UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

ANALYSES OF STREAM SEDIMENT SAMPLES FROM THE TELLER A-3 QUADRANGLE, SEWARD PENINSULA, WEST-CENTRAL ALASKA

By

Reuben Kachadoorian, C. L. Sainsbury, and C. L. Hummel

Open-file report 75-349

1975

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Introduction

The Teller A-3 lies just south of the village of Teller on western Seward Peninsula about 97 kilometres (60 miles) northwest of Nome. It is bounded by latitudes 65°15' N. and 65°00' N. and longitudes 166°00' W. and 166°30' W. (Plate 1). The Nome-Teller road not shown on Plate 1 crosses the quadrangle in a slightly northwest-southeast direction. The town of Teller is located on Port Clarence, an excellent natural ship and barge anchorage, and has both regular and charter air services with Nome and other villages on the peninsula.

The Teller area is a part of the Seward Peninsula that was covered by reconnaissance mineral resource survey by C. L. Sainsbury between 1967 and 1972 as part of the Heavy Metals Program of the U.S. Geological Survey. Although the principal emphasis of the survey was on geology at a regional scale (1:250,000), field data were compiled in semi-reconnaissance fashion on standard mile-to-the-inch (1:63,360 scale) topographic maps, many of which were published (Sainsbury and others, 1969 and Sainsbury, 1972). Systematic geochemical exploration based on bedrock, total stream sediment, and panned concentrate samples was done in conjunction with the survey at several places, including the Teller A-3 quadrangle.

Only the results for the total stream sediment samples from the Teller A-3 quadrangle are discussed in this report. These were first analyzed for a selected suite of elements (As, Au, Cu, Hg, Ni, Pb, and Zn) using a combination of spectrographic (S), atomic absorption (AA), and instrumental (Inst., mercury detector) techniques. The results that were believed to be anomalous have been previously reported (Sainsbury and others, 1969) and are included in this report as part of table 3. The complete results of the analyses for the selected element suite are reported here for the first time as part of table 1. In 1973 all the stream sediment samples from the Teller A-3 quadrangle were resubmitted for analyses for a 30-element suite using the Geological Survey's semiquantitative six-step spectrographic technique. These results have been combined with the earlier partial analyses and together with the statistical treatments of them provided by the Survey's GEOSUM computer program accompany this report as tables 1 and 2.

The original map base used for the Open-File report of Sainsbury and others (1969) has been retained and included in this report as Plate 1. The geology on this map was used for compilation of the Teller 1:250,000 scale geologic map (Sainsbury, 1972) with only the designations for the map units being changed to indicate Precambrian rather than pre-Ordovician ages in the final compilation. In addition to the Teller 1:250,000 scale geologic map, Sainsbury's report accompanying his geologic map of the Bendeleben 1:250,000 quadrangle should be consulted for his more recent interpretation of the geology of Seward Peninsula (Sainsbury, 1974).

Geochemical Survey

Sample Collection, Preparation, and Analysis

The geochemical survey of the Teller A-3 quadrangle is based on analyses of 158 total stream sediment samples. They were collected in active stream channels from places chosen to enhance their heavy mineral content. After being dried, the samples were sent to the temporary summer laboratory of the Survey's Field Services Section in Nome. There, the samples were split, one portion being screened to minus 80 mesh and analyzed for gold by atomic absorption spectrometry by A. L. Meier, R. Miller, and T. Roemer; the entire remaining parts of the samples were then sent to the permanent Field Services laboratory in Denver.

At Denver the sample splits were hand-picked for oversize material, which was discarded, then pulverized whole without screening. Partial analyses for arsenic, copper, lead, mercury, nickel, and zinc were made by J. Desmond, K. Murphy, R. Vaughn, and Z. Stevenson. The 30-element spectrographic analyses of four samples (ACB651-654) were made by Carl Forn (pages 20-23, table 1). The remainder of the analyses on table 1 were made by G. W. Day.

Computer Printout and Treatment of Analytical Data

All the analytical results obtained from the sediment samples collected in the Teller A-3 quadrangle are listed in table 1. The results (S-FE, etc.) are shown in weight percentage (%) or parts per million (ppm). The values for the spectrographic analyses are given as

geometric midpoints (0.1, 0.15, 0.2, 0.3, 0.5, 0.7, 1.0, etc.) of geometric brackets bounded by values of 0.083, 0.12, 0.18, 0.26, 0.38, 0.56, 0.83, 1.2, and multiples of these. In the tables the values are thus shown as 3.0000%, 700.0000 ppm, etc. and as combinations of these with the following letter symbols; N - not detected, L - present but less than the value shown, G - greater than the value shown, and B - no data. Except for the last, each of these refers to upper and lower limits of the analytical determinations. Lower limits of detection for analyses by emission spectrographic (S-FE, etc.), atomic absorption (AA-Au, etc.), instrumental (INST-HG), and wet chemical (CM-PB, etc.) techniques are given below:

Spectrographic (S)

Fe(iron) .05%	Mg(magnesium) .02%	Ca(calcium) .05%	Ti(titanium) .002%
Mn(manganese) 10 ppm	Ag(silver) 0.5 ppm	As(arsenic) 200 ppm	Au(gold) 10 ppm
B(boron) 10 ppm	Ba(barium) 20 ppm	Be(beryllium) 1 ppm	Bi(bismuth) 10 ppm
Cd(cadmium) 20 ppm	Co(cobalt) 5 ppm	Cr(chromium) 10 ppm	Cu(copper) 5 ppm
La(lanthanum) 20 ppm	Mo(molybdenum) 5 ppm	Nb(niobium) 10 ppm	Ni(nickel) 5 ppm
Pb(lead) 10 ppm	Sb(antimony) 100 ppm	Sc(scandium) 5 ppm	Sn(tin) 10 ppm
Sr(strontium) 100 ppm	V(vanadium) 10 ppm	W(tungsten) 50 ppm	Y(yttrium) 10 ppm
Zn(zinc) 200 ppm	Zr(zirconium) 10 ppm		

Atomic Absorption (AA)

As(arsenic)	Au(gold)	Cu(copper)	Ni(nickel)
10 ppm)	0.02 ppm	10 ppm	5 ppm
	Pb(lead)	Zn(zinc)	
	25 ppm	25 ppm	

Instrumental (INST)

Hg(mercury)
0.01 ppm

Table 2 consists of GEOSUM statistical treatments of analytical data for all of the samples and includes frequency distributions and histograms for values of individual elements. Some background information for these treatments is given on pages 50 and 51 of table 2. The histograms are composed of values in decimal numbers to powers of 10, e.g., 5.0E-01 = 5.0×10^{-1} = 0.5, 5.0E-02 = 5.0×10^{2} = 500, etc.; the x's making up the histograms stand for 1 percent of the total number of reported values. The only results not included in the statistical treatments are those by wet methods for copper, nickel, and lead (CM-CU, CM-NI, CM-PB) which have been inserted on pages 11, 15, 19, and 23 of table 1, and these and the spectrographic values for samples ACB651-654 which have been added on page 23 of table 1.

Results of the Geochemical Survey

In view of the emphasis on anomalous values in the portion of the original report covering the results of the geochemical survey of the Teller A-3 quadrangle, (Sainsbury and others, 1969), such additional metals as have been determined by re-analysis and judged anomalous have been combined with those of the Sainsbury report and listed in

table 3. In all cases, values were judged anomalous on the basis of thresholds reckoned for individual elements (table 4) as suggested by Hawkes, H. E., and Webb, J. S., (1962, p. 30-31) for similar small populations of samples and data; according to this method, most of the anomalies exceeded the 95% percentile of all values for the elements indicated.

References Cited

Hawkes, H. E., and Webb, J. S., 1962, Geochemistry in mineral exploration: New York, Harper & Row, 2nd Ed., 415 p.

Sainsbury, C. L., 1972, Geologic map of the Teller quadrangle, western Seward Peninsula, Alaska: U.S. Geol. Survey Misc. Geol. Inv. Map, I-685.

_____1974, Geologic map of the Bendeleben quadrangle, Seward Peninsula, Alaska: Anchorage, AK, The Mapmakers, 31 p., 1:250,000 scale map.

Sainsbury, C. L., Kachadoorian, Reuben, Hudson, T. L., Smith, T. E., Richards, T. W., and Todd, W. E., 1969, Reconnaissance geologic maps and sample data, Teller A-1, A-2, A-3, B-1, B-2, B-3, C-1, and Bendeleben A-6, B-6, C-6, D-5, D-6 quadrangles, Seward Peninsula, Alaska: U.S. Geol. Survey open-file report, 49 p.

Table 1.--*Analyses of stream sediment samples from the Teller A-3 quadrangle, Seward Peninsula, west-central Alaska.*

SAMPLE	LATITUDE	LONGITUD	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-AS	S-AU
ACB592	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B
ACB593	65.0972	166.2444	3.0000	2.0000	2.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB594	65.0806	166.2083	5.0000	3.0000	5.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB595	65.0708	166.1986	5.0000	3.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB596	65.0681	166.1972	5.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB597	65.0653	166.1972	5.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB598	65.0639	166.1972	5.0000	2.0000	2.0000	1.0000G	700.0000	0.5000N	200.0000N	10.0000N
ACB599	65.0639	166.1972	0.7000	0.3000	2.0000	0.0500	150.0000	0.5000N	200.0000N	10.0000N
ACB600	65.0639	166.1972	7.0000	3.0000	3.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB602	65.1250	166.3444	15.0000	2.0000	3.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB603	65.1361	166.3306	15.0000	3.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB604	65.1361	166.3250	5.0000	2.0000	5.0000	1.0000	1000.0000	0.5000N	200.0000N	10.0000N
ACB605	65.1028	166.3194	5.0000	2.0000	3.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB606	65.0972	166.3306	10.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB607	65.0861	166.3306	5.0000	2.0000	1.0000	0.7000	700.0000	0.5000N	200.0000N	10.0000N
ACB608	65.0861	166.3361	10.0000	3.0000	5.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB609	65.1028	166.2833	10.0000	2.0000	3.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB610	65.1083	166.2750	5.0000	2.0000	1.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB611	65.1028	166.2722	15.0000	2.0000	5.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB612	65.1028	166.2500	15.0000	2.0000	3.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB613	65.0972	166.2500	15.0000	2.0000	0.5000	1.0000	1000.0000	0.5000N	200.0000N	10.0000N
ACB614	65.0889	166.2389	5.0000	2.0000	1.0000	1.0000	700.0000	0.5000N	200.0000N	10.0000N
ACB615	65.0831	166.1583	3.0000	2.0000	0.7000	0.5000	500.0000	0.5000N	200.0000N	10.0000N
ACB616	65.0750	166.1417	10.0000	2.0000	2.0000	1.0000	700.0000	0.5000N	200.0000N	10.0000N
ACB617	65.0833	166.1417	5.0000	2.0000	3.0000	1.0000	1000.0000	0.5000N	200.0000N	10.0000N
ACB618	65.0806	166.1278	15.0000	3.0000	1.0000	0.5000	2000.0000	0.5000N	200.0000N	10.0000N
ACB619	65.0861	166.1306	15.0000	3.0000	2.0000	1.0000	2000.0000	0.5000N	200.0000N	10.0000N
ACB620	65.0639	166.0806	5.0000	2.0000	0.7000	0.5000	500.0000	0.5000N	200.0000N	10.0000N
ACB621	65.0556	166.0694	5.0000	2.0000	3.0000	0.7000	1500.0000	0.5000N	200.0000N	10.0000N
ACB622	65.1111	166.4722	15.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB623	65.1153	166.4500	15.0000	3.0000	5.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB624	65.1375	166.4861	5.0000	2.0000	1.0000	1.0000	1000.0000	0.5000N	200.0000N	10.0000N
ACB625	65.1417	166.4417	5.0000	2.0000	1.0000	1.0000G	700.0000	0.5000N	200.0000N	10.0000N
ACB626	65.1583	166.4611	10.0000	2.0000	0.7000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB627	65.1569	166.4500	10.0000	2.0000	2.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB628	65.1583	166.4500	10.0000	3.0000	2.0000	1.0000G	5000.0000G	0.5000N	200.0000N	10.0000N
ACB629	65.1722	166.4306	7.0000	2.0000	1.0000	1.0000	500.0000	0.5000N	200.0000N	10.0000N
ACB630	65.1903	166.4319	15.0000	3.0000	3.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB631	65.1847	166.4028	15.0000	3.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB632	65.1833	166.3889	15.0000	3.0000	2.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB633	65.1819	166.3639	10.0000	3.0000	3.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB634	65.1806	166.3875	10.0000	2.0000	2.0000	1.0000G	700.0000	0.5000N	200.0000N	10.0000N
ACB635	65.1778	166.3944	15.0000	2.0000	5.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB637	65.2056	166.4222	7.0000	2.0000	1.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB638	65.2111	166.4028	15.0000	2.0000	0.7000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB639	65.2111	166.4014	7.0000	1.0000	0.5000	0.5000	200.0000	0.5000N	200.0000N	10.0000N
ACB640	65.2194	166.4000	2.0000	0.1000	0.0500	0.2000	10.0000	0.5000	200.0000N	10.0000N
ACB641	65.2181	166.3944	10.0000	2.0000	0.7000	1.0000	700.0000	0.5000N	200.0000N	10.0000N
ACB642	65.2250	166.3792	15.0000	2.0000	0.7000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB643	65.2278	166.3667	15.0000	2.0000	0.7000	0.5000	2000.0000	0.5000N	200.0000N	10.0000N

SAMPLE	S=B	S=BA	S=BE	S=BI	S=CD	S=CO	S=CR	S=CU	S=LA	S=MO
ACB592	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B
ACB593	100.0000	300.0000	1.0000N	10.0000N	20.0000N	30.0000	100.0000	70.0000	30.0000	5.0000N
ACB594	70.0000	500.0000	1.0000N	10.0000N	20.0000N	30.0000	100.0000	70.0000	20.0000N	5.0000N
ACB595	50.0000	300.0000	1.0000L	10.0000N	20.0000N	30.0000	100.0000	100.0000	30.0000	5.0000N
ACB596	100.0000	150.0000	1.0000N	10.0000N	20.0000N	15.0000	100.0000	70.0000	20.0000N	5.0000N
ACB597	100.0000	300.0000	1.0000N	10.0000N	20.0000N	30.0000	100.0000	50.0000	20.0000	5.0000N
ACB598	20.0000	300.0000	1.0000N	10.0000N	20.0000N	20.0000	100.0000	30.0000	20.0000N	5.0000N
ACB599	50.0000	2000.0000	2.0000	10.0000N	20.0000N	5.0000N	10.0000N	70.0000	20.0000N	5.0000N
ACB600	200.0000	700.0000	2.0000	10.0000N	20.0000N	20.0000	100.0000	70.0000	50.0000	5.0000N
ACB602	100.0000	300.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	150.0000	20.0000	5.0000N
ACB603	200.0000	500.0000	1.0000N	10.0000N	20.0000N	50.0000	100.0000	50.0000	50.0000	5.0000N
ACB604	100.0000	500.0000	1.0000	10.0000N	20.0000N	30.0000	100.0000	50.0000	30.0000	5.0000N
ACB605	100.0000	200.0000	1.0000L	10.0000N	20.0000N	30.0000	70.0000	70.0000	20.0000	5.0000N
ACB606	100.0000	200.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	30.0000	20.0000	5.0000N
ACB607	50.0000	200.0000	1.0000	10.0000N	20.0000N	15.0000	100.0000	70.0000	20.0000	5.0000N
ACB608	70.0000	300.0000	1.0000N	10.0000N	20.0000N	30.0000	100.0000	70.0000	20.0000	5.0000N
ACB609	50.0000	300.0000	1.0000L	10.0000N	20.0000N	30.0000	70.0000	50.0000	20.0000	5.0000N
ACB610	50.0000	300.0000	1.0000N	10.0000N	20.0000N	20.0000	100.0000	100.0000	70.0000	5.0000N
ACB611	200.0000	300.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	100.0000	20.0000	5.0000N
ACB612	200.0000	200.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	100.0000	20.0000N	5.0000N
ACB613	200.0000	500.0000	1.0000	10.0000N	20.0000N	30.0000	100.0000	100.0000	30.0000	5.0000N
ACB614	50.0000	150.0000	1.0000N	10.0000N	20.0000N	15.0000	70.0000	30.0000	20.0000	5.0000N
ACB615	100.0000	150.0000	1.0000L	10.0000N	20.0000N	7.0000	50.0000	15.0000	20.0000N	5.0000N
ACB616	30.0000	150.0000	1.0000N	10.0000N	20.0000N	7.0000	70.0000	15.0000	20.0000N	5.0000N
ACB617	50.0000	200.0000	1.0000N	10.0000N	20.0000N	10.0000	70.0000	15.0000	20.0000	5.0000N
ACB618	100.0000	500.0000	1.0000L	10.0000N	20.0000N	50.0000	150.0000	70.0000	30.0000	5.0000N
ACB619	100.0000	700.0000	1.0000L	10.0000N	20.0000N	30.0000	100.0000	30.0000	20.0000	5.0000N
ACB620	50.0000	200.0000	1.0000N	10.0000N	20.0000N	10.0000	70.0000	15.0000	20.0000	5.0000N
ACB621	300.0000	500.0000	2.0000	10.0000N	20.0000N	15.0000	70.0000	15.0000	50.0000	5.0000N
ACB622	100.0000	300.0000	1.0000N	10.0000N	20.0000N	20.0000	70.0000	50.0000	20.0000N	5.0000N
ACB623	50.0000	700.0000	1.0000N	10.0000N	20.0000N	50.0000	100.0000	70.0000	20.0000N	5.0000N
ACB624	70.0000	300.0000	1.0000L	10.0000N	20.0000N	15.0000	70.0000	30.0000	20.0000	5.0000N
ACB625	70.0000	300.0000	1.0000L	10.0000N	20.0000N	15.0000	70.0000	30.0000	20.0000	5.0000N
ACB626	100.0000	500.0000	1.0000	10.0000N	20.0000N	20.0000	100.0000	70.0000	50.0000	5.0000N
ACB627	100.0000	300.0000	1.0000L	10.0000N	20.0000N	20.0000	70.0000	70.0000	20.0000	5.0000N
ACB628	100.0000	500.0000	1.0000L	10.0000N	20.0000N	50.0000	100.0000	70.0000	20.0000	5.0000N
ACB629	50.0000	300.0000	1.0000N	10.0000N	20.0000N	10.0000	70.0000	30.0000	20.0000	5.0000N
ACB630	70.0000	500.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	70.0000	20.0000N	5.0000N
ACB631	70.0000	500.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	70.0000	30.0000	5.0000N
ACB632	100.0000	500.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	100.0000	30.0000	5.0000N
ACB633	100.0000	500.0000	1.0000N	10.0000N	20.0000N	30.0000	100.0000	50.0000	20.0000	5.0000N
ACB634	50.0000	500.0000	1.0000N	10.0000N	20.0000N	20.0000	70.0000	50.0000	20.0000	5.0000N
ACB635	30.0000	500.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	50.0000	20.0000	5.0000N
ACB637	30.0000	700.0000	2.0000	10.0000N	20.0000N	20.0000	100.0000	30.0000	30.0000	5.0000N
ACB638	200.0000	700.0000	2.0000	10.0000N	20.0000N	30.0000	100.0000	50.0000	50.0000	5.0000N
ACB639	70.0000	300.0000	1.0000	10.0000N	20.0000N	10.0000	100.0000	30.0000	30.0000	5.0000N
ACB640	10.0000L	300.0000	1.0000	10.0000N	20.0000N	5.0000N	50.0000	30.0000	20.0000	7.0000
ACB641	150.0000	700.0000	1.0000	10.0000N	20.0000N	20.0000	100.0000	30.0000	50.0000	5.0000N
ACB642	150.0000	700.0000	2.0000	10.0000N	20.0000N	30.0000	100.0000	30.0000	50.0000	5.0000N
ACB643	100.0000	500.0000	2.0000	10.0000N	20.0000N	20.0000	100.0000	20.0000	30.0000	5.0000N

SAMPLE	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y
ACB592	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B	0.0000B
ACB593	20.0000L	70.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	70.0000	50.0000N	150.0000
ACB594	70.0000N	50.0000	30.0000	100.0000N	30.0000	10.0000N	300.0000	300.0000	50.0000N	30.0000
ACB595	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000
ACB596	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000
ACB597	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000
ACB598	20.0000N	70.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	100.0000	50.0000N	20.0000
ACB599	20.0000N	5.0000L	70.0000	100.0000N	5.0000L	10.0000N	300.0000	10.0000	50.0000N	20.0000
ACB600	20.0000L	70.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	30.0000
ACB602	20.0000L	30.0000	15.0000	100.0000N	30.0000	10.0000N	700.0000	200.0000	50.0000N	30.0000
ACB603	20.0000L	50.0000	30.0000	100.0000N	30.0000	10.0000N	300.0000	300.0000	50.0000N	30.0000
ACB604	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB605	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000
ACB606	20.0000L	70.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000
ACB607	20.0000N	70.0000	30.0000	100.0000N	30.0000	10.0000N	150.0000	70.0000	50.0000N	20.0000
ACB608	20.0000	50.0000	15.0000	100.0000N	30.0000	10.0000N	300.0000	150.0000	50.0000N	30.0000
ACB609	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	30.0000
ACB610	20.0000L	70.0000	15.0000	100.0000N	30.0000	10.0000N	100.0000	100.0000	50.0000N	30.0000
ACB611	20.0000L	30.0000	15.0000	100.0000N	30.0000	10.0000N	500.0000	200.0000	50.0000N	30.0000
ACB612	20.0000N	30.0000	30.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000
ACB613	20.0000N	70.0000	20.0000	100.0000N	30.0000	10.0000N	100.0000	100.0000	50.0000N	70.0000
ACB614	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.00	[illegible]	70.0000	50.0000N	20.0000
ACB615	20.0000N	20.0000	10.0000	100.0000N	20.0000	10.0000N	100.0000	100.0000	50.0000N	15.0000
ACB616	20.0000N	20.0000	15.0000	100.0000N	20.0000	10.0000N	100.0000	150.0000	50.0000N	20.0000
ACB617	20.0000N	20.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000
ACB618	20.0000N	70.0000	20.0000	100.0000N	30.0000	10.0000N	100.0000	200.0000	50.0000N	30.0000
ACB619	20.0000N	50.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000
ACB620	20.0000N	30.0000	15.0000	100.0000N	20.0000	10.0000N	100.0000	100.0000	50.0000N	15.0000
ACB621	20.0000N	30.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	100.0000	50.0000N	30.0000
ACB622	20.0000L	20.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	200.0000	50.0000N	20.0000
ACB623	20.0000L	30.0000	15.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB624	20.0000L	30.0000	15.0000	100.0000N	30.0000	10.0000N	100.0000	150.0000	50.0000N	20.0000
ACB625	20.0000L	30.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000
ACB626	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	100.0000	150.0000	50.0000N	30.0000
ACB627	20.0000L	50.0000	30.0000	100.0000N	30.0000	10.0000N	100.0000	200.0000	50.0000N	20.0000
ACB628	20.0000	50.0000	20.0000	100.0000N	30.0000	10.0000N	150.0000	200.0000	50.0000N	30.0000
ACB629	20.0000L	20.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	200.0000	50.0000N	20.0000
ACB630	30.0000	20.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000
ACB631	30.0000	30.0000	20.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB632	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000
ACB633	20.0000L	50.0000	30.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB634	20.0000L	30.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	200.0000	50.0000N	20.0000
ACB635	20.0000	20.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000
ACB637	20.0000L	20.0000	15.0000	100.0000N	30.0000	10.0000N	100.0000	200.0000	50.0000N	20.0000
ACB638	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	100.0000	200.0000	50.0000N	30.0000
ACB639	20.0000N	30.0000	15.0000	100.0000N	20.0000	10.0000N	100.0000	100.0000	50.0000N	20.0000
ACB640	20.0000N	5.0000L	10.0000N	100.0000N	10.0000	10.0000N	100.0000	200.0000	50.0000N	15.0000
ACB641	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	100.0000	150.0000	50.0000N	30.0000
ACB642	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	100.0000	150.0000	50.0000N	30.0000
ACB643	20.0000L	50.0000	20.0000	100.0000N	20.0000	10.0000N	100.0000	100.0000	50.0000N	30.0000

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SAMPLE	S-ZN	S-ZR	AA-AU-P	AA-AU-SW	INST-HG	AA-ZN-P	CM-PB	CM-AS	CM-CU	CM-NI
ACB592	0,0000B	0,0000B	0,0200L	0,0000B	0,0000B	0,0000B	42	0,0000B	10L	20
ACB593	200,0000L	150,0000	0,0200L	0,0000B	0,0800	80,0000	28	10,0000N	32	52
ACB594	200,0000	150,0000	0,0200L	0,0000B	0,9000	80,0000	25L	10,0000	32	48
ACB595	200,0000L	150,0000	0,0200L	0,0000B	0,3000	74,0000	25L	10,0000	25	42
ACB596	200,0000L	150,0000	0,0200L	0,0000B	0,4500	50,0000	25L	10,0000N	17	32
ACB597	200,0000N	150,0000	0,0200L	0,0000B	0,1500	44,0000	25L	10,0000N	14	31
ACB598	200,0000N	150,0000	0,0200L	0,0000B	0,1300	56,0000	25L	10,0000N	16	38
ACB599	200,0000N	50,0000	0,0200L	0,0000B	0,1000	25,0000L	26	10,0000N	10L	5N
ACB600	200,0000L	200,0000	0,0200L	0,0000B	0,5500	84,0000	27	10,0000L	19	40
ACB602	200,0000L	200,0000	0,0200L	0,0000B	1,0000	72,0000	28	10,0000L	15	36
ACB603	200,0000L	150,0000	0,0200L	0,0000B	0,7500	86,0000	30	10,0000L	25	43
ACB604	200,0000L	200,0000	0,0200L	0,0000B	0,3500	46,0000	25L	10,0000N	12	26
ACB605	200,0000L	150,0000	0,0200L	0,0000B	0,6000	88,0000	26	20,0000	20	52
ACB606	200,0000L	150,0000	0,0200L	0,0000B	0,2200	50,0000	28	10,0000L	22	53
ACB607	200,0000N	100,0000	0,0300	0,0000B	1,3000	70,0000	25L	10,0000N	13	52
ACB608	200,0000L	150,0000	0,0200L	0,0000B	0,8000	80,0000	28	10,0000L	18	42
ACB609	200,0000L	150,0000	0,0200	0,0000B	0,2400	88,0000	29	10,0000N	20	48
ACB610	200,0000N	150,0000	0,0200	0,0000B	0,2400	84,0000	32	10,0000N	24	50
ACB611	200,0000	200,0000	0,0200L	0,0000B	0,5500	65,0000	25	10,0000L	15	36
ACB612	200,0000L	150,0000	0,0200L	0,0000B	0,8000	72,0000	32	10,0000N	20	40
ACB613	200,0000N	150,0000	0,0200L	0,0000B	0,2400	82,0000	38	10,0000	42	66
ACB614	200,0000N	150,0000	0,0200L	0,0000B	0,2400	68,0000	25	10,0000L	18	42
ACB615	200,0000N	100,0000	0,0200L	0,0000B	0,5000	46,0000	25L	10,0000N	10L	22
ACB616	200,0000N	150,0000	0,0200L	0,0000B	0,1300	46,0000	25L	10,0000L	12	22
ACB617	200,0000N	200,0000	0,0200L	0,0000B	1,1000	40,0000	25L	10,0000L	10L	20
ACB618	200,0000N	200,0000	0,0200L	0,0000B	3,0000	0,0000B	-	0,0000B	-	-
ACB619	200,0000N	200,0000	0,0200L	0,0000B	2,0000	72,0000	25	10,0000L	14	36
ACB620	200,0000N	150,0000	0,0200L	0,0000B	2,6000	68,0000	25L	10,0000N	14	34
ACB621	200,0000N	150,0000	0,0200L	0,0000B	0,6000	58,0000	25L	10,0000L	11	28
ACB622	200,0000N	150,0000	0,0200L	0,0000B	0,5000	72,0000	25L	20,0000	12	36
ACB623	200,0000L	200,0000	0,0200L	0,0000B	0,5000	80,0000	28	10,0000N	18	42
ACB624	200,0000N	150,0000	0,0200L	0,0000B	0,2800	65,0000	26	10,0000N	16	34
ACB625	200,0000N	150,0000	0,0200L	0,0000B	0,1500	60,0000	28	10,0000L	12	30
ACB626	200,0000N	200,0000	0,0200L	0,0000B	0,6000	76,0000	32	10,0000L	22	40
ACB627	200,0000L	150,0000	0,0200L	0,0000B	0,1800	98,0000	34	10,0000L	18	60
ACB628	200,0000N	200,0000	0,0200L	0,0000B	1,0000	82,0000	32	10,0000N	16	50
ACB629	200,0000N	150,0000	0,0200L	0,0000B	0,3000	56,0000	25	10,0000	12	26
ACB630	200,0000N	200,0000	0,0200L	0,0000B	0,2200	74,0000	26	10,0000	12	36
ACB631	200,0000N	200,0000	0,0200L	0,0000B	0,1800	78,0000	28	10,0000L	16	38
ACB632	200,0000N	200,0000	0,0200L	0,0000B	0,2600	78,0000	32	10,0000L	16	40
ACB633	200,0000N	200,0000	0,0200L	0,0000B	0,7000	82,0000	32	10,0000L	15	42
ACB634	200,0000N	150,0000	0,0200L	0,0000B	0,4000	74,0000	28	10,0000L	19	38
ACB635	200,0000N	150,0000	0,0200L	0,0000B	0,2200	80,0000	28	10,0000L	17	38
ACB637	200,0000N	150,0000	0,0200L	0,0000B	0,1400	86,0000	25L	10,0000N	13	34
ACB638	200,0000N	200,0000	0,0200L	0,0000B	0,2200	90,0000	30	10,0000L	13	35
ACB639	200,0000N	150,0000	0,0200L	0,0000B	0,1400	85,0000	26	10,0000L	15	34
ACB640	200,0000N	100,0000	0,0000B	0,0000B	0,8000	25,0000L	25L	10,0000	37	5L
ACB641	200,0000N	300,0000	0,0200L	0,0000B	0,1800	110,0000	30	10,0000L	18	43
ACB642	200,0000N	300,0000	0,0200L	0,0000B	0,1400	100,0000	28	10,0000L	12	42
ACB643	200,0000L	200,0000	0,0200L	0,0000B	0,1000	110,0000	26	10,0000L	11	37

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SAMPLE	LATITUDE	LONGITUD	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-AS	S-AU
ACB644	65,2112	166,3694	10,0000	2,0000	0,7000	1,0000	2000,0000	0,5000N	200,0000N	10,0000N
ACB647	0,0000B	0,0000B	10,0000	2,0000	2,0000	1,0000G	1500,0000	0,5000N	200,0000N	10,0000N
ACB648	0,0000B	0,0000B	5,0000	2,0000	3,0000	0,5000	700,0000	0,5000N	200,0000N	10,0000N
ACB649	0,0000B	0,0000B	10,0000	2,0000	0,7000	1,0000G	3000,0000	0,5000N	200,0000N	10,0000N
ACB650	65,1611	166,1583	5,0000	2,0000	0,7000	1,0000	500,0000	0,5000N	200,0000N	10,0000N
ACB701	65,2222	166,1347	5,0000	3,0000	2,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB702	65,2153	166,1361	10,0000	1,0000	0,7000	1,0000G	3000,0000	0,5000N	200,0000N	10,0000N
ACB703	65,2181	166,1611	15,0000	3,0000	2,0000	1,0000G	3000,0000	0,5000N	200,0000N	10,0000N
ACB704	65,2139	166,1611	10,0000	1,0000	0,7000	1,0000	3000,0000	0,5000N	200,0000N	10,0000N
ACB705	65,2153	166,1667	10,0000	3,0000	1,0000	1,0000	1000,0000	0,5000N	200,0000N	10,0000N
ACB706	65,2139	166,1750	10,0000	1,0000	1,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB707	65,2153	166,1861	7,0000	2,0000	1,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB708	65,2167	166,1972	10,0000	2,0000	0,7000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB709	65,2139	166,1972	10,0000	2,0000	0,7000	0,7000	1000,0000	0,5000N	200,0000N	10,0000N
ACB710	65,2083	166,2000	10,0000	2,0000	2,0000	1,0000G	2000,0000	0,5000N	200,0000N	10,0000N
ACB711	65,2028	166,2111	10,0000	2,0000	3,0000	1,0000G	3000,0000	0,5000N	200,0000N	10,0000N
ACB712	65,2014	166,2194	10,0000	2,0000	0,7000	1,0000G	500,0000	0,5000N	200,0000N	10,0000N
ACB713	65,1972	166,2139	10,0000	3,0000	1,0000	1,0000G	500,0000	0,5000N	200,0000N	10,0000N
ACB714	65,1861	166,2111	10,0000	3,0000	0,7000	0,7000	1000,0000	0,5000N	200,0000N	10,0000N
ACB715	65,1708	166,2278	10,0000	3,0000	2,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB716	65,1667	166,2306	5,0000	2,0000	1,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB717	65,1694	166,2361	10,0000	2,0000	2,0000	1,0000G	1500,0000	0,5000N	200,0000N	10,0000N
ACB718	65,1444	166,2347	5,0000	2,0000	1,0000	0,7000	700,0000	0,5000N	200,0000N	10,0000N
ACB719	65,2403	166,2861	10,0000	2,0000	0,3000	0,7000	2000,0000	0,5000N	200,0000N	10,0000N
ACB720	65,2361	166,3111	10,0000	2,0000	0,7000	1,0000	1500,0000	0,5000N	200,0000N	10,0000N
ACB721	65,2250	166,3139	10,0000	2,0000	0,7000	1,0000G	700,0000	0,5000N	200,0000N	10,0000N
ACB722	65,2250	166,2861	5,0000	2,0000	0,3000	0,5000	200,0000	0,5000N	200,0000N	10,0000N
ACB723	65,2222	166,2917	10,0000	3,0000	1,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB724	65,2056	166,2847	10,0000	2,0000	0,5000	1,0000	1500,0000	0,5000N	200,0000N	10,0000N
ACB725	65,1347	166,2083	10,0000	3,0000	2,0000	1,0000G	700,0000	0,5000N	200,0000N	10,0000N
ACB726	65,1306	166,2139	10,0000	2,0000	0,5000	0,7000	2000,0000	0,5000N	200,0000N	10,0000N
ACB727	65,1250	166,1944	15,0000	2,0000	3,0000	1,0000G	700,0000	0,5000N	200,0000N	10,0000N
ACB728	65,1361	166,1694	15,0000	2,0000	1,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB729	65,1375	166,1300	5,0000	2,0000	0,7000	0,7000	1000,0000	0,5000N	200,0000N	10,0000N
ACB730	65,1556	166,1639	5,0000	2,0000	1,0000	0,7000	1500,0000	0,5000N	200,0000N	10,0000N
ACB731	65,1583	166,1528	15,0000	2,0000	0,7000	0,7000	5000,0000	0,5000N	200,0000N	10,0000N
ACB732	65,1583	166,1444	10,0000	2,0000	0,7000	1,0000	1500,0000	0,5000N	200,0000N	10,0000N
ACB733	65,1694	166,1181	10,0000	2,0000	0,7000	1,0000	5000,0000	0,5000N	200,0000N	10,0000N
ACB734	65,1514	166,0528	10,0000	2,0000	3,0000	1,0000G	700,0000	0,5000N	200,0000N	10,0000N
ACB735	65,1347	166,0861	5,0000	2,0000	1,0000	1,0000	700,0000	0,5000N	200,0000N	10,0000N
ACB736	65,1222	166,1083	5,0000	2,0000	3,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB737	65,1194	166,1000	5,0000	2,0000	3,0000	1,0000G	700,0000	0,5000N	200,0000N	10,0000N
ACB738	65,1194	166,1083	5,0000	2,0000	2,0000	0,5000	500,0000	0,5000N	200,0000N	10,0000N
ACB739	65,1236	166,1167	3,0000	2,0000	1,0000	1,0000	300,0000	0,5000N	200,0000N	10,0000N
ACB740	65,1278	166,1750	5,0000	2,0000	1,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB741	65,1194	166,1889	15,0000	3,0000	3,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB742	65,1194	166,1972	10,0000	2,0000	3,0000	1,0000G	700,0000	0,5000N	200,0000N	10,0000N
ACB743	65,1111	166,1944	5,0000	2,0000	3,0000	1,0000G	1500,0000	0,5000N	200,0000N	10,0000N
ACB744	65,1000	166,2014	5,0000	2,0000	2,0000	1,0000G	700,0000	0,5000N	200,0000N	10,0000N
ACB745	65,0944	166,2194	7,0000	2,0000	2,0000	1,0000G	700,0000	0,5000N	200,0000N	10,0000N

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SAMPLE	S=B	S=BA	S=BE	S=BI	S=CD	S=CO	S=CR	S=CU	S=LA	S=MO
ACB644	150.0000	500.0000	1.0000	10.0000N	20.0000N	20.0000	70.0000	30.0000	50.0000	5.0000N
ACB647	10.0000	500.0000	1.0000L	10.0000N	20.0000N	30.0000	100.0000	100.0000	20.0000N	5.0000N
ACB648	50.0000	500.0000	1.5000	10.0000N	20.0000N	10.0000	70.0000	50.0000	20.0000	5.0000N
ACB649	200.0000	500.0000	2.0000	10.0000N	20.0000N	15.0000	100.0000	30.0000	30.0000	5.0000N
ACB650	300.0000	300.0000	1.0000	10.0000N	20.0000N	10.0000	70.0000	15.0000	20.0000	5.0000N
ACB701	200.0000	700.0000	2.0000	10.0000N	20.0000N	20.0000	70.0000	30.0000	30.0000	5.0000N
ACB702	150.0000	300.0000	1.0000N	10.0000N	20.0000N	20.0000	30.0000	20.0000	20.0000N	5.0000N
ACB703	300.0000	700.0000	2.0000	10.0000N	20.0000N	20.0000	100.0000	70.0000	50.0000	5.0000N
ACB704	150.0000	500.0000	2.0000	10.0000N	20.0000N	20.0000	100.0000	30.0000	30.0000	5.0000N
ACB705	150.0000	700.0000	2.0000	10.0000N	20.0000N	20.0000	100.0000	30.0000	30.0000	5.0000N
ACB706	200.0000	700.0000	1.0000	10.0000N	20.0000N	20.0000	100.0000	30.0000	30.0000	5.0000N
ACB707	150.0000	300.0000	1.0000	10.0000N	20.0000N	10.0000	100.0000	30.0000	20.0000	5.0000N
ACB708	100.0000	500.0000	1.0000	10.0000N	20.0000N	20.0000	100.0000	30.0000	30.0000	5.0000N
ACB709	100.0000	500.0000	1.0000	10.0000N	20.0000N	15.0000	100.0000	30.0000	20.0000	5.0000N
ACB710	70.0000	500.0000	1.0000L	10.0000N	20.0000N	20.0000	100.0000	70.0000	20.0000	15.0000
ACB711	100.0000	700.0000	1.0000	10.0000N	20.0000N	30.0000	100.0000	70.0000	30.0000	7.0000
ACB712	100.0000	3000.0000	1.0000	10.0000N	20.0000N	15.0000	100.0000	50.0000	30.0000	7.0000
ACB713	100.0000	700.0000	1.0000	10.0000N	20.0000N	20.0000	150.0000	50.0000	30.0000	5.0000N
ACB714	150.0000	700.0000	1.0000	10.0000N	20.0000N	30.0000	70.0000	50.0000	50.0000	5.0000N
ACB715	150.0000	500.0000	1.0000L	10.0000N	20.0000N	30.0000	100.0000	50.0000	30.0000	5.0000N
ACB716	70.0000	300.0000	1.0000	10.0000N	20.0000N	10.0000	50.0000	20.0000	20.0000	5.0000N
ACB717	50.0000	200.0000	1.0000L	10.0000N	20.0000N	20.0000	70.0000	50.0000	20.0000	5.0000N
ACB718	30.0000	200.0000	1.0000L	0000N	20.0000N	10.0000	70.0000	20.0000	20.0000	5.0000N
ACB719	70.0000	1000.0000	2.0000	10.0000N	20.0000N	50.0000	70.0000	70.0000	20.0000	10.0000
ACB720	100.0000	1500.0000	2.0000	10.0000N	20.0000N	30.0000	70.0000	50.0000	30.0000	5.0000
ACB721	70.0000	1000.0000	1.0000	10.0000N	20.0000N	30.0000	70.0000	50.0000	30.0000	5.0000
ACB722	70.0000	700.0000	1.0000	10.0000N	20.0000N	10.0000	70.0000	15.0000	20.0000	5.0000N
ACB723	100.0000	1500.0000	2.0000	10.0000N	20.0000N	50.0000	70.0000	70.0000	30.0000	5.0000
ACB724	100.0000	1000.0000	2.0000	10.0000N	20.0000N	30.0000	70.0000	100.0000	30.0000	10.0000
ACB725	100.0000	300.0000	1.0000	10.0000N	20.0000N	15.0000	70.0000	20.0000	20.0000	5.0000N
ACB726	100.0000	300.0000	1.0000	10.0000N	20.0000N	20.0000	70.0000	20.0000	20.0000	5.0000N
ACB727	50.0000	300.0000	1.0000L	10.0000N	20.0000N	15.0000	70.0000	50.0000	20.0000	5.0000N
ACB728	300.0000	300.0000	2.0000	10.0000N	20.0000N	50.0000	100.0000	200.0000	20.0000	5.0000N
ACB729	100.0000	500.0000	1.0000	10.0000N	20.0000N	30.0000	70.0000	30.0000	20.0000	5.0000N
ACB730	70.0000	500.0000	1.0000	10.0000N	20.0000N	30.0000	70.0000	30.0000	20.0000	5.0000N
ACB731	100.0000	300.0000	2.0000	10.0000N	20.0000N	30.0000	70.0000	30.0000	30.0000	5.0000N
ACB732	70.0000	500.0000	1.0000	10.0000N	20.0000N	20.0000	70.0000	30.0000	20.0000	5.0000N
ACB733	100.0000	500.0000	1.0000	10.0000N	20.0000N	30.0000	70.0000	30.0000	20.0000	5.0000N
ACB734	50.0000	150.0000	1.0000N	10.0000N	20.0000N	15.0000	70.0000	50.0000	20.0000	5.0000N
ACB735	30.0000	300.0000	1.0000	10.0000N	20.0000N	15.0000	70.0000	20.0000	20.0000N	5.0000N
ACB736	20.0000	200.0000	1.0000N	10.0000N	20.0000N	15.0000	70.0000	30.0000	20.0000	5.0000N
ACB737	20.0000	150.0000	1.0000N	10.0000N	20.0000N	15.0000	70.0000	30.0000	20.0000	5.0000N
ACB738	30.0000	150.0000	1.0000N	10.0000N	20.0000N	7.0000	70.0000	15.0000	20.0000N	5.0000N
ACB739	150.0000	200.0000	1.0000	10.0000N	20.0000N	10.0000	70.0000	15.0000	20.0000N	5.0000N
ACB740	70.0000	500.0000	1.0000	10.0000N	20.0000N	15.0000	70.0000	30.0000	20.0000N	5.0000N
ACB741	50.0000	300.0000	1.0000N	10.0000N	20.0000N	30.0000	100.0000	100.0000	20.0000	5.0000N
ACB742	100.0000	700.0000	1.0000N	10.0000N	20.0000N	30.0000	70.0000	50.0000	20.0000N	5.0000N
ACB743	100.0000	300.0000	1.0000N	10.0000N	20.0000N	20.0000	70.0000	30.0000	20.0000N	5.0000N
ACB744	100.0000	150.0000	1.0000N	10.0000N	20.0000N	15.0000	50.0000	20.0000	20.0000N	5.0000N
ACB745	70.0000	300.0000	1.0000N	10.0000N	20.0000N	15.0000	70.0000	20.0000	20.0000N	5.0000N

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SAMPLE	S=NB	S=NI	S=PB	S=SB	S=SC	S=SN	S=SR	S=V	S=W	S=Y
ACB644	20,0000L	30,0000	20,0000	100,0000N	20,0000	10,0000N	100,0000	100,0000	50,0000N	30,0000
ACB647	10,0000	70,0000	10,0000	100,0000N	20,0000	10,0000N	300,0000	500,0000	50,0000N	30,0000
ACB648	10,0000	30,0000	20,0000	100,0000N	15,0000	10,0000N	300,0000	100,0000	50,0000N	20,0000
ACB649	20,0000L	50,0000	20,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	30,0000
ACB650	20,0000L	30,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	30,0000
ACB701	20,0000L	50,0000	20,0000	100,0000N	30,0000	10,0000N	100,0000	150,0000	50,0000N	30,0000
ACB702	20,0000N	20,0000	10,0000N	100,0000N	20,0000	10,0000N	100,0000N	100,0000	50,0000N	15,0000
ACB703	20,0000L	70,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	200,0000	50,0000N	30,0000
ACB704	20,0000N	50,0000	15,0000	100,0000N	20,0000	10,0000N	100,0000	150,0000	50,0000N	30,0000
ACB705	20,0000L	50,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	200,0000	50,0000N	30,0000
ACB706	20,0000L	50,0000	30,0000	100,0000N	30,0000	10,0000N	100,0000	150,0000	50,0000N	30,0000
ACB707	20,0000L	50,0000	20,0000	100,0000N	30,0000	10,0000N	100,0000	150,0000	50,0000N	30,0000
ACB708	20,0000N	70,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	150,0000	50,0000N	30,0000
ACB709	20,0000N	70,0000	15,0000	100,0000N	20,0000	10,0000N	100,0000N	150,0000	50,0000N	20,0000
ACB710	20,0000L	70,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	200,0000	50,0000N	30,0000
ACB711	20,0000L	70,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	300,0000	50,0000N	50,0000
ACB712	20,0000L	70,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	150,0000	50,0000N	30,0000
ACB713	20,0000L	50,0000	20,0000	100,0000N	30,0000	10,0000N	100,0000	150,0000	50,0000N	30,0000
ACB714	20,0000L	50,0000	20,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	30,0000
ACB715	20,0000L	50,0000	15,0000	100,0000N	30,0000	10,0000N	200,0000	200,0000	50,0000N	30,0000
ACB716	20,0000L	20,0000	200,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	20,0000
ACB717	20,0000	30,0000	15,0000	100,0000N	30,0000	10,0000N	300,0000	200,0000	50,0000N	20,0000
ACB718	20,0000N	50,0000	20,0000	100,0000N	30,0000	10,0000N	150,0000	100,0000	50,0000N	30,0000
ACB719	20,0000N	70,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	200,0000	50,0000N	20,0000
ACB720	20,0000L	70,0000	15,0000	100,0000N	30,0000	10,0000N	150,0000	200,0000	50,0000N	30,0000
ACB721	20,0000L	50,0000	20,0000	100,0000N	30,0000	10,0000N	100,0000	150,0000	50,0000N	20,0000
ACB722	20,0000L	30,0000	10,0000	100,0000N	20,0000	10,0000N	100,0000N	100,0000	50,0000N	15,0000
ACB723	20,0000	70,0000	30,0000	100,0000N	30,0000	10,0000N	150,0000	200,0000	50,0000N	30,0000
ACB724	20,0000L	70,0000	50,0000	100,0000N	30,0000	10,0000N	150,0000	200,0000	50,0000N	30,0000
ACB725	20,0000N	30,0000	20,0000	100,0000N	30,0000	10,0000N	200,0000	150,0000	50,0000N	50,0000
ACB726	20,0000L	50,0000	20,0000	100,0000N	20,0000	10,0000N	100,0000	100,0000	50,0000N	30,0000
ACB727	20,0000N	30,0000	15,0000	100,0000N	30,0000	10,0000N	150,0000	150,0000	50,0000N	30,0000
ACB728	20,0000L	70,0000	30,0000	100,0000N	30,0000	10,0000N	150,0000	200,0000	50,0000N	20,0000
ACB729	20,0000L	50,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	30,0000
ACB730	20,0000L	50,0000	30,0000	100,0000N	30,0000	10,0000N	150,0000	100,0000	50,0000N	30,0000
ACB731	20,0000N	30,0000	30,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	30,0000
ACB732	20,0000L	50,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	20,0000
ACB733	20,0000N	30,0000	20,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	50,0000
ACB734	20,0000N	30,0000	15,0000	100,0000N	30,0000	10,0000N	200,0000	100,0000	50,0000N	20,0000
ACB735	20,0000N	50,0000	15,0000	100,0000N	30,0000	10,0000N	100,0000	100,0000	50,0000N	15,0000
ACB736	20,0000N	30,0000	15,0000	100,0000N	30,0000	10,0000N	200,0000	100,0000	50,0000N	30,0000
ACB737	20,0000N	30,0000	15,0000	100,0000N	30,0000	10,0000N	200,0000	100,0000	50,0000N	20,0000
ACB738	20,0000N	15,0000	15,0000	100,0000N	30,0000	10,0000N	150,0000	100,0000	50,0000N	15,0000
ACB739	20,0000L	20,0000	15,0000	100,0000N	30,0000	10,0000N	150,0000	100,0000	50,0000N	15,0000
ACB740	20,0000N	50,0000	15,0000	200,0000	30,0000	10,0000N	100,0000	100,0000	50,0000N	30,0000
ACB741	20,0000L	50,0000	30,0000	100,0000N	30,0000	10,0000N	500,0000	150,0000	50,0000N	30,0000
ACB742	20,0000N	50,0000	20,0000	100,0000N	30,0000	10,0000N	100,0000	150,0000	50,0000N	30,0000
ACB743	20,0000N	50,0000	20,0000	100,0000N	30,0000	10,0000N	300,0000	150,0000	50,0000N	30,0000
ACB744	20,0000N	30,0000	10,0000	100,0000N	30,0000	10,0000N	150,0000	150,0000	50,0000N	20,0000
ACB745	20,0000N	30,0000	20,0000	100,0000N	30,0000	10,0000N	200,0000	150,0000	50,0000N	20,0000

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SAMPLE	S-ZN	S-ZR	AA-AU-P	AA-AU-SW	INST-HG	AA-ZN-P	CM-PB	CM-AS	CM-CU	CM-NI
ACB644	200.0000N	150.0000	0.0200L	0.0000B	0.3000	110.0000	34	10.0000L	17	48
ACB647	200.0000N	150.0000	0.0600	0.0000B	0.3400	0.0000B	-	20.0000	-	-
ACB648	200.0000N	150.0000	0.0200L	0.0000B	0.2200	0.0000B	-	10.0000L	-	-
ACB649	200.0000N	200.0000	0.0200L	0.0000B	0.2800	80.0000	30	10.0000L	20	42
ACB650	200.0000N	200.0000	0.0200L	0.0000B	0.0700	50.0000	25L	10.0000L	10	54
ACB701	200.0000L	150.0000	0.0200L	0.0000B	0.5000	80.0000	26	10.0000L	20	40
ACB702	200.0000N	100.0000	0.0200L	0.0000B	0.5500	64.0000	25L	10.0000L	10	32
ACB703	200.0000L	200.0000	0.0200L	0.0000B	0.4000	90.0000	26	10.0000L	24	53
ACB704	200.0000N	200.0000	0.0200L	0.0000B	0.5000	88.0000	26	10.0000	18	44
ACB705	200.0000N	200.0000	0.0200L	0.0000B	0.5500	80.0000	25L	10.0000L	20	44
ACB706	200.0000L	200.0000	0.0200L	0.0000B	0.9000	60.0000	25L	10.0000L	11	29
ACB707	200.0000N	200.0000	0.0200L	0.0000B	0.5000	70.0000	25L	10.0000	19	40
ACB708	200.0000N	200.0000	0.0200L	0.0000B	0.1500	74.0000	25L	10.0000N	20	50
ACB709	200.0000L	150.0000	0.0200L	0.0000B	0.2200	90.0000	30	10.0000N	24	54
ACB710	200.0000L	150.0000	0.0200L	0.0000B	0.1100	96.0000	32	10.0000L	24	58
ACB711	200.0000L	200.0000	0.0200L	0.0000B	0.1500	84.0000	30	10.0000L	20	48
ACB712	200.0000L	150.0000	0.0200L	0.0000B	0.1500	110.0000	28	10.0000L	28	58
ACB713	200.0000L	200.0000	0.0200L	0.0000B	0.1800	96.0000	32	10.0000N	28	52
ACB714	200.0000N	200.0000	0.0200L	0.0000B	0.2200	92.0000	30	10.0000N	24	50
ACB715	200.0000N	150.0000	0.0200L	0.0000B	0.1800	70.0000	26	10.0000L	18	38
ACB716	200.0000N	150.0000	0.0200L	0.0000B	0.2200	78.0000	26	10.0000L	16	38
ACB717	200.0000	150.0000	0.0200L	0.0000B	0.0800	80.0000	30	10.0000L	19	44
ACB718	200.0000N	150.0000	0.0200L	0.0000B	0.0900	66.0000	25L	10.0000L	18	46
ACB719	200.0000	100.0000	0.0200L	0.0000B	0.3500	120.0000	30	10.0000L	26	64
ACB720	200.0000	200.0000	0.0200L	0.0000B	0.1800	140.0000	32	10.0000	31	60
ACB721	200.0000L	200.0000	0.0200L	0.0000B	0.1800	140.0000	30	10.0000	34	57
ACB722	200.0000N	150.0000	0.0200L	0.0000B	0.0800	80.0000	28	10.0000N	15	46
ACB723	200.0000	200.0000	0.0200L	0.0000B	0.1200	160.0000	40	10.0000N	41	68
ACB724	200.0000	150.0000	0.0200L	0.0000B	0.2600	190.0000	44	10.0000L	55	88
ACB725	200.0000N	150.0000	0.0200L	0.0000B	0.0500	76.0000	25L	10.0000L	16	50
ACB726	200.0000N	100.0000	0.0200L	0.0000B	0.1600	94.0000	32	10.0000L	24	56
ACB727	200.0000	100.0000	0.0200L	0.0000B	0.0800	84.0000	26	10.0000	24	44
ACB728	200.0000	150.0000	0.0200L	0.0000B	0.1500	94.0000	26	10.0000L	29	62
ACB729	200.0000	150.0000	0.0200L	0.0000B	0.1600	140.0000	36	10.0000	30	78
ACB730	200.0000N	150.0000	0.0200L	0.0000B	0.0900	86.0000	32	20.0000	24	48
ACB731	200.0000L	150.0000	0.0200L	0.0000B	0.3000	72.0000	36	10.0000	22	39
ACB732	200.0000L	150.0000	0.0200L	0.0000B	0.0500	78.0000	28	40.0000	20	44
ACB733	200.0000L	200.0000	0.0200L	0.0000B	0.0800	70.0000	30	10.0000	11	33
ACB734	200.0000N	100.0000	0.0200L	0.0000B	0.2000	54.0000	28	10.0000	18	32
ACB735	200.0000N	150.0000	0.0200L	0.0000B	0.3500	62.0000	25L	10.0000	18	38
ACB736	200.0000N	150.0000	0.0200L	0.0000B	0.1300	42.0000	25L	10.0000L	13	22
ACB737	200.0000N	150.0000	0.0200L	0.0000B	0.0400	40.0000	25L	10.0000N	14	21
ACB738	200.0000N	150.0000	0.0200L	0.0000B	0.1000	42.0000	25L	10.0000N	14	24
ACB739	200.0000N	200.0000	0.0200L	0.0000B	0.0800	40.0000	25L	20.0000	18	20
ACB740	200.0000N	150.0000	0.0200L	0.0000B	0.5000	58.0000	25L	10.0000N	17	38
ACB741	200.0000N	150.0000	0.0200L	0.0000B	0.4000	50.0000	25L	10.0000L	24	32
ACB742	200.0000N	150.0000	0.0200L	0.0000B	0.1400	76.0000	66	10.0000L	22	40
ACB743	200.0000N	100.0000	0.0200L	0.0000B	0.3000	58.0000	25L	40.0000	20	26
ACB744	200.0000N	100.0000	0.0200L	0.0000B	0.3500	54.0000	25L	10.0000L	23	24
ACB745	200.0000N	100.0000	0.0200L	0.0000B	0.2200	60.0000	25L	10.0000N	19	38

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SAMPLE	LATITUDE	LONGITUD	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-AS	S-AU
ACB746	65.0861	166.2167	15.0000	3.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB747	65.0889	166.2250	15.0000	2.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB748	65.0792	166.2028	15.0000	2.0000	5.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB749	65.0778	166.2111	10.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB750	65.0694	166.2028	10.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB751	65.0653	166.1833	5.0000	2.0000	2.0000	1.0000	700.0000	0.5000N	200.0000N	10.0000N
ACB752	65.0583	166.2056	10.0000	2.0000	2.0000	1.0000	1000.0000	0.5000N	200.0000N	10.0000N
ACB753	65.0556	166.1861	15.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB754	65.0486	166.1806	10.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB755	65.0472	166.1722	5.0000	2.0000	3.0000	1.0000G	700.0000	0.5000N	200.0000N	10.0000N
ACB756	65.0444	166.1500	10.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB757	65.0444	166.1611	10.0000	2.0000	2.0000	1.0000	700.0000	0.5000N	200.0000N	10.0000N
ACB758	65.0417	166.1694	10.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB759	65.0333	166.1806	10.0000	2.0000	2.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB761	65.0319	166.2000	15.0000	2.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB762	65.0306	166.1972	15.0000	2.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB763	65.0278	166.1972	15.0000	3.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB764	65.0139	166.1944	15.0000	3.0000	3.0000	1.0000	1500.0000	0.5000N	200.0000N	10.0000N
ACB765	65.0278	166.2194	15.0000	2.0000	2.0000	1.0000	1000.0000	0.5000N	200.0000N	10.0000N
ACB766	65.0333	166.2500	10.0000	2.0000	1.0000	1.0000G	700.0000	0.5000N	200.0000N	10.0000N
ACB767	65.0292	166.2583	10.0000	2.0000	2.0000	1.0000	500.0000	0.5000N	200.0000N	10.0000N
ACB768	65.0389	166.2778	15.0000	3.0000	5.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB769	65.0403	166.2889	10.0000	2.0000	2.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB770	65.0389	166.2833	5.0000	2.0000	1.0000	1.0000	700.0000	0.5000N	200.0000N	10.0000N
ACB771	65.0222	166.2861	10.0000	3.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB772	65.0222	166.2944	10.0000	3.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB773	65.0083	166.2694	10.0000	3.0000	1.0000	1.0000	2000.0000	0.5000N	200.0000N	10.0000N
ACB774	65.0069	166.2750	10.0000	2.0000	2.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB775	65.0486	166.3194	10.0000	3.0000	3.0000	1.0000G	5000.0000	0.5000N	200.0000N	10.0000N
ACB776	65.0389	166.3556	10.0000	3.0000	2.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB777	65.0403	166.3556	10.0000	3.0000	2.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N
ACB778	65.0306	166.3869	10.0000	2.0000	2.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB779	65.0111	166.4028	15.0000	3.0000	3.0000	1.0000G	5000.0000	0.5000N	200.0000N	10.0000N
ACB780	65.0194	166.4500	10.0000	2.0000	0.5000	1.0000	700.0000	0.5000N	200.0000N	10.0000N
ACB781	65.0139	166.4611	10.0000	2.0000	0.2000	0.5000	500.0000	0.5000N	200.0000N	10.0000N
ACB782	65.0194	166.4611	10.0000	2.0000	0.5000	0.7000	1000.0000	0.5000N	200.0000N	10.0000N
ACB783	65.0347	166.4750	15.0000	3.0000	3.0000	1.0000	1500.0000	0.5000N	200.0000N	10.0000N
ACB784	65.0389	166.4778	10.0000	2.0000	2.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB785	65.0708	166.4306	10.0000	2.0000	2.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB786	65.0708	166.4250	10.0000	3.0000	2.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB787	65.0750	166.4361	15.0000	3.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB788	65.0778	166.4139	15.0000	2.0000	3.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB789	65.0792	166.4236	10.0000	2.0000	1.0000	1.0000G	700.0000	0.5000N	200.0000N	10.0000N
ACB790	65.0806	166.4167	10.0000	3.0000	2.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB791	65.0917	166.3944	10.0000	2.0000	2.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB792	65.0861	166.3917	15.0000	2.0000	2.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N
ACB793	65.0917	166.3861	10.0000	2.0000	2.0000	1.0000G	700.0000	0.5000N	200.0000N	10.0000N
ACB794	65.0986	166.3681	10.0000	2.0000	2.0000	1.0000G	3000.0000	0.5000N	200.0000N	10.0000N
ACB795	65.1028	166.3667	15.0000	2.0000	3.0000	1.0000G	1000.0000	0.5000N	200.0000N	10.0000N
ACB796	65.1056	166.3583	10.0000	2.0000	1.0000	1.0000G	1500.0000	0.5000N	200.0000N	10.0000N

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SAMPLE	S-B	S-BA	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO
ACB746	50,0000	300,0000	1,0000N	10,0000N	20,0000N	30,0000	100,0000	50,0000	20,0000N	5,0000N
ACB747	150,0000	500,0000	1,0000N	10,0000N	20,0000N	50,0000	100,0000	70,0000	20,0000	5,0000N
ACB748	30,0000	200,0000	1,0000N	10,0000N	20,0000N	30,0000	70,0000	30,0000	20,0000	5,0000N
ACB749	100,0000	500,0000	1,0000N	10,0000N	20,0000N	15,0000	100,0000	30,0000	20,0000	5,0000N
ACB750	100,0000	200,0000	1,0000N	10,0000N	20,0000N	15,0000	70,0000	30,0000	20,0000	5,0000N
ACB751	70,0000	300,0000	1,0000	10,0000N	20,0000N	15,0000	50,0000	20,0000	20,0000	5,0000N
ACB752	70,0000	200,0000	1,0000N	10,0000N	20,0000N	15,0000	70,0000	30,0000	20,0000	5,0000N
ACB753	300,0000	200,0000	1,0000N	10,0000N	20,0000N	15,0000	100,0000	30,0000	20,0000	5,0000N
ACB754	100,0000	200,0000	1,0000L	10,0000N	20,0000N	15,0000	70,0000	20,0000	20,0000	5,0000N
ACB755	30,0000	500,0000	2,0000	10,0000N	20,0000N	10,0000	30,0000	10,0000	70,0000	5,0000N
ACB756	70,0000	500,0000	1,0000	10,0000N	20,0000N	30,0000	100,0000	20,0000	20,0000	5,0000N
ACB757	70,0000	700,0000	1,0000	10,0000N	20,0000N	15,0000	100,0000	15,0000	30,0000	5,0000N
ACB758	150,0000	700,0000	1,0000	10,0000N	20,0000N	[illegible]0000	100,0000	30,0000	100,0000	5,0000N
ACB759	30,0000	150,0000	1,0000N	10,0000N	20,0000N	10,0000	100,0000	30,0000	20,0000	5,0000N
ACB761	100,0000	300,0000	1,0000N	10,0000N	20,0000N	20,0000	100,0000	30,0000	30,0000	5,0000N
ACB762	50,0000	200,0000	1,0000N	10,0000N	20,0000N	20,0000	100,0000	50,0000	20,0000	5,0000N
ACB763	150,0000	300,0000	1,0000N	10,0000N	20,0000N	30,0000	100,0000	50,0000	20,0000	5,0000N
ACB764	70,0000	300,0000	1,0000N	10,0000N	20,0000N	20,0000	100,0000	50,0000	70,0000	5,0000N
ACB765	50,0000	200,0000	1,0000N	10,0000N	20,0000N	20,0000	70,0000	20,0000	20,0000	5,0000N
ACB766	20,0000	200,0000	1,0000N	10,0000N	20,0000N	20,0000	70,0000	30,0000	20,0000N	5,0000N
ACB767	30,0000	200,0000	1,0000N	10,0000N	20,0000N	20,0000	100,0000	20,0000	20,0000	5,0000N
ACB768	30,0000	200,0000	1,0000N	10,0000N	20,0000N	30,0000	70,0000	50,0000	100,0000	5,0000N
ACB769	50,0000	200,0000	1,0000N	10,0000N	20,0000N	20,0000	70,0000	20,0000	20,0000	5,0000N
ACB770	20,0000	150,0000	1,0000N	[illegible]0000N	20,0000N	10,0000	70,0000	20,0000	20,0000N	5,0000N
ACB771	50,0000	200,0000	1,0000N	10,0000N	20,0000N	20,0000	100,0000	50,0000	20,0000	5,0000N
ACB772	100,0000	200,0000	1,0000N	10,0000N	20,0000N	20,0000	70,0000	50,0000	20,0000	5,0000N
ACB773	100,0000	300,0000	1,0000	10,0000N	20,0000N	30,0000	100,0000	20,0000	20,0000	5,0000N
ACB774	20,0000	150,0000	1,0000N	10,0000N	20,0000N	20,0000	70,0000	30,0000	20,0000	5,0000N
ACB775	30,0000	300,0000	1,0000N	10,0000N	20,0000N	50,0000	70,0000	50,0000	20,0000N	5,0000N
ACB776	50,0000	500,0000	1,0000N	10,0000N	20,0000N	30,0000	70,0000	30,0000	20,0000	5,0000N
ACB777	30,0000	300,0000	1,0000N	10,0000N	20,0000N	50,0000	70,0000	30,0000	20,0000	5,0000N
ACB778	200,0000	300,0000	1,0000	10,0000N	20,0000N	30,0000	70,0000	50,0000	30,0000	5,0000N
ACB779	50,0000	300,0000	1,0000N	10,0000N	20,0000N	30,0000	50,0000	50,0000	20,0000	5,0000N
ACB780	200,0000	200,0000	1,0000	10,0000N	20,0000N	15,0000	70,0000	20,0000	20,0000	5,0000N
ACB781	100,0000	150,0000	1,0000	10,0000N	20,0000N	10,0000	50,0000	15,0000	20,0000N	5,0000N
ACB782	100,0000	200,0000	1,0000	10,0000N	20,0000N	10,0000	50,0000	15,0000	20,0000	5,0000N
ACB783	100,0000	300,0000	1,0000	10,0000N	20,0000N	3[illegible]0000	70,0000	50,0000	20,0000	5,0000N
ACB784	150,0000	300,0000	1,0000	10,0000N	20,0000N	20,0000	70,0000	30,0000	20,0000N	5,0000N
ACB785	150,0000	200,0000	1,0000	10,0000N	20,0000N	20,0000	50,0000	50,0000	20,0000	5,0000N
ACB786	150,0000	200,0000	1,0000	10,0000N	20,0000N	30,0000	50,0000	50,0000	20,0000	5,0000N
ACB787	100,0000	200,0000	1,0000	10,0000N	20,0000N	20,0000	70,0000	50,0000	20,0000	5,0000N
ACB788	70,0000	200,0000	1,0000	10,0000N	20,0000N	30,0000	70,0000	70,0000	20,0000	5,0000N
ACB789	50,0000	200,0000	1,0000N	10,0000N	20,0000N	15,0000	50,0000	30,0000	20,0000N	5,0000N
ACB790	150,0000	200,0000	1,0000	10,0000N	20,0000N	20,0000	70,0000	30,0000	20,0000	5,0000N
ACB791	50,0000	200,0000	1,0000L	10,0000N	20,0000N	20,0000	70,0000	30,0000	20,0000	5,0000N
ACB792	20,0000	200,0000	1,0000L	10,0000N	20,0000N	20,0000	70,0000	50,0000	20,0000	5,0000N
ACB793	50,0000	200,0000	1,0000L	10,0000N	20,0000N	15,0000	70,0000	50,0000	20,0000N	5,0000N
ACB794	50,0000	200,0000	1,0000L	10,0000N	20,0000N	20,0000	70,0000	50,0000	20,0000N	5,0000N
ACB795	100,0000	200,0000	1,0000N	10,0000N	20,0000N	20,0000	50,0000	50,0000	20,0000N	5,0000N
ACB796	50,0000	200,0000	1,0000L	10,0000N	20,0000N	15,0000	30,0000	30,0000	20,0000N	5,0000N

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SAMPLE	S=NB	S=NI	S=PB	S=SB	S=SC	S=SN	S=SR	S=V	S=W	S=Y
ACB746	20.0000N	50.0000	20.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB747	20.0000L	50.0000	50.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000
ACB748	20.0000L	30.0000	20.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB749	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB750	20.0000L	30.0000	30.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB751	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	70.0000	50.0000N	100.0000
ACB752	20.0000N	50.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000
ACB753	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	50.0000
ACB754	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000
ACB755	20.0000N	15.0000	20.0000	100.0000N	30.0000	10.0000N	150.0000	70.0000	50.0000N	30.0000
ACB756	20.0000N	50.0000	30.0000	100.0000N	30.0000	10.0000N	500.0000	200.0000	50.0000N	30.0000
ACB757	20.0000L	50.0000	30.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	50.0000
ACB758	20.0000N	50.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000
ACB759	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	20.0000
ACB761	20.0000	50.0000	20.0000	100.0000N	30.0000	10.0000N	300.0000	150.0000	50.0000N	50.0000
ACB762	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	30.0000
ACB763	20.0000N	70.0000	20.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB764	20.0000N	70.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000
ACB765	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000
ACB766	20.0000L	70.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	20.0000
ACB767	20.0000N	70.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000
ACB768	20.0000N	30.0000	30.0000	100.0000N	30.0000	10.0000N	500.0000	200.0000	50.0000N	70.0000
ACB769	20.0000L	70.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	50.0000
ACB770	20.0000L	50.0000	15.0000	100.0000N	20.0000	10.0000N	150.0000	100.0000	50.0000N	15.0000
ACB771	20.0000N	70.0000	15.0000	100.0000N	30.0000	10.0000N	500.0000	200.0000	50.0000N	30.0000
ACB772	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB773	20.0000N	100.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	30.0000
ACB774	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	100.0000	50.0000N	20.0000
ACB775	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	100.0000	50.0000N	30.0000
ACB776	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000
ACB777	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	100.0000	50.0000N	20.0000
ACB778	20.0000L	50.0000	20.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	50.0000
ACB779	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000
ACB780	20.0000N	50.0000	15.0000	100.0000N	20.0000	10.0000N	100.0000N	100.0000	50.0000N	50.0000
ACB781	20.0000N	50.0000	15.0000	100.0000N	30.0000	10.0000N	100.0000N	100.0000	50.0000N	15.0000
ACB782	20.0000N	70.0000	15.0000	100.0000N	30.0000	10.0000N	100.0000N	100.0000	50.0000N	20.0000
ACB783	20.0000N	70.0000	20.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000
ACB784	20.0000N	50.0000	30.0000	100.0000N	30.0000	10.0000N	100.0000N	200.0000	50.0000N	20.0000
ACB785	20.0000L	30.0000	20.0000	100.0000N	30.0000	10.0000N	100.0000	200.0000	50.0000N	20.0000
ACB786	20.0000N	50.0000	30.0000	100.0000N	30.0000	10.0000N	100.0000	200.0000	50.0000N	20.0000
ACB787	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	300.0000	300.0000	50.0000N	30.0000
ACB788	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000
ACB789	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	100.0000	200.0000	50.0000N	15.0000
ACB790	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000
ACB791	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	100.0000	150.0000	50.0000N	20.0000
ACB792	20.0000L	50.0000	15.0000	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	20.0000
ACB793	20.0000L	30.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	20.0000
ACB794	20.0000N	50.0000	20.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	20.0000
ACB795	20.0000L	30.0000	15.0000	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000
ACB796	20.0000L	30.0000	15.0000	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	20.0000

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SAMPLE	S-ZN	S-ZR	AA-AU-P	AA-AU-SW	INST-HG	AA-ZN-P	CM-PB	CM-AS	CM-CU	CM-NI
ACB746	200.0000N	150.0000	0.0200L	0.0000B	0.3000	58.0000	25L	10.0000N	20	36
ACB747	200.0000N	200.0000	0.0200L	0.0000B	0.1400	70.0000	25L	10.0000L	26	46
ACB748	200.0000N	100.0000	0.0200L	0.0000B	0.6000	64.0000	25L	30.0000	40	38
ACB749	200.0000N	200.0000	0.0200L	0.0000B	0.3500	68.0000	25L	10.0000L	19	31
ACB750	200.0000N	200.0000	0.0200L	0.0000B	0.1800	64.0000	25L	10.0000	18	30
ACB751	200.0000N	200.0000	0.0200L	0.0000B	0.0500	50.0000	25L	10.0000L	17	34
ACB752	200.0000N	150.0000	0.0200L	0.0000B	0.0900	46.0000	25L	10.0000L	16	30
ACB753	200.0000N	150.0000	0.0200L	0.0000B	0.0600	40.0000	25L	10.0000L	10	28
ACB754	200.0000N	100.0000	0.0200L	0.0000B	0.1000	44.0000	25L	10.0000N	12	30
ACB755	200.0000N	300.0000	0.0200L	0.0000B	0.1400	40.0000	25L	10.0000N	10L	22
ACB756	200.0000N	150.0000	0.0200L	0.0000B	0.0600	42.0000	25L	10.0000L	11	30
ACB757	200.0000N	200.0000	0.0200L	0.0000B	0.1300	48.0000	25L	10.0000L	10L	26
ACB758	200.0000N	100.0000	0.0200L	0.0000B	0.0300	28.0000	25L	10.0000N	10L	20
ACB759	200.0000N	100.0000	0.0200L	0.0000B	0.0500	50.0000	25L	10.0000N	13	34
ACB761	200.0000N	200.0000	0.0200L	0.0000B	0.0600	54.0000	25L	10.0000N	13	36
ACB762	200.0000N	100.0000	0.0200L	0.0000B	0.0400	50.0000	25L	10.0000N	26	38
ACB763	200.0000N	150.0000	0.0200L	0.0000B	0.0400	58.0000	25L	10.0000N	30	46
ACB764	200.0000N	150.0000	0.0200L	0.0000B	0.0400	52.0000	25L	10.0000N	24	36
ACB765	200.0000N	150.0000	0.0200L	0.0000B	0.0400	60.0000	25L	10.0000N	14	40
ACB766	200.0000N	150.0000	0.0200L	0.0000B	0.0400	54.0000	25L	10.0000N	11	34
ACB767	200.0000N	100.0000	0.0200L	0.0000B	0.0300	46.0000	25L	10.0000L	14	36
ACB768	200.0000L	100.0000	0.0200L	0.0000B	0.0300	50.0000	25L	10.0000L	12	30
ACB769	200.0000N	150.0000	0.0200L	0.0000B	0.0600	54.0000	25L	10.0000N	10	33
ACB770	200.0000N	70.0000	0.0200L	0.0000B	0.0400	60.0000	25L	10.0000N	17	34
ACB771	200.0000N	150.0000	0.0200L	0.0000B	0.0500	50.0000	25L	10.0000N	14	38
ACB772	200.0000N	150.0000	0.0200L	0.0000B	0.0400	70.0000	26	10.0000N	12	30
ACB773	200.0000N	150.0000	0.0200L	0.0000B	0.0500	52.0000	25L	10.0000N	10L	40
ACB774	200.0000N	100.0000	0.0200L	0.0000B	0.0500	54.0000	25L	10.0000N	16	38
ACB775	200.0000L	70.0000	0.0200L	0.0000B	0.0500	88.0000	30	10.0000N	16	50
ACB776	200.0000N	100.0000	0.0200L	0.0000B	0.0500	85.0000	30	10.0000N	15	50
ACB777	200.0000N	100.0000	0.0200L	0.0000B	0.0400	85.0000	30	10.0000N	15	50
ACB778	200.0000N	200.0000	0.0200L	0.0000B	0.2000	70.0000	28	10.0000N	21	38
ACB779	200.0000L	200.0000	0.0200L	0.0000B	0.0400	84.0000	32	10.0000N	15	44
ACB780	200.0000N	200.0000	0.0200L	0.0000B	0.0400	56.0000	25	10.0000L	12	37
ACB781	200.0000N	200.0000	0.0200L	0.0000B	0.0700	60.0000	26	10.0000N	32	150
ACB782	200.0000N	150.0000	0.0200L	0.0000B	0.0500	90.0000	32	10.0000N	15	58
ACB783	200.0000N	200.0000	0.0200L	0.0000B	0.3000	80.0000	28	20.0000	32	46
ACB784	200.0000L	200.0000	0.0200L	0.0000B	0.0500	84.0000	28	10.0000	14	48
ACB785	200.0000L	200.0000	0.0200L	0.0000B	0.0900	86.0000	36	10.0000L	24	46
ACB786	200.0000L	150.0000	0.0200L	0.0000B	0.1400	84.0000	36	10.0000L	24	48
ACB787	200.0000L	200.0000	0.0200L	0.0000B	0.1000	58.0000	26	10.0000L	16	30
ACB788	200.0000L	200.0000	0.0200L	0.0000B	0.1100	80.0000	32	10.0000L	29	40
ACB789	200.0000N	150.0000	0.0200L	0.0000B	0.0900	68.0000	32	10.0000L	22	46
ACB790	200.0000L	200.0000	0.0200L	0.0000B	0.0900	70.0000	30	30.0000	19	40
ACB791	200.0000L	150.0000	0.0200L	0.0000B	0.1100	90.0000	25L	10.0000L	24	50
ACB792	200.0000L	150.0000	0.0200L	0.0000B	0.0500	72.0000	32	10.0000N	20	48
ACB793	200.0000L	150.0000	0.0200L	0.0000B	0.1400	72.0000	30	10.0000L	20	40
ACB794	200.0000L	200.0000	0.0200L	0.0000B	0.1100	78.0000	28	10.0000L	22	45
ACB795	200.0000L	150.0000	0.0200L	0.0000B	0.0800	74.0000	30	10.0000N	14	40
ACB796	200.0000L	150.0000	0.0200L	0.0000B	0.0800	78.0000	30	10.0000N	21	46

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SAMPLE	LATITUDE	LONGITUD	S-FE %	S-MG %	S-CA %	S-TI %	S-MN	S-AG	S-AS	S-AU
ACB797	65,1083	166,3694	10,0000	2,0000	1,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB798	65,1111	166,3778	10,0000	2,0000	2,0000	1,0000G	1000,0000	0,5000N	200,0000N	10,0000N
ACB799	65,1153	166,3694	15,0000	3,0000	3,0000	1,0000G	1500,0000	0,5000N	200,0000N	10,0000N
ACB800	65,1153	166,3833	5,0000	2,0000	1,0000	1,0000	700,0000	0,5000N	200,0000N	10,0000N
ACB651	65,0800	166,0820	15,0000	1,5000	1,5000	1,0000G	700,0000	0,50000N	200,0000N	10,0000N
ACB652	65,0715	166,1000	10,0000	1,0000	3,0000	1,0000	300,0000	0,50000N	200,0000N	10,0000N
ACB653	65,0805	166,0525	10,0000	1,5000	1,5000	1,0000G	1500,0000	0,50000N	200,0000N	10,0000N
ACB654	65,0910	166,0305	10,0000	1,5000	1,0000	1,0000G	700,0000	0,50000N	200,0000N	10,0000N

DATE 3/24/75

SAMPLE	S-B	S-BA	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO
ACB797	100,0000	200,0000	1,0000L	10,0000N	20,0000N	15,0000	50,0000	30,0000	20,0000	5,0000N
ACB798	70,0000	200,0000	1,0000L	10,0000N	20,0000N	15,0000	50,0000	30,0000	20,0000	5,0000N
ACB799	50,0000	300,0000	1,0000L	10,0000N	20,0000N	20,0000	70,0000	50,0000	20,0000	5,0000N
ACB800	50,0000	150,0000	1,0000N	10,0000N	20,0000N	15,0000	50,0000	20,0000	20,0000	5,0000N
ACB651	150,0000	300,0000	1,0000L	10,0000N	20,0000N	50,0000	70,0000	30,0000	20,0000L	5,0000N
ACB652	150,0000	150,0000	1,5000	10,0000N	20,0000N	15,0000	50,0000	10,0000	20,0000	5,0000N
ACB653	100,0000	300,0000	1,0000	10,0000N	20,0000N	30,0000	70,0000	30,0000	20,0000	5,0000N
ACB654	150,0000	300,0000	1,0000	10,0000N	20,0000N	20,0000	70,0000	20,0000	20,0000	5,0000N

DATE 3/24/75

SAMPLE	S=NB	S=NI	S=PB	S=SB	S=SC	S=SN	S=SR	S=V	S=W	S=Y
ACB797	20,0000L	30,0000	15,0000	100,0000N	30,0000	10,0000N	150,0000	150,0000	50,0000N	20,0000
ACB798	20,0000L	30,0000	15,0000	100,0000N	30,0000	10,0000N	200,0000	150,0000	50,0000N	20,0000
ACB799	20,0000L	50,0000	20,0000	100,0000N	30,0000	10,0000N	200,0000	200,0000	50,0000N	20,0000
ACB800	20,0000N	30,0000	15,0000	100,0000N	30,0000	10,0000N	150,0000	100,0000	50,0000N	15,0000
ACB651	10,0000	50,0000	10,0000L	10,0000N	15,0000	10,0000N	100,0000	300,0000	50,0000N	30,0000
ACB652	20,0000	30,0000	10,0000L	100,0000N	15,0000	10,0000N	50,0000	150,0000	50,0000N	30,0000
ACB653	10,0000	50,0000	15,0000	100,0000N	15,0000	10,0000N	100,0000	200,0000	50,0000N	30,0000
ACB654	10,0000	50,0000	10,0000L	100,0000N	15,0000	10,0000N	100,0000	200,0000	50,0000N	30,0000

DATE 3/24/75

SAMPLE	S-ZN	S-ZR	AA-AU-P	AA-AU-SW	INST-HG	AA-ZN-P	CM-PB	CM-AS	CM-CU	CM-NI
ACB797	200,0000N	200,0000	0,0200L	0,0000B	0,0900	66,0000	28	10,0000L	20	36
ACB798	200,0000N	150,0000	0,0200L	0,0000B	0,1000	70,0000	30	10,0000L	15	37
ACB799	200,0000L	150,0000	0,0200L	0,0000B	0,0800	78,0000	28	10,0000L	16	38
ACB800	200,0000N	150,0000	0,0200L	0,0000B	0,0500	78,0000	30	10,0000N	17	44
ACB651	200,0000N	200,0000			0,1800	64,0000	25L	10,0000L	18	45
ACB652	200,0000N	300,0000			0,1000	66,0000	25L	10,0000N	10	35
ACB653	200,0000N	150,0000			0,2200	76,0000	25L	10,0000L	23	66
ACB654	200,0000N	300,0000			0,3000	72,0000	25L	10,0000	20	48

TITLE Table 2.--*Frequency distributions, histograms, and geometric means and deviations of analyses of stream sediment samples from the Teller A-3 quadrangle, Seward Peninsula, west-central Alaska.*

THE FREQUENCY DISTRIBUTIONS AND HISTOGRAMS ON THE FOLLOWING PAGES ARE ON LOGARITHMIC SCALES, AND EMPLOY THE SAME CLASS INTERVALS AS USED IN REPORTING 6-STEP SEMIQUANTITATIVE SPECTROGRAPHIC ANALYSES. IMPORTANT NOTE- THE STATISTICS GIVEN BELOW THE HISTOGRAMS ARE DERIVED ONLY FROM DATA VALUES WITHIN THE RANGES OF ANALYTICAL DETERMINATION, AND ARE, THEREFORE, BIASED IF DATA VALUES QUALIFIED WITH N, L, G, I, OR H CODES ARE PRESENT. SEE LATER SECTION OF OUTPUT FOR STATISTICAL ESTIMATES THAT ARE UNBIASED IN THIS REGARD. THE GEOMETRIC MEAN IS AN ESTIMATE OF 'CENTRAL TENDENCY,' OR OF A CHARACTERISTIC VALUE, OF A FREQUENCY DISTRIBUTION THAT IS APPROXIMATELY SYMMETRICAL ON A LOG SCALE, AND IS THEREFORE USEFUL FOR CHARACTERIZING MANY GEOCHEMICAL DISTRIBUTIONS. THE GEOMETRIC MEAN IS NOT AN ESTIMATE OF GEOCHEMICAL 'ABUNDANCE' AND IS OF NO VALUE IN ESTIMATING RESERVES OR TOTAL AMOUNTS OF ELEMENTS PRESENT. SEE USGS PROFESSIONAL PAPER 574-B FOR FURTHER DISCUSSION. SEE USGS BULLETIN 1147E, PAGE 23, FOR EXPLANATION OF GEOMETRIC DEVIATION.

A470 · GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 3 (S-FE %)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
5.0E-01 - 8.3E-01	1	1	0.65	0.65
8.3E-01 - 1.2E+00	0	1	0.00	0.65
1.2E+00 - 1.8E+00	0	1	0.00	0.65
1.8E+00 - 2.8E+00	1	2	0.65	1.31
2.8E+00 - 3.8E+00	3	5	1.96	3.27
3.8E+00 - 5.0E+00	34	39	22.22	25.49
5.0E+00 - 8.3E+00	6	45	3.92	29.41
8.3E+00 - 1.2E+01	70	115	45.75	75.16
1.2E+01 - 1.8E+01	38	153	24.84	100.00

HISTOGRAM FOR COLUMN 3 (S-FE %)

```
      7.0E-01 X
      1.0E+00
      1.5E+00
      2.0E+00 X
      3.0E+00 XX
      5.0E+00 XXXXXXXXXXXXXXXXXXXXX
      7.0E+00 XXXX
      1.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      1.5E+01 XXXXXXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	0	153
0.00	0.00			0.00	0.00	

MAXIMUM = 1.50010E+01
MINIMUM = 7.00009E-01
GEOMETRIC MEAN = 8.87979E+00
GEOMETRIC DEVIATION = 1.61805E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 4 (S-MG %)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8,3E-02 -	1,2E-01	1	1	0,65	0,65
1,2E-01 -	1,8E-01	0	1	0,00	0,65
1,8E-01 -	2,6E-01	0	1	0,00	0,65
2,6E-01 -	3,8E-01	1	2	0,65	1,31
3,8E-01 -	5,6E-01	0	2	0,00	1,31
5,6E-01 -	8,3E-01	0	2	0,00	1,31
8,3E-01 -	1,2E+00	4	6	2,61	3,92
1,2E+00 -	1,8E+00	0	6	0,00	3,92
1,8E+00 -	2,6E+00	109	115	71,24	75,16
2,6E+00 -	3,8E+00	38	153	24,84	100,00

HISTOGRAM FOR COLUMN 4 (S-MG %)

```
1,0E-01 X
1,5E-01
2,0E-01
3,0E-01 X
5,0E-01
7,0E-01
1,0E+00 XXX
1,5E+00
2,0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3,0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	0	153
0,00	0,00			0,00	0,00	

MAXIMUM = 3,00000E+00
MINIMUM = 1,00000E-01
GEOMETRIC MEAN = 2,10381E+00
GEOMETRIC DEVIATION = 1,44182E+00

A470 ' GEOCHEMICAL SUMMARY - U S G S STATPAC (06/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 5 (S-CA %)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02	- 5.6E-02	1	1	0.65	0.65
5.6E-02	- 8.3E-02	0	1	0.00	0.65
8.3E-02	- 1.2E-01	0	1	0.00	0.65
1.2E-01	- 1.8E-01	0	1	0.00	0.65
1.8E-01	- 2.6E-01	1	2	0.65	1.31
2.6E-01	- 3.8E-01	2	4	1.31	2.61
3.8E-01	- 5.6E-01	6	10	3.92	6.54
5.6E-01	- 8.3E-01	22	32	14.38	20.92
8.3E-01	- 1.2E+00	27	59	17.65	38.56
1.2E+00	- 1.8E+00	0	59	0.00	38.56
1.8E+00	- 2.6E+00	39	98	25.49	64.05
2.6E+00	- 3.8E+00	47	145	30.72	94.77
3.8E+00	- 5.6E+00	8	153	5.23	100.00

HISTOGRAM FOR COLUMN 5 (S-CA %)

```
5.0E-02 X
7.0E-02
1.0E-01
1.5E-01
2.0E-01 X
3.0E-01 X
5.0E-01 XXXX
7.0E-01 XXXXXXXXXXXXX
1.0E+00 XXXXXXXXXXXXXXXXXX
1.5E+00
2.0E+00 XXXXXXXXXXXXXXXXXXXXXXXX
3.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E+00 XXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	0	153
0.00	0.00			0.00	0.00	

AXIMUM = 5.00000E+00
MINIMUM = 5.00000E-02
GEOMETRIC MEAN = 1.60643E+00
GEOMETRIC DEVIATION = 2.08394E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 6 (S=TI %)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	1	1	0.65	0.65
5.6E-02 -	8.3E-02	0	1	0.00	0.65
8.3E-02 -	1.2E-01	0	1	0.00	0.65
1.2E-01 -	1.8E-01	0	1	0.00	0.65
1.8E-01 -	2.6E-01	1	2	0.65	1.31
2.6E-01 -	3.8E-01	0	2	0.00	1.31
3.8E-01 -	5.6E-01	9	11	5.88	7.19
5.6E-01 -	8.3E-01	11	22	7.19	14.38
8.3E-01 -	1.2E+00	31	53	20.26	34.64

HISTOGRAM FOR COLUMN 6 (S=TI %)

```
5.0E-02 X
7.0E-02
1.0E-01
1.5E-01
2.0E-01 X
3.0E-01
5.0E-01 XXXXXX
7.0E-01 XXXXXX
1.0E+00 XXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	100	53
0.00	0.00			0.00	65.36	

MAXIMUM = 1.000000E+00
MINIMUM = 5.000000E-02
GEOMETRIC MEAN = 7.562827E-01
GEOMETRIC DEVIATION = 1.65422E+00

TITLE

FREQUENCY TABLE FOR COLUMN 7 (S=MN)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.5E+00 -	1.2E+01	1	1	0.65	0.65
1.2E+01 -	1.8E+01	0	1	0.00	0.65
1.8E+01 -	2.6E+01	0	1	0.00	0.65
2.6E+01 -	3.8E+01	0	1	0.00	0.65
3.8E+01 -	5.6E+01	0	1	0.00	0.65
5.6E+01 -	8.3E+01	0	1	0.00	0.65
8.3E+01 -	1.2E+02	0	1	0.00	0.65
1.2E+02 -	1.8E+02	1	2	0.65	1.31
1.8E+02 -	2.6E+02	2	4	1.31	2.61
2.6E+02 -	3.8E+02	1	5	0.65	3.27
3.8E+02 -	5.6E+02	9	14	5.88	9.15
5.6E+02 -	8.3E+02	27	41	17.65	26.80
8.3E+02 -	1.2E+03	49	90	32.03	58.82
1.2E+03 -	1.8E+03	33	123	21.57	80.39
1.8E+03 -	2.6E+03	20	143	13.07	93.46
2.6E+03 -	3.8E+03	5	148	3.27	96.73
3.8E+03 -	5.6E+03	4	152	2.61	99.35

HISTOGRAM FOR COLUMN 7 (S=MN)

```
1.0E+01 X
1.5E+01
2.0E+01
3.0E+01
5.0E+01
7.0E+01
1.0E+02
1.5E+02 X
2.0E+02 X
3.0E+02 X
5.0E+02 XXXXXX
7.0E+02 XXXXXXXXXXXXXXXXX
1.0E+03 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+03 XXXXXXXXXXXXXXXXXXXXXX
2.0E+03 XXXXXXXXXXXXXX
3.0E+03 XXX
5.0E+03 XXX
```

M	L	H	R	T	G	ANALYTICAL VALUES
0	0	0	1	0	1	152
0.00	0.00			0.00	0.65	

MAXIMUM = 5.00010E+03
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 1.08469E+03
GEOMETRIC DEVIATION = 1.97192E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 11 (S=B)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
6.3E+00 - 1.2E+01	1	1	0.65	0.65
1.2E+01 - 1.8E+01	0	1	0.00	0.65
1.8E+01 - 2.6E+01	7	8	4.58	5.23
2.6E+01 - 3.8E+01	14	22	9.15	14.38
3.8E+01 - 5.6E+01	29	51	18.95	33.33
5.6E+01 - 8.3E+01	23	74	15.03	48.37
8.3E+01 - 1.2E+02	46	120	30.07	78.43
1.2E+02 - 1.8E+02	16	136	10.46	88.89
1.8E+02 - 2.6E+02	11	147	7.19	96.08
2.6E+02 - 3.8E+02	5	152	3.27	99.35

HISTOGRAM FOR COLUMN 11 (S=B)

```
1.0E+01 X
1.5E+01
2.0E+01 XXXXX
3.0E+01 XXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXXXX
1.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXX
2.0E+02 XXXXXXX
3.0E+02 XXX
```

N	L	H	M	T	G	ANALYTICAL VALUES
0	1	0	1	0	0	152
0.00	0.65			0.00	0.00	

MAXIMUM = 3.00000E+02
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 7.73083E+01
GEOMETRIC DEVIATION = 1.92207E+00

TITLE

FREQUENCY TABLE FOR COLUMN 12 (S-BA)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.2E+02 -	1.8E+02	13	13	8.50	8.50
1.8E+02 -	2.6E+02	39	52	25.49	33.99
2.6E+02 -	3.8E+02	42	94	27.45	61.44
3.8E+02 -	5.6E+02	34	128	22.22	83.66
5.6E+02 -	8.3E+02	18	146	11.76	95.42
8.3E+02 -	1.2E+03	3	149	1.96	97.39
1.2E+03 -	1.8E+03	2	151	1.31	98.69
1.8E+03 -	2.6E+03	1	152	0.65	99.35
2.6E+03 -	3.8E+03	1	153	0.65	100.00

HISTOGRAM FOR COLUMN 12 (S-BA)

```
1.5E+02 XXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXX
5.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXX
7.0E+02 XXXXXXXXXXXX
1.0E+03 XX
1.5E+03 X
2.0E+03 X
3.0E+03 X
```

N	L	M	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	0	153
0.00	0.00			0.00	0.00	

MAXIMUM = 3.00010E+03
MINIMUM = 1.50010E+02
GEOMETRIC MEAN = 3.39289E+02
GEOMETRIC DEVIATION = 1.76027E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (06/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 13 (S-BE)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-01 -	1.2E+00	45	45	29.41	29.41
1.2E+00 -	1.8E+00	1	46	0.65	30.07
1.8E+00 -	2.6E+00	19	65	12.42	42.48

HISTOGRAM FOR COLUMN 13 (S-BE)

```
1.0E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+00 X
2.0E+00 XXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
63	25	0	1	0	0	65
41.18	16.34			0.00	0.00	

MAXIMUM = 2.00000E+00
MINIMUM = 1.00000E+00
GEOMETRIC MEAN = 1.23296E+00
GEOMETRIC DEVIATION = 1.37390E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 16 (S-CO)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
5.6E+00	- 8.3E+00	3	3	1.96	1.96
8.3E+00	- 1.2E+01	17	20	11.11	13.07
1.2E+01	- 1.8E+01	32	52	20.92	33.99
1.8E+01	- 2.6E+01	43	95	28.10	62.09
2.6E+01	- 3.8E+01	46	141	30.07	92.16
3.8E+01	- 5.6E+01	10	151	6.54	98.69

HISTOGRAM FOR COLUMN 16 (S-CO)

```
7.0E+00 XX
1.0E+01 XXXXXXXXXX
1.5E+01 XXXXXXXXXXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
2	0	0	1	0	0	151
1.31	0.00			0.00	0.00	

MAXIMUM = 5.60010E+01
MINIMUM = 7.00000E+00
GEOMETRIC MEAN = 2.04936E+01
GEOMETRIC DEVIATION = 1.56384E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATFAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 17 (S-CR)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
2.6E+01 - 3.8E+01	3	3	1.96	1.96
3.8E+01 - 5.6E+01	15	18	9.80	11.76
5.6E+01 - 8.3E+01	78	96	50.98	62.75
8.3E+01 - 1.2E+02	54	150	35.29	[illegible].04
1.2E+02 - 1.8E+02	2	152	1.31	99.35

HISTOGRAM FOR COLUMN 17 (S-CR)

```
3.0E+01 XX
5.0E+01 XXXXXXXXXX
7.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
1	0	0	1	0	0	152
0.65	0.00			0.00	0.00	

MAXIMUM = 1.50010E+02
MINIMUM = 3.00010E+01
GEOMETRIC MEAN = 7.83497E+01
GEOMETRIC DEVIATION = 1.30561E+00

TITLE

FREQUENCY TABLE FOR COLUMN 18 (S-CU)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	1	1	0.65	0.65
1.2E+01 -	1.8E+01	12	13	7.84	8.50
1.8E+01 -	2.6E+01	19	32	12.42	20.92
2.6E+01 -	3.8E+01	49	81	32.03	52.94
3.8E+01 -	5.6E+01	39	120	25.49	78.43
5.6E+01 -	8.3E+01	22	142	14.38	92.81
8.3E+01 -	1.2E+02	9	151	5.88	94.69
1.2E+02 -	1.8E+02	1	152	0.65	99.35
1.8E+02 -	2.6E+02	1	153	0.65	100.00

HISTOGRAM FOR COLUMN 18 (S-CU)

```
1.0E+01 X
1.5E+01 XXXXXXXX
2.0E+01 XXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXXXX
1.0E+02 XXXXXX
1.5E+02 X
2.0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	0	153
0.00	0.00			0.00	0.00	

MAXIMUM = 2.00010E+02
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 3.79063E+01
GEOMETRIC DEVIATION = 1.74306E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATFAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 19 (S-LA)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01 -	2.6E+01	79	79	51.63	51.63
2.6E+01 -	3.8E+01	28	107	18.30	69.93
3.8E+01 -	5.6E+01	10	117	6.54	76.47
5.6E+01 -	8.3E+01	3	120	1.96	78.43
8.3E+01 -	1.2E+02	2	122	1.31	79.74

HISTOGRAM FOR COLUMN 19 (S-LA)

```
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXX
7.0E+01 XX
1.0E+02 X
```

N	L	M	B	T	G	ANALYTICAL VALUES
31	0	0	1	0	0	122
20.26	0.00			0.00	0.00	

MAXIMUM = 1.00001E+02
MINIMUM = 2.00010E+01
GEOMETRIC MEAN = 2.50564E+01
GEOMETRIC DEVIATION = 1.44977E+00

A470 - GEOCHEMICAL SUMMARY - U S G S STATFAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 20 (S=MO)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E+00 - 5.6E+00	3	3	1.96	1.96
5.6E+00 - 8.3E+00	3	6	1.96	3.92
8.3E+00 - 1.2E+01	2	8	1.31	5.23
1.2E+01 - 1.8E+01	1	9	0.65	5.88

HISTOGRAM FOR COLUMN 20 (S=MO)

```
5.0E+00 XX
7.0E+00 XX
1.0E+01 X
1.5E+01 X
```

N	L	h	B	T	G	ANALYTICAL VALUES
144	0	0	1	0	0.	9
94.12	0.00			0.00	0.00	

MAXIMUM = 1.50019E+01
MINIMUM = 5.00000E+00
GEOMETRIC MEAN = 7.37211E+00
GEOMETRIC DEVIATION = 1.46125E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

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FREQUENCY TABLE FOR COLUMN 21 (S-NB)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	2	2	1.31	1.31
1.2E+01 -	1.8E+01	0	2	0.00	1.31
1.8E+01 -	2.6E+01	6	8	3.92	5.23
2.6E+01 -	3.8E+01	2	10	1.31	6.54

HISTOGRAM FOR COLUMN 21 (S-NB)

```
1.0E+01 X
1.5E+01
2.0E+01 XXXX
3.0E+01 X
```

N	L	M	B	T	G	ANALYTICAL VALUES
68	75	0	1	0	0	10
44.44	49.02			0.00	0.00	

MAXIMUM = 3.000106+01
MINIMUM = 1.000006+01
GEOMETRIC MEAN = 1.88824E+01
GEOMETRIC DEVIATION = 1.45307E+00

A470 - GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

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FREQUENCY TABLE FOR COLUMN 22 (S-NI)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.2E+01 -	1.8E+01	2	2	1.31	1.31
1.8E+01 -	2.6E+01	11	13	7.19	8.50
2.6E+01 -	3.8E+01	35	48	22.88	31.37
3.8E+01 -	5.6E+01	74	122	48.37	79.74
5.6E+01 -	8.3E+01	28	150	18.30	98.04
8.3E+01 -	1.2E+02	1	151	0.65	98.69

HISTOGRAM FOR COLUMN 22 (S-NI)

```
1.5E+01 X
2.0E+01 XXXXXXX
3.0E+01 XXXXXXXXXXXXXXXXXXXXXX
5.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXXXXXXX
1.0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	2	0	1	0	0	151
0.00	1.31			0.00	0.00	

39

MAXIMUM = 1.00001E+02
MINIMUM = 1.50010E+01
GEOMETRIC MEAN = 4.37255E+01
GEOMETRIC DEVIATION = 1.46919E+00

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TITLE

FREQUENCY TABLE FOR COLUMN 23 (S-PB)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+00 -	1.2E+01	4	4	2.61	2.61
1.2E+01 -	1.8E+01	80	84	52.29	54.90
1.8E+01 -	2.6E+01	45	129	29.41	84.31
2.6E+01 -	3.8E+01	18	147	11.76	96.08
3.8E+01 -	5.6E+01	2	149	1.31	97.39
5.6E+01 -	8.3E+01	1	150	0.65	98.04
8.3E+01 -	1.2E+02	0	150	0.00	98.04
1.2E+02 -	1.8E+02	0	150	0.00	98.04
1.8E+02 -	2.6E+02	1	151	0.65	98.69

HISTOGRAM FOR COLUMN 23 (S-PB)

```
1.0E+01 XXX
1.5E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.0E+01 XXXXXXXXXXXX
5.0E+01 X
7.0E+01 X
1.0E+02
1.5E+02
2.0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
2	0	0	1	0	0	151
1.31	0.00			0.00	0.00	

MAXIMUM = 2.00010E+02
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 1.63369E+01
GEOMETRIC DEVIATION = 1.42633E+00

TITLE

FREQUENCY TABLE FOR COLUMN 25 (S-SC)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8,3E+00 -	1,2E+01	1	1	0,65	0,65
1,2E+01 -	1,8E+01	1	2	0,65	1,31
1,6E+01 -	2,6E+01	13	15	8,50	9,80
2,6E+01 -	3,6E+01	137	152	89,54	99,35

HISTOGRAM FOR COLUMN 25 (S-SC)

```
1,0E+01 X
1,5E+01 X
2,0E+01 XXXXXXXX
3,0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	1	0	1	0	0	152
0,00	0,65			0,00	0,00	

MAXIMUM = 3,00010E+01
MINIMUM = 1,00000E+01
GEOMETRIC MEAN = 2,66389E+01
GEOMETRIC DEVIATION = 1,16434E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 27 (S=SR)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E+01 -	1.2E+02	47	47	30.72	30.72
1.2E+02 -	1.8E+02	34	81	22.22	52.94
1.8E+02 -	2.6E+02	37	118	24.18	77.12
2.6E+02 -	3.8E+02	22	140	14.38	91.50
3.8E+02 -	5.6E+02	5	145	3.27	94.77
5.6E+02 -	8.3E+02	1	146	0.65	95.42

HISTOGRAM FOR COLUMN 27 (S=SR)

```
1.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.5E+02 XXXXXXXXXXXXXXXXXXXX
2.0E+02 XXXXXXXXXXXXXXXXXXXXXX
3.0E+02 XXXXXXXXXXXXXX
5.0E+02 XXX
7.0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
7	0	0	1	0	0	146
4.58	0.00			0.00	0.00	

MAXIMUM = 7.00010E+02
MINIMUM = 1.00001E+02
GEOMETRIC MEAN = 1.65551E+02
GEOMETRIC DEVIATION = 1.57068E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (06/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 28 (S-V)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8,3E+00 - 1,2E+01	1	1	0,65	0,65
1,2E+01 - 1,8E+01	0	1	0,00	0,65
1,8E+01 - 2,6E+01	0	1	0,00	0,65
2,6E+01 - 3,8E+01	0	1	0,00	0,65
3,8E+01 - 5,6E+01	0	1	0,00	0,65
5,6E+01 - 8,3E+01	5	6	3,27	3,92
8,3E+01 - 1,2E+02	38	44	24,84	28,76
1,2E+02 - 1,8E+02	49	93	32,03	60,78
1,8E+02 - 2,6E+02	55	148	35,95	96,73
2,6E+02 - 3,8E+02	4	152	2,61	99,35
3,8E+02 - 5,6E+02	1	153	0,65	100,00

HISTOGRAM FOR COLUMN 28 (S-V)

```
1,0E+01 X
1,5E+01
2,0E+01
3,0E+01
5,0E+01
7,0E+01 XXX
1,0E+02 XXXXXXXXXXXXXXXXXXXX
1,5E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2,0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3,0E+02 XXX
5,0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	0	153
0,00	0,00			0,00	0,00	

MAXIMUM = 5,00010E+02
MINIMUM = 1,00000E+01
GEOMETRIC MEAN = 1,47935E+02
GEOMETRIC DEVIATION = 1,49255E+00

A470 GEOCHEMICAL SUMMARY - U S G S STATPAC (08/02/71) DATE 6/17/74

TITLE

FREQUENCY TABLE FOR COLUMN 30 (S-Y)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1,2E+01 -	1,8E+01	12	12	7,84	7,84
1,8E+01 -	2,6E+01	53	65	34,64	42,48
2,6E+01 -	3,8E+01	75	140	49,02	91,50
3,8E+01 -	5,6E+01	9	149	5,88	97,39
5,6E+01 -	9,3E+01	2	151	1,31	98,69
9,3E+01 -	1,2E+02	1	152	0,65	99,35
1,2E+02 -	1,8E+02	1	153	0,65	100,00

HISTOGRAM FOR COLUMN 30 (S-Y)

```
1,5E+01 XXXXXXXX
2,0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3,0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5,0E+01 XXXXXX
7,0E+01 X
1,0E+02 X
1,5E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	0	153
0,00	0,00			0,00	0,00	

MAXIMUM = 1,50010E+02
MINIMUM = 1,50010E+01
GEOMETRIC MEAN = 2,62045E+01
GEOMETRIC DEVIATION = 1,43072E+00

```
A470   GEOCHEMICAL SUMMARY - U S G S STATPAC (06/02/71)                                DATE   6/17/74

      TITLE

FREQUENCY TABLE FOR COLUMN     32 (S-ZR     )

        LIMITS              FREQ  FREQ    PERCENT    PERCENT
    LOWER - UPPER                  CUM      FREQ     FREQ CUM
  3.8E+01 -    5.6E+01       1     1        0.65        0.65
  5.6E+01 -    8.3E+01       2     3        1.31        1.96
  8.3E+01 -    1.2E+02      21    24       13.73       15.69
  1.2E+02 -    1.8E+02      76   100       49.67       65.36
  1.8E+02 -    2.6E+02      50   150       32.68       98.04
  2.6E+02 -    3.8E+02       3   153        1.96      100.00

HISTOGRAM FOR COLUMN     32 (S-ZR     )

       5.0E+01 X
       7.0E+01 X
       1.0E+02 XXXXXXXXXXXXXX
       1.5E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
       2.0E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
       3.0E+02 XX

                                                                      ANALYTICAL
       N          L          H          B          T          G        VALUES
       0          0          0          1          0          0          153
     0.00       0.00                               0.00       0.00

MAXIMUM =  3.00000E+02
MINIMUM =  5.00010E+01
GEOMETRIC MEAN =  1.55321E+02
GEOMETRIC DEVIATION =  1.31210E+00
```

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TITLE

FREQUENCY TABLE FOR COLUMN 33 (AA-AU-P)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E-02 - 2.6E-02	2	2	1.31	1.31
2.6E-02 - 3.8E-02	1	3	0.65	1.96
3.8E-02 - 5.6E-02	0	3	0.00	1.96
5.6E-02 - 8.3E-02	1	4	0.65	2.61

HISTOGRAM FOR COLUMN 33 (AA-AU-P)

```
2.0E-02 X
3.0E-02 X
5.0E-02
7.0E-02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	149	0	1	0	0	4
0.00	97.39			0.00	0.00	

MAXIMUM = 6.00000E-02
MINIMUM = 2.00000E-02
GEOMETRIC MEAN = 2.91295E-02
GEOMETRIC DEVIATION = 1.67911E+00

TITLE

FREQUENCY TABLE FOR COLUMN 35 (INST-HG)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
2.6E-02 -	3.8E-02	3	3	1.96	1.96
3.8E-02 -	5.6E-02	24	27	15.69	17.65
5.6E-02 -	8.3E-02	15	42	9.80	27.45
8.3E-02 -	1.2E-01	18	60	11.76	39.22
1.2E-01 -	1.8E-01	20	80	13.07	52.29
1.8E-01 -	2.6E-01	25	105	16.34	68.63
2.6E-01 -	3.8E-01	15	120	9.80	78.43
3.8E-01 -	5.6E-01	15	135	9.80	88.24
5.6E-01 -	8.3E-01	9	144	5.88	94.12
8.3E-01 -	1.2E+00	5	149	3.27	97.39
1.2E+00 -	1.8E+00	1	150	0.65	98.04
1.8E+00 -	2.6E+00	2	152	1.31	99.35
2.6E+00 -	3.8E+00	1	153	0.65	100.00

HISTOGRAM FOR COLUMN 35 (INST-HG)

```
  3.0E-02 XX
  5.0E-02 XXXXXXXXXXXXXXX
  7.0E-02 XXXXXXXXXX
  1.0E-01 XXXXXXXXXXXX
  1.5E-01 XXXXXXXXXXXXX
  2.0E-01 XXXXXXXXXXXXXXXX
  3.0E-01 XXXXXXXXXX
  5.0E-01 XXXXXXXXX
  7.0E-01 XXXXXX
  1.0E+00 XXX
  1.5E+00 X
  2.0E+00 X
  3.0E+00 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	1	0	0	153
0.00	0.00			0.00	0.00	

MAXIMUM = 3.00000E+00
MINIMUM = 3.00000E-02
GEOMETRIC MEAN = 1.687315E-01
GEOMETRIC DEVIATION = 2.715296E+00

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TITLE

FREQUENCY TABLE FOR COLUMN 36 (AA=ZN=P)

LIMITS OVER	= UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E+01	2.6E+01	0	0	0.00	0.00
2.6E+01	3.8E+01	1	1	0.67	0.67
3.8E+01	5.6E+01	35	36	23.33	24.00
5.6E+01	8.3E+01	71	107	47.33	71.33
8.3E+01	1.2E+02	36	143	24.00	95.33
1.2E+02	1.8E+02	4	147	2.67	98.00
1.6E+02	2.6E+02	1	148	0.67	98.67

HISTOGRAM FOR COLUMN 36 (AA=ZN=P)

```
3.0E+01 X
5.0E+01 XXXXXXXXXXXXXXXXXXXXX
7.0E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.0E+02 XXXXXXXXXXXXXXXXXXXXXXX
1.5E+02 XXX
2.0E+02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	2	0	4	0	0	148
0.00	1.33			0.00	0.00	

MAXIMUM = 1.90010E+02
MINIMUM = 2.60010E+01
GEOMETRIC MEAN = 7.01152E+01
GEOMETRIC DEVIATION = 1.34866E+00

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TITLE

FREQUENCY TABLE FOR COLUMN 38 (CM=AS)

LIMITS LOWER	UPPER	FREQ	FREQ CUM	PERCENT FREQ	CENT FREQ CUM
6.3E+00 -	1.2E+01	17	17	11.18	11.18
1.2E+01 -	1.8E+01	0	17	0.00	11.18
1.8E+01 -	2.6E+01	6	23	3.95	15.13
2.6E+01 -	3.6E+01	2	25	1.32	16.45
3.6E+01 -	5.6E+01	2	27	1.32	17.76

HISTOGRAM FOR COLUMN 38 (CM=AS)

```
1.0E+01 XXXXXXXXXX
1.5E+01
2.0E+01 XXXX
3.0E+01 X
5.0E+01 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
55	70	0	2	0	0	27
36.18	46.05			0.00	0.00	

MAXIMUM = 4.00010E+01
MINIMUM = 1.00000E+01
GEOMETRIC MEAN = 1.40230E+01
GEOMETRIC DEVIATION = 1.62020E+00

TITLE

IN THE COMPUTATIONS PERFORMED TO PRODUCE THE FOLLOWING TABLE OF GEOMETRIC MEANS AND DEVIATIONS, ALL ELEMENTS ARE IGNORED WHERE ONE OR MORE OF THE UNQUALIFIED DATA VALUES [illegible] THAN THE ANALYTICAL LIMIT OF DETECTION SPECIFIED ON INPUT OR WHERE ANY DATA VALUES ARE QUALIFIED WITH THE G (GREATER THAN) CODE. DATA VALUES QUALIFIED WITH B OR H ARE NOT USED IN THE COMPUTATIONS. WHERE NONE OF THE DATA VALUES FOR AN ELEMENT ARE QUALIFIED THE MEAN AND DEVIATION SHOULD BE THE SAME AS THOSE GIVEN IN THE PRECEDING SECTION. WHERE DATA ARE QUALIFIED WITH THE CODES B, G, OR T, THE ESTIMATES OF GEOMETRIC MEAN AND DEVIATION ARE BASED ON A METHOD BY A. J. COHEN FOR TREATING CENSORED DISTRIBUTIONS. THE APPLICATION OF THIS METHOD TO GEOCHEMICAL PROBLEMS IS DESCRIBED IN GGS PROFESSIONAL PAPER 574-B. THE ESTIMATES ARE UNBIASED IN A STRICT SENSE ONLY WHERE THE DATA ARE DERIVED FROM A LOGNORMAL PARENT POPULATION, BUT EXPERIMENTS HAVE SHOWN THAT LARGE DEPARTURES FROM THIS REQUIREMENT MAY NOT GREATLY INVALIDATE THE RESULTS ACCEPTANCE AND USE OF THE ESTIMATES, HOWEVER, IS THE RESPONSIBILITY OF THE INDIVIDUAL.

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
LATITUDE	0	0	0	4	0	0	150
LONGITUD	0	0	0	4	0	0	150
S-FE %	0	0	0	1	0	0	153
S-MG %	0	0	0	1	0	0	153
S-CA %	0	0	0	1	0	0	153
S-TI %	0	0	0	1	0	100	53
S-MN	0	0	0	1	0	1	152
S-B	0	1	0	1	0	0	152
S-BA	0	0	0	1	0	0	153
S-BE	63	25	0	1	0	0	65
S-CO	2	0	0	1	0	0	151
S-CR	1	0	0	1	0	0	152
S-CU	0	0	0	1	0	0	153
S-LA	31	0	0	1	0	0	122
S-MO	144	0	0	1	0	0	9
S-NB	68	75	0	1	0	0	10
S-NI	0	2	0	1	0	0	151
S-PB	2	0	0	1	0	0	151
S-SC	0	1	0	1	0	0	152
S-SR	7	0	0	1	0	0	146
S-V	0	0	0	1	0	0	153
S-Y	0	0	0	1	0	0	153
S-ZR	0	0	0	1	0	0	1[illegible]
AA-AU-P	0	149	0	1	0	0	4
INST-MG	0	0	0	1	0	0	153
AA-ZN-P	0	2	0	4	0	0	148
CH-AS.	55	70	0	2	0	0	27

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
LATITUDE	********	******	150 VALUES LESS THAN SPECIFIED LIMIT OF DETECTION, NO COMPUTATIONS.
LONGITUD	********	******	150 VALUES LESS THAN SPECIFIED LIMIT OF DETECTION, NO COMPUTATIONS.
S-FE %	8.879791	1.62	154 SAMPLES AND 153 ANALYTICAL VALUES.
S-MG %	2.103810	1.44	154 SAMPLES AND 153 ANALYTICAL VALUES.
S-CA %	1.506430	2.08	154 SAMPLES AND 153 ANALYTICAL VALUES.
S-TI %	********	******	100 GREATER THAN VALUES, NO COMPUTATIONS.
S-MN	********	******	1 GREATER THAN VALUES, NO COMPUTATIONS.

S=B	76.093398	1.97	1	NOT DETECTED, LESS THAN, OR TRACE VALUES.	152 REPORTED VALUES.
S=BA	339.289322	1.78	154	SAMPLES AND 153 ANALYTICAL VALUES.	
S=BE	6.741195	1.74	88	NOT DETECTED, LESS THAN, OR TRACE VALUES.	65 REPORTED VALUES.
S=CO	20.111536	1.61	2	NOT DETECTED, LESS THAN, OR TRACE VALUES.	151 REPORTED VALUES.
S=CR	75.761645	1.32	1	NOT DETECTED, LESS THAN, OR TRACE VALUES.	152 REPORTED VALUES.
S=CU	37.906255	1.74	154	SAMPLES AND 153 ANALYTICAL VALUES.	
S=LA	********	******		CORRELIS TABLE EXCEEDED, N(0,2) OR GAMMA(1,2) GTR THAN ALLOW, NO COMPUTATIONS.	
S=MO	********	******		CORRELIS TABLE EXCEEDED, N(0,9) OR GAMMA(0,3) GTR THAN ALLOW, NO COMPUTATIONS.	
S=NB	********	******		CORRELIS TABLE EXCEEDED, N(0,9) OR GAMMA(0,2) GTR THAN ALLOW, NO COMPUTATIONS.	
S=NI	42.932431	1.51	2	NOT DETECTED, LESS THAN, OR TRACE VALUES.	151 REPORTED VALUES.
S=PB	16.119979	1.45	2	NOT DETECTED, LESS THAN, OR TRACE VALUES.	151 REPORTED VALUES.
S=SC	26.401582	1.20	1	NOT DETECTED, LESS THAN, OR TRACE VALUES.	152 REPORTED VALUES.
S=SR	156.734144	1.62	7	NOT DETECTED, LESS THAN, OR TRACE VALUES.	146 REPORTED VALUES.
S=V	147.935080	1.49	154	SAMPLES AND 153 ANALYTICAL VALUES.	
S=Y	26.204505	1.43	154	SAMPLES AND 153 ANALYTICAL VALUES.	
S=ZR	155.321371	1.31	154	SAMPLES AND 153 ANALYTICAL VALUES.	
AA=AL=P	********	******		CORRELIS TABLE EXCEEDED, N(1,0) OR GAMMA(1,1) GTR THAN ALLOW, NO COMPUTATIONS.	
IN=SI=MG	0.168731	2.72	154	SAMPLES AND 153 ANALYTICAL VALUES.	
AA=ZN=P	68.771725	1.41	2	NOT DETECTED, LESS THAN, OR TRACE VALUES.	148 REPORTED VALUES.
CM=AS	3.138426	2.75	125	NOT DETECTED, LESS THAN, OR TRACE VALUES.	27 REPORTED VALUES.

Table 3.--Stream sediments containing anomalous mercury or other metals in the Teller A-3 quadrangle, Seward Peninsula Alaska. Values not underlined were reported as anomalous by Sainsbury and others, 1969. Single underlined values were determined to be anomalous on the basis of re-analysis. Double underlined values were confirmed as anomalous by re-analysis or re-evaluation. Queried values were determined by one analysis but not confirmed by the other. [Analysts: K. J. Curry, R. L. Miller, W. R. Vaughn, Carl Forn, and G. W. Day, U.S. Geological Survey]

Teller A-3

Lab. No.	Anomalous Metals (PPM)[1/]
ACM 595	Hg, 0.3
596	Hg, 0.45
597	Hg, 0.15
598	Hg, 0.13
599	Ba, 2000; Pb, 70
602	Hg, 1.00; Cu, 150
603	Hg, 0.75; V, 300
604	Hg, 0.35
605	Hg, 0.60
606	Hg, 0.22
607	Hg, 1.30; Au, .03
608	Hg, 0.80
609	Hg, 0.24; Au, .02
610	Hg, 0.24; Au, .02
611	Hg, 0.55; Zn, 65?
612	Hg, 0.80
613	Hg, 0.24; Y, 150
614	Hg, 0.24
615	Hg, 0.50
ACM 616	Hg, 0.13
617	Hg, 1.10
618	Hg, 3.00
619	Hg, 2.00
620	Hg, 2.60
621	Hg, 0.60; B, 300
622	Hg, 0.50
623	Hg, 0.5
624	Hg, 0.28
625	Hg, 0.15
626	Hg, 0.60
627	Hg, 0.18; Mn, >5000
628	Hg, 1.00
629	Hg, 0.30
630	Hg, 0.22; Nb, 30
631	Hg, 0.18; Nb, 30
632	Hg, 0.26
633	Hg, 0.70
634	Hg, 0.40

Teller A-3

Lab. No.	Anomalous Metals (PPM)[1/]
ACM 635	Hg, 0.22
637	Hg, 0.14
638	Hg, 0.22
639	Hg, 0.14
640	Hg, 0.50; Mo, 7
641	Hg, 0.18; Zn, 110
642	Hg, 0.14; Zn, 100
643	Hg, 0.10; Zn, 110
644	Hg, 0.30; Zn, 110
647	Hg, 0.34; Au, .06; V, 500
648	Hg, 0.22
649	Hg, 0.28
651	Hg, 0.18; Au, 0.6
652	Hg, 0.10; Hg, .85
653	Hg, 0.22; Hg, 1.0
654	Hg, 0.24; Hg, .20
701	Hg, 0.50
702	Hg, 0.55
703	Hg, 0.40; B, 300
704	Hg, 0.50
705	Hg, 0.55
706	Hg, 0.90
707	Hg, 0.50
708	Hg, 0.15
ACM 709	Hg, 0.22
710	Hg, 0.11; Mo, 15
711	Hg, 0.15; Mo, 7; V, 300
712	Hg, 0.15; Zn, 110; Ba, 3000; Mo, 7
713	Hg, 0.18; Zn, 100
714	Hg, 0.22
715	Hg, 0.18
716	Hg, 0.22; Pb, 200?
717	Zn, 80?
719	Hg, 0.35; Zn, 120; Mo, 10
720	Hg, 0.18; Zn, 140, Ba, 1500; Mo, 5
721	Hg, 0.18; Zn, 140; Mo, 5
723	Hg, 0.12; Pb, 40; Zn, 160; Ba, 1500; Mo, 5
724	Hg, 0.26; Pb, 44; Zn, 190; Mo, 10
726	Hg, 0.16
727	Zn, 84?
728	Hg, 0.15; B, 300; Cu, 200; Zn, 94?
729	Hg, 0.16; Zn, 140
731	Hg, 0.30; Mn, 5000

Teller A-3

Lab. No.	Anomalous Metals (PPM)[1/]
ACM 732	As, 40
734	Hg, 0.20
736	Hg, 0.13
738	Hg, 0.10
740	Hg, 0.50
741	Hg, 0.40
742	Hg, 0.14; Pb, 66?
743	Hg, 0.30; As, 40
744	Hg, 0.35
745	Hg, 0.22
746	Hg, 0.30
747	Hg, 0.14
748	Hg, 0.60
749	Hg, 0.35
750	Hg, 0.18
751	Y, 100
752	Hg, 0.09
753	Hg, 0.35; B, 300
754	Hg, 0.10
755	Hg, 0.14
757	Hg, 0.13
773	Ni, 100
778	Hg, 0.20
779	Mn, 5000

Lab. No.	Anomalous Metals (PPM)[1/]
ACM 783	Hg, 0.30
786	Hg, 0.14
787	Hg, 0.10; V, 300
788	Hg, 0.11
791	Hg, 0.11
793	Hg, 0.14
794	Hg, 0.11
798	Hg, 0.10

1/ Semiquantitative spectrographic analyses are reported in percent to the nearest number in the six-step series 1.0, 0.7, 0.5, 0.3, 0.15, and 0.1, 0.07, etc., which represent approximate midpoints of group data on a geometric scale. The common ratio for the geometric series of the group limits is the 6th root of 10, approximately 1.4678. The assigned group for semiquantitative results will include the quantitative value about 30 percent of the time.

Table 4.--Modes, means, and threshold values for all elements analyzed in stream sediment samples from the Teller A-3 quadrangle, west-central Alaska.

Element	Analytical Method	Mode (Range) %, ppm	Geometric mean (%, ppm)	Threshold (n.d.-not determined)
Fe	Emission	10(3-15)%	8.9%	n.d.
Mg	Spectrographic	2(2-3)%	2.1%	n.d.
Ca	"	3(0.5-5)%	1.6%	n.d.
Ti	"	>1%	-	-
Mn	"	1000(500-2000) ppm	1085 ppm	3000 ppm
Ag	"	<0.5 ppm	<0.5 ppm	n.d.
B	"	100(20-150) ppm	76 ppm	200 ppm
Ba	"	300(150-700) ppm	339 ppm	1000 ppm
Be	"	< 1 ppm	0.74 ppm	2 ppm
Bi	"	<10 ppm	-	n.d.
Co	"	30(10-50) ppm	20 ppm	50 ppm
Cr	"	70(30-100) ppm	76 ppm	150 ppm
Cu	"	30(15-100) ppm	38 ppm	100 ppm
Cu	Chem.(AA)	15(10-30) ppm	-	40 ppm
La	Emis. spec.	20(<20-50) ppm	-	100 ppm
Mo	"	<5 ppm	<5 ppm	n.d.
Nb	"	<10 ppm	<10 ppm	n.d.
Ni	"	50(20-70) ppm	43 ppm	100 ppm
Ni	Chem.(AA)	45(20-55) ppm	-	60 ppm
Pb	Emis. spec.	15(10-30) ppm	18 ppm	30 ppm
Pb	Chem.(AA)	<25 ppm	-	n.d.
Sb	Emis. spec.	<100 ppm	-	n.d.
Sc	"	30(20-30) ppm	28 ppm	30 ppm
Sn	"	<10 ppm	-	n.d.
Sr	"	100(100-300) ppm	159 ppm	300 ppm
V	"	200(70-200) ppm	148 ppm	200 ppm
W	"	< 50 ppm	-	n.d.
Y	"	30(15-50) ppm	26 ppm	50 ppm
Zn	"	<200 ppm	-	n.d.
Zn	Chem.(AA)	70(50-100) ppm	69 ppm	100 ppm
Zr	Emis. spec.	150(100-200) ppm	155 ppm	200 ppm
Au	Atom. absorp.	<0.02 ppm	-	n.d.
Hg	Instrumental	0.05,0.20(0.02-1.0) ppm	0.17 ppm	0.15?, 1.0 ppm
As	Colorimetric	<10 ppm	-	30 ppm