4.00 = Circle (Central) mining district 5.00 = Forty mile mining district 6.00 = Bonnifield mining district 7.00 = Fairbanks mining district 8.01 = Bendeleben quadrangle 8.03 = Nome quadrangle 9.03 = Healy quadrangle 9.05 = Juneau quadrangle 9.06 = Mt. Hayes quadrangle 9.07 = Mt. McKinley quadrangle 9.09 = Ruby quadrangle

Column	Description
Site	Sample site
Au%	Au% = 100-(Ag%+x%)
Fine	Gold fineness = $\frac{\text{Au wt\%}}{\text{Au wt\% + Ag wt\%}} \times 1000$
Sum/x%	Sum of x% = sum of all elements other than Au% and Ag%
Smpl. wt.	Sample weight in milligrams

DESCRIPTION OF CONCENTRATE DATA TABLE 3

The analytical results for concentrates of alluvium or mineralized rock from lode mines or prospects are given in parts per million (Fe, Mg, Ca, and Ti are given in %). The results are also presented by site numbers (column 6) for their respective mining district and or 1:250,000 quadrangle (column 5) which are keyed to plate 1. If an element was not analyzed for, -- is entered; N, if not detected; <, if detected but below the limit of determination shown; and >, if determined to be greater than value shown.

Column descriptions for table 3 are:

Column	Description
1	USGS-assigned field number
2	Latitude
3	Longitude
L/P	Lode concentrate sample or placer alluvium concentrate sample 1 = lode 2 = placer
D/Q	Mining district(s) and or 1:250,000 quadrangle(s) 1.00 = Koyukuck-Chandalar mining district 2.00 = Manley Hot Springs, Tofty, Eureka, and Rampart mining districts 3.00 = Tolovana (Livengood) mining district 4.00 = Circle (Central) mining district 5.00 = Forty mile mining district 6.00 = Bonnifield mining district 7.00 = Fairbanks mining district 8.01 = Bendeleben quadrangle 8.02 = Candle quadrangle 8.03 = Nome quadrangle 8.04 = Solomon quadrangle 8.05 = Teller quadrangle 9.03 = Healy quadrangle 9.05 = Juneau quadrangle 9.07 = Mt. McKinley quadrangle
S	Sample site
As-Pt, etc.	Indicates PGE analysis by fire-assay/ICP-MS, values in parts per million
Wt	Sample weight in grams for fire assay analyses for PGE (Pt, Pd, Rh, Ru, Os, and Ir -- columns 7-12). Sample weight for all other elements is based on a 5 milligram sample for spectrographic determinations.

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Table 1. Lower limits of analytical determination for the emission spectrographic analysis of native gold and heavy-mineral-concentrate samples based on a 5-mg sample and fire-assay ICP mass spectrographic analysis of heavy-mineral-concentrate samples based on a 10-gram sample
[--, indicates element not analyzed by this method]

Chemical symbol-Element name	Emission spectrographic analyses		Fire-assay ICP mass spectrographic analysis
	Native gold	Heavy-mineral concentrate	Heavy-mineral concentrate
	weight percent	weight percent	parts per million
Ca - Calcium	0.001	0.1	--
Fe - Iron	.001	.1	--
Mg - Magnesium	.0001	.05	--
Ti - Titanium	.001	.005	--
		parts per million	
Ag - Silver	.001	1	--
As - Arsenic	.005	500	--
Au - Gold	--	20	--
B - Boron	.0005	20	--
Ba - Barium	.0005	50	--
Be - Beryllium	.0001	2	--
Bi - Bismuth	.0002	20	--
Cd - Cadmium	.0002	50	--
Co - Cobalt	.0005	20	--
Cr - Chromium	.001	20	--
Cu - Copper	.0005	10	--
Ga - Gallium	.0002	10	--
Ge - Germanium	.0005	--	--
Hg - Mercury	.002	--	--
In - Indium	.0005	--	--
Ir - Iridium	--	--	0.0005
La - Lanthanum	.002	100	--
Mn - Manganese	.0001	20	--
Mo - Molybdenum	.0005	10	--
Nb - Niobium	.001	50	--
Ni - Nickel	.0005	10	--
Os - Osmium	--	--	0.001
Pb - Lead	.0002	20	--
Pd - Palladium	.0002	5	0.0008
Pt - Platinum	.001	20	.0005
Rh - Rhodium	--	--	.0005
Ru - Ruthenium	--	--	.0005
Sb - Antimony	.002	200	--
Si - Silicon	.0002	--	--
Sc - Scandium	.0005	10	--
Sn - Tin	.0005	20	--
Sr - Strontium	.01	200	--
Ta - Tantalum	.005	--	--
Te - Tellurium	.005	--	--
Th - Thorium	--	200	--
V - Vanadium	.001	20	--
W - Tungsten	.005	50	--
Y - Yttrium	.0005	20	--
Zn - Zinc	.005	500	--
Zr - Zirconium	.0005	20	--

Table 2.--Analytical data from 100 native gold samples

Sample	LATITUDE	LONGITUDE	LO/PL	DI/QU	SITE	PT %	PD %	AU %	FINE	AG %	SUM X %	CU %
					Koyukuk-Chandalar Mining District							
AU2649	67 29 15	150 3 8	2	1.00	1	.0500	--	86.3	896	10.0	3.6710	.0300
AU2580	67 21 56	151 55 27	2	1.00	12	--	.0015	94.3	961	3.8	1.8715	1.1538
AU2801	67 21 56	151 55 27	2	1.00	12	--	.0010	89.6	903	9.6	.7769	.1923
AU2801	67 21 56	151 55 27	2	1.00	12	--	.0006	87.6	883	11.6	.7328	.2326
3008D	67 31 32	148 10 35	2	1.00	13	--	.0002	84.4	858	14.0	1.6327	.0323
					Manley Hot Springs, Tofty, Eureka, Rampart Mining Districts							
3029XA	65 5 20	151 4 1	2	2.00	3	--	.0005	81.2	817	18.2	.6300	.4545
3029XD	65 5 20	151 4 1	2	2.00	3	--	.0021	31.6	328	64.7	3.6400	.0010
3212XB	65 8 38	150 42 40	2	2.00	7	--	.0002	83.5	854	14.2	2.2400	.0142
3212RB	65 8 38	150 42 40	2	2.00	7	--	.0002	78.5	840	15.0	6.5100	.0150
3277ZB	65 10 52	150 14 44	2	2.00	11	--	.0010	78.3	791	20.7	1.0800	.0155
3277SA	65 10 52	150 14 44	2	2.00	11	--	.0005	79.8	806	19.2	.9900	.0096
3281QA	65 10 6	150 12 46	2	2.00	17	--	.0010	78.8	795	20.4	.8800	.0071
3192E	65 12 29	150 11 33	2	2.00	20	--	.0005	86.7	897	10.0	3.3400	.0070
3291QB	65 21 59	150 8 28	2	2.00	21	--	.0007	76.5	786	20.8	2.6900	.0104
3214SC	65 28 26	149 59 34	2	2.00	26	.0278	.0037	84.7	901	9.3	6.0800	.5556
3214TA	65 28 26	149 59 34	2	2.00	26	.0500	--	91.0	929	7.0	2.0000	.1500
3214TB	65 28 26	149 59 34	2	2.00	26	1.0000	.0150	85.8	896	10.0	4.1600	.5000
3214TC	65 28 26	149 59 34	2	2.00	26	.8178	.0234	87.8	915	8.2	4.0400	.2336
					Tolovana Mining District							
3231SA	65 27 22	148 21 39	2	3.00	2	.1104	.0033	80.7	830	16.6	2.7743	.0773
3225XD	65 30 42	148 30 53	1	3.00	7	.0200	--	83.4	893	10.0	6.5943	.0070
3257SB	65 30 39	148 32 40	2	3.00	8	.2778	.0037	85.0	868	13.0	2.0466	.0926
3229	65 31 50	148 31 4	2	3.00	12	2.1930	.0307	56.0	927	4.4	39.6118	.0877
3284P	65 32 22	148 26 39	2	3.00	14	45.1263	.3610	41.3	884	5.4	53.3164	.0271
3284QB	65 32 22	148 26 39	2	3.00	14	73.5294	2.0588	--	--	--	--	--
3284QA	65 32 22	148 26 39	2	3.00	14	49.8008	1.9920	--	--	--	--	--
					Circle Mining District							
3274A	65 33 8	145 29 33	2	4.00	2	--	.0015	89.5	899	10.0	.5500	.0700
3101XB	65 31 36	145 23 5	2	4.00	3	--	.0017	96.3	965	3.5	.2800	.0346
3023A	65 26 48	145 18 57	2	4.00	5	--	.0002	70.7	714	28.3	1.0300	.0053
3023XB	65 26 48	145 18 57	2	4.00	5	--	.0002	79.9	819	17.6	2.5100	.0160
3296LB	65 26 35	144 56 11	2	4.00	7	--	.0005	95.1	954	4.6	.2600	.0648
					Fortymile Mining District							
3414NB	64 11 53	142 26 51	2	5.00	2	--	.0020	88.4	898	10.0	1.5650	.0150
3398PB	64 3 14	141 55 30	2	5.00	8	--	.0002	95.6	958	4.2	.1937	.0252
3415PA	64 6 38	141 40 20	2	5.00	12	--	.0003	88.7	899	10.0	1.2943	.0200
3415R	64 6 38	141 40 20	2	5.00	12	.2137	.0150	85.0	888	10.7	4.3263	.0321
3412QA	64 12 2	141 37 38	2	5.00	13	--	.0002	87.0	899	9.8	3.1875	.0020
3412UA	64 12 2	141 37 38	2	5.00	13	--	.0020	86.8	896	10.1	3.1321	.0051
3413B	64 16 23	141 4 45	2	5.00	16	--	.0002	93.9	942	5.7	.3991	.0246
3413NA	64 16 23	141 4 45	2	5.00	16	--	.0003	92.0	929	7.0	1.0401	.0150
3413PB	64 16 23	141 4 45	2	5.00	16	--	.0005	89.8	903	9.7	.5091	.0290
3413QA	64 16 23	141 4 45	2	5.00	16	--	.0002	88.9	899	10.0	1.0802	.0200
3397C	64 9 24	141 9 36	2	5.00	17	--	.0018	86.8	880	11.8	1.3442	.0118

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE	ZN %	GA %	PB %	AS %	SB %	CD %	BI %	HG %	TE %	NI %	CO %	SN %
						Koyukuk-Chandalar Mining District--Continued							
AU2649	1	--	--	1.0000	.6000	.0100	--	.0100	1.0000	--	.0250	.0250	.0100
AU2580	12	--	--	.0008	--	--	--	--	.1538	--	--	--	--
AU2801	12	--	--	.0005	--	--	--	--	.4808	--	--	--	--
AU2801	12	--	--	.0006	--	--	--	--	.3488	--	--	--	--
3008D	13	--	--	.0005	--	.0054	.0003	--	1.0753	--	.0008	--	--
						Manley Hot Springs, Tofty, Eureka, Rampart Mining Districts--Continued							
3029XA	3	--	--	--	--	--	--	--	.0636	--	--	--	--
3029XD	3	--	--	--	--	.0052	--	--	3.1315	--	.0005	--	--
3212XB	7	--	--	.0019	--	.0047	--	--	1.8975	--	--	--	--
3212RB	7	--	--	1.0000	--	--	--	.0300	5.0000	--	--	--	.0010
3277ZB	11	--	--	.0015	--	.0021	--	--	1.0331	--	.0005	--	--
3277SA	11	--	--	.0019	--	.0048	--	--	.6731	--	.0014	--	--
3281QA	17	--	--	.0010	--	.0018	--	--	.3055	--	--	--	--
3192E	20	--	--	.1000	--	.0020	--	.0003	3.0000	--	.0015	--	--
3291QB	21	--	--	.0313	--	.0156	--	--	2.0833	--	.0010	--	.0521
3214SC	26	.0093	--	1.2963	--	.0093	--	.1852	.9259	.0926	.0130	--	.2778
3214TA	26	.0100	--	.1500	.0050	.0150	--	.0020	.5000	--	.0030	.0005	.0200
3214TB	26	.0100	--	.5000	.0050	.0070	--	.0015	1.0000	--	.0070	.0010	.0200
3214TC	26	.0058	--	.3505	.0082	.0117	--	.0012	1.1682	--	.0350	.0006	.0584
						Tolovana Mining District--Continued							
3231SA	2	--	--	.0110	--	.0033	--	.0077	2.2075	--	.0017	--	--
3225XD	7	--	--	.0020	.3000	--	--	--	.5000	--	.0100	.0007	--
3257SB	8	--	--	.0278	.0093	--	--	--	1.2963	--	.0056	.0009	--
3229	12	.0219	--	30.7018	--	.0219	--	.0658	4.3860	--	.1316	.0219	.0877
3284P	14	--	--	.0903	.0181	.0090	--	--	5.4152	--	.0126	--	.2708
3284QB	14	--	--	--	.0147	--	--	--	.0294	--	.0294	--	.0088
3284QA	14	--	--	--	--	--	--	--	.0996	--	.0299	.0040	.0139
						Circle Mining District--Continued							
3274A	2	--	--	.0700	--	.0050	--	--	.0050	--	.0020	--	.0010
3101XB	3	--	--	.0012	--	--	--	--	.0576	--	--	--	--
3023A	5	--	--	.0107	.0053	.0107	--	.0002	.1068	--	--	--	--
3023XB	5	--	--	.8013	.2404	.0240	--	.0056	.1603	--	--	--	.0012
3296LB	7	--	--	.0014	--	--	--	.0002	.0926	--	--	--	--
						Fortymile Mining District--Continued							
3414NB	2	--	--	.0005	--	--	--	--	.3000	--	.0005	--	--
3398PB	8	--	--	.0013	--	--	--	.0003	.0252	--	--	--	--
3415PA	12	--	--	.0005	--	--	--	--	1.0000	--	--	--	--
3415R	12	--	--	.2137	.2137	--	--	.0015	1.0684	--	--	--	.0021
3412QA	13	--	--	.0005	--	--	--	--	.9804	--	--	--	--
3412UA	13	--	--	.0003	--	--	--	--	2.0202	--	.0005	--	--
3413B	16	--	--	.0164	--	--	--	.0082	.0410	--	.0004	--	--
3413NA	16	--	--	.0003	--	--	--	--	.2000	--	--	--	--
3413PB	16	--	--	.0005	--	--	--	--	.2901	--	--	--	--
3413QA	16	--	--	.0020	--	--	--	.1000	.2000	.0100	--	--	--
3397C	17	--	--	.0018	--	--	--	--	.8294	--	--	--	--

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE	MO %	BA %	SR %	ZR %	V %	CR %	Y %	LA %	NB %	B %	BE %	W %
						Koyukuk-Chandalar Mining District--Continued							
AU2649	1	--	--	--	.0250	--	.0050	.0030	.0200	--	--	--	--
AU2580	12	--	--	--	--	--	--	--	--	--	--	--	--
AU2801	12	--	--	--	--	--	--	--	--	--	--	--	--
AU2801	12	--	--	--	--	--	--	--	--	--	--	--	--
3008D	13	--	--	--	.0008	--	--	--	--	--	--	--	--
						Manley Hot Springs, Tofty, Eureka, Rampart Mining Districts--Continued							
3029XA	3	--	--	--	--	--	--	--	--	--	--	--	--
3029XD	3	--	--	--	--	--	--	--	--	--	--	--	--
3212XB	7	--	.0007	--	--	.0008	--	--	--	--	--	--	--
3212RB	7	--	.0007	--	--	.0010	--	--	--	--	--	--	--
3277ZB	11	--	--	--	--	--	--	--	--	--	--	--	--
3277SA	11	--	.0005	--	--	--	--	--	--	--	--	--	--
3281QA	17	--	.0004	--	--	--	--	--	--	--	--	--	--
3192E	20	--	.0007	--	--	--	--	--	--	--	--	--	--
3291QB	21	--	.0007	--	--	--	--	--	--	--	--	--	--
3214SC	26	--	.3704	--	--	--	--	--	--	--	--	--	--
3214TA	26	.0007	.0200	--	.0150	--	.0009	.0005	.0030	--	--	--	--
3214TB	26	--	.0200	--	.0200	--	.0015	.0005	.0030	--	--	--	--
3214TC	26	--	.1752	--	.0058	--	.0058	.0006	.0058	--	.0004	--	--
						Tolovana Mining District--Continued							
3231SA	2	--	--	--	--	--	--	--	--	--	.0002	--	.0055
3225XD	7	--	.0100	.01	.0020	.0030	.1500	.0020	.0200	--	.0005	.0001	--
3257SB	8	--	.0009	--	--	--	--	--	--	--	--	--	--
3229	12	--	.1316	--	--	--	.0088	--	--	--	.0022	--	.3070
3284P	14	--	--	--	--	--	--	--	--	--	--	--	.0181
3284QB	14	--	--	--	.0012	--	--	--	--	--	--	--	--
3284QA	14	--	--	--	.0010	--	--	--	--	--	--	--	--
						Circle Mining District--Continued							
3274A	2	--	.0010	--	--	--	--	--	--	--	--	--	--
3101XB	3	--	.0005	--	--	--	--	--	--	--	--	--	--
3023A	5	--	--	--	--	--	--	--	--	--	--	--	--
3023XB	5	--	.0008	--	--	--	--	--	--	--	--	--	--
3296LB	7	--	--	--	--	--	--	--	--	--	--	--	--
						Fortymile Mining District--Continued							
3414NB	2	--	.0050	--	--	--	--	--	--	--	--	--	--
3398PB	8	--	--	--	--	--	--	--	--	--	--	--	--
3415PA	12	--	.0005	--	--	--	--	--	--	--	--	--	--
3415R	12	--	--	--	.1068	.0043	.0021	--	--	--	--	--	.1068
3412QA	13	--	.0015	--	--	--	--	--	--	--	--	--	--
3412UA	13	--	.0010	--	.0010	.0015	.0020	.0005	--	--	--	--	--
3413B	16	--	.0006	--	--	--	--	--	--	--	--	--	--
3413NA	16	--	.0015	--	--	--	--	--	--	--	--	--	--
3413PB	16	--	.0007	--	.0019	--	--	--	--	--	--	--	--
3413QA	16	--	.0005	--	.0100	.0020	.0050	.0005	--	--	--	--	--
3397C	17	--	.0006	--	--	--	--	--	--	--	--	--	--

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE NO	MN %	FE %	MG %	CA %	TI %	SI %	SMPL WT	R=AU/AG	AU/CU	AG/CU	R/CU
						Koyukuk-Chandalar Mining District--Continued						
AU2649	1	.0150	.6000	.0050	.0200	.0150	.2000	5.00	8.6	2,878	333	288
AU2580	12	.0023	.1538	.0077	.0077	.0054	.3846	6.50	24.5	82	3	21
AU2801	12	.0005	.0481	.0019	.0029	.0010	.0481	5.20	9.3	466	50	48
AU2801	12	.0008	.0581	.0035	.0058	.0006	.0814	4.30	7.5	377	50	32
3008D	13	.0011	.3226	.0054	.0161	.0108	.1613	4.65	6.0	2,616	433	187
						Manley Hot Springs, Tofty, Eureka, Rampart Mining Districts--Continued						
3029XA	3	.0005	.0455	.0027	.0006	.0018	.0636	5.50	4.5	179	40	10
3029XD	3	.0021	.2088	.0731	.0010	.0021	.2088	4.79	.5	30,316	62,000	468
3212XB	7	.0009	.1898	.0019	.0009	.0285	.0949	5.27	5.9	5,869	1,000	412
3212RB	7	.0030	.2000	.0100	.0030	.0500	.2000	5.00	5.2	5,232	1,000	349
3277ZB	11	.0001	.0103	.0021	.0010	--	.0155	4.84	3.8	5,050	1,333	244
3277SA	11	.0014	.1923	.0048	.0019	.0014	.0962	5.20	4.1	8,297	2,000	431
3281QA	17	.0003	.0305	.0153	.0031	.0031	.5092	4.91	3.9	11,048	2,857	542
3192E	20	.0020	.1000	.0100	.0070	.0050	.1000	5.00	8.7	12,381	1,429	1,238
3291QB	21	.0156	.3125	.0104	.0021	.0021	.1563	4.80	3.7	7,341	2,000	352
3214SC	26	.0093	1.8519	.0370	.0093	.1296	.2778	2.70	9.1	152	17	16
3214TA	26	.0050	.7000	.0200	.0100	.0200	.3000	5.00	13.0	607	47	87
3214TB	26	.0050	.7000	.0200	.0100	.0100	.3000	5.00	8.6	172	20	17
3214TC	26	.0082	.8178	.0234	.0117	.0350	.2336	4.28	10.7	376	35	46
						Tolovana Mining District--Continued						
3231SA	2	.0011	.2208	.0110	.0022	.0009	.1104	4.53	4.9	1,044	214	63
3225XD	7	.0070	3.0000	.1500	.2000	.2000	2.0000	5.00	8.3	11,915	1,429	1,192
3257SB	8	.0003	.1296	.0093	.0056	.0019	.1852	2.70	6.6	918	140	71
3229	12	.0088	.8772	.0307	.0132	.0439	.4386	1.14	12.8	638	50	146
3284P	14	.0005	1.8051	.0361	.0181	.0181	.0903	2.77	7.6	1,524	200	281
3284QB	14	.0003	5.8824	.0059	.0059	.0025	.0059	1.70	--	--	--	--
3284QA	14	.0002	5.9761	.0040	.0020	--	39.8406	2.51	--	--	--	--
						Circle Mining District--Continued						
3274A	2	.0050	.1500	.0300	.0030	.0050	.2000	5.00	8.9	1,278	143	128
3101XB	3	.0008	.0576	.0058	.0012	.0017	.1152	4.34	27.9	2,785	100	806
3023A	5	.0053	.5342	.0160	.0107	.0075	.3205	4.68	2.5	13,227	5,300	467
3023XB	5	.0080	.4006	.0120	.0401	.0024	.8013	6.24	4.5	4,983	1,100	283
3296LB	7	.0005	.0278	.0019	.0019	.0008	.0648	5.40	20.5	1,467	71	317
						Fortymile Mining District--Continued						
3414NB	2	.0070	.5000	.0200	.0100	.0050	.7000	5.00	8.8	5,896	667	590
3398PB	8	.0004	.0252	.0025	.0042	.0252	.0840	5.95	22.8	3,792	167	903
3415PA	12	.0010	.0500	.0100	.0100	.0020	.2000	5.00	8.9	4,435	500	444
3415R	12	.0064	1.0684	.0321	.0641	.1068	1.0684	2.34	8.0	2,652	333	248
3412QA	13	.0020	.1961	.0196	.0147	.0098	1.9608	5.10	8.9	44,374	5,000	4,526
3412UA	13	.0020	.5051	.0505	.0202	.0152	.5051	4.95	8.6	17,180	2,000	1,701
3413B	16	.0012	.1230	.0082	.0057	.0057	.1639	6.10	16.4	3,817	233	665
3413NA	16	.0030	.5000	.0070	.0100	.0030	.3000	5.00	13.1	6,131	467	876
3413PB	16	.0007	.0967	.0068	.0097	.0048	.0677	5.17	9.3	3,096	333	320
3413QA	16	.0100	.5000	.0100	.0100	.1000	.1000	5.00	8.9	4,446	500	445
3397C	17	.0012	.2370	.0059	.0059	.0118	.2370	4.22	7.3	7,327	1,000	618

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	LATITUDE	LONGITUDE	LO/PL	DI/QU	SITE	PT %	PD %	AU %	FINE	AG %	SUM X %	CU %
					Fortymile Mining District--Continued							
3402NB	64 3 50	141 2 9	2	5.00	21	--	.0011	93.7	942	5.7	.5621	.0172
3402NC	64 3 50	141 2 9	2	5.00	21	--	.0005	90.8	920	7.9	1.3372	.0158
3402QA	64 3 50	141 2 9	2	5.00	21	--	.0003	92.7	936	6.3	.9493	.0135
3402QB	64 3 50	141 2 9	2	5.00	21	--	.0002	93.5	941	5.9	.6277	.0126
3402RA	64 3 50	141 2 9	2	5.00	21	--	.0002	88.9	906	9.3	1.7861	.0928
3402RB	64 3 50	141 2 9	2	5.00	21	--	.0005	88.6	900	9.8	1.5733	.0098
3402RC	64 3 50	141 2 9	2	5.00	21	--	.0002	87.1	880	11.9	.9524	.0119
3401A	64 3 23	141 2 13	2	5.00	23	--	.0009	95.1	953	4.7	.2439	.0187
3394P	64 4 40	141 16 14	2	5.00	24	--	.0003	88.8	899	10.0	1.1872	.0100
					Bonnifield Mining District							
3320PB	64 2 40	148 59 53	2	6.00	1	--	.0005	91.8	924	7.5	.6700	.0216
3320TA	64 2 40	148 59 53	2	6.00	1	.0019	--	73.3	854	12.5	14.2400	.0375
3320TB	64 2 40	148 59 53	2	6.00	1	--	.0023	83.9	879	11.5	4.5500	.0230
3320UA	64 2 40	148 59 53	2	6.00	1	.0167	.0006	84.8	872	12.5	2.6600	.0250
3320UB	64 2 40	148 59 53	2	6.00	1	.0314	.0007	87.1	893	10.5	2.4000	.0314
3326NA	64 2 10	148 57 58	2	6.00	2	--	.0006	88.0	888	11.1	.9300	.0166
3326Q	64 2 10	148 57 58	2	6.00	2	--	.0003	88.9	908	9.0	2.1900	.0179
3326R	64 2 10	148 57 58	2	6.00	2	--	.0004	75.6	894	9.0	15.4500	.3584
3152NA	64 3 14	148 44 51	2	6.00	4	--	.0186	91.8	937	6.2	2.0100	.2481
3153	64 7 2	148 38 20	2	6.00	5	--	.0011	96.0	989	1.1	2.9200	2.1142
3144RA	64 6 6	148 31 42	2	6.00	7	.1000	.0070	81.4	844	15.0	3.6200	.0150
3144RC	64 6 6	148 31 42	2	6.00	7	.2000	.0100	82.5	846	15.0	2.5100	.0200
3144SA	64 6 6	148 31 42	2	6.00	7	.0030	--	84.1	849	15.0	.9400	.0070
3144SB	64 6 6	148 31 42	2	6.00	7	.0100	--	83.7	848	15.0	1.3200	.0070
3144TA	64 6 6	148 31 42	2	6.00	7	.0700	.0200	82.7	847	15.0	2.2600	.0300
3144TB	64 6 6	148 31 42	2	6.00	7	.0100	.0050	83.0	847	15.0	1.9600	.0200
3144TC	64 6 6	148 31 42	2	6.00	7	.0174	.0035	86.7	882	11.6	1.6600	.0233
3144YB	64 6 6	148 31 42	2	6.00	7	.0200	.0020	84.9	895	10.0	5.1500	.0200
3144W	64 6 6	148 31 42	2	6.00	7	3.8168	.0573	65.2	709	26.7	8.0800	.1908
3233B	64 5 11	148 31 9	2	6.00	8	--	.0030	88.7	899	10.0	1.2700	.5000
3233RA	64 5 11	148 31 9	2	6.00	8	1.0000	.0150	78.6	840	15.0	6.3900	.1000
3233RC	64 5 11	148 31 9	2	6.00	8	2.0000	.0020	80.4	889	10.0	9.5900	.0500
3233SA	64 5 11	148 31 9	2	6.00	8	1.0000	.0200	74.2	881	10.0	15.8500	.0500
3233SB	64 5 11	148 31 9	2	6.00	8	1.0000	.0100	60.2	801	15.0	24.8000	.0500
3233SC	64 5 11	148 31 9	2	6.00	8	.5000	.0050	75.0	882	10.0	14.9700	.0200
3234NA	64 1 29	148 32 39	2	6.00	9	--	.0005	92.5	932	6.7	.7300	.0192
X3315	63 53 31	148 44 14	2	6.00	13	79.8870	1.2500	--	--	--	99.9700	5.0000
3151	64 7 43	148 4 36	2	6.00	18	1.0802	.0772	78.7	836	15.4	5.8600	.2315
3149WA	64 3 42	148 0 21	2	6.00	19	82.9460	.1728	--	--	2.3	87.7000	1.1521
3149WB	64 3 42	148 0 21	2	6.00	19	81.1800	.2041	--	--	5.1	84.9000	1.0204
3149WC	64 3 42	148 0 21	2	6.00	19	76.4690	.5952	--	--	--	79.9900	1.1905
3316C	63 54 26	147 6 20	2	6.00	23	--	.0005	78.1	785	21.4	.4600	.0054
3316XA	63 54 26	147 6 20	2	6.00	23	.0153	.0020	84.1	922	7.1	8.7900	.0306
3316XB	63 54 26	147 6 20	2	6.00	23	.1866	.0006	85.6	932	6.2	8.1700	.0373
3316XC	63 54 26	147 6 20	2	6.00	23	.0010	.0002	87.1	929	6.7	6.2000	.0190
X3316YA	63 54 26	147 6 20	2	6.00	23	58.2230	.2000	--	--	.5	99.5000	7.0000
X3316YB	63 54 26	147 6 20	2	6.00	23	53.4330	.1942	--	--	.7	99.3200	6.7961
					Bendeleben Quadrangle							
3379PA	65 18 10	164 44 0	2	8.01	1	--	.0005	89.7	900	10.0	.3209	.0300

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE	ZN %	GA %	PB %	AS %	SB %	CD %	BI %	HG %	TE %	NI %	CO %	SN %
						Fortymile Mining District--Continued							
3402NB	21	--	--	.0017	--	--	--	--	.3448	--	--	--	--
3402NC	21	--	--	.0047	--	--	--	--	.1104	--	--	--	--
3402QA	21	--	--	.0090	--	.0090	--	--	.6318	--	--	--	--
3402QB	21	--	.0002	.0059	--	.0059	--	--	.4216	--	--	.0013	--
3402RA	21	.0093	.0002	.0464	.0278	.0046	--	--	.9276	--	--	--	.0093
3402RB	21	.0492	--	.0689	--	.0197	--	--	.4921	--	--	--	.0010
3402RC	21	--	.0002	.0060	--	--	--	.0002	.5967	--	--	--	--
3401A	23	--	--	.0047	--	.0047	--	--	.0466	--	--	--	--
3394P	24	--	--	.0007	--	--	--	--	.7163	--	--	--	--
						Bonnifield Mining District--Continued							
3320PB	1	--	--	.0054	.0754	.0075	--	.0011	.1078	--	--	--	--
3320TA	1	--	--	2.5000	.1875	.1250	--	6.2500	.1250	--	--	.0025	2.5000
3320TB	1	--	--	1.7281	.1728	.0230	--	.2304	.3456	--	--	.0012	.5760
3320UA	1	--	--	.8333	.2500	.0250	--	.2500	.4167	--	.0008	.0017	.1667
3320UB	1	--	--	.5241	.2096	.0210	--	.1572	.1048	--	.0010	.0021	.1048
3326NA	2	--	--	.0166	--	.0166	--	.0022	.5543	--	--	--	--
3326Q	2	--	--	.8961	.0045	.0179	--	.0179	.2688	--	.0027	.0004	.1792
3326R	2	.3584	--	2.6882	.0538	.0179	--	.0896	.1792	--	.0013	--	8.9606
3152NA	4	--	--	.0002	--	--	--	--	1.2407	--	--	--	--
3153	5	--	--	.0011	--	--	--	--	.1586	--	--	--	--
3144RA	7	--	--	.7000	.0050	.0200	--	.0050	.1000	--	.0010	--	.3000
3144RC	7	--	--	.2000	--	.0500	--	.0100	.3000	--	.0015	--	.2000
3144SA	7	--	--	.2000	--	.0100	--	.0070	.5000	--	--	--	.0200
3144SB	7	--	--	.3000	--	.0070	--	.0050	.5000	--	--	--	.1500
3144TA	7	--	--	1.0000	.0050	.0200	--	.0070	.5000	--	.0010	--	.1000
3144TB	7	--	--	1.0000	.0100	.0100	--	.1000	.5000	--	--	--	.0300
3144TC	7	--	--	.5814	--	.0116	--	.0035	.5814	--	.0008	--	.0581
3144YB	7	--	--	1.0000	.0040	.0200	--	.0030	.2000	--	--	--	1.0000
3144W	7	--	--	.1145	--	.0763	--	--	1.1450	--	--	--	.0763
3233B	8	--	--	.0050	--	.0030	--	--	.3000	--	--	--	--
3233RA	8	--	--	.2000	.7000	.0100	--	.0070	.5000	--	.0100	.0020	.0700
3233RC	8	--	--	.5000	.5000	.0150	--	.0050	.5000	--	.0070	.0015	.0050
3233SA	8	--	--	1.0000	.2000	.0100	--	.0070	.1000	--	.0070	.0020	5.0000
3233SB	8	--	--	2.0000	.7000	.0150	--	.0070	.1000	--	.0015	.0020	5.0000
3233SC	8	--	--	1.0000	.5000	.0100	--	.0500	.2000	--	.0010	.0015	2.0000
3234NA	9	--	--	.0960	--	--	--	.0067	.1919	--	--	--	--
X3315	13	--	--	--	--	.1750	--	--	.7500	--	.2500	.0175	--
3151	18	--	--	.0008	--	--	--	.0008	.1080	--	.2315	.0154	--
3149WA	19	--	--	.0058	--	--	--	--	.1152	--	.2304	.0115	.0058
3149WB	19	--	--	.0102	--	--	--	--	.1020	--	.1531	.0071	.0510
3149WC	19	--	--	--	--	--	--	--	.0298	--	.1786	.0089	.0030
3316C	23	--	--	.0107	--	.0054	--	--	.3212	--	--	--	--
3316XA	23	.0510	--	.0510	.0510	--	--	.0015	6.3776	--	.0010	.0005	.0010
3316XB	23	.0249	--	.0187	--	--	--	.0002	7.7736	--	--	--	.0037
3316XC	23	.0476	--	.0048	--	.0019	--	.0002	5.9524	--	--	--	.0014
X3316YA	23	--	--	.0700	--	--	--	.0020	.1000	--	.1000	.0030	1.0000
X3316YB	23	--	--	.9709	--	--	--	.0097	.0971	--	.0485	.0019	.9709
						Bendeleben Quadrangle--Continued							
3379PA	1	--	--	.0007	--	--	--	.0002	.0300	--	--	--	--

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE	MO %	BA %	SR %	ZR %	V %	CR %	Y %	LA %	NB %	B %	BE %	W %
						Fortymile Mining District--Continued							
3402NB	21	--	.0017	--	--	--	--	--	--	--	.0011	--	--
3402NC	21	--	--	--	--	--	--	--	--	--	--	--	--
3402QA	21	--	.0135	--	.0014	--	--	--	--	--	.0027	--	--
3402QB	21	--	.0008	--	--	--	--	--	--	--	--	--	--
3402RA	21	--	.1855	--	.0046	--	--	--	.0093	--	.0046	--	--
3402RB	21	--	.4921	--	.0020	--	.0492	--	.0148	--	--	--	--
3402RC	21	--	.0018	--	.0012	--	--	--	--	--	.0012	--	--
3401A	23	--	.0009	--	--	--	--	--	--	--	--	--	--
3394P	24	--	.0014	--	--	--	--	--	--	--	--	--	--
						Bonnifield Mining District--Continued							
3320PB	1	--	.0022	--	--	--	.0011	--	--	--	--	--	--
3320TA	1	.0250	.1250	--	.1250	.0019	.0025	.0013	--	.0013	.0062	.0001	.2500
3320TB	1	.0576	.2304	--	.0346	--	.0023	.0012	.0173	.0017	.0012	--	.2304
3320UA	1	.0006	.0083	--	.0025	--	.0017	--	--	--	.0008	--	.0042
3320UB	1	.0105	.0031	--	.0021	--	.0031	.0005	.0105	.0021	.0003	--	.1048
3326NA	2	--	.0017	--	--	--	--	--	--	--	--	--	--
3326Q	2	.0009	.0090	--	.0134	--	--	.0004	--	--	.0013	--	.0896
3326R	2	.0036	.0896	--	.3584	--	--	.0896	.0896	.0538	--	--	.1792
3152NA	4	--	.0006	--	--	--	--	--	--	--	.0002	--	--
3153	5	--	--	--	--	--	--	--	--	--	--	--	--
3144RA	7	--	.0015	--	.0500	.0020	.0050	.0050	.0500	--	.0050	--	.0100
3144RC	7	--	.0005	--	.0100	.0030	.0500	--	.0070	--	.0020	--	--
3144SA	7	--	.0004	--	--	--	--	--	--	--	.0007	--	--
3144SB	7	--	.0004	--	.0010	--	--	--	.0030	--	.0010	--	--
3144TA	7	--	.0007	--	.0050	--	--	--	.0030	--	.0005	--	--
3144TB	7	--	.0005	--	.0005	--	--	--	--	--	.0005	--	--
3144TC	7	--	.0005	--	.0023	--	--	--	--	--	.0006	--	--
3144YB	7	--	.0005	--	.1000	.0050	.0300	.0100	.0500	--	.0005	--	--
3144W	7	--	--	--	.0115	--	--	--	--	--	--	--	--
3233B	8	--	.0005	--	--	--	--	--	--	--	--	--	--
3233RA	8	--	.0020	--	.0500	.0010	.0200	.0010	.0100	--	.0070	--	--
3233RC	8	--	.0020	--	.0300	.0009	.0300	.0010	.0150	--	.0010	--	--
3233SA	8	--	.0010	--	5.0000	.0015	.0050	.0200	.1000	--	.0005	--	.0070
3233SB	8	--	.0015	--	10.0000	.0020	.0200	.0500	.2000	--	.0005	--	.0050
3233SC	8	--	.0010	--	7.0000	.0010	.0020	.0200	.0700	--	.0005	--	--
3234NA	9	--	.0192	--	--	--	.0008	--	--	--	--	--	--
X3315	13	--	--	--	--	--	--	--	--	--	--	--	--
3151	18	--	.0011	--	.0231	--	.0013	.0015	.0309	--	--	--	--
3149WA	19	--	--	--	.0012	--	.0115	--	--	--	--	--	.0081
3149WB	19	--	--	--	.0020	--	.0510	--	--	--	--	--	.0071
3149WC	19	--	--	--	.0009	.0006	.0030	--	--	--	--	--	.0060
3316C	23	--	--	--	--	--	--	--	--	--	--	--	--
3316XA	23	--	.0102	--	.0005	--	.0051	--	--	--	--	--	--
3316XB	23	--	.0009	--	--	--	--	--	--	--	--	--	--
3316XC	23	--	.0005	--	--	--	--	--	--	--	--	--	--
X3316YA	23	--	.0500	--	2.0000	.0020	25.0000	.0300	.0500	--	--	--	--
X3316YB	23	--	.0485	--	1.9417	.0029	24.2719	.0291	.0971	--	--	--	--
						Bendeleben Quadrangle--Continued							
3379PA	1	--	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE NO	MN %	FE %	MG %	CA %	TI %	SI %	SMPL WT	R=AU/AG	AU/CU	AG/CU	R/CU
						Fortymile Mining District--Continued						
3402NB	21	.0011	.0575	.0057	.0034	.0115	.1149	4.35	16.3	5,434	333	946
3402NC	21	.0024	.0789	.0079	.0047	.0079	1.1041	3.17	11.5	5,755	500	730
3402QA	21	.0018	.0903	.0090	.0045	.0271	.1354	5.54	14.7	6,850	467	1,084
3402QB	21	.0013	.0843	.0025	.0025	.0042	.0843	5.93	15.8	7,390	467	1,252
3402RA	21	.0028	.2783	.0186	.0065	.0186	.1391	5.39	9.6	959	100	103
3402RB	21	.0049	.1969	.0148	.0098	.0492	.0984	5.08	9.0	9,000	1,000	914
3402RC	21	.0024	.1790	.0060	.0024	.0239	.1193	4.19	7.3	7,300	1,000	612
3401A	23	.0009	.0653	.0014	.0019	.0047	.0933	5.36	20.4	5,097	250	1,093
3394P	24	.0014	.2149	.0100	.0029	.0143	.2149	3.49	8.9	8,853	1,000	883
						Bonnifield Mining District--Continued						
3320PB	1	.0054	.2155	.0108	.0022	.0016	.2155	4.64	12.2	4,259	350	565
3320TA	1	.0062	.6250	.0250	.0375	.0250	1.2500	4.00	5.9	1,954	333	156
3320TB	1	.0035	.5760	.0115	.0346	.0115	.2304	4.34	7.3	3,643	500	316
3320UA	1	.0058	.4167	.0125	.0167	.0417	.1667	6.00	6.8	3,393	500	271
3320UB	1	.0105	.7338	.0105	.0052	.1048	.2096	4.77	8.3	2,770	333	264
3326NA	2	.0011	.0776	.0055	.0022	.0111	.2217	4.51	7.9	5,291	667	477
3326Q	2	.0013	.1792	.0179	.0090	.0134	.4480	5.58	9.9	4,958	500	553
3326R	2	.0179	.5376	.0179	.0538	.3584	.8961	2.79	8.4	211	25	24
3152NA	4	.0025	.2481	.0620	.0025	--	.1861	4.03	14.8	370	25	60
3153	5	.0011	.1057	.0053	.0032	.0016	.5285	4.73	90.8	45	--	43
3144RA	7	.0300	1.5000	.1000	.0100	.1000	.5000	5.00	5.4	5,425	1,000	362
3144RC	7	.0200	1.0000	.0500	.0050	.0700	.3000	5.00	5.5	4,125	750	275
3144SA	7	.0010	.0300	.0100	.0005	.0010	.1500	5.00	5.6	12,008	2,143	801
3144SB	7	.0150	.1500	.0200	.0015	.0030	.1500	5.00	5.6	11,954	2,143	797
3144TA	7	.0050	.3000	.0200	.0100	.0100	.1500	5.00	5.5	2,758	500	184
3144TB	7	.0050	.1000	.0200	.0020	.0010	.1500	5.00	5.5	4,152	750	277
3144TC	7	.0023	.2326	.0174	.0035	.0012	.1163	4.30	7.5	3,729	500	321
3144YB	7	.0500	2.0000	.1000	.0300	.2000	.3000	5.00	8.5	4,243	500	424
3144W	7	.0382	1.9084	.0191	--	.0573	.5725	1.31	2.4	342	140	13
3233B	8	.0020	.3000	.0070	.0020	.0020	.1500	5.00	8.9	177	20	18
3233RA	8	.0500	3.0000	.0300	.0050	.1000	.5000	5.00	5.2	786	150	52
3233RC	8	.0700	5.0000	.0500	.0050	.1000	.7000	5.00	8.0	1,608	200	161
3233SA	8	.0500	2.0000	.0500	.0150	.2000	1.0000	5.00	7.4	1,483	200	148
3233SB	8	.0700	3.0000	.0500	.0200	1.0000	1.5000	5.00	4.0	1,204	300	80
3233SC	8	.0500	2.0000	.0300	.0100	.5000	1.0000	5.00	7.5	3,751	500	375
3234NA	9	.0014	.2879	.0019	.0096	.0019	.0960	5.21	13.8	4,822	350	718
X3315	13	.0125	12.5000	.0075	.0500	--	.0750	.20	--	--	--	--
3151	18	.0154	3.0864	.0231	.0046	.1543	.7716	3.24	5.1	340	67	22
3149WA	19	.0230	2.8802	.0115	.0058	.0346	.0806	4.34	--	--	--	--
3149WB	19	.0102	2.5510	.0153	.0031	.0071	.0714	4.90	--	--	--	--
3149WC	19	.0006	1.4881	.0003	.0012	.0006	.0179	8.40	--	--	--	--
3316C	23	.0016	.0535	.0032	.0032	.0007	.0535	4.67	3.6	14,594	4,000	682
3316XA	23	.0204	2.0408	.0102	.0204	.0306	.0714	4.90	11.8	2,746	233	384
3316XB	23	.0025	.0249	.0025	.0062	.0019	.0871	4.02	13.8	2,294	167	369
3316XC	23	.0010	.0476	.0019	.0048	.0190	.0952	5.25	13.1	4,575	350	686
X3316YA	23	.0500	5.0000	.0500	.0500	.5000	.0200	5.00	--	--	--	--
X3316YB	23	.0485	9.7087	.0485	.0680	.4854	.0485	5.15	--	--	--	--
						Bendeleben Quadrangle--Continued						
3379PA	1	.0005	.1500	.0050	.0010	.0030	.1000	5.00	9.0	2,989	333	299

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	LATITUDE	LONGITUDE	LO/PL	DI/QU	SITE	PT %	PD %	AU %	FINE	AG %	SUM X %	CU %
					Nome Quadrangle							
3353	64 36 45	165 25 1	2	8.03	12	.0100	--	56.9	919	5.0	38.0650	.0075
3360PC	64 32 47	165 23 15	2	8.03	37	--	.0005	85.4	855	14.4	.2038	.0144
3360QB	64 32 47	165 23 15	2	8.03	37	--	.0007	94.6	953	4.7	.6589	.0472
3367RA	64 30 50	165 25 42	2	8.03	40	.0050	--	86.1	896	10.0	3.8912	.0200
3367SA	64 30 50	165 25 42	2	8.03	40	.0150	--	84.3	894	10.0	5.7167	.0200
3418TA	64 27 53	165 26 0	2	8.03	42	.0010	--	77.6	917	7.0	15.3933	.0300
3418TB	64 27 53	165 26 0	2	8.03	42	.0100	--	78.6	918	7.0	14.4343	.0100
3418TC	64 27 53	165 26 0	2	8.03	42	.0020	--	78.0	918	7.0	14.9723	.0100
					Healy Quadrangle							
YD5980A	63 10 41	147 27 13	2	9.03	2	--	.0033	91.2	923	7.6	1.1646	.0220
					Juneau Quadrangle							
3050B	58 18 27	134 20 42	1	9.05	1	--	.0024	81.7	821	17.8	.4833	.0237
					Mt. Haynes Quadrangle							
3096P	63 16 45	145 49 57	2	9.06	1	62.4000	26.3158	--	--	--	99.9000	.5263
					Ruby Quadrangle							
3080D	64 4 39	155 37 41	2	9.09	1	--	.0007	81.5	818	18.1	.3303	.0143

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE	ZN %	GA %	PB %	AS %	SB %	CD %	BI %	HG %	TE %	NI %	CO %	SN %
						Nome Quadrangle--Continued							
3353	12	--	--	25.0000	.3500	.0150	--	.2500	.3500	--	--	--	.5000
3360PC	37	--	--	.0005	--	.0144	--	--	.0144	--	--	--	--
3360QB	37	--	--	.0009	--	--	--	--	.0943	--	.0005	.0007	--
3367RA	40	--	--	.0050	.1000	--	--	.0005	3.0000	--	.0010	.0005	.3000
3367SA	40	--	--	.0070	.1000	--	--	.0005	5.0000	--	.0005	.0010	.1500
3418TA	42	--	--	.1000	.2000	--	--	.0030	.0500	--	.0020	.0050	10.0000
3418TB	42	--	--	.1000	.2000	--	--	.0010	.0500	--	--	.0010	10.0000
3418TC	42	--	--	.1000	.2000	--	--	.0500	.0500	--	--	.0020	10.0000
						Healy Quadrangle--Continued							
YD5980A	2	--	--	.0005	--	--	--	--	.7600	--	--	--	--
						Juneau Quadrangle--Continued							
3050B	1	.0083	--	.0592	--	.0237	.0002	--	.0178	--	--	--	--
						Mt. Haynes Quadrangle--Continued							
3096P	1	--	--	--	--	--	--	--	.0526	--	.1053	.0105	--
						Ruby Quadrangle--Continued							
3080D	1	--	--	.0002	--	--	--	--	.0668	--	.0007	.0005	--

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE	MO %	BA %	SR %	ZR %	V %	CR %	Y %	LA %	NB %	B %	BE %	W %
						Nome Quadrangle--Continued							
3353	12	--	--	--	--	--	.0100	.0100	--	--	--	--	3.5000
3360PC	37	--	--	--	--	--	--	--	--	--	--	--	--
3360QB	37	--	.0005	--	--	--	--	--	--	--	--	--	--
3367RA	40	--	--	--	.0005	--	.0010	.0030	.0020	--	.0007	--	.0500
3367SA	40	--	--	--	.0020	--	--	--	.0015	--	.0007	--	.0200
3418TA	42	--	--	--	.2000	.0050	.0070	.0500	.1000	.0100	.0003	--	.5000
3418TB	42	--	--	--	.2000	.0050	.0020	.0500	.0700	.0050	.0003	--	.5000
3418TC	42	--	--	--	.2000	.0030	.0050	.0200	.0500	--	.0003	--	.1000
						Healy Quadrangle--Continued							
YD5980A	2	--	.0016	--	--	--	--	--	--	--	--	--	--
						Juneau Quadrangle--Continued							
3050B	1	--	--	--	--	--	--	--	--	--	--	--	--
						Mt. Haynes Quadrangle--Continued							
3096P	1	--	--	--	.0016	--	.0011	--	--	--	--	--	--
						Ruby Quadrangle--Continued							
3080D	1	--	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Analytical data from 100 native gold samples--Continued

Sample	SITE NO	MN %	FE %	MG %	CA %	TI %	SI %	SMPL WT	R=AU/AG	AU/CU	AG/CU	R/CU
					Nome Quadrangle--Continued							
3353	12	.0025	.5000	.0100	5.0000	.0500	2.5000	1.00	11.4	7,591	667	1,518
3360PC	37	.0010	.1442	.0019	.0010	.0019	.0096	5.20	5.9	5,919	1,000	410
3360QB	37	.0094	.1887	.0094	.0189	.0047	.2830	5.30	20.1	2,006	100	425
3367RA	40	.0020	.3000	.0100	.0150	.0050	.0700	5.00	8.6	4,305	500	431
3367SA	40	.0015	.3000	.0100	.0100	.0070	.0700	5.00	8.4	4,214	500	421
3418TA	42	.0200	3.0000	.0100	.1000	.5000	.5000	5.00	11.1	2,587	233	370
3418TB	42	.0200	2.0000	.0100	.2000	.5000	.5000	5.00	11.2	7,857	700	1,122
3418TC	42	.0200	3.0000	.0100	.1500	.5000	.5000	5.00	11.1	7,803	700	1,115
					Healy Quadrangle--Continued							
YD5980A	2	.0022	.1600	.0220	--	.0330	.1600	4.60	12.0	4,147	345	546
					Juneau Quadrangle--Continued							
3050B	1	.0008	.2370	.0237	.0024	.0012	.0829	4.22	4.6	3,450	750	194
					Mt. Haynes Quadrangle--Continued							
3096P	1	.0016	10.5263	.0053	--	--	.0211	4.75	--	--	--	--
					Ruby Quadrangle--Continued							
3080D	1	.0001	.0477	.0048	.0019	.0019	.1908	5.24	4.5	5,697	1,267	314

Table 3.--Analytical results for 234 concentrate samples

Sample	LATITUDE	LONGITUDE	L/P	D/Q	S	AS-PT	AS-PD	AS-RH	AS-PU	AS-OS	AS-IR	WT	FE %	MG %	CA %	TI %
						Koyukuk-Chandalar Mining District										
1996	67 29 32	150 6 5	2	1.00	2	<.0010	.0020	<.0010	<.0010	<.003	<.0010	10.00	30.0	<.05	N	.070
1140B	67 30 54	150 7 31	2	1.00	3	.0040	.0250	--	--	--	--	10.00	50.0	.07	.20	.300
1983	67 29 30	150 11 55	2	1.00	4	.0600	.0020	.0010	<.0010	<.003	.0010	10.00	20.0	1.00	2.00	1.000
1981	67 28 54	150 12 30	2	1.00	5	.0040	.0030	<.0010	<.0010	<.003	<.0010	10.00	20.0	.70	.70	.500
1981A	67 28 54	150 12 30	2	1.00	5	.0040	.0030	<.0010	<.0010	<.003	<.0010	10.00	50.0	<.05	N	.100
1737	67 28 15	150 12 24	2	1.00	6	.0250	.0050	<.0020	<.0020	<.006	<.0020	5.00	30.0	.07	<.10	.150
1808	67 31 18	150 19 18	2	1.00	7	.0010	<.0010	<.0010	<.0010	<.003	<.0010	10.00	20.0	3.00	.70	1.000
1997	67 28 32	150 39 14	2	1.00	8	.0010	<.0010	<.0010	<.0010	<.003	<.0010	10.00	50.0	<.05	<.10	.200
1845	67 14 40	150 17 36	2	1.00	9	.0070	.0150	--	--	--	--	6.87	50.0	.50	.20	.500
3235	67 11 12	150 23 19	2	1.00	10	.0010	.0020	--	--	--	--	10.00	15.0	<.05	.20	.500
3416	67 5 42	150 29 0	2	1.00	11	.0020	.0020	<.0010	.0010	<.003	<.0010	10.00	>50.0	1.50	1.00	2.000
						Manley Hot Springs, Tofty, Eureka, Rampart Mining Districts										
3207	65 8 29	151 14 59	2	2.00	1	.0070	.0200	N	.0030	--	N	10.00	50.0	.15	.30	.700
3204	65 6 22	151 10 9	2	2.00	2	.0090	.0020	N	.0010	--	N	8.59	15.0	1.50	5.00	1.000
3029	65 5 20	151 4 1	2	2.00	3	.0400	.1000	N	N	--	N	.28	>50.0	<.05	.10	.100
3287	65 4 28	150 56 9	2	2.00	4	.0500	N	N	N	--	N	.61	>50.0	.20	N	2.000
3210	65 5 25	150 50 35	2	2.00	5	.0200	.0030	N	N	--	N	10.00	>50.0	.05	N	.070
3288	65 5 16	150 43 45	2	2.00	6	.0400	N	N	.0300	--	.0050	1.26	>50.0	.70	.15	2.000
3212	65 8 38	150 43 40	2	2.00	7	.0090	.0250	N	.0030	--	N	10.00	>50.0	<.05	N	.070
3030	65 10 36	150 21 25	2	2.00	8	<.3000	N	N	N	--	N	.04	50.0	1.00	1.00	1.500
3200	65 10 47	150 20 1	2	2.00	9	.0250	.0200	N	.0015	--	N	10.00	>50.0	.30	.10	.150
3198	65 11 4	150 16 32	2	2.00	10	1.0000	.0400	.0200	.2000	2.500	4.0000	1.07	>50.0	2.00	.70	1.000
3278	65 10 11	150 15 36	2	2.00	12	.0400	N	N	.0200	--	N	.73	50.0	10.00	2.00	1.000
3187	65 10 23	150 12 41	2	2.00	13	.1500	.0150	N	.0070	.010	N	3.15	>50.0	2.00	.50	.700
3186	65 10 32	150 9 58	2	2.00	14	1.5000	.2500	N	.1000	.300	N	.13	>50.0	.07	<.10	.150
2417	65 7 35	150 9 5	2	2.00	15	.0150	N	.0020	.0100	--	.3000	10.00	5.0	1.00	.20	.150
2411	65 10 10	150 12 40	2	2.00	16	.0010	N	N	.0015	--	N	10.00	15.0	.50	<.10	>2.000
3159	65 11 2	150 12 20	2	2.00	18	.0300	.0090	N	.0150	--	.0500	2.50	7.0	.30	.30	1.000
3194	65 12 5	150 9 44	2	2.00	19	.8000	.0150	N	.0050	.007	.0015	6.03	>50.0	1.50	.50	.700
2296	65 21 59	150 8 28	2	2.00	21	N	.0010	N	.0020	--	N	10.00	20.0	1.00	.20	.200
3215	65 24 18	150 9 12	2	2.00	22	.0030	.0090	N	.0020	--	N	10.00	>50.0	.15	.10	.150
3282	65 24 20	150 8 15	2	2.00	23	.0020	N	N	.0050	--	N	8.79	>50.0	1.50	.30	.500
2382	65 28 52	150 4 16	2	2.00	24	N	.0020	N	.0020	--	N	10.00	7.0	1.00	.10	.200
3020	65 28 52	150 4 16	2	2.00	24	.0500	N	N	N	--	N	.36	50.0	.50	.50	.100
3019	65 28 44	150 3 15	2	2.00	25	.8000	N	N	N	--	N	.03	30.0	<.05	<.10	.030
3214	65 28 26	149 59 34	2	2.00	26	.2000	.0070	N	N	--	N	10.00	50.0	1.00	1.00	.500
3213A	65 28 19	149 58 33	2	2.00	27	.0100	N	N	N	--	N	2.50	>50.0	.05	N	.030
3290A	65 21 44	149 44 25	2	2.00	28	1.0000	N	.0080	N	--	.0050	2.50	50.0	.70	.20	.500
3290B	65 21 44	149 44 25	2	2.00	28	.0200	N	N	N	--	N	2.50	15.0	1.00	.15	.200
						Tolovana Mining District										
1447	65 28 35	148 16 12	2	3.00	1	.0010	N	N	.0030	--	N	10.00	10.0	1.50	.50	.700
1448	65 28 35	148 16 12	2	3.00	1	N	N	N	.0040	--	N	10.00	10.0	2.00	1.00	.200
3231	65 27 22	148 21 39	2	3.00	2	.0500	.0050	N	N	--	N	2.50	>50.0	.10	.20	.150
1449	65 29 16	148 24 10	2	3.00	3	.0040	.0020	N	.0030	--	N	10.00	10.0	3.00	1.00	.150
1450	65 29 35	148 28 20	2	3.00	4	.0015	N	N	.0040	--	N	10.00	20.0	7.00	1.50	.150
3221	65 30 14	148 30 11	2	3.00	5	.0100	N	N	.0150	.020	N	1.93	>50.0	.10	.20	.500
001SW	65 30 14	148 30 11	2	3.00	5	.0100	N	N	.0100	--	<.0040	2.50	>50.0	2.00	N	.700
3224	65 30 1	148 30 16	2	3.00	6	.0200	.2000	N	.5000	--	.0400	10.00	>50.0	.10	.20	.500
3286	65 30 1	148 30 16	2	3.00	6	.0100	.0060	.0020	.0100	--	.0040	10.00	30.0	2.00	.10	.200

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	MN	AG	AS	AU	B	BA	BE	BI	CD	CO	CR	CU	LA	MO
							Koyukuk-Chandalar Mining District--Continued								
1996	2	700	N	2,000	N	<20	<50	N	N	N	50	20	20	N	N
1140B	3	300	7.0	15,000	50	50	1,000	N	N	N	1,000	N	2,000	N	N
1983	4	>10,000	N	N	N	30	50	N	N	N	20	50	300	N	N
1981	5	>10,000	15.0	500	70	<20	50	N	N	N	150	50	100	100	N
1981A	5	1,000	1.0	500	20	<20	<50	N	N	N	100	30	70	N	N
1737	6	200	100.0	1,000	100	<20	2,000	N	30	N	100	30	70	N	N
1808	7	1,500	N	N	N	20	500	N	N	N	70	70	700	100	N
1997	8	300	N	N	N	N	<50	N	N	N	30	150	70	N	<10
1845	9	150	1.0	700	N	100	700	N	N	N	200	30	300	50	N
3235	10	300	200.0	500	70	N	1,000	N	500	150	100	N	500	50	N
3416	11	>10,000	<1.0	N	<20	<20	300	N	N	N	50	2,000	100	N	N
							Manley Hot Springs, Tofty, Eureka, Rampart Mining Districts--Continued								
3207	1	700	1.0	N	N	30	300	N	N	N	150	500	70	N	N
3204	2	1,000	N	N	N	<20	>10,000	N	N	N	50	5,000	150	N	N
3029	3	N	20.0	<500	50	<20	300	N	20	N	50	N	50	N	N
3287	4	3,000	N	N	20	N	500	N	N	N	50	>10,000	70	1,000	N
3210	5	N	20.0	N	>1,000	50	150	N	N	N	200	150	50	500	N
3288	6	2,000	N	N	N	N	300	N	N	N	100	>10,000	70	500	N
3212	7	20	>10,000.0	500	>1,000	<20	N	N	150	N	100	N	100	N	N
3030	8	50	7.0	2,000	N	30	5,000	N	N	N	N	300	15	1,000	N
3200	9	50	150.0	<500	200	<20	50	N	50	N	200	<20	150	300	N
3198	10	3,000	100.0	N	>1,000	70	3,000	N	N	N	50	700	100	1,500	<10
3278	12	2,000	300.0	N	>1,000	150	150	<2	N	N	50	1,000	70	300	10
3187	13	1,000	30.0	1,000	1,000	<20	5,000	N	<20	N	100	200	200	1,000	N
3186	14	N	5.0	700	N	<20	500	N	N	N	200	<20	1,000	200	N
2417	15	150	<1.0	N	N	30	300	N	<20	N	N	150	10	N	N
2411	16	10,000	N	N	N	<20	300	N	N	N	<20	1,000	N	N	N
3159	18	1,000	150.0	N	>1,000	70	700	N	N	N	<20	7,000	<10	>2,000	N
3194	19	1,500	200.0	N	>1,000	<20	2,000	N	N	N	150	500	200	1,500	N
2296	21	1,000	<1.0	N	N	100	200	7	N	N	20	70	30	N	N
3215	22	300	7.0	2,000	N	20	1,500	N	100	N	200	<20	150	<100	N
3282	23	7,000	N	N	N	20	50	2	N	N	30	700	30	N	N
2382	24	200	N	N	N	20	500	N	<20	N	<20	200	20	N	N
3020	24	100	N	N	N	N	>10,000	N	N	N	10	50	70	300	N
3019	25	20	20.0	<500	300	<20	>10,000	<2	200	N	10	N	200	N	30
3214	26	500	5,000.0	N	>1,000	N	>10,000	N	N	N	50	500	300	700	N
3213A	27	N	N	N	N	N	<50	N	N	N	<20	N	150	N	N
3290A	28	2,000	5.0	20,000	N	30	1,500	2	N	N	20	7,000	50	100	20
3290B	28	300	1.0	N	N	70	3,000	N	150	N	15	10,000	70	N	10
							Tolovana Mining District--Continued								
1447	1	700	3.0	N	30	20	2,000	N	N	N	50	5,000	20	N	N
1448	1	700	2.0	N	N	<20	200	N	N	N	50	>10,000	30	N	N
3231	2	100	20.0	N	100	N	3,000	N	N	N	20	3,000	50	<100	N
1449	3	1,000	<1.0	N	N	N	150	N	N	N	30	1,000	30	N	N
1450	4	1,000	1.5	N	N	50	70	N	N	N	50	>10,000	30	N	N
3221	5	70	70.0	>20,000	>1,000	<20	1,500	N	N	N	100	3,000	70	300	N
001SW	5	2,000	N	N	N	N	150	N	N	N	50	>10,000	30	N	N
3224	6	50	300.0	>20,000	>1,000	<20	1,500	N	N	N	100	3,000	70	200	N
3286	6	700	15.0	N	N	N	100	N	N	N	70	>10,000	50	300	N

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	NB	NI	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR	TH	GA
							Koyukuk-Chandalar Mining District--Continued								
1996	2	N	100	N	N	N	N	N	300	N	N	N	<20	N	N
1140B	3	N	500	2,000	N	N	N	N	30	--	70	500	200	N	--
1983	4	<50	70	N	N	100	N	N	100	500	200	500	100	N	N
1981	5	N	100	1,000	N	50	30	N	150	N	150	N	20	N	N
1981A	5	N	150	300	N	N	N	N	500	N	N	N	<20	N	N
1737	6	N	100	20,000	5,000	N	500	N	200	N	N	1,000	<20	N	N
1808	7	N	70	30	N	N	50	N	70	N	20	N	30	N	N
1997	8	N	150	N	N	N	N	N	1,000	N	N	N	20	N	N
1845	9	N	700	150	N	N	N	N	50	N	70	700	100	N	--
3235	10	N	200	>50,000	N	10	2,000	N	30	300	20	N	300	N	--
3416	11	<50	100	50	N	50	N	N	300	N	150	N	70	N	70
							Manley Hot Springs, Tofty, Eureka, Rampart Mining Districts--Continued								
3207	1	N	150	20	N	N	N	N	50	N	200	N	>2,000	N	N
3204	2	N	150	<20	N	10	N	N	300	N	50	N	150	N	50
3029	3	N	200	5,000	N	N	20	N	50	N	N	N	<20	N	N
3287	4	1,000	200	20	N	10	N	N	500	N	500	N	700	N	N
3210	5	300	150	100	N	N	>2,000	N	30	N	50	N	>2,000	N	N
3288	6	200	100	150	N	N	>2,000	N	500	N	300	700	300	N	10
3212	7	N	150	10,000	N	N	50	N	N	N	100	N	2,000	N	N
3030	8	N	50	30	N	10	N	N	50	N	150	N	>2,000	700	N
3200	9	N	300	3,000	N	N	N	N	50	N	50	<500	700	N	N
3198	10	<50	100	50	N	15	150	N	150	100	300	N	>2,000	N	<10
3278	12	50	70	<20	N	10	N	N	200	N	100	<500	300	N	20
3187	13	N	200	20,000	1,500	<10	>2,000	N	100	<50	150	N	1,500	N	N
3186	14	N	500	150	N	N	20	N	N	N	<20	500	500	N	N
2417	15	N	30	N	N	N	N	N	150	<50	N	N	150	N	N
2411	16	100	30	N	N	<10	N	N	50	N	30	N	50	N	N
3159	18	N	20	<20	N	50	N	N	100	100	700	N	>2,000	N	N
3194	19	<50	300	1,500	N	10	N	N	100	<50	500	N	2,000	N	10
2296	21	N	20	<20	N	N	N	N	150	50	20	<500	70	N	<10
3215	22	N	700	3,000	2,000	N	100	N	30	1,000	<20	<500	150	N	N
3282	23	N	30	N	N	10	N	N	150	N	150	<500	70	N	N
2382	24	N	30	N	N	N	N	N	150	N	N	N	20	N	N
3020	24	<50	70	30	N	N	150	500	100	N	<20	N	500	N	N
3019	25	N	100	>50,000	2,000	N	>2,000	200	70	50	N	N	<20	N	N
3214	26	N	50	5,000	N	N	>2,000	300	200	<50	70	N	1,000	N	N
3213A	27	N	30	N	N	N	N	N	50	N	N	N	N	N	N
3290A	28	100	100	5,000	N	N	>2,000	N	500	5,000	100	N	200	N	10
3290B	28	<50	100	1,000	1,500	N	>2,000	N	200	2,000	N	N	300	N	10
							Tolovana Mining District--Continued								
1447	1	N	200	20	N	N	N	N	500	2,000	N	N	30	N	N
1448	1	N	100	20	N	N	N	N	300	500	N	N	20	N	50
3231	2	<50	150	300	N	N	>2,000	N	50	700	N	<500	N	N	N
1449	3	N	50	20	N	N	N	N	300	100	N	N	N	N	70
1450	4	N	150	30	N	N	N	N	300	<50	N	<500	<20	N	N
3221	5	<50	70	10,000	N	N	N	<200	100	2,000	30	<500	150	N	N
001SW	5	N	500	N	N	N	N	N	700	N	N	1,500	150	N	N
3224	6	N	70	5,000	200	N	20	N	100	1,000	20	N	100	N	N
3286	6	N	150	500	N	N	N	N	500	200	50	500	100	N	N

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	LATITUDE	LONGITUDE	L/P	D/Q	S	AS-PT	AS-PD	AS-RH	AS-RU	AS-OS	AS-IR	WT	FE %	MG %	CA %	TI %
						Tolovana Mining District--Continued										
3286	65 30 1	148 30 16	2	3.00	6	.0700	.0040	N	.0200	--	.0080	2.65	>50.0	3.00	.20	.500
3225	65 30 42	148 30 53	1	3.00	7	.0200	N	N	N	--	N	.79	20.0	.15	<.10	.500
3285	65 30 42	148 34 12	2	3.00	9	.0250	N	N	.0200	--	N	2.04	>50.0	1.00	<.10	.700
1452	65 30 0	148 35 0	2	3.00	10	.0050	.0010	N	.0060	--	.0015	10.00	2.0	.20	N	.030
3216	65 31 19	148 32 26	2	3.00	11	.0090	.0040	N	.0030	--	N	10.00	>50.0	.15	.20	.150
3289A	65 31 19	148 32 26	2	3.00	11	.0300	.0030	.0020	.0500	.020	.0050	10.00	50.0	3.00	.50	.500
3289B	65 31 19	148 32 26	2	3.00	11	.0020	.0030	.0010	.0100	--	.0010	10.00	50.0	3.00	.50	.500
3289C	65 31 19	148 32 26	2	3.00	11	.0250	.0070	.0020	.1500	.020	.0300	10.00	>50.0	2.00	.30	.700
3289	65 31 19	148 32 26	2	3.00	11	20.0000	.1500	.2000	.0700	1.000	5.0000	10.00	>50.0	1.50	N	.300
3229	65 31 50	148 31 4	2	3.00	12	.0100	.0300	.0100	.8000	--	.2000	2.50	30.0	5.00	.70	.300
3226	65 13 26	148 25 59	2	3.00	13	.2500	.0600	N	.0150	--	N	8.40	>50.0	3.00	2.00	.700
1455B	65 32 32	148 26 32	2	3.00	15	N	.0030	N	N	--	N	10.00	15.0	.50	<.10	.050
3284	65 32 32	148 26 32	2	3.00	15	150.0000	.8000	.6000	4.0000	--	4.0000	10.00	>50.0	2.00	<.10	.500
1457A	65 34 24	148 23 47	2	3.00	16	N	N	N	.0015	--	N	10.00	10.0	2.00	.50	.500
1457B	65 34 24	148 23 47	2	3.00	16	.0030	.0010	N	.0015	--	N	10.00	30.0	5.00	1.50	.700
3283	65 34 24	148 23 47	2	3.00	16	.0070	N	N	.0060	--	N	3.50	>50.0	.70	.30	1.000
3095	65 36 58	148 24 41	2	3.00	17	.0150	N	N	N	--	N	.91	20.0	1.50	1.00	1.000
						Circle Mining District										
3314	65 21 10	146 28 10	2	4.00	1	.0050	<.0010	<.0010	<.0010	<.003	<.0010	3.70	>50.0	2.00	.50	1.500
3294	65 31 36	145 23 5	2	4.00	3	.0040	.0040	<.0030	<.0030	<.009	<.0030	3.11	7.0	.70	.70	1.500
3312	65 26 56	145 26 6	2	4.00	4	.0030	<.0010	<.0010	.0030	<.003	<.0010	10.00	20.0	.50	.10	2.000
3243	65 22 46	144 54 8	2	4.00	6	<.0050	.0010	<.0050	<.0050	<.015	<.0050	2.19	10.0	.70	2.00	.700
3295	65 22 46	144 54 8	2	4.00	6	.0040	.0030	<.0010	<.0010	<.003	<.0010	10.00	10.0	1.00	5.00	.500
3241	65 30 37	144 49 45	2	4.00	8	.0010	.0010	<.0100	<.0100	<.030	<.0100	1.01	20.0	.30	1.50	2.000
3244	65 30 59	144 49 44	2	4.00	9	.0010	.0010	<.0350	<.0350	<.100	<.0350	.29	5.0	.15	.20	>2.000
3245	65 39 10	145 1 50	2	4.00	10	.0010	.0010	.0010	<.0350	<.100	<.0350	.29	5.0	.07	N	>2.000
						Fortymile Mining District										
3411	64 23 25	142 22 44	2	5.00	1	--	--	--	.0020	--	--	10.00	>50.0	2.00	.70	.700
3414	64 11 53	142 26 51	2	5.00	2	.0010	--	--	.0010	--	--	10.00	>50.0	.20	.15	.700
3409	64 11 52	142 3 53	2	5.00	3	--	--	--	.0010	--	--	10.00	>50.0	2.00	.70	.200
3410	64 11 20	142 0 35	2	5.00	4	--	--	--	.0010	--	--	10.00	>50.0	2.00	1.00	.700
3399	64 3 55	142 1 1	2	5.00	5	.0010	--	--	.0010	--	--	10.00	>50.0	1.50	.70	.700
3388	64 5 20	141 55 26	2	5.00	6	--	--	--	.0020	--	--	10.00	>50.0	3.00	.70	>2.000
3389	64 6 10	141 54 41	2	5.00	7	--	--	--	.0020	--	--	10.00	>50.0	2.00	.50	>2.000
3398	64 3 14	141 55 30	2	5.00	8	--	--	--	.0010	--	--	10.00	>50.0	1.00	.50	.700
3390	64 3 24	141 51 42	2	5.00	9	.0020	--	--	--	--	--	10.00	>50.0	.15	.10	.700
3406	64 3 45	141 49 39	2	5.00	10	.0020	--	--	.0010	--	--	10.00	>50.0	2.00	.50	2.000
3386	64 3 0	141 47 20	2	5.00	11	--	--	--	.0090	--	--	1.88	>50.0	1.50	1.00	1.000
3415	64 6 38	141 40 20	2	5.00	12	.0020	.0020	--	.0040	--	--	4.67	>50.0	.50	<.10	1.500
3412	64 12 2	141 37 38	2	5.00	13	--	.0600	--	.0600	--	--	.20	>50.0	2.00	.50	1.000
3392	64 6 37	141 33 40	2	5.00	14	.1500	.0200	--	.0020	--	--	10.00	>50.0	.20	.20	.500
3393	64 8 39	141 29 17	2	5.00	15	.0040	.0020	--	.0020	--	--	10.00	>50.0	.50	.50	1.000
3413	64 16 23	141 4 45	2	5.00	16	.3500	.0250	.0030	.0010	--	--	10.00	>50.0	2.00	1.00	2.000
3397	64 9 24	141 9 36	2	5.00	17	--	--	--	.0020	--	--	10.00	>50.0	.50	.30	.700
85DG15	64 9 35	141 8 0	2	5.00	18	<.0010	<.0010	<.0010	.0010	<.003	<.0010	10.00	>50.0	1.00	.70	.700
85DG13	64 7 8	141 7 50	2	5.00	19	<.0010	<.0010	<.0010	.0010	<.003	<.0010	10.00	>50.0	1.00	.50	1.000
3396	64 5 51	141 6 50	2	5.00	20	--	--	--	.0010	--	--	10.00	>50.0	2.00	.70	.500
3402	64 3 50	141 2 9	2	5.00	21	.0150	.0400	--	.0060	--	--	4.15	50.0	.15	<.10	.500
3400	64 3 17	141 1 47	2	5.00	22	.0300	.0700	--	--	--	--	1.56	>50.0	.10	.30	.500
3232	64 3 23	141 2 13	2	5.00	23	.3000	.0100	--	--	--	--	3.72	10.0	.20	.50	1.000

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	MN	AG	AS	AU	B	BA	BE	BI	CD	CO	CR	CU	LA	MO
							Tolovana Mining District--Continued								
3286	6	1,000	N	N	N	N	<.0	N	N	N	200	>10,000	70	700	N
3225	7	100	1,000.0	7,000	>1,000	50	3,000	20	N	N	<20	300	50	<100	N
3285	9	300	1.0	5,000	N	50	700	5	N	<50	100	>10,000	200	100	20
1452	10	150	50.0	10,000	N	<20	150	N	200	N	N	700	15	N	N
3216	11	30	30.0	>20,000	500	N	2,000	N	50	N	70	5,000	1,500	<100	N
3289A	11	700	50.0	>20,000	>1,000	N	1,500	N	N	N	100	>10,000	70	1,500	N
3289B	11	700	50.0	>20,000	>1,000	N	3,000	N	N	N	100	>10,000	70	1,000	N
3289C	11	1,000	2.0	2,000	20	N	100	N	N	N	100	>10,000	50	700	N
3289	11	1,000	N	N	<20	N	100	N	N	N	100	>10,000	70	N	N
3229	12	500	20.0	3,000	N	N	>10,000	N	<20	N	50	>10,000	100	N	N
3226	13	1,000	>10,000.0	700	>1,000	<20	10,000	N	N	N	70	2,000	100	N	<10
1455B	15	500	N	N	N	N	70	N	N	N	50	>10,000	15	N	N
3284	15	1,500	N	N	N	N	<50	N	N	N	150	>10,000	100	N	<10
1457A	16	300	N	N	N	<20	300	N	N	N	20	100	50	N	N
1457B	16	500	N	N	N	20	1,000	N	N	N	70	150	100	N	N
3283	16	1,000	N	N	N	N	150	5	N	N	70	7,000	100	N	N
3095	17	1,000	2.0	500	<20	<20	>10,000	N	N	N	50	>10,000	100	<100	N
							Circle Mining District--Continued								
3314	1	2,000	2.0	N	N	100	700	N	N	N	50	150	70	<100	N
3294	3	5,000	1.5	1,500	<20	50	150	N	N	N	30	70	100	<100	N
3312	4	2,000	3.0	N	20	200	150	<2	N	N	100	2,000	150	300	N
3243	6	3,000	N	N	N	<20	<50	N	N	N	N	30	50	N	N
3295	6	5,000	N	N	N	<20	<50	N	N	N	20	100	50	N	N
3241	8	10,000	N	N	N	30	70	N	N	N	30	70	100	300	N
3244	9	7,000	N	N	N	150	50	<2	N	N	N	50	150	2,000	N
3245	10	2,000	N	N	N	100	50	2	N	N	N	5,000	100	700	N
							Fortymile Mining District--Continued								
3411	1	5,000	10.0	N	N	N	300	N	N	N	50	3,000	50	N	N
3414	2	5,000	<1.0	N	N	N	2,000	N	N	N	<20	20	20	N	N
3409	3	7,000	<1.0	N	N	N	2,000	N	N	N	50	100	20	N	N
3410	4	10,000	N	N	>1,000	<20	200	N	N	N	20	50	30	N	N
3399	5	700	2.0	N	N	N	300	N	N	N	30	300	15	N	N
3388	6	1,500	3.0	N	30	N	200	N	N	N	100	500	70	N	<10
3389	7	1,500	1.0	N	N	N	200	N	N	N	70	100	N	N	N
3398	8	1,000	<1.0	N	N	N	<50	N	N	N	50	300	20	N	N
3390	9	1,500	7.0	N	20	N	N	N	N	N	<20	100	10	N	N
3406	10	2,000	10.0	N	N	N	1,000	N	N	N	70	1,500	50	N	N
3386	11	3,000	50.0	N	500	N	100	N	N	N	70	500	30	N	N
3415	12	700	5.0	N	N	N	300	N	N	N	70	3,000	N	N	50
3412	13	3,000	10,000.0	N	N	N	700	N	300	N	70	>10,000	15	N	N
3392	14	1,000	30.0	N	50	N	2,000	N	N	N	50	30	50	N	N
3393	15	2,000	5.0	N	N	N	>10,000	N	N	N	100	70	50	N	10
3413	16	10,000	2.0	N	N	N	500	N	N	N	50	1,000	70	<100	N
3397	17	1,500	N	N	N	N	1,500	N	N	N	30	100	<10	N	N
85DG15	18	1,500	N	N	20	N	2,000	N	N	N	50	500	50	N	N
85DG13	19	2,000	<1.0	N	N	<20	3,000	N	N	N	20	700	20	N	N
3396	20	3,000	3.0	N	N	N	10,000	N	N	N	20	200	50	N	N
3402	21	2,000	70.0	<500	>1,000	20	2,000	N	N	N	70	1,500	150	100	<10
3400	22	2,000	>10,000.0	>20,000	>1,000	N	10,000	N	300	N	1,500	5,000	700	100	50
3232	23	700	30.0	5,000	100	300	>10,000	N	<20	N	100	200	100	150	20

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	NB	NI	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR	TH	GA
							Tolovana Mining District--Continued								
3286	6	N	700	<20	N	N	200	N	500	N	200	2,000	150	N	20
3225	7	<50	50	N	>20,000	N	N	700	300	150	<20	500	500	N	N
3285	9	100	500	20	<200	N	N	N	150	70	70	5,000	300	N	N
1452	10	N	50	10,000	5,000	N	N	N	100	N	N	N	N	N	N
3216	11	<50	100	20,000	20,000	N	>2,000	N	50	5,000	50	700	100	N	N
3289A	11	100	200	7,000	700	N	700	<200	500	>20,000	150	1,500	300	N	<10
3289B	11	100	200	700	2,000	N	N	<200	500	>20,000	100	2,000	200	N	<10
3289C	11	<50	300	50	N	N	300	N	700	1,500	70	1,500	300	N	50
3289	11	N	700	200	N	N	1,000	N	200	N	N	500	<20	N	<10
3229	12	<50	200	3,000	<200	N	150	N	300	5,000	<20	<500	500	N	N
3226	13	<50	70	1,000	N	<10	N	<200	500	500	30	N	500	N	50
1455B	15	N	200	N	N	N	N	N	150	50	N	<500	N	N	<10
3284	15	N	1,500	<20	N	N	200	N	200	N	N	1,500	N	N	50
1457A	16	N	20	N	N	N	N	N	100	N	N	N	50	N	100
1457B	16	N	70	<20	N	N	N	N	200	N	20	N	70	N	100
3283	16	N	100	N	N	N	N	N	200	N	<20	1,000	70	N	50
3095	17	N	100	300	N	N	200	N	200	200	20	N	1,500	N	N
							Circle Mining District--Continued								
3314	1	<50	100	<20	N	15	N	N	150	N	50	N	300	N	70
3294	3	<50	50	200	N	30	>2,000	N	50	150	50	<500	100	N	N
3312	4	N	200	20	N	<10	N	N	100	N	70	N	2,000	N	N
3243	6	N	<10	N	N	20	50	N	70	N	50	N	200	N	N
3295	6	N	20	N	N	70	N	N	150	N	50	N	70	N	N
3241	8	100	70	20	N	100	>2,000	N	70	500	200	N	2,000	N	N
3244	9	100	50	50	N	20	2,000	N	100	50	2,000	N	2,000	700	N
3245	10	<50	15	30	N	10	1,000	N	50	N	200	N	>2,000	N	N
							Fortymile Mining District--Continued								
3411	1	N	50	30	N	20	1,000	N	500	500	50	N	30	N	N
3414	2	N	10	N	N	N	<20	N	500	N	<20	1,500	<20	N	N
3409	3	100	30	N	N	<10	N	N	500	15,000	70	N	20	N	200
3410	4	50	20	N	N	15	N	N	200	N	100	N	30	N	50
3399	5	N	30	<20	N	N	N	N	500	100	N	N	150	N	200
3388	6	<50	100	N	N	15	N	N	150	150	20	N	500	N	N
3389	7	<50	50	N	N	<10	N	N	200	500	<20	<500	200	N	<10
3398	8	N	20	70	N	N	N	N	300	N	N	N	50	N	50
3390	9	N	10	N	N	N	30	N	500	<50	N	<500	300	N	<10
3406	10	<50	70	N	N	<10	N	N	300	N	50	N	100	N	100
3386	11	<50	70	N	N	<10	<20	N	500	N	50	N	200	N	50
3415	12	N	100	500	N	<10	N	N	200	1,000	<20	N	150	N	N
3412	13	N	70	<20	N	<10	N	N	300	N	50	500	70	N	70
3392	14	N	30	70	N	N	<20	N	500	500	N	N	70	N	150
3393	15	50	70	<20	N	<10	20	<200	700	2,000	20	N	70	N	10
3413	16	<50	70	N	N	20	N	N	300	N	100	N	300	N	50
3397	17	<50	30	N	N	N	N	N	500	N	<20	500	70	N	N
85DG15	18	N	30	<20	N	<10	N	<200	500	N	20	N	50	N	150
85DG13	19	N	20	N	N	N	N	N	200	N	<20	N	70	N	50
3396	20	N	20	50	N	N	N	N	300	N	<20	N	70	N	<10
3402	21	N	200	1,000	N	N	50	N	100	N	<20	1,500	30	N	N
3400	22	50	1,000	>50,000	1,000	N	>2,000	N	70	7,000	50	700	200	N	N
3232	23	<50	500	1,500	N	15	50	200	100	300	100	500	200	N	--

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	LATITUDE	LONGITUDE	L/D	D/Q	S	AS-PT	AS-PD	AS-RH	AS-RU	AS-OS	AS-IR	WT	FE %	MG %	CA %	TI %
						Fortymile Mining District--Continued										
3394	64 4 40	141 16 14	2	5.00	24	.0020	.0010	--	.0050	.100	.0060	10.00	>50.0	1.50	.50	.700
3403	64 2 16	141 8 5	2	5.00	25	.0060	.0060	.0010	.0040	--	.0020	10.00	>50.0	3.00	<.10	.500
3404	64 0 38	141 9 36	2	5.00	26	--	--	--	.0010	--	--	10.00	>50.0	1.50	.50	1.000
						Bonnifield Mining District										
3320	64 2 40	148 59 53	2	6.00	1	1.5000	.0550	.0200	.0100	.030	.0700	10.00	>50.0	.50	.10	>2.000
3326	64 2 10	148 57 58	2	6.00	2	.9500	.0150	.0010	.0020	--	--	10.00	50.0	1.00	.30	>2.000
3322	64 3 2	148 51 19	1	6.00	3	.0200	.0020	--	.0020	--	--	10.00	>50.0	.70	.20	.700
3178	64 3 2	148 51 19	1	6.00	3	.0010	.0010	<.0020	.0010	.003	<.0020	10.00	10.0	.50	.10	.300
3150	64 7 29	148 32 58	2	6.00	6	.0700	--	.0350	.0100	1.500	2.0000	2.32	5.0	.30	.50	>2.000
3144	64 6 6	148 31 42	2	6.00	7	--	--	--	.0600	--	--	.20	1.0	.15	.50	1.000
3233	64 5 11	148 31 9	2	6.00	8	.0010	.3000	--	--	--	--	9.45	2.0	.10	.30	>2.000
3234	64 1 29	148 32 39	2	6.00	9	.0700	.0030	.0150	.0200	.250	.5000	5.00	15.0	.07	.20	>2.000
3089	63 58 48	148 33 20	2	6.00	10	--	.0040	--	.0010	--	--	10.00	20.0	<.05	.10	.700
3319	63 58 34	148 33 37	2	6.00	11	.3500	.0080	.0010	.0020	--	.0030	10.00	>50.0	.70	.20	2.000
3317	63 58 14	148 37 2	2	6.00	12	.6500	.0050	.0070	.0070	.100	.0100	5.56	50.0	1.00	.70	1.000
3315	63 53 31	148 44 14	2	6.00	13	.8500	.0150	.0100	.0040	.009	.0250	10.00	>50.0	.70	.15	>2.000
3315RX	63 53 31	148 44 14	2	6.00	13	.0080	.0040	--	--	--	--	10.00	>50.0	<.05	<.10	.070
3318	63 57 20	148 29 25	2	6.00	14	3.5000	.1500	.0020	--	.006	.0080	7.77	50.0	1.00	<.10	.700
3240	63 59 26	148 10 57	2	6.00	15	<.0100	<.0100	<.0100	<.0100	<.040	<.0100	.80	30.0	.20	<.10	1.000
3146	64 1 30	148 9 26	2	6.00	16	--	--	--	.0080	--	--	2.72	7.0	.50	.70	>2.000
3323	64 1 42	148 11 8	2	6.00	17	.0020	--	--	.0030	--	--	10.00	>50.0	1.00	.50	>2.000
3113	64 5 21	147 55 5	2	6.00	20	--	--	--	.0070	--	--	1.54	7.0	1.00	2.00	>2.000
3321	63 51 40	147 30 49	2	6.00	21	.0080	.0030	--	.0020	--	--	10.44	>50.0	1.50	.20	.700
3321A	63 51 40	147 30 49	2	6.00	21	1.5000	--	.0150	.0100	.020	.0040	.84	>50.0	.50	.30	1.000
3321RX	63 51 40	147 30 49	2	6.00	21	.0060	--	--	.0020	--	--	10.00	50.0	.15	<.10	.150
3239	63 54 18	147 7 50	2	6.00	22	<.0200	.0200	<.0200	<.0200	<.060	<.0200	.48	5.0	.10	1.50	>2.000
3316	63 54 26	147 6 20	2	6.00	23	30.0000	.4500	.4000	.1500	.400	.9000	10.00	>50.0	.20	<.10	>2.000
3316A	63 54 26	147 6 20	2	6.00	23	7.0000	.0550	.0450	.0040	.011	.2000	10.00	>50.0	.20	.15	1.000
3316B	63 54 26	147 6 20	2	6.00	23	.0150	.0040	--	.0010	--	--	10.00	>50.0	1.50	1.00	1.500
						Fairbanks Mining District										
3328	65 1 46	147 42 40	2	7.00	1	.0100	.0010	--	--	--	--	10.00	>50.0	.10	.10	2.000
3126	65 2 5	147 28 20	1	7.00	2	.0030	--	--	--	--	--	6.64	1.0	<.05	<.10	.005
3268	65 2 38	147 27 40	1	7.00	3	.0010	.0010	.0010	.0950	.003	.0010	.02	--	--	--	--
3280	65 2 52	147 21 0	1	7.00	3	--	--	--	.0450	--	--	.85	.7	<.05	<.10	.050
3117	65 3 24	147 28 26	1	7.00	4	.0200	.0030	--	--	--	--	10.00	5.0	.05	.10	.300
3134A	65 4 8	147 26 40	2	7.00	5	.0350	.0010	--	--	--	--	10.00	3.0	.05	.10	.200
3313	65 4 4	147 26 20	2	7.00	6	.0010	.0400	.0150	<.0010	<.003	<.0010	10.00	20.0	<.05	N	<.005
3341	65 4 4	147 26 20	1	7.00	6	.0150	--	--	--	--	--	3.25	>50.0	2.00	1.50	.300
3110A	65 3 54	147 22 19	1	7.00	7	--	.0060	.0020	--	--	--	10.00	1.0	<.05	<.10	.010
3337	65 3 54	147 22 19	1	7.00	7	.2000	.0300	.0150	--	--	--	.92	10.0	.07	N	.050
3133A	65 3 54	147 21 2	1	7.00	8	.0200	.0020	--	--	--	--	10.00	3.0	.05	.10	.500
3133E	65 3 54	147 21 2	1	7.00	8	.0040	--	--	--	--	--	10.00	3.0	.05	.10	.500
3133H	65 3 54	147 21 2	1	7.00	8	--	.0010	--	--	--	--	10.00	15.0	<.05	<.10	.200
3124	65 4 26	147 21 23	1	7.00	9	.0010	--	--	--	--	--	11.50	7.0	.07	.10	.500
3127	65 4 0	147 21 36	1	7.00	10	.0040	--	--	--	--	--	9.31	1.0	<.05	<.10	.050
3135A	65 4 16	147 16 21	2	7.00	11	.0150	--	--	--	--	--	10.00	2.0	.20	.15	.700
3132A	65 4 29	147 16 33	1	7.00	12	.0030	.0010	--	--	--	--	10.00	20.0	<.05	.10	1.000
3181A	65 4 22	147 16 25	1	7.00	13	.0020	.0030	--	--	--	--	10.00	1.5	.15	.10	.300
3336	65 4 34	147 16 43	1	7.00	14	.0550	.0120	--	--	--	--	2.04	>50.0	.20	<.10	.200
3136F	65 4 21	147 16 34	1	7.00	15	--	--	--	.0200	--	--	1.31	.5	.20	.15	.700

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	MN	AG	AS	AU	B	BA	BE	BI	CD	CO	CR	CU	LA	MO
							Fortymile Mining District--Continued								
3394	24	2,000	N	N	N	N	1,000	N	N	N	50	10,000	20	N	N
3403	25	2,000	2.0	N	N	N	50	N	N	N	100	>10,000	50	N	N
3404	26	3,000	N	N	N	N	10,000	N	N	N	50	10,000	30	N	N
							Bonnifield Mining District--Continued								
3320	1	2,000	30.0	7,000	>1,000	<20	2,000	N	200	N	100	10,000	150	300	20
3326	2	2,000	5.0	N	<20	<20	1,500	N	N	N	50	15,000	100	300	15
3322	3	500	5.0	<500	N	1,000	2,000	<2	500	N	70	10,000	700	1,000	N
3178	3	100	20.0	20,000	N	5,000	3,000	N	50	N	70	150	500	1,000	N
3150	6	1,500	N	N	20	200	7,000	5	N	N	15	1,500	20	1,500	N
3144	7	500	10.0	500	300	70	1,000	N	70	N	15	500	20	2,000	N
3233	8	200	1,000.0	5,000	>1,000	70	300	N	20	N	15	700	10	2,000	N
3234	9	300	10.0	7,000	N	20	>10,000	N	50	N	70	500	500	2,000	N
3089	10	500	2.0	N	N	N	200	N	N	N	150	2,000	700	700	N
3319	11	5,000	N	N	N	50	70	N	N	N	70	10,000	50	150	N
3317	12	7,000	N	N	N	200	500	N	N	N	50	5,000	50	200	N
3315	13	3,000	3.0	N	N	<20	700	2	N	N	70	10,000	100	100	N
3315RX	13	700	N	2,000	N	N	50	N	N	N	300	<20	10	N	100
3318	14	1,000	7.0	N	N	20	100	N	N	N	100	700	150	150	N
3240	15	500	7.0	500	N	<20	7,000	N	N	N	300	30	500	200	N
3146	16	5,000	N	N	N	100	5,000	N	N	N	50	3,000	20	500	N
3323	17	3,000	N	N	N	50	1,000	N	N	N	70	10,000	70	150	N
3113	20	1,500	N	N	N	100	700	N	N	N	50	200	100	200	N
3321	21	700	15.0	<500	N	20	1,500	N	<20	N	200	2,000	500	100	N
3321A	21	1,500	10.0	N	N	N	300	N	N	N	200	300	100	300	N
3321RX	21	200	2,000.0	5,000	<20	N	300	N	200	>1,000	100	300	500	<100	N
3239	22	7,000	N	N	N	20	150	N	N	N	30	5,000	30	500	N
3316	23	10,000	<1.0	N	N	<20	200	N	N	N	50	10,000	<10	100	N
3316A	23	7,000	100.0	N	<20	<20	300	N	N	N	20	5,000	70	N	30
3316B	23	10,000	1.0	N	<20	<20	700	N	N	N	50	7,000	100	N	<10
							Fairbanks Mining District--Continued								
3328	1	700	N	<500	N	N	50	N	N	N	100	150	150	N	N
3126	2	50	7.0	2,000	N	N	<50	N	<20	N	N	N	20	N	N
3268	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3280	3	100	70.0	N	N	N	N	N	N	N	N	N	50	N	N
3117	4	100	500.0	>20,000	>1,000	100	150	N	N	N	15	N	100	N	N
3134A	5	70	7.0	>20,000	N	70	50	2	N	N	N	N	70	N	N
3313	6	20	150.0	5,000	N	30	N	N	30	N	20	20	1,500	N	N
3341	6	7,000	1,000.0	>20,000	>1,000	3,000	200	N	100	N	50	100	1,000	N	10
3110A	7	50	100.0	5,000	N	20	N	N	N	N	N	N	100	N	N
3337	7	20	>10,000.0	>20,000	500	500	<50	N	200	N	N	N	50,000	<100	N
3133A	8	150	70.0	>20,000	N	200	50	<2	N	N	15	N	100	70	N
3133E	8	70	30.0	>20,000	N	50	50	N	N	N	15	N	50	50	N
3133H	8	150	2,000.0	>20,000	>1,000	N	<50	N	N	N	70	N	1,000	N	N
3124	9	200	200.0	2,000	1,000	100	150	N	N	N	10	N	50	N	N
3127	10	70	30.0	5,000	N	20	<50	N	<20	N	N	N	50	N	N
3135A	11	300	N	500	N	300	200	N	N	N	10	N	10	N	N
3132A	12	150	500.0	15,000	>1,000	200	<50	N	N	N	50	N	200	N	N
3181A	13	100	5.0	1,000	N	300	200	N	N	N	N	N	20	N	N
3336	14	300	>10,000.0	>20,000	300	1,500	700	N	20	N	N	50	2,000	<100	N
3136F	15	100	5.0	N	N	700	300	N	N	N	N	20	<10	70	N

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	NB	NI	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR	TH	GA
						Fortymile Mining District--Continued									
3394	24	<50	200	N	N	<10	N	N	200	500	30	N	300	N	<10
3403	25	N	1,500	N	N	N	700	N	300	N	N	N	N	N	N
3404	26	<50	100	N	N	10	N	N	150	150	50	1,000	500	N	N
						Bonnifield Mining District--Continued									
3320	1	<50	100	500	N	N	>2,000	N	200	700	50	N	1,000	N	<10
3326	2	<50	70	100	N	<10	200	N	150	N	70	N	500	N	<10
3322	3	<50	300	100	N	30	N	N	300	N	200	<500	100	N	300
3178	3	N	300	500	>20,000	20	N	N	70	N	70	700	100	N	--
3150	6	50	20	300	N	10	100	N	150	N	500	N	>2,000	N	--
3144	7	N	20	2,000	N	10	1,000	N	100	N	500	N	>2,000	500	--
3233	8	50	N	5,000	N	10	1,000	N	100	N	700	N	>2,000	200	--
3234	9	50	100	5,000	N	10	1,000	2,000	70	N	500	N	>2,000	200	--
3089	10	<50	500	1,000	N	10	500	N	20	150	200	1,000	>2,000	N	--
3319	11	50	100	N	N	<10	N	N	150	N	150	N	1,000	N	50
3317	12	<50	50	20	N	<10	N	N	100	N	100	N	1,500	N	20
3315	13	<50	150	200	N	<10	500	N	200	<50	50	N	1,000	N	N
3315RX	13	N	300	N	N	N	N	N	50	N	N	N	<20	N	N
3318	14	N	150	30	N	N	N	N	50	N	50	N	500	N	10
3240	15	<50	700	700	N	N	N	N	<20	N	50	500	2,000	N	N
3146	16	<50	70	20	N	10	200	200	300	N	300	N	>2,000	N	--
3323	17	<50	100	<20	N	15	N	N	200	N	100	<500	700	N	<10
3113	20	<50	70	50	N	50	200	500	500	N	100	N	2,000	N	--
3321	21	N	500	3,000	N	N	N	N	50	150	30	N	700	N	100
3321A	21	<50	100	700	N	N	N	N	100	N	100	N	1,500	N	N
3321RX	21	N	200	>50,000	7,000	N	N	N	20	500	N	20,000	700	N	N
3239	22	<50	50	50	N	15	70	N	300	<50	200	N	>2,000	N	N
3316	23	N	30	50	N	<10	1,000	N	200	200	50	N	700	N	N
3316A	23	N	50	30	N	N	>2,000	N	500	300	<20	N	150	N	30
3316B	23	<50	100	150	N	N	>2,000	N	300	500	30	N	150	N	70
						Fairbanks Mining District--Continued									
3328	1	<50	150	20	>20,000	N	N	N	200	N	20	N	30	N	<10
3126	2	N	N	150	<200	N	N	N	N	N	N	N	N	N	--
3268	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3280	3	N	15	150	5,000	N	N	N	N	N	N	N	700	N	--
3117	4	N	50	700	3,000	N	300	N	30	500	<20	N	300	N	--
3134A	5	N	10	1,000	7,000	N	500	N	20	100	N	N	100	N	--
3313	6	N	50	20,000	N	N	200	N	N	N	N	N	20	N	N
3341	6	<50	100	20,000	>20,000	<10	N	N	100	500	30	7,000	300	N	30
3110A	7	N	10	5,000	20,000	N	20	N	N	N	N	N	N	N	--
3337	7	N	N	50,000	>20,000	N	30	N	N	N	N	2,000	30	N	N
3133A	8	N	50	1,000	15,000	N	N	N	30	200	20	N	200	N	--
3133E	8	N	50	300	3,000	N	N	N	N	N	N	N	50	N	--
3133H	8	N	200	1,000	20,000	N	N	N	N	N	N	1,500	30	N	--
3124	9	N	50	150	700	N	N	N	20	N	20	500	500	N	--
3127	10	N	N	2,000	5,000	N	N	N	N	N	N	N	N	N	--
3135A	11	N	20	N	N	10	100	N	50	100	20	N	500	N	--
3132A	12	N	200	3,000	10,000	N	500	N	20	2,000	30	N	2,000	N	--
3181A	13	N	10	1,000	700	N	30	N	50	N	N	N	100	N	--
3336	14	<50	20	>50,000	>20,000	N	70	N	50	50	<20	700	100	N	30
3136F	15	N	10	20	N	10	N	N	50	N	N	N	150	N	--

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	LATITUDE	LONGITUDE	L/P	D/Q	S	AS-PT	AS-PD	AS-RH	AS-RU	AS-OS	AS-IR	WT	FE %	MG %	CA %	TI %
						Fairbanks Mining District--Continued										
3180A	65 2 45	147 20 47	1	7.00	16	.0030	.0060	--	.0030	--	--	5.81	3.0	.10	.10	.300
3111A	65 0 7	147 17 26	2	7.00	18	.0010	.0060	--	--	--	--	10.00	2.0	.20	.70	.300
3334	64 58 7	147 25 50	2	7.00	19	--	.0100	--	--	--	--	1.61	15.0	1.50	1.00	1.000
3143A	64 56 30	147 39 7	2	7.00	20	.0020	.0030	--	--	--	--	10.00	5.0	.07	.70	>2.000
3106A	64 53 32	148 0 35	1	7.00	21	--	--	--	.0030	--	--	9.10	7.0	.10	.70	.700
3129	64 53 21	148 0 44	1	7.00	22	--	--	--	.0100	--	--	1.34	2.0	.05	<.10	.200
3343	64 53 21	148 0 44	1	7.00	22	.0750	--	--	--	--	--	1.94	20.0	<.05	<.10	.050
3339	64 52 53	147 57 28	1	7.00	23	.2500	--	--	--	--	--	.30	>50.0	.05	.20	.100
3340	64 52 53	147 57 28	1	7.00	23	.0850	--	--	--	--	--	.67	50.0	.10	<.10	.100
3090	64 52 24	147 58 59	1	7.00	24	.0030	.0030	--	--	--	--	5.00	.7	<.05	.10	.020
3125A	64 51 58	147 59 9	1	7.00	25	--	.0020	--	--	--	--	10.00	1.5	.50	1.00	.300
3128A	64 51 52	147 59 11	1	7.00	26	.0010	--	--	--	--	--	10.00	10.0	<.05	<.10	.050
3182	64 49 44	148 59 30	2	7.00	27	--	--	--	.0020	--	--	10.00	2.0	.20	.30	.700
						Bendeleben Quadrangle										
3379	65 18 10	164 44 0	2	8.01	1	.0010	--	--	--	--	--	10.00	>50.0	1.00	1.00	2.000
3380	65 18 45	164 42 29	2	8.01	2	.0020	--	--	--	--	--	10.00	>50.0	2.00	1.50	1.500
3381	65 21 36	164 43 25	2	8.01	3	.0010	--	--	--	--	--	10.00	>50.0	2.00	1.50	1.000
3246	65 35 15	162 7 19	2	8.01	4	.0030	.0030	<.0030	<.0030	<.009	<.0030	3.26	15.0	.50	2.00	2.000
3242	65 53 12	162 26 24	2	8.01	5	<.0030	.0030	<.0030	<.0030	<.009	<.0030	3.48	20.0	.30	1.00	>2.000
3248	65 56 26	162 58 6	2	8.01	6	<.0060	.0150	<.0060	<.0060	<.015	<.0060	1.75	20.0	.30	.30	.700
						Candle Quadrangle										
3173	65 30 0	161 19 0	2	8.02	1	<.0010	<.0010	<.0010	<.0010	<.003	<.0010	10.00	1.0	.15	<.10	.700
						Nome Quadrangle										
3420N	64 46 10	165 26 41	1	8.03	1	.0010	N	N	N	--	N	10.00	20.0	.20	N	.100
3420P	64 46 10	165 26 41	1	8.03	1	N	.0010	N	.0090	--	N	10.00	15.0	.30	<.10	.300
3420Q	64 46 10	165 26 41	1	8.03	1	N	N	N	.0080	--	N	10.00	5.0	1.00	.50	.500
3427A	64 45 14	165 23 15	2	8.03	2	N	N	N	.0020	--	N	10.00	5.0	1.50	1.00	.500
3363	64 46 25	165 13 26	2	8.03	3	--	.0020	--	--	--	--	10.00	>50.0	5.00	1.00	.700
3384A	64 46 15	165 12 0	2	8.03	4	.0010	--	--	--	--	--	10.00	50.0	2.00	1.00	.200
3365	64 41 2	165 16 45	2	8.03	5	.0010	.0010	--	--	--	--	10.00	>50.0	2.00	1.00	.700
3436	64 38 50	165 30 7	2	8.03	6	N	N	N	.0020	--	N	10.00	15.0	.70	N	.200
3430	64 36 0	165 31 15	2	8.03	7	.0400	N	N	.0040	--	.0100	5.82	15.0	.15	N	.030
3431	64 35 58	165 30 30	2	8.03	8	.0020	N	N	.0010	--	N	10.00	20.0	.20	N	.050
3347	64 34 13	165 33 57	2	8.03	9	--	.0020	--	--	--	--	10.00	>50.0	1.50	.10	1.000
3419	64 37 28	165 26 5	2	8.03	10	.0010	N	N	N	--	N	10.00	50.0	.20	<.10	.070
3429A	64 37 15	165 25 52	1	8.03	11	N	N	N	.0100	--	N	10.00	3.0	.70	.10	.700
3429B	64 37 15	165 25 52	1	8.03	11	N	N	N	.0100	--	N	10.00	3.0	.70	<.10	.700
3353	64 36 45	165 25 1	2	8.03	12	--	.0020	--	.0020	--	--	10.00	50.0	5.00	N	.500
3421	64 37 0	165 25 2	2	8.03	13	N	N	N	.0020	--	N	10.00	5.0	1.50	<.10	.300
3423A	64 36 52	165 25 0	1	8.03	14	N	N	N	.0030	--	N	10.00	1.0	.05	7.00	.020
3423B	64 36 52	165 25 0	1	8.03	14	N	N	N	.0090	--	N	10.00	3.0	.50	.10	.200
3440	64 36 14	165 24 7	2	8.03	15	N	N	N	.0020	--	N	9.66	20.0	.15	.10	.150
3439	64 36 20	165 23 37	1	8.03	16	N	N	N	.0030	--	N	10.00	5.0	2.00	.10	.700
3445	64 36 1	165 23 57	2	8.03	17	N	N	N	.0040	--	N	10.00	5.0	1.00	N	.500
3446	64 36 1	165 23 57	2	8.03	17	.0060	N	N	.0030	--	N	10.00	3.0	1.00	<.10	.500
3369	64 35 47	165 24 15	2	8.03	18	.0040	.0030	--	--	--	--	10.00	>50.0	3.00	1.00	.500
3432A	64 35 11	165 26 15	2	8.03	19	N	N	N	.0010	--	N	10.00	7.0	1.00	<.10	.300
3357	64 35 27	165 23 42	2	8.03	20	.0200	.0060	--	.0150	--	--	4.32	>50.0	.20	.20	.150

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	MN	AG	AS	AU	B	BA	BE	BI	CD	CO	CR	CU	LA	MO
						Fairbanks Mining District--Continued									
3180A	16	150	1,000.0	20,000	N	1,000	50	N	20	500	N	20	500	100	70
3111A	18	150	7.0	N	N	30	500	N	N	N	10	N	20	N	N
3334	19	3,000	N	N	<20	N	100	10	<20	N	N	300	N	700	N
3143A	20	200	5.0	1,500	20	300	70	2	N	N	50	200	150	1,500	30
3106A	21	200	15.0	700	N	50	100	N	N	N	30	N	70	N	N
3129	22	100	10.0	2,000	N	200	50	N	N	N	N	N	100	N	N
3343	22	1,000	2,000.0	>20,000	>1,000	N	N	N	1,000	N	100	50	500	100	<10
3339	23	10,000	>10,000.0	>20,000	>1,000	<20	700	N	300	N	20	200	5,000	100	30
3340	23	2,000	5,000.0	>20,000	>1,000	20	2,000	N	200	N	N	30	2,000	<100	N
3090	24	20	30.0	3,000	N	N	<50	N	N	N	N	N	50	N	N
3125A	25	200	N	N	N	20	700	N	N	N	10	N	20	N	N
3128A	26	20	150.0	>20,000	1,000	N	100	N	N	N	30	N	50	N	N
3182	27	1,000	N	N	N	70	500	N	N	N	N	N	<10	50	N
						Bendeleben Quadrangle--Continued									
3379	1	--	N	N	N	200	200	N	N	N	30	200	70	100	--
3380	2	--	3.0	N	N	100	500	N	N	N	50	300	100	<100	--
3381	3	--	N	N	N	200	200	N	N	N	70	200	70	<100	--
3246	4	3,000	N	N	N	<20	<50	N	N	N	20	70	30	200	N
3242	5	2,000	N	N	N	<20	<50	N	N	N	30	3,000	30	200	N
3248	6	1,000	N	N	N	<20	50	<2	N	N	150	50	100	100	10
						Candle Quadrangle--Continued									
3173	1	150	N	N	N	50	150	N	N	N	N	N	<10	N	N
						Nome Quadrangle--Continued									
3420N	1	500	N	500	N	20	200	N	N	N	N	<20	1,500	N	N
3420P	1	200	20.0	20,000	300	30	300	N	N	N	50	30	700	N	N
3420Q	1	70	1.5	10,000	N	70	200	N	N	N	<20	<20	30	N	N
3427A	2	200	<1.0	700	N	50	100	N	N	N	20	<20	15	N	N
3363	3	1,000	1.0	500	N	50	200	N	N	N	30	300	30	N	N
3384A	4	--	1.0	N	N	70	50	N	N	N	20	30	50	N	--
3365	5	--	5.0	N	20	30	200	N	N	N	100	300	70	N	--
3436	6	700	N	N	N	30	100	N	N	N	30	<20	50	N	N
3430	7	500	N	N	N	N	<50	N	N	N	20	<20	150	N	N
3431	8	700	N	N	N	20	<50	N	N	N	30	<20	1,000	N	N
3347	9	1,500	7.0	N	50	50	100	N	N	N	150	100	150	<100	N
3419	10	1,000	N	N	N	<20	<50	N	N	N	50	<20	150	N	N
3429A	11	150	<1.0	20,000	N	2,000	300	<2	N	N	N	70	15	N	N
3429B	11	150	N	>20,000	N	1,500	300	2	N	N	N	70	15	N	N
3353	12	500	10.0	7,000	N	150	500	N	50	N	50	150	50	N	N
3421	13	200	N	<500	N	30	100	N	N	N	<20	<20	15	N	N
3423A	14	100	50.0	5,000	500	N	N	<2	<20	N	N	N	<10	<100	N
3423B	14	300	100.0	>20,000	20	70	150	5	100	N	<20	<20	30	<100	N
3440	15	200	10.0	N	70	<20	N	N	N	N	N	N	50	N	N
3439	16	100	N	2,000	N	20	500	2	N	N	<20	50	15	N	N
3445	17	150	15.0	<500	200	30	70	N	N	N	<20	<20	15	<100	N
3446	17	100	300.0	1,000	>1,000	30	150	N	N	N	<20	<20	20	N	N
3369	18	--	10.0	700	50	70	500	N	N	N	70	100	100	N	--
3432A	19	100	<1.0	N	N	50	150	N	N	N	<20	20	20	N	N
3357	20	2,000	700.0	>20,000	>1,000	N	<50	N	N	N	100	300	50	N	N

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	NB	NI	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR	TH	GA
							Fairbanks Mining District--Continued								
3180A	16	N	10	>50,000	>20,000	10	>2,000	N	20	<100	N	<500	200	N	--
3111A	18	50	20	500	700	N	50	200	50	20,000	N	N	100	N	--
3334	19	1,000	N	70	N	10	N	N	100	100	>5,000	N	>2,000	N	<10
3143A	20	N	150	200	N	10	2,000	N	100	300	1,000	N	>2,000	N	--
3106A	21	<50	100	700	700	N	N	N	N	N	20	N	1,000	N	--
3129	22	N	10	700	200	N	N	N	N	N	<20	N	1,000	N	--
3343	22	N	50	>50,000	>20,000	N	100	N	N	100	N	20,000	<20	N	<10
3339	23	N	70	>50,000	>20,000	N	N	N	70	150	20	5,000	200	N	N
3340	23	N	20	>50,000	>20,000	N	300	N	70	50	N	20,000	50	N	N
3090	24	N	10	300	5,000	N	N	N	N	N	N	500	20	N	--
3125A	25	N	20	30	N	N	N	N	70	N	20	N	100	N	--
3128A	26	N	20	50	700	N	700	N	100	N	N	N	N	N	--
3182	27	N	10	200	N	10	N	N	70	N	20	N	200	N	--
							Bendeleben Quadrangle--Continued								
3379	1	--	--	--	--	--	--	--	--	--	--	--	--	--	20
3380	2	--	--	--	--	--	--	--	--	--	--	--	--	--	20
3381	3	--	--	--	--	--	--	--	--	--	--	--	--	--	50
3246	4	<50	10	N	N	100	N	N	70	300	300	N	50	N	N
3242	5	<50	70	N	N	50	N	N	300	N	300	N	200	N	N
3248	6	N	500	30	N	N	50	N	50	150	30	500	300	N	N
							Candle Quadrangle--Continued								
3173	1	N	10	30	N	N	20	N	50	N	N	N	200	N	--
							Nome Quadrangle--Continued								
3420N	1	N	30	500	N	N	100	N	100	N	N	700	<20	N	10
3420P	1	N	70	500	N	N	N	N	70	N	N	N	70	N	20
3420Q	1	N	20	N	N	N	N	N	50	N	N	N	150	N	10
3427A	2	N	30	300	N	N	N	N	70	300	N	N	300	N	10
3363	3	N	100	300	--	--	--	N	300	200	30	N	100	N	150
3384A	4	--	--	--	--	--	--	--	--	--	--	--	--	--	10
3365	5	--	--	--	--	--	--	--	--	--	--	--	--	--	50
3436	6	N	50	50	N	N	N	N	50	100	N	500	30	N	15
3430	7	N	100	50	N	N	200	N	20	N	N	<500	N	N	15
3431	8	N	150	30	N	N	N	N	20	N	N	1,000	N	N	30
3347	9	N	200	200	N	N	200	N	100	N	30	500	70	N	20
3419	10	<50	150	<20	N	N	N	N	20	300	N	1,000	N	N	50
3429A	11	N	15	20	N	<10	N	<200	200	<50	N	N	150	N	20
3429B	11	N	15	20	N	N	N	<200	200	<50	<20	N	150	N	30
3353	12	N	100	5,000	N	--	--	N	200	500	30	500	70	N	70
3421	13	N	30	<20	N	N	500	N	50	500	N	N	50	N	<10
3423A	14	150	20	1,000	N	N	N	200	N	>20,000	500	N	N	N	N
3423B	14	<50	50	5,000	500	N	N	N	70	5,000	N	N	50	N	10
3440	15	50	20	5,000	N	N	N	N	30	3,000	N	<500	N	N	15
3439	16	N	50	500	N	<10	N	N	100	150	100	N	150	N	20
3445	17	N	15	N	N	N	50	N	70	500	N	N	70	N	10
3446	17	<50	15	N	N	N	N	N	70	2,000	N	N	150	N	10
3369	18	--	--	--	--	--	--	--	--	--	--	--	--	--	100
3432A	19	<50	50	N	N	N	N	N	70	1,000	20	N	70	N	15
3357	20	N	150	500	N	--	--	N	100	500	50	700	N	N	N

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	LATITUDE	LONGITUDE	L/P	D/Q	S	AS-PT	AS-PD	AS-RH	AS-RU	AS-OS	AS-IR	WT	FE %	MG %	CA %	TI %
							Nome Quadrangle--Continued									
3357A	64 35 27	165 23 42	2	8.03	20	--	.0030	--	.0030	--	--	10.00	>50.0	3.00	.15	.700
3438	64 35 40	165 23 40	1	8.03	21	N	.0010	N	.0150	--	N	9.86	5.0	.15	1.00	.200
3438Q	64 35 40	165 23 40	1	8.03	21	N	N	N	.0400	--	N	10.00	3.0	<.05	<.10	.050
3434	64 35 20	165 23 10	1	8.03	22	N	.0020	N	.0040	--	N	10.00	10.0	1.50	5.00	.200
3350	63 35 17	165 22 20	2	8.03	23	--	--	--	.0020	--	--	10.00	>50.0	1.50	N	1.000
3350A	63 35 17	165 22 20	2	8.03	23	--	.0020	--	--	--	--	10.00	>50.0	.20	N	.200
3361	64 35 1	165 23 1	1	8.03	24	.0020	.0050	.0010	.0090	--	--	10.49	>50.0	1.00	<.10	.500
3437	64 35 3	165 20 5	2	8.03	25	.0020	N	N	N	--	N	10.00	15.0	.20	N	.300
3364	64 34 47	165 19 57	2	8.03	26	.3500	.0050	.0030	.0020	--	.0350	10.00	>50.0	.15	<.10	.500
3443	64 34 48	165 21 7	2	8.03	27	.0010	N	N	N	--	N	10.00	50.0	.30	<.10	.500
3444	64 34 48	165 21 7	2	8.03	27	N	.0015	N	.0015	--	N	10.00	3.0	1.00	<.10	.200
3435	64 34 51	165 23 50	1	8.03	28	N	.0030	N	.0200	--	N	10.00	15.0	.70	.70	.300
3441N	64 34 55	165 22 46	2	8.03	29	N	N	N	.0015	--	N	10.00	5.0	.30	N	.500
3441P	64 34 55	165 22 46	2	8.03	29	N	N	N	.0015	--	N	10.00	3.0	.50	N	.500
3442	64 34 50	165 22 46	2	8.03	30	N	N	N	.0015	--	N	10.00	10.0	.30	<.10	.700
3371	64 34 43	165 22 52	2	8.03	31	--	.0020	--	--	--	--	4.26	>50.0	.30	5.00	.200
3362	64 34 31	165 23 2	2	8.03	32	--	.0010	--	--	--	--	10.00	>50.0	5.00	.30	1.500
3372	64 34 3	165 20 25	2	8.03	33	.0020	.0010	--	--	--	--	10.00	>50.0	.20	5.00	.500
3366	64 32 55	165 12 45	2	8.03	34	--	.0010	--	--	--	--	10.00	>50.0	1.00	1.00	.700
3356	64 33 40	165 24 46	2	8.03	35	.0250	.0040	--	--	--	--	10.00	>50.0	2.00	.20	1.000
3428	64 33 28	165 25 0	2	8.03	36	N	.0010	N	.0090	--	N	10.00	30.0	.05	.70	.015
3360	64 32 47	165 23 15	2	8.03	37	.0050	.0020	--	--	--	--	10.00	20.0	<.05	N	.150
3346	64 32 22	165 21 47	2	8.03	38	.0020	.0100	--	.0040	--	--	10.00	>50.0	1.00	.10	.700
3358	64 32 16	165 23 33	2	8.03	39	.0040	.0060	--	.0020	--	--	10.00	>50.0	.50	.10	.300
3348	64 30 50	165 25 42	2	8.03	40	--	.0040	--	--	--	--	10.00	>50.0	.70	.10	.700
3348A	64 30 50	165 25 42	2	8.03	40	.0400	.0030	--	--	--	--	10.00	>50.0	.30	.15	.500
3349	64 30 37	165 27 58	2	8.03	41	.0300	.0250	--	--	--	--	10.00	>50.0	<.05	<.10	.150
3349A	64 30 37	165 27 58	2	8.03	41	.0020	.0150	--	--	--	--	10.00	>50.0	.05	.10	.150
3417	64 27 53	165 26 0	2	8.03	42	.0450	.0040	--	.0030	.003	.0010	9.18	>50.0	.05	<.10	.700
3352	64 27 46	165 8 58	2	8.03	43	--	--	--	.0010	--	--	10.00	>50.0	.70	.70	2.000
							Solomon Quadrangle									
3254	64 56 41	164 25 3	2	8.04	44	<.0150	<.0150	<.0150	<.0150	<.045	<.0150	.70	50.0	.05	.10	2.000
3250	64 52 51	164 12 43	2	8.04	45	<.0020	<.0020	<.0020	<.0020	<.006	<.0020	4.70	15.0	.30	1.50	1.500
3247	64 48 41	164 20 30	2	8.04	46	<.0030	.0040	<.0030	<.0030	<.009	<.0030	3.40	20.0	.15	1.50	2.000
3249	64 48 35	164 20 22	2	8.04	47	<.0150	<.0150	<.0150	<.0150	<.050	<.0150	.59	50.0	.05	.50	2.000
3378	64 40 14	164 18 3	2	8.04	48	.0010	.0010	--	--	.003	--	10.00	>50.0	2.00	1.50	.500
3377	64 38 3	166 23 28	2	8.04	49	.0020	.0030	--	--	.007	--	10.00	>50.0	1.00	1.50	.700
3376	64 37 52	166 22 37	2	8.04	50	.0150	.0080	--	--	.015	--	10.00	>50.0	.20	2.00	1.000
3375	64 38 45	166 20 45	2	8.04	51	.0020	.0020	--	.0020	.070	.0040	10.00	>50.0	.70	2.00	1.500
3253	64 39 12	164 18 7	2	8.04	52	<.0020	<.0020	<.0020	<.0020	<.007	<.0020	4.40	20.0	.30	1.00	1.500
							Teller Quadrangle									
3374	65 3 30	166 11 0	2	8.05	1	.1000	.0010	.0400	.8500	2.000	1.5000	10.00	>50.0	1.50	1.50	>2.000
3373	65 2 56	166 10 0	2	8.05	2	.0060	--	--	.0030	3.000	.1000	10.00	>50.0	1.00	2.00	2.000
							Anchorage Quadrangle									
3236	61 45 33	149 26 38	2	9.01	1	.0030	--	--	--	--	--	5.19	5.0	1.00	2.00	>2.000

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	MN	AG	AS	AU	B	BA	BE	BI	CD	CO	CR	CU	LA	MO
						Nome Quadrangle--Continued									
3357A	20	1,000	20.0	20,000	150	200	700	N	30	N	30	150	100	N	N
3438	21	300	N	>20,000	N	500	100	<2	N	N	<20	20	15	<100	N
3438Q	21	70	2.0	>20,000	<20	N	<50	N	N	N	N	N	<10	N	N
3434	22	100	N	5,000	N	20	100	N	N	N	100	<20	50	N	N
3350	23	700	<1.0	N	N	100	300	N	N	N	50	100	70	N	N
3350A	23	700	5.0	10,000	<20	20	50	N	N	N	70	50	500	N	N
3361	24	100	<1.0	>20,000	N	2,000	150	N	N	N	70	100	50	N	N
3437	25	200	20.0	N	200	<20	<50	N	N	N	30	<20	70	N	N
3364	26	700	20.0	N	300	30	N	N	N	N	30	50	100	N	N
3443	27	500	N	N	N	20	70	N	N	N	30	<20	50	N	N
3444	27	200	<1.0	N	30	20	100	N	N	N	N	<20	10	N	N
3435	28	70	<1.0	20,000	N	150	<50	N	N	N	200	N	100	N	N
3441N	29	50	N	N	N	50	500	N	N	N	<20	<20	30	N	<10
3441P	29	70	N	N	N	50	500	N	N	N	<20	<20	15	N	N
3442	30	300	20.0	N	100	30	500	N	N	50	30	<20	150	N	30
3371	31	--	N	N	N	N	50	N	N	N	50	30	150	N	--
3362	32	1,500	N	N	N	300	300	N	N	N	50	200	70	N	N
3372	33	--	5.0	N	50	N	<50	N	N	N	70	50	100	N	--
3366	34	--	3.0	N	N	N	<50	N	N	N	50	50	50	N	--
3356	35	1,500	10.0	N	70	100	300	N	N	N	70	150	100	<100	<10
3428	36	<20	<1.0	>20,000	N	<20	N	N	N	N	70	N	1,500	N	N
3360	37	200	30.0	N	200	N	N	N	N	N	N	<20	15	N	N
3346	38	2,000	3.0	2,000	N	N	100	N	N	N	100	2,000	500	N	20
3358	39	1,500	15.0	7,000	150	N	70	N	N	N	100	100	200	N	<10
3348	40	2,000	5.0	20,000	30	N	50	N	N	N	150	200	500	N	N
3348A	40	3,000	5.0	>20,000	50	N	70	N	N	N	200	100	700	N	N
3349	41	500	7.0	>20,000	20	N	<50	N	N	N	200	N	70	N	N
3349A	41	500	7.0	>20,000	N	N	<50	N	N	N	300	N	100	N	N
3417	42	300	2,000.0	>20,000	>1,000	N	N	N	N	N	200	200	70	150	<10
3352	43	5,000	2.0	N	N	<20	N	N	N	N	<20	300	N	N	N
						Solomon Quadrangle--Continued									
3254	44	1,000	N	N	20	<20	100	N	N	N	30	500	50	300	N
3250	45	10,000	N	N	N	20	50	N	N	N	<20	100	20	N	N
3247	46	7,000	N	N	N	<20	<50	N	N	N	20	50	30	N	N
3249	47	2,000	N	N	N	<20	N	N	N	N	20	70	20	100	N
3378	48	--	2.0	N	N	<20	300	N	N	N	50	200	100	N	--
3377	49	--	N	N	N	20	150	N	N	N	100	150	100	N	--
3376	50	--	100.0	N	>1,000	N	50	N	N	N	50	300	300	N	--
3375	51	--	30.0	N	300	<20	<50	N	N	N	30	200	50	N	--
3253	52	7,000	N	N	N	<20	300	N	N	N	<20	300	15	N	N
						Teller Quadrangle--Continued									
3374	1	--	N	N	N	70	70	N	N	N	50	100	150	N	--
3373	2	--	20.0	N	300	N	50	N	N	N	20	200	70	N	--
						Anchorage Quadrangle--Continued									
3236	1	3,000	10.0	N	50	1,000	150	N	N	N	20	300	70	70	N

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	NB	NI	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR	TH	GA
							Nome Quadrangle--Continued								
3357A	20	N	100	50	300	--	--	N	200	50	30	N	70	N	150
3438	21	100	50	N	N	N	N	N	100	>20,000	20	N	30	N	<10
3438Q	21	N	10	N	N	N	N	N	20	100	N	N	N	N	N
3434	22	N	150	N	N	N	N	<200	50	150	N	N	30	N	10
3350	23	<50	150	20	N	--	--	N	100	<50	20	N	150	N	50
3350A	23	N	150	300	700	--	--	N	70	700	N	<500	20	N	<10
3361	24	50	150	<20	500	--	--	N	150	10,000	20	N	30	N	50
3437	25	N	50	<20	N	N	N	N	70	50	N	N	20	N	15
3364	26	N	70	1,000	--	--	--	N	150	N	20	<500	30	N	N
3443	27	N	70	N	N	N	N	N	70	N	N	<500	30	N	30
3444	27	N	20	<20	N	N	N	N	50	200	N	N	20	N	<10
3435	28	N	200	<20	500	N	N	N	20	50	N	N	30	N	15
3441N	29	N	70	<20	N	N	N	N	200	100	N	N	100	N	N
3441P	29	N	50	N	N	N	N	N	150	<50	N	N	70	N	N
3442	30	N	200	<20	N	N	N	N	150	50	<20	N	150	N	15
3371	31	--	--	--	--	--	--	--	--	--	--	--	--	--	10
3362	32	N	100	<20	N	--	--	N	150	150	50	N	50	N	100
3372	33	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
3366	34	--	--	--	--	--	--	--	--	--	--	--	--	--	20
3356	35	<50	200	N	N	--	--	N	150	100	50	500	150	N	20
3428	36	50	100	N	N	N	N	N	50	10,000	20	N	N	N	30
3360	37	N	30	200	N	--	--	N	150	2,000	N	N	N	N	10
3346	38	N	300	100	N	N	<20	N	100	N	20	N	500	N	50
3358	39	N	300	150	N	--	--	N	70	N	30	1,000	150	N	N
3348	40	N	300	150	N	N	200	N	70	N	N	1,500	20	N	<10
3348A	40	N	300	30	N	N	70	N	70	N	N	1,500	<20	N	30
3349	41	<50	300	20	N	--	--	N	70	2,000	N	N	20	N	N
3349A	41	50	500	50	N	--	--	N	50	5,000	<20	N	20	N	N
3417	42	<50	100	200	<200	N	>2,000	N	200	2,000	20	N	200	N	<10
3352	43	N	30	<20	N	--	--	N	300	N	100	N	150	N	30
							Solomon Quadrangle--Continued								
3254	44	N	50	20	N	N	70	N	300	N	150	N	50	N	N
3250	45	N	50	N	N	15	50	N	200	N	70	N	100	N	N
3247	46	N	50	<20	N	<10	N	N	200	<50	50	N	50	N	N
3249	47	N	30	N	N	N	N	N	300	N	70	N	30	N	N
3378	48	--	--	--	--	--	--	--	--	--	--	--	--	--	100
3377	49	--	--	--	--	--	--	--	--	--	--	--	--	--	20
3376	50	--	--	--	--	--	--	--	--	--	--	--	--	--	30
3375	51	--	--	--	--	--	--	--	--	--	--	--	--	--	15
3253	52	N	30	N	N	15	30	N	500	500	50	N	20	N	N
							Teller Quadrangle--Continued								
3374	1	--	--	--	--	--	--	--	--	--	--	--	--	--	20
3373	2	--	--	--	--	--	--	--	--	--	--	--	--	--	<10
							Anchorage Quadrangle--Continued								
3236	1	N	70	70	N	10	N	700	300	100	200	N	>2,000	200	--

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	LATITUDE	LONGTITUDE	L/P	D/Q	S	AS-PT	AS-PD	AS-RH	AS-RU	AS-OS	AS-IR	SAMP	FE %	MG %	CA %	TI %
							Healy Quadrangle									
3185	63 3 4	149 45 8	2	9.03	1	.0400	.0350	<.0200	<.0200	<.060	<.0200	.51	30.0	2.00	1.00	2.000
3184	63 13 25	149 38 1	2	9.03	2	.0150	.0150	<.0050	<.0050	<.015	<.0050	1.85	30.0	.30	<.10	.500
							Juneau Quadrangle									
3093	58 18 27	134 20 42	1	9.05	1	--	.0020	.0020	.0030	--	--	5.30	2.0	<.05	<.10	.015
							Mt. McKinley Quadrangle									
3327A	63 44 31	150 22 23	2	9.07	1	.0060	--	--	--	--	--	7.83	50.0	.50	.10	1.000

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	MN	AG	AS	AU	B	BA	BE	BI	CD	CO	CR	CU	LA	MO
Healy Quadrangle--Continued															
3185	1	1,000	2.0	N	N	<20	500	N	N	N	100	>10,000	1,000	N	N
3184	2	200	1,500.0	>20,000	>1,000	30	1,500	N	N	N	200	10,000	1,000	N	N
Juneau Quadrangle--Continued															
3093	1	20	3,000.0	15,000	>1,000	N	100	N	100	1,000	150	N	500	N	N
Mt. McKinley Quadrangle--Continued															
3327A	1	1,000	5.0	<500	N	100	700	N	N	N	50	200	100	N	<10

Table 3.--Analytical results for 234 concentrate samples--Continued

Sample	S	NB	NI	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR	TH	GA
						Healy Quadrangle--Continued									
3185	1	N	500	<20	N	<10	N	N	700	N	<20	700	300	N	N
3184	2	N	300	150	10,000	N	200	N	1,000	N	N	500	30	N	N
						Juneau Quadrangle--Continued									
3093	1	N	20	>50,000	2,000	N	20	N	N	N	N	30,000	20	N	--
						Mt. McKinley Quadrangle--Continued									
3327A	1	<50	100	70	>10,000	<10	N	N	70	100	20	N	200	<200	50