UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Analytical results for stream sediments, panned concentrates from stream sediments, and rocks collected from the Wonder Mountain Roadless Area (6086), Washington

By

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

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Studies Related to Wilderness

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to survey certain areas on Federal lands to determine their mineral resource potential. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a geological survey of the Wonder Mountain Roadless Area, Olympic National Forest, Mason County, Washington. Wonder Mountain Roadless Area was classified as a further planning area during the Second Roadless Area Review and Evaluation (RARE II) by the U.S. Forest Service, January 1979.

Introduction

During the 1981 field season, R. W. Tabor, Derek Booth, Mark Johnson, and S. A. Sandberg collected stream sediments, panned concentrates from stream sediments, and altered or mineralized rock samples from the Wonder Mountain Roadless Area in conjunction with the geologic mapping (Tabor, 1982). J. G. Frisken participated in the sample collection, and also in data evaluation. A total of 40 stream sediments, 45 panned concentrates from stream sediments, and 22 rock samples were collected for analysis. The localities of these samples are shown in figure 1.

Field Methods

Stream-sediment samples were collected from active streams, or across active stream channels, draining areas as large as 8 km^2. As the annual precipitation in the area exceeds 400 cm/year, most streams were flowing. Sediment samples were sieved through a 2-mm stainless-steel screen at the sample site, and 10-x-15-cm cloth bags were filled with the sieved sediment. The samples were air dried. Panned concentrates of stream sediments were also taken. A 35-cm-diameter gold pan was filled with sediment sieved through a 2-mm stainless-steel screen and panned at the site. The heavy-mineral concentrate was transferred to a paper sample bag and oven dried at 105° C for several hours. Duplicate samples were taken in several locations. Duplicate stream-sediment samples (102 and 104) were taken in the northernmost fork of the Le Bar Creek drainage. Duplicate panned concentrates from stream sediments were taken at five sites. These samples are numbers: 3, 4; 9, 101; 19, 21; 29, 31; 32, 217; and 34, 205.

Sample Preparation

Stream-sediment samples were sieved through a 177 μm stainless-steel sieve and the -177 μm fraction (-80 mesh) was ground for analysis. The panned concentrates from stream sediments were sieved through a stainless-steel screen, and the -590 μm (-30 mesh) concentrate was retained for further separation. The magnetic fraction of the panned concentrate was removed using an electromagnet, and the low-density fraction (specific gravity <2.8) was separated from the heavy-mineral fraction by flotation in bromoform. A final magnetic separation of the heavy-mineral fraction was made on a Frantz isodynamic separator at a setting of 1.0 amp with forward slope of 25° and a side slope of 15°. Under the conditions used for the separations, a nonmagnetic heavy-mineral fraction is separated from a more magnetic fraction. The magnetic fraction included many rock fragments and most of the mafic silicates. The nonmagnetic fraction

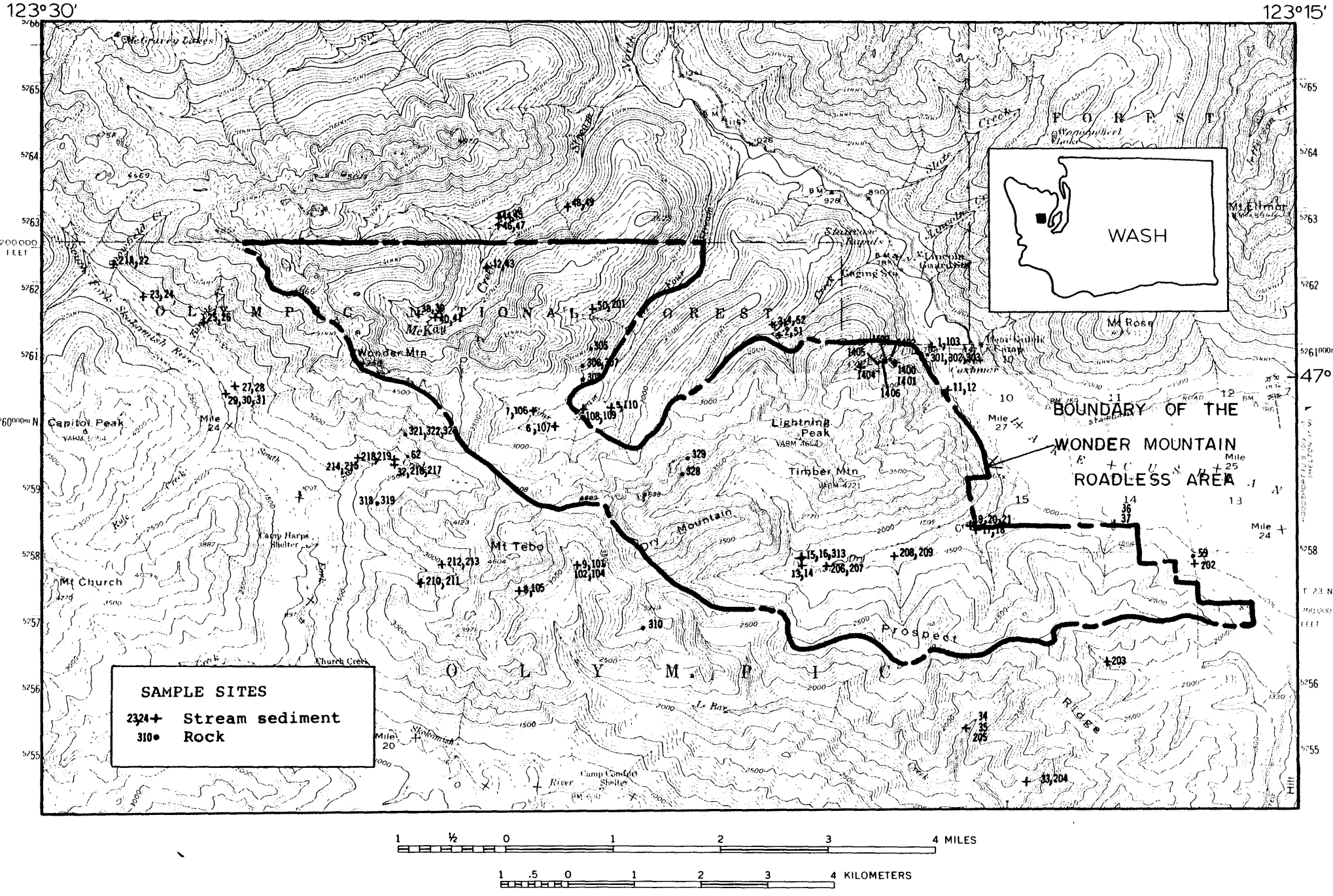

Figure 1. Map showing sample localities, Wonder Mountain Roadless Area, Washington

contains sulfides, nonmagnetic iron oxide, tungstate and sulfate minerals, apatite, sphene, zircon, and minor accessory minerals that may be indicative of mineralization. This nonmagnetic fraction was ground under acetone in an agate mortar for analysis.

Analytical Methods

The method used and limit of detection for each element reported in this study are given by element in table 1. Analytical results for stream sediments are presented in table 2, analytical results for the nonmagnetic panned concentrate from stream sediments and for six selected samples from the magnetic fraction from panned concentrate from stream sediments are given in table 3. Analytical results for the rock samples are given in table 4 and are broken down by rock type.

Spectrographic results were obtained by visual comparison of spectra derived from the unknown sample against spectra obtained from standards made from pure oxides or carbonates using a D.C. (direct current) arc emission spectrographic method (Grimes and Marranzino, 1968). Standard concentrations are geometrically spaced over any given order of magnitude of concentration and are prepared in such a way that the range of concentrations normally found in naturally occurring samples are bracketed. When comparisons are made with sample films for semiquantitative use, reported values are rounded to 100, 50, 20, 10, and so forth. Those samples whose concentrations are estimated to fall between the above values are arbitrarily given values of 70, 30, 15, 7, and so forth. The precision of the method is approximately plus or minus one reporting unit at the 83 percent confidence level and plus or minus two reporting units at the 96 percent confidence level (Motooka and Grimes, 1976). Values determined for the major elements (magnesium, calcium, iron, and titanium) are given in weight percent; all others are given in parts per million (micrograms/gram).

Prior to analysis of the nonmagnetic fraction from the panned concentrate samples, mineralogical examinations were performed under a binocular microscope. The recognized mineralogy of the nonmagnetic fraction--the fraction analyzed to give the results shown in table 3--is given in table 5. Also shown in table 5, column 1, is a visual, qualitative estimate of the abundance of red limestone or argillite rock fragments in the stream drainage. A one (1) in this column indicates many of red rock fragments were observed. A two (2) signifies only a few red rock fragments present. A three (3) indicates no red rock fragments were seen in that stream drainage.

Complete 31-element spectrographic determinations were made for all the samples analyzed. Only those elements detected are reported. In addition, some elements, such as lanathanum and yttrium showed little spread in the concentrate data and were also omitted from the raw data tables. However, means and ranges can be obtained for these elements from the Fisher-K tables summarizing the data.

Discussion

All analytical results, sample descriptions, and locations have been entered into a computerized rock analysis storage system (RASS) used by the U.S. Geological Survey. The data have been processed using computer programs in a statistical package (STATPAC) to provide the histograms and statistical

distribution data given for each sample medium in tables 6-14. Histograms and statistical data given are derived only from unqualified data contained in the data set. Log transforms of the data set were used to prepare the histograms and the correlation-coefficient tables.

Comparison of the data from duplicate samples indicates that the sample collection technique is not a major source of variation in the study. With the exception of the two panned concentrates from stream-sediment samples collected at stations 34, and 205, the analytical results generally agree within two spectrographic reading intervals (Motooka and Grimes, 1976, one sigma). Only values for copper in samples Wm3 and Wm4 (70 ppm and 1000 ppm respectively, see table 3) and barium in samples Wm9 and Wm101 (500 ppm and 5000 ppm respectively, see table 3) fall outside the one sigma analytical precision. These variations are explained by the particulate problem encountered in this type of sampling and do not affect the conclusions of the geochemical survey.

The analytical results from stations 34 and 205, however, are not compatible. The results from sample 205 are more consistent with the geological observations and with the geochemical data from adjacent drainage basins, and whereas we suspect a sample location error, we have not been able to eliminate the possibility that these samples were collected from the same location. The results from both samples have therefore been reported although the data from sample 34 will not be heavily weighted in any interpretations.

Based on the distributions of the geochemical data, the abundances of elements in the rocks collected from the area (table 5), and geochemical coherence as defined by the correlation coefficient analysis of the data, the geochemical data indicate three rock components which contribute to the stream sediment in the drainage basins. Each of these rock units have a distinctive signature and are assumed to contribute to the stream-sediment data in proportion to their exposure within the drainage basin. The oceanic basalts, which form most of the igneous rock suite in this area (Tabor, 1982; Cady, 1975) have a distinct suite of elements, as shown by the correlation coefficient data, that reflects partitioning of elements into mafic silicate phases during basaltic differentiation processes. These include magnesium, iron, titanium, scandium, vanadium, chromium, cobalt, nickel, and copper. Manganese is noticeably absent from this suite. A second suite of elements, which is particularly pronounced in the correlation coefficient analysis of the data from the panned concentrates from stream sediments, is the sedimentary suite iron, manganese, barium, vanadium, chromium, nickel, copper, and lead. These elements are typical of bedded manganese deposits (Roy, 1981). The data from the magnetic, heavy-mineral fraction given in table 3 also reflect this suite and provide evidence that the magnetic separation process used resulted in splitting the manganese minerals between the two fractions. This mineral separation process has resulted in the lower values observed in the panned concentrate from stream-sediment data, but comparison of the data from these two sets shows that the same metal suite is observed in both the magnetic and nonmagnetic heavy-mineral separate. No anomalous basins have been overlooked. A third suite, which may represent a granitic component, is shown by the suite: boron, beryllium, strontium, barium, molybdenum, zirconium, lanthanum, and yttrium. Zircon and apatite (table 5) are found only along the west edge of the study area and may reflect a granitic source region west or northwest of the main area of interest in the Olympic core rocks (Tabor, 1982; Cady, 1975).

Comparison of the histograms with background rock values (Cady, 1975 and unpublished data) indicates that the basaltic and sedimentary components account for the two modes generally seen in the stream-sediment histograms (table 7). High values are indicated for Mn, Cu, and Ba in stream drainages having a high contribution from the sedimentary terrane (tables 7 and 10).

Data from altered rock samples give the spread of geochemical values found in rocks where bedded manganese deposits are possible and reflect the process of ocean-floor alteration and sediment deposition as shown by high boron and barium in basaltic rocks.

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Table 1.--Summary of the spectrographic method used for samples analyzed from the Wonder Mountain Area[1]

Element	Sediment and rock samples weight (g)	Concentrate and ore samples weight (g)	Detection limit (sediments and rocks)	Detection limit (concentrate and ores)
Mg	0.010	0.005	0.02[2]	0.05[2]
Ca	↓	↓	.05	.10
Fe			.05	.10
Ti			.002	.005
Sc			5[3]	10[3]
V			10	20
Cr			10	20
Mn			10	20
Ni			5	10
Co			5	
Cu			5	10
Zn			200	
Mo			5	10
Pb			10	20
Au			10	20
B			10	20
Be			1	2
Sr			100	200
Ba			20	50
La			20	
Y			10	
Zr			10	20
Nb	↓	↓	20	

[1]Direct current (D.C.) arc-spectrographic method (Grimes and Marranzino, 1968).

[2]Results given in weight percent.

[3]Results given in ppm (micrograms/gram).

Table 2. Spectrographic data from stream sediments from the Wonder Mtn. area.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; <, detected, but present at a concentration less than the value reported; >, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

Sample	Latitude	Longitude	Mg-pct.	Ca-pct.	Fe-pct.	Ti-pct.	Sc-ppm	V-ppm	Cr-ppm	Mn-ppm	Co-ppm	Ni-ppm
			s	s	s	s	s	s	s	s	s	s
WM102	47 28 23	123 23 38	2.0	2.0	10	.50	30	200	200	3,000	50	70
WM103	47 30 10	123 19 24	1.5	1.5	7	.50	20	200	100	5,000	30	70
WM104	47 28 23	123 23 38	1.5	1.5	7	.50	20	200	100	2,000	30	50
WM105	47 28 10	123 24 20	1.5	1.5	5	.50	20	150	150	1,000	20	30
WM106	47 29 38	123 24 10	1.0	.7	5	.30	10	100	70	3,000	20	50
WM107	47 29 31	123 23 54	1.0	1.0	5	.30	15	150	70	3,000	20	50
WM109	47 29 30	123 23 42	1.5	2.0	7	.50	30	200	100	5,000	50	70
WM110	47 29 40	123 23 14	1.5	1.5	7	.50	20	150	100	3,000	50	70
WM12	47 29 49	123 19 12	2.0	2.0	5	.30	20	200	150	2,000	30	150
WM14	47 28 23	123 20 57	2.0	5.0	7	1.00	50	300	200	2,000	50	100
WM1401	47 30 6	123 19 48	2.0	2.0	7	.20	20	200	100	1,500	30	70
WM1404	47 30 2	123 20 13	1.5	1.5	5	.30	20	200	70	>5,000	30	100
WM1406	47 30 6	123 19 51	1.0	1.5	5	.20	20	200	50	>5,000	30	150
WM16	47 28 27	123 20 57	2.0	3.0	10	.70	50	300	200	3,000	50	100
WM18	47 28 41	123 18 52	2.0	5.0	7	1.00	30	200	200	1,500	50	100
WM20	47 28 43	123 18 56	2.0	3.0	10	1.00	30	300	200	2,000	50	100
WM206	47 28 23	123 20 39	2.0	2.0	7	.50	30	200	200	1,500	50	70
WM208	47 28 28	123 19 50	2.0	5.0	7	.70	50	200	300	2,000	50	100
WM210	47 28 14	123 25 30	2.0	5.0	10	.70	30	200	200	2,000	70	150
WM212	47 28 23	123 25 15	1.0	2.0	5	.50	20	150	100	1,000	20	30
WM214	47 29 15	123 26 14	1.5	1.0	10	.50	30	300	100	>5,000	70	200
WM216	47 29 14	123 25 42	2.0	2.0	10	.50	30	300	100	2,000	50	100
WM218	47 12 17	123 25 50	1.5	1.0	7	.30	15	150	150	>5,000	30	150
WM22	47 30 49	123 29 11	1.0	.7	3	.30	15	100	100	2,000	30	50
WM24	47 30 33	123 28 50	1.5	.5	7	.50	20	150	100	2,000	50	100
WM26	47 30 21	123 28 7	1.5	.5	5	.30	15	150	100	1,500	50	70
WM28	47 29 48	123 27 46	.7	.5	2	.15	10	70	50	2,000	10	30
WM30	47 29 46	123 27 51	2.0	1.5	7	.50	20	200	100	2,000	30	70
WM33	47 26 48	123 18 50	2.0	2.0	10	.70	30	200	200	2,000	50	100
WM35	47 27 4	123 18 59	2.0	2.0	7	.50	30	200	200	2,000	50	100
WM37	47 28 44	123 17 12	2.0	2.0	7	.70	30	200	300	1,500	50	100
WM39	47 30 25	123 25 32	1.5	1.0	7	.50	20	150	200	1,500	30	100
WM41	47 30 24	123 25 20	1.5	1.0	7	.50	20	200	100	5,000	30	100
WM43	47 30 48	123 24 43	1.0	1.0	3	.20	10	100	200	1,000	20	70
WM45	47 31 12	123 24 35	2.0	2.0	7	1.00	20	300	300	2,000	50	150
WM47	47 31 9	123 24 35	2.0	1.0	7	.50	15	200	200	2,000	50	100
WM49	47 31 18	123 23 45	1.5	.7	7	.50	15	200	100	1,500	50	100
WM50	47 30 28	123 23 27	3.0	1.5	5	.30	15	150	700	1,500	70	500
WM51	47 30 18	123 21 13	2.0	1.5	7	.50	30	300	100	3,000	50	100
WM52	47 30 20	123 21 18	2.0	1.5	7	.50	20	200	150	5,000	50	100

Table 2. Spectrographic data from stream sediments from the Wonder Mtn. area.

Sample	Cu-ppm s	Mo-ppm s	Pb-ppm s	B-ppm s	Be-ppm s	Sr-ppm s	Ba-ppm s	La-ppm s	Y-ppm s	Zr-ppm s
WM102	300	N	10	70	N	100	500	N	30	50
WM103	200	N	15	50	1.0	150	1,500	N	30	50
WM104	200	5	15	30	N	100	500	N	20	50
WM105	150	N	15	20	N	100	150	N	20	50
WM106	100	N	15	50	1.5	100	500	N	20	50
WM107	200	N	15	50	1.5	150	1,500	N	20	50
WM109	300	N	20	100	1.5	100	700	N	30	50
WM110	200	N	20	70	1.5	100	700	N	30	70
WM12	200	20	10	70	N	100	700	N	30	50
WM14	200	N	N	30	N	150	100	N	30	100
WM1401	150	N	10	20	N	100	100	N	30	30
WM1404	200	N	30	30	1.5	150	1,000	N	30	50
WM1406,L	300	N	50	50	2.0	200	1,000	30	50	50
WM16	300	N	10	50	N	100	200	N	30	100
WM18	200	N	N	150	N	100	100	N	20	70
WM20	200	N	N	50	N	100	150	N	20	70
WM206	100	N	N	20	N	150	70	N	20	50
WM208	150	N	N	30	N	150	70	N	30	70
WM210	200	N	N	50	N	150	100	N	30	70
WM212	100	N	N	30	N	100	100	N	20	50
WM214	300	N	30	50	2.0	200	3,000	30	50	100
WM216	200	N	N	700	N	100	700	N	30	50
WM218	200	N	30	70	2.0	150	5,000	20	50	50
WM22	150	N	15	100	2.0	100	700	20	20	100
WM24	100	N	15	70	2.0	150	500	N	30	100
WM26	100	N	15	100	2.0	150	500	N	20	100
WM28	70	N	10	30	1.0	N	300	N	20	30
WM30	100	N	15	50	2.0	300	700	N	30	100
WM33	300	N	10	30	1.0	100	150	N	30	70
WM35	200	N	N	30	N	100	70	N	30	70
WM37	100	N	N	20	N	100	50	N	30	70
WM39	100	N	20	100	2.0	200	500	N	30	100
WM41	200	N	20	70	1.5	150	1,000	N	30	70
WM43	50	5	15	20	1.0	100	150	N	15	50
WM45	100	N	10	50	3.0	300	500	N	30	150
WM47	100	N	10	50	2.0	150	500	N	20	100
WM49	150	7	15	50	2.0	150	500	N	30	100
WM50	70	N	N	30	1.5	150	150	N	15	50
WM51	200	N	10	30	1.5	150	500	N	50	70
WM52	200	N	20	50	2.0	200	1,000	20	30	100

Table 3. Spectrographic data from panned concentrates from stream sediments from the Wonder Mtn. area.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; <, detected, but present at a concentration less than the value reported; >, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

Sample	Latitude	Longitude	Mg-pct. s	Ca-pct. s	Fe-pct. s	Ti-pct. s	Sc-ppm s	V-ppm s	Cr-ppm s	Mn-ppm s	Au-ppm s
WM1	47 30 10	123 19 24	.70	7	5.0	.150	<10	200	30	3,000	N
WM10	47 27 58	123 22 10	.50	10	2.0	.100	N	200	20	500	N
WM101	47 28 23	123 23 38	.30	10	1.0	.100	N	100	20	500	N
WM108	47 29 30	123 23 42	.70	5	1.5	.070	N	100	20	700	N
WM11	47 29 49	123 19 12	1.00	10	2.0	.150	N	100	70	700	N
WM13	47 28 23	123 20 57	.20	10	1.0	.070	N	100	20	300	N
WM15	47 28 27	123 20 57	.50	10	1.5	.070	N	100	50	700	N
WM17	47 28 41	123 18 52	1.00	10	2.0	.100	10	150	100	500	N
WM19	47 28 43	123 18 56	.30	10	1.5	.070	N	100	N	500	N
WM2	47 30 18	123 21 13	1.50	10	5.0	.300	30	300	100	2,000	N
WM201	47 30 20	123 23 27	.30	10	2.0	.100	N	100	N	500	N
WM202	47 28 27	123 16 15	.70	5	1.5	.300	N	100	100	300	N
WM203	47 27 37	123 17 3	.15	10	1.5	.050	N	150	N	300	N
WM204	47 26 48	123 18 50	.50	10	1.5	.200	N	200	30	500	N
WM205	47 27 4	123 18 59	.50	10	2.0	.070	N	200	20	500	N
WM207	47 28 23	123 20 39	.30	10	1.5	.050	N	150	20	500	N
WM209	47 28 28	123 19 50	.10	7	2.0	.020	N	100	N	200	N
WM21	47 28 43	123 18 56	.20	10	1.0	.070	N	100	20	500	N
WM211	47 28 14	123 25 30	1.00	10	3.0	.200	10	150	100	500	N
WM213	47 28 23	123 25 15	.30	10	1.5	.100	N	150	20	500	N
WM215	47 29 15	123 26 14	.20	5	1.5	.100	N	100	N	1,500	N
WM217	47 29 14	123 25 41	.20	15	1.0	.015	N	70	N	300	N
WM219	47 29 17	123 25 50	.20	5	1.0	.100	N	100	20	1,500	N
WM21A	47 30 49	123 29 11	.10	5	1.0	.300	N	50	N	500	N
WM23	47 30 33	123 28 50	.20	10	2.0	.500	N	150	20	700	N
WM25	47 30 21	123 28 7	.20	5	3.0	2.000	10	100	30	500	N
WM27	47 29 48	123 27 46	.05	7	.5	.050	N	70	N	700	N
WM29	47 29 46	123 27 51	.15	10	1.0	1.000	N	100	20	300	N
WM3	47 30 20	123 21 18	1.50	10	5.0	.700	30	300	150	3,000	N
WM31	47 29 46	123 27 51	.50	10	1.5	1.500	N	150	20	500	N
WM32	47 29 14	123 25 41	.50	15	1.5	.070	N	100	20	500	N
WM34	47 27 4	123 18 59	1.00	10	3.0	.100	15	200	150	500	N
WM36	47 23 44	123 17 12	.70	7	1.5	.100	10	100	150	300	N
WM38	47 30 25	123 25 32	.50	3	10.0	1.000	10	70	30	200	N
WM4	47 31 19	123 21 18	1.50	7	7.0	.500	15	200	100	7,000	N
WM40	47 30 24	123 25 20	2.00	5	10.0	.700	30	500	150	7,000	N
WM42	47 30 48	123 24 43	.70	10	1.5	.300	10	100	50	700	N
WM44	47 31 12	123 24 35	1.50	3	3.0	1.000	20	200	300	700	N
WM46	47 31 9	123 24 35	.50	10	2.0	.500	N	150	20	500	N
WM48	47 31 18	123 23 45	.30	10	3.0	>2.000	20	150	50	700	N
WM5	47 29 40	123 23 14	1.50	10	5.0	.150	15	300	50	1,000	N
WM6	47 29 31	123 23 54	1.00	7	3.0	.200	15	200	70	2,000	N
WM7	47 29 38	123 24 10	.70	10	5.0	.700	10	200	30	2,000	N
WM8	47 28 10	123 24 20	2.00	10	7.0	.500	30	300	300	1,000	N
WM9	47 28 23	123 23 38	.70	7	2.0	.150	N	150	30	500	N

Table 3. Spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area.

Sample	Ni-ppm s	Cu-ppm s	Mo-ppm s	Pb-ppm s	B-ppm s	Be-ppm s	Sr-ppm s	Ba-ppm s	Zr-ppm s
WM1	100	1,000	70	<20	2,000	N	2,000	>10,000	150
WM10	15	15	N	N	1,500	N	N	150	N
WM101	10	20	N	N	>5,000	N	200	5,000	20
WM108	10	50	N	N	>5,000	N	2,000	>10,000	20
WM11	30	100	N	N	>5,000	N	500	>10,000	20
WM13	10	10	N	N	5,000	N	N	300	70
WM15	50	150	N	N	700	N	200	7,000	50
WM17	30	50	N	N	>5,000	N	N	200	100
WM19	N	20	N	N	3,000	N	N	300	N
WM2	50	100	N	N	1,000	N	N	2,000	70
WM201	200	20	N	N	100	5	N	500	20
WM202	10	10	N	20	150	N	200	200	500
WM203	N	<10	N	N	200	N	N	100	100
WM204	N	10	N	N	150	N	N	50	100
WM205	N	15	N	N	300	N	N	100	70
WM207	N	<10	N	N	200	N	N	100	N
WM209	N	20	N	N	2,000	N	N	<50	150
WM21	N	30	N	N	3,000	N	N	300	50
WM211	50	30	N	N	>5,000	N	N	70	50
WM213	10	15	N	N	5,000	2	N	100	70
WM215	15	300	100	N	3,000	N	10,000	>10,000	100
WM217	N	15	N	N	>5,000	N	300	5,000	N
WM219	10	100	N	N	700	N	10,000	>10,000	150
WM21A	N	20	N	<20	300	N	7,000	>10,000	300
WM23	N	20	N	N	150	3	N	500	1,500
WM25	N	15	N	N	70	2	500	>10,000	>2,000
WM27	N	10	N	N	<20	N	10,000	>10,000	N
WM29	N	10	N	N	300	2	1,000	>10,000	>2,000
WM3	70	70	N	N	100	N	300	7,000	500
WM31	N	50	N	N	200	3	500	10,000	2,000
WM32	10	30	N	N	>5,000	N	N	5,000	50
WM34	30	50	N	2,000	1,000	N	N	700	150
WM36	15	30	N	N	>5,000	N	N	300	20
WM38	150	150	N	50	20	N	200	2,000	>2,000
WM4	100	1,000	N	N	100	N	300	10,000	700
WM40	150	200	N	N	100	2	700	7,000	100
WM42	30	10	N	N	70	N	N	2,000	300
WM44	70	30	N	N	100	2	500	7,000	>2,000
WM46	30	30	N	N	700	N	200	5,000	500
WM48	50	50	N	N	50	3	700	10,000	>2,000
WM5	50	70	N	N	5,000	N	300	10,000	20
WM6	50	100	N	N	5,000	N	5,000	>10,000	200
WM7	50	100	N	<20	100	N	300	>10,000	1,000
WM8	70	50	N	N	150	N	N	700	200
WM9	15	30	N	N	5,000	N	N	500	20

Table 4. Spectrographic data from rock samples from the Wonder Mtn. area.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; <, detected, but present at a concentration less than the value reported; >, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

Sample	Latitude	Longitude	Mg-pct. s	Ca-pct. s	Fe-pct. s	Ti-pct. s	Sc-ppm s	V-ppm s	Cr-ppm s	Mn-ppm s	Co-ppm s	Ni-ppm s
basalt												
AS5981	47 28 28	123 16 16	2.00	2.0	7.0	.500	30	300	300	2,000	50	150
RWT30581	47 30 8	123 23 29	2.00	3.0	10.0	1.000	20	150	200	1,500	50	200
RWT30881	47 29 53	123 23 35	2.00	2.0	10.0	1.000	20	200	100	2,000	50	70
RWT31081	47 27 52	123 22 51	2.00	2.0	7.0	.500	30	150	200	1,000	50	100
RWT32881	47 29 7	123 22 23	2.00	3.0	7.0	.200	50	200	300	3,000	50	150
diabase												
RWT31381	47 28 27	123 20 57	2.00	3.0	10.0	.700	50	200	30	2,000	70	70
greenstone												
AS6281	47 29 14	123 25 41	1.00	.1	1.5	.100	5	50	N	2,000	7	20
RWT30381	47 30 10	123 19 24	1.00	10.0	5.0	.200	15	100	70	>5,000	30	100
graywacke/argillite												
RWT30681	47 30 0	123 23 35	1.00	1.0	3.0	.200	10	100	70	500	20	50
RWT30781	47 30 0	123 23 35	1.00	1.0	5.0	.300	15	100	100	500	15	50
red argillaceous limestone, jasper, epidote												
RWT30181	47 30 10	123 19 24	1.50	10.0	5.0	.300	15	100	70	5,000	20	70
RWT31881	47 28 52	123 26 2	1.00	.5	7.0	.500	30	100	70	2,000	50	100
RWT31981	47 28 52	123 26 2	1.50	2.0	5.0	.300	20	150	100	5,000	30	100
RWT32181	47 29 26	123 25 42	.70	10.0	5.0	.070	7	150	N	>5,000	20	150
WM1400RA	47 30 4	123 19 50	1.00	2.0	5.0	.300	20	200	100	1,500	30	50
WM1405RA	47 30 4	123 20 1	.05	.7	20.0	.010	N	50	N	2,000	N	N
manganese-rich zones												
RWT32281	47 29 26	123 25 42	.50	1.0	5.0	.070	N	200	N	>5,000	30	300
RWT32381	47 29 26	123 25 42	2.00	2.0	13.0	.300	30	150	150	5,000	50	100
RWT32981	47 29 15	123 22 19	.50	.7	1.0	.050	7	1,500	N	>5,000	1,000	150
WM1401RA	47 30 4	123 19 50	1.00	10.0	7.0	.050	7	150	30	>5,000	20	500
WM1402RA	47 30 6	123 19 53	.20	3.0	2.0	.030	N	100	N	>5,000	20	200
WM1403RA	47 30 6	123 19 57	.07	1.5	.2	.002	N	150	N	>5,000	N	70

Table 4. Spectrographic data from rock samples from the Wonder Mtn. area.

Sample	Cu-ppm	Zn-ppm	Mo-ppm	Pb-ppm	B-ppm	Be-ppm	Sr-ppm	Ba-ppm	La-ppm	Y-ppm	Zr-ppm	Nb-ppm
basalt												
AS5981	200	<200	N	N	15	N	300	100	N	30	70	N
RWT30581	100	N	N	<10	50	2.0	500	700	N	30	100	<20
RWT30881	70	N	N	N	15	1.5	500	150	N	50	150	N
RWT31081	150	N	N	N	<10	N	200	50	N	20	70	N
RWT32881	70	N	N	N	50	N	100	150	N	30	20	N
diabase												
RWT31381	300	N	N	N	10	1.5	300	100	N	50	100	N
AS6281	50	N	N	<10	70	3.0	N	700	30	50	200	20
RWT30381	50	N	N	20	20	2.0	300	500	20	30	50	N
graywacke/argillite												
RWT30681	20	N	N	10	30	1.5	300	500	N	20	100	N
RWT30781	50	N	N	10	70	2.0	300	1,000	N	30	100	N
red argillaceous limestone, jasper, epidote												
RWT30181	20	N	N	30	30	2.0	500	1,500	20	20	50	N
RWT31881	200	300	N	N	50	1.0	N	200	N	50	70	N
RWT31981	150	N	N	20	20	2.0	150	200	20	50	100	N
RWT32181	200	N	N	30	15	1.5	300	500	20	50	30	N
WM1400RA	100	N	N	N	15	N	1,000	150	N	50	50	N
WM1405RA	15	N	N	N	N	N	N	200	N	N	N	N
manganese-rich zones												
RWT32281	10	N	15	N	200	1.5	N	200	N	30	30	N
RWT32381	100	N	N	N	20	N	300	100	N	20	50	N
RWT32981	3,000	N	20	N	700	N	N	150	N	50	N	N
WM1401RA	30	N	N	30	200	2.0	200	200	30	70	30	N
WM1402RA	200	N	N	N	70	1.5	5,000	>5,000	N	30	20	N
WM1403RA	200	N	N	N	150	N	100	5,000	N	N	N	N

Table 5. Mineralogy of panned concentrates from stream sediments from the Wonder Mountain Area.

[Abundance of red limestone fragments observed in stream drainage: 1= abundant ; 2= present ; 3= not observed Abundance of minerals tentatively identified in the non-magnetic heavy mineral fraction: - = none observed; 1= trace present,< 1%; 2= present,>2%; 3=common, >5%; 4=major,> 20%; 5=dominant, >50%; 6=ubiquitous,>85%.]

		non-magnetic heavy mineral concentrate fraction							
Sample #	Red limestone fragment	Red-brown rock fragment	Barite(?)[1]	Pyrite	Prehnite(?)	Epidote	Zircon	Apatite	Rutile
Wm 1	1	3	5	3	3	-	-	-	-
Wm 2	2	4	4	1	3	-	-	-	-
Wm 3	2	3	4	1	3	-	-	-	-
Wm 4	2	4	4	1	2	-	-	-	-
Wm 5	2	2	3	1	5	-	-	-	-
Wm 6	2	3	5	1	4	-	-	-	-
Wm 7	3	3	5	1	2	-	-	-	-
Wm 8	2	-	5	-	4	-	-	-	-
Wm 9	2	2	5	-	3	1	-	-	-
Wm 10	3	-	6	-	2	-	-	-	-
Wm 11	1	1	5	1	3	1	-	-	-
Wm 13	2	-	6	-	2	-	-	-	-
Wm 15	1	1	5	2	3	2	-	-	-
Wm 17	3	2	5	1	3	-	-	-	-
Wm 19	3	-	5	1	3	1	-	-	-
Wm 21	3	-	6	1	2	-	-	-	-
Wm 21a	3	-	5	1	3	2	-	-	-
Wm 23	3	-	6	2	-	2	-	-	-
Wm 25	3	-	4	3	3	-	3	2	1
Wm 27	1	-	6	2	-	-	-	-	-
Wm 29	2	-	6	1	3[2]	-	2	-	-
Wm 31	2	-	4	-	4[2]	-	2	1	-
Wm 201	3	-	6	2	2[2]	-	-	-	-
Wm 202	3	-	4	-	3	3	-	-	-
Wm 203	2	-	6	1	2	-	-	-	-
Wm 204	2	-	6	1	3	-	-	-	-
Wm 205	2	-	6	1	2	-	-	-	-
Wm 207	3	-	6	1	2	-	-	-	-
Wm 209	3	-	6	3	2	-	-	-	-
Wm 211	3	-	4	2	4	-	-	-	-
Wm 213	2	-	5	-	3	-	-	-	-
Wm 215	1	2	5	2	2	-	-	-	-
Wm 217	1	-	5	1	1	-	-	-	-
Wm 219	1	2	5	-	-	-	-	-	-
Wm 101	2	-	6	1	3	-	-	-	-

Table 5. Mineralogy of panned concentrates from stream sediments from the Wonder Mountain Area (cont.)

Sample #	Red limestone fragment	non-magnetic heavy mineral concentrate fraction							
		Red-brown rock fragment	Barite(?)[1]	Pyrite	Prehnite(?)	Epidote	Zircon	Apatite	Rutile
Wm 108	1	3	4	1	3	-	-	-	-
Wm 32	1	-	6	1	2	-	-	-	-
Wm 34	1	-	5	2	3	-	-	-	-
Wm 36	3	-	3	-	6[2]	-	-	-	-
Wm 38	3	-	4	4	3[2]	-	-	-	-
Wm 40	1	4	3	-	4	-	-	-	-
Wm 42	3	-	5	1	3[2]	-	-	-	-
Wm 44	3	-	4	1	4[2]	-	1	-	-
Wm 46	2	-	6	1	1[2]	-	-	-	-
Wm 48	3	-	5	3	2[2]	-	3	-	-

1 Includes all white, heavy mineral fragments which have cleavage. Not all samples that contain these mineral fragments show Ba results (see table 3)
2 Includes a black waxy mineral fragments presumably from alteration of basaltic glass.

Table 6. Fisher-K statistics on spectrographic data from stream sediments from the Wonder Mountain area.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; T, trace (not used); G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

NO	COLUMN	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER QUAL VALUES	MINIMUM	MAXIMUM	NO
1	S-FE%	0	0	0	0	0	0	40	0	2.0000000	10.000000	1
2	S-MG%	0	0	0	0	0	0	40	0	0.7000000	3.0000000	2
3	S-CA%	0	0	0	0	0	0	40	0	0.5000000	5.0000000	3
4	S-TI%	0	0	0	0	0	0	40	0	0.1500000	1.0000000	4
5	S-MN	0	0	0	4	0	0	36	0	1000.0000	5000.0000	5
6	S-AG	40	0	0	0	0	0	0	0			6
7	S-AS	40	0	0	0	0	0	0	0			7
8	S-AU	40	0	0	0	0	0	0	0			8
9	S-B	0	0	0	0	0	0	40	0	20.000000	700.00000	9
10	S-BA	0	0	0	0	0	0	40	0	50.000000	5000.0000	10
11	S-BE	16	0	0	0	0	0	24	0	1.0000000	3.0000000	11
12	S-BI	40	0	0	0	0	0	0	0			12
13	S-CD	40	0	0	0	0	0	0	0			13
14	S-CO	0	0	0	0	0	0	40	0	10.000000	70.000000	14
15	S-CR	0	0	0	0	0	0	40	0	50.000000	700.00000	15
16	S-CU	0	0	0	0	0	0	40	0	50.000000	300.00000	16
17	S-LA	35	0	0	0	0	0	5	0	20.000000	30.000000	17
18	S-MO	36	0	0	0	0	0	4	0	5.0000000	20.000000	18
19	S-NB	39	0	0	0	0	0	1	0	20.000000	20.000000	19
20	S-NI	0	0	0	0	0	0	40	0	30.000000	500.00000	20
21	S-PB	11	0	0	0	0	0	29	0	10.000000	50.000000	21
22	S-SB	40	0	0	0	0	0	0	0			22
23	S-SC	0	0	0	0	0	0	40	0	10.000000	50.000000	23
24	S-SN	40	0	0	0	0	0	0	0			24
25	S-SR	1	0	0	0	0	0	39	0	100.00000	300.00000	25
26	S-V	0	0	0	0	0	0	40	0	70.000000	300.00000	26
27	S-W	40	0	0	0	0	0	0	0			27
28	S-Y	0	0	0	0	0	0	40	0	15.000000	50.000000	28
29	S-ZN	40	0	0	0	0	0	0	0			29
30	S-ZR	0	0	0	0	0	0	40	0	30.000000	150.00000	30
31	S-TH	40	0	0	0	0	0	0	0			31

Table 6. Fisher-K statistics for spectrographic data from stream sediments from the Wonder Mountain area--continued.

NO	COLUMN	K1 MEAN	SQRT(K2) STD DEVIATION	K2 VARIANCE	K3	G1 SKEWNESS	K4	G2 KURTOSIS	NO
1	S-FE%	6.7500000	1.9839096	3.9358974	-0.5465587	-0.0699957	2.6638217	0.1719561	1
2	S-MG%	1.6800000	0.4484732	0.2011282	5.1174108D-04	0.0056734	0.0318394	0.7870810	2
3	S-CA%	1.8400000	1.2226076	1.4947692	3.0547887	1.6715522	5.3352775	2.3878592	3
4	S-TI%	0.5037500	0.2214137	0.0490240	0.0089234	0.8220891	0.0013219	0.5500029	4
5	S-MN	2305.5556	1116.6134	1246825.4	2.0865079D+09	1.4986892	2.5210296D+12	1.6216856	5
6	S-AG								6
7	S-AS								7
8	S-AU								8
9	S-B	68.000000	106.27010	11293.333	6800025.9	5.6660101	4.3606029D+09	34.190247	9
10	S-BA	655.25000	892.64225	796810.19	2.5310619D+09	3.5585284	9.5735433D+12	15.078667	10
11	S-BE	1.7083333	0.4643056	0.2155797	0.0443017	0.4425972	0.0597356	1.2853374	11
12	S-BI								12
13	S-CD								13
14	S-CO	41.250000	14.882015	221.47436	-255.56680	-0.0775388	-30095.698	-0.6135607	14
15	S-CP	160.25000	110.06962	12115.321	4264956.2	3.1982485	2.1178891D+09	14.428906	15
16	S-CU	173.50000	71.738485	5146.4103	116243.72	0.3148567	-17171318.	-0.6483280	16
17	S-LA	24.000000	5.4772256	30.000000	100.00000	0.6085806	-3000.0000	-3.3333333	17
18	S-MO	9.2500000	7.2284161	52.250000	718.25000	1.9017183	9920.2500	3.6337080	18
19	S-NB	20.000000							19
20	S-NI	101.75000	74.279013	5517.3718	1692931.3	4.1308645	6.6065817D+08	21.702627	20
21	S-PB	17.068966	8.7134175	75.923645	1497.8790	2.2641811	37472.330	6.5006472	21
22	S-SB								22
23	S-SC	23.625000	9.9348842	98.701923	1224.2282	1.2484581	16723.826	1.7166605	23
24	S-SN								24
25	S-SR	139.74359	50.235612	2523.6167	221705.51	1.7488050	22958383.	3.6049107	25
26	S-V	195.50000	59.611993	3553.5897	68896.356	0.3252335	20427.034	0.0016176	26
27	S-W								27
28	S-Y	28.250000	8.9550158	80.192308	806.57895	1.1231760	9414.7062	1.4640009	28
29	S-ZN								29
30	S-ZR	70.250000	25.768944	664.03846	14401.518	0.8416246	273942.96	0.6212604	30
31	S-TH								31

NOTE: THE ABOVE STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY.

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

FREQUENCY TABLE FOR VARIABLE 1 (S-MG%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00	0.01	0.01
-2.500E-01	-8.333E-02	1	1	2.50	2.50	0.45	0.66
-8.333E-02	8.333E-02	6	7	15.00	17.50	6.14	0.00
8.333E-02	2.500E-01	13	20	32.50	50.00	18.50	1.64
2.500E-01	4.167E-01	19	39	47.50	97.50	12.81	2.99
4.167E-01	5.833E-01	1	40	2.50	100.00	2.08	0.56
	G	0	40	0.00	100.00	0.01	0.01
	H	0	40				
	B	0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 1 (S-MG%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
 6.813E-01 XXX
 1.000E+00 XXXXXXXXXXXXXXX
 1.468E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 2.154E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 3.162E+00 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 7.00000E-01
MAXIMUM ANTILOG = 3.00000E+00
GEOMETRIC MEAN = 1.61538E+00
GEOMETRIC DEVIATION = 1.34351E+00
VARIANCE OF LOGS = 1.64456E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 4 (S-CA%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.42	0.42
-4.170E-01	-2.503E-01	3	3	7.50	7.50	1.48	1.56
-2.503E-01	-8.367E-02	3	6	7.50	15.00	4.14	0.31
-8.367E-02	8.300E-02	7	13	17.50	32.50	7.81	0.08
8.300E-02	2.497E-01	10	23	25.00	57.50	9.97	0.00
2.497E-01	4.163E-01	11	34	27.50	85.00	8.59	0.68
4.163E-01	5.830E-01	2	36	5.00	90.00	5.00	1.80
5.830E-01	7.497E-01	4	40	10.00	100.00	2.59	0.76
G		0	40	0.00	100.00	0.42	0.42
H		0	40				
B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 4 (S-CA%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
 4.638E-01 XXXXXXXX
 6.808E-01 XXXXXXXX
 9.992E-01 XXXXXXXXXXXXXXXXXX
 1.467E+00 XXXXXXXXXXXXXXXXXXXXXXXXX
 2.153E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
 3.160E+00 XXXXX
 4.638E+00 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 5.00000E-01
MAXIMUM ANTILOG      = 5.00000E+00
GEOMETRIC MEAN       = 1.53590E+00
GEOMETRIC DEVIATION  = 1.82684E+00
VARIANCE OF LOGS     = 6.84870E-02
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 5 (S-FE%)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	0.00	0.00
2.500E-01	-	4.167E-01	1	1	2.50	2.50	0.17	3.91
4.167E-01	-	5.833E-01	2	3	5.00	7.50	2.50	0.10
5.833E-01	-	7.500E-01	9	12	22.50	30.00	11.35	0.49
7.500E-01	-	9.167E-01	21	33	52.50	82.50	16.70	1.11
9.167E-01	-	1.083E+00	7	40	17.50	100.00	9.28	0.56
	G		0	40	0.00	100.00	0.00	0.00
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 5 (S-FE%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+00 XXX
3.162E+00 XXXXX
4.642E+00 XXXXXXXXXXXXXXXXXXXXXX
6.813E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.000E+01 XXXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+00
MAXIMUM ANTILOG = 1.00000E+01
GEOMETRIC MEAN = 6.41692E+00
GEOMETRIC DEVIATION = 1.41042E+00
VARIANCE OF LOGS = 2.23051E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 6 (S-TI%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00	0.08	0.08
-9.170E-01	- -7.503E-01	1	1	2.50	2.50	0.72	0.11
-7.503E-01	- -5.837E-01	3	4	7.50	10.00	3.64	0.11
-5.837E-01	- -4.170E-01	8	12	20.00	30.00	9.55	0.25
-4.170E-01	- -2.503E-01	19	31	47.50	77.50	12.95	2.82
-2.503E-01	- -8.367E-02	5	36	12.50	90.00	9.09	1.84
-8.367E-02	- 8.300E-02	4	40	10.00	100.00	3.97	0.00
	G	0	40	0.00	100.00	0.08	0.08
	H	0	40				
	B	0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 6 (S-TI%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
1.467E-01 XXX
2.153E-01 XXXXXXXX
3.160E-01 XXXXXXXXXXXXXXXXXXX
4.638E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.808E-01 XXXXXXXXXXXX
9.992E-01 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 1.50000E-01
MAXIMUM ANTILOG      = 1.00000E+00
GEOMETRIC MEAN       = 4.57143E-01
GEOMETRIC DEVIATION  = 1.58275E+00
VARIANCE OF LOGS     = 3.97657E-02
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 7 (S-SC)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	0.29	0.29
9.160E-01	-	1.083E+00	3	3	7.50	7.50	2.48	0.11
1.083E+00	-	1.249E+00	7	10	17.50	25.00	9.30	0.57
1.249E+00	-	1.416E+00	15	25	37.50	62.50	14.77	0.00
1.416E+00	-	1.583E+00	12	37	30.00	92.50	9.96	0.42
1.583E+00	-	1.749E+00	3	40	7.50	100.00	3.20	0.01
	G		0	40	0.00	100.00	0.29	0.29
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 7 (S-SC)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXXXXX
1.466E+01 XXXXXXXXXXXXXXXXXX
2.151E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.634E+01 XXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
MAXIMUM ANTILOG = 5.00000E+01
GEOMETRIC MEAN = 2.18404E+01
GEOMETRIC DEVIATION = 1.49002E+00
VARIANCE OF LOGS = 2.99954E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 8 (S-V)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	0.01	0.01
1.750E+00	-	1.917E+00	1	1	2.50	2.50	0.27	2.03
1.917E+00	-	2.083E+00	3	4	7.50	10.00	3.58	0.09
2.083E+00	-	2.250E+00	9	13	22.50	32.50	13.95	1.76
2.250E+00	-	2.417E+00	20	33	50.00	82.50	16.11	0.94
2.417E+00	-	2.583E+00	7	40	17.50	100.00	6.09	0.14
	G		0	40	0.00	100.00	0.01	0.01
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 8 (S-V)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
6.813E+01 XXX
1.000E+02 XXXXXXXX
1.468E+02 XXXXXXXXXXXXXXXXXXXXXX
2.154E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.162E+02 XXXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 7.00000E+01
MAXIMUM ANTILOG = 3.00000E+02
GEOMETRIC MEAN = 1.86106E+02
GEOMETRIC DEVIATION = 1.39013E+00
VARIANCE OF LOGS = 2.04653E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 9 (S-CR)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	0.33	0.33
1.583E+00	-	1.750E+00	2	2	5.00	5.00	1.55	0.13
1.750E+00	-	1.916E+00	3	5	7.50	12.50	4.90	0.74
1.916E+00	-	2.083E+00	15	20	37.50	50.00	9.46	3.24
2.083E+00	-	2.250E+00	4	24	10.00	60.00	11.15	4.58
2.250E+00	-	2.416E+00	12	36	30.00	90.00	8.01	1.99
2.416E+00	-	2.583E+00	3	39	7.50	97.50	3.51	0.07
2.583E+00	-	2.750E+00	0	39	0.00	97.50	0.94	0.94
2.750E+00	-	2.916E+00	1	40	2.50	100.00	0.17	4.13
	G		0	40	0.00	100.00	0.33	0.33
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 9 (S-CR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+01 XXXXX
6.808E+01 XXXXXXXX
9.992E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.467E+02 XXXXXXXXXX
2.153E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.160E+02 XXXXXXXX
4.638E+02
6.808E+02 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+01
MAXIMUM ANTILOG = 7.00000E+02
GEOMETRIC MEAN = 1.37455E+02
GEOMETRIC DEVIATION = 1.70590E+00
VARIANCE OF LOGS = 5.38019E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 10 (S-MN)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	0.69	0.69
2.916E+00	-	3.083E+00	3	3	7.50	7.50	3.04	0.00
3.083E+00	-	3.249E+00	8	11	20.00	27.50	8.25	0.01
3.249E+00	-	3.416E+00	15	26	37.50	65.00	12.27	0.61
3.416E+00	-	3.583E+00	6	32	15.00	80.00	10.01	1.61
3.583E+00	-	3.749E+00	4	36	10.00	90.00	5.74	0.53
	G		4	40	10.00	100.00	0.69	15.98
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 10 (S-MN)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+02 XXXXXXXX
1.466E+03 XXXXXXXXXXXXXXXXXXX
2.151E+03 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+03 XXXXXXXXXXXXXXX
4.634E+03 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+03
MAXIMUM ANTILOG = 5.00000E+03
GEOMETRIC MEAN = 2.09770E+03
GEOMETRIC DEVIATION = 1.53187E+00
VARIANCE OF LOGS = 3.43072E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 11 (S-CO)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	0.01	0.01
9.160E-01	-	1.083E+00	1	1	2.50	2.50	0.13	5.61
1.083E+00	-	1.249E+00	0	1	0.00	2.50	1.31	1.31
1.249E+00	-	1.416E+00	5	6	12.50	15.00	5.96	0.16
1.416E+00	-	1.583E+00	11	17	27.50	42.50	12.67	0.22
1.583E+00	-	1.749E+00	20	37	50.00	92.50	12.62	4.32
1.749E+00	-	1.916E+00	3	40	7.50	100.00	7.30	2.53
	G		0	40	0.00	100.00	0.01	0.01
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 11 (S-CO)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXX
1.466E+01
2.151E+01 XXXXXXXXXXXX
3.157E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.634E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.802E+01 XXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+01
MAXIMUM ANTILOG      =  7.00000E+01
GEOMETRIC MEAN       =  3.81684E+01
GEOMETRIC DEVIATION  =  1.53132E+00
VARIANCE OF LOGS     =  3.42498E-02
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 12 (S-NI)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.40	0.40
1.416E+00 -	1.583E+00	3	3	7.50	7.50	1.84	0.74
1.583E+00 -	1.749E+00	4	7	10.00	17.50	5.62	0.47
1.749E+00 -	1.916E+00	9	16	22.50	40.00	10.25	0.15
1.916E+00 -	2.083E+00	17	33	42.50	82.50	11.14	3.08
2.083E+00 -	2.249E+00	5	38	12.50	95.00	7.22	0.68
2.249E+00 -	2.416E+00	1	39	2.50	97.50	2.79	1.15
2.416E+00 -	2.583E+00	0	39	0.00	97.50	0.64	0.64
2.583E+00 -	2.749E+00	1	40	2.50	100.00	0.09	8.63
G		0	40	0.00	100.00	0.40	0.40
H		0	40				
B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 12 (S-NI)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
3.157E+01 XXXXXXXX
4.634E+01 XXXXXXXXXX
6.802E+01 XXXXXXXXXXXXXXXXXXXXXX
9.985E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.466E+02 XXXXXXXXXXXX
2.151E+02 XXX
3.157E+02
4.634E+02 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 3.00000E+01
MAXIMUM ANTILOG      = 5.00000E+02
GEOMETRIC MEAN       = 8.76677E+01
GEOMETRIC DEVIATION  = 1.68491E+00
VARIANCE OF LOGS     = 5.13374E-02
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 13 (S-CU)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.04	0.04
1.583E+00 -	1.750E+00	1	1	2.50	2.50	0.43	0.76
1.750E+00 -	1.916E+00	2	3	5.00	7.50	2.61	0.14
1.916E+00 -	2.083E+00	10	13	25.00	32.50	8.10	0.44
2.083E+00 -	2.250E+00	5	18	12.50	45.00	12.88	4.82
2.250E+00 -	2.416E+00	16	34	40.00	85.00	10.50	2.88
2.416E+00 -	2.583E+00	6	40	15.00	100.00	5.44	0.06
G		0	40	0.00	100.00	0.04	0.04
H		0	40				
B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 13 (S-CU)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+01 XXX
6.808E+01 XXXXX
9.992E+01 XXXXXXXXXXXXXXXXXXXXXXXX
1.467E+02 XXXXXXXXXXXXX
2.153E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.160E+02 XXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E+01
MAXIMUM ANTILOG      =  3.00000E+02
GEOMETRIC MEAN       =  1.58023E+02
GEOMETRIC DEVIATION  =  1.57781E+00
VARIANCE OF LOGS     =  3.92260E-02
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 14 (S-MO)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		34	34	89.47	89.47		
L		0	34	0.00	89.47		
T		0	34	0.00	89.47	6.16	6.16
5.830E-01 -	7.497E-01	2	36	5.26	94.74	13.85	10.14
7.497E-01 -	9.163E-01	1	37	2.63	97.37	12.99	11.07
9.163E-01 -	1.083E+00	0	37	0.00	97.37	4.43	4.43
1.083E+00 -	1.250E+00	0	37	0.00	97.37	0.54	0.54
1.250E+00 -	1.416E+00	1	38	2.63	100.00	0.02	39.59
G		0	38	0.00	100.00	0.00	0.00
H		0	38				
B		2	40				

TOTALS LESS H AND B 38

HISTOGRAM FOR VARIABLE 14 (S-MO)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+00 XXXXX
6.808E+00 XXX
9.992E+00
1.467E+01
2.153E+01 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 5.00000E+00
MAXIMUM ANTILOG      = 2.00000E+01
GEOMETRIC MEAN       = 7.69161E+00
GEOMETRIC DEVIATION  = 1.92807E+00
VARIANCE OF LOGS     = 8.12944E-02
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 15 (S-PB)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		11	11	27.50	27.50		
	L		0	11	0.00	27.50		
	T		0	11	0.00	27.50	4.02	4.02
9.160E-01	-	1.083E+00	9	20	22.50	50.00	10.89	0.33
1.083E+00	-	1.249E+00	11	31	27.50	77.50	14.51	0.85
1.249E+00	-	1.416E+00	5	36	12.50	90.00	8.31	1.32
1.416E+00	-	1.583E+00	3	39	7.50	97.50	2.04	0.45
1.583E+00	-	1.749E+00	1	40	2.50	100.00	0.22	2.72
	G		0	40	0.00	100.00	0.00	0.00
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 15 (S-PB)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXXXXXXXXXXXXXXXXXX
1.466E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.151E+01 XXXXXXXXXXXX
3.157E+01 XXXXXXXX
4.634E+01 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	1.00000E+01
MAXIMUM ANTILOG	=	5.00000E+01
GEOMETRIC MEAN	=	1.55652E+01
GEOMETRIC DEVIATION	=	1.50930E+00
VARIANCE OF LOGS	=	3.19607E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 16 (S-B)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	2.68	2.68
1.250E+00 -	1.417E+00	5	5	12.50	12.50	4.41	0.08
1.417E+00 -	1.583E+00	10	15	25.00	37.50	7.38	0.93
1.583E+00 -	1.750E+00	13	28	32.50	70.00	8.99	1.79
1.750E+00 -	1.917E+00	6	34	15.00	85.00	7.96	0.48
1.917E+00 -	2.083E+00	4	38	10.00	95.00	5.12	0.25
2.083E+00 -	2.250E+00	1	39	2.50	97.50	2.40	0.82
2.250E+00 -	2.417E+00	0	39	0.00	97.50	0.82	0.82
2.417E+00 -	2.583E+00	0	39	0.00	97.50	0.20	0.20
2.583E+00 -	2.750E+00	0	39	0.00	97.50	0.04	0.04
2.750E+00 -	2.917E+00	1	40	2.50	100.00	0.01	189.58
G		0	40	0.00	100.00	2.68	2.68
H		0	40				
B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 16 (S-B)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
 2.154E+01 XXXXXXXXXXXXX
 3.162E+01 XXXXXXXXXXXXXXXXXXXXXXXXX
 4.642E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 6.813E+01 XXXXXXXXXXXXXXX
 1.000E+02 XXXXXXXXXX
 1.468E+02 XXX
 2.154E+02
 3.162E+02
 4.642E+02
 6.813E+02 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  2.00000E+01
MAXIMUM ANTILOG      =  7.00000E+02
GEOMETRIC MEAN       =  4.85701E+01
GEOMETRIC DEVIATION  =  1.95571E+00
VARIANCE OF LOGS     =  8.48578E-02
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 17 (S-BE)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		15	15	38.46	38.46		
L		0	15	0.00	38.46		
T		0	15	0.00	38.46	2.52	2.52
-8.400E-02 -	8.267E-02	4	19	10.26	48.72	11.59	4.97
8.267E-02 -	2.493E-01	8	27	20.51	69.23	16.73	4.56
2.493E-01 -	4.160E-01	11	38	28.21	97.44	7.20	2.00
4.160E-01 -	5.827E-01	1	39	2.56	100.00	0.94	0.00
G		0	39	0.00	100.00	0.00	0.00
H		0	39				
B		1	40				

TOTALS LESS H AND B 39

HISTOGRAM FOR VARIABLE 17 (S-BE)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E-01 XXXXXXXXXX
1.466E+00 XXXXXXXXXXXXXXXXXXXX
2.151E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.157E+00 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 1.00000E+00
MAXIMUM ANTILOG      = 3.00000E+00
GEOMETRIC MEAN       = 1.64645E+00
GEOMETRIC DEVIATION  = 1.32691E+00
VARIANCE OF LOGS     = 1.50902E-02
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 18 (S-SR)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		1	1	2.50	2.50		
	L		0	1	0.00	2.50		
	T		0	1	0.00	2.50	2.59	2.59
1.916E+00	-	2.083E+00	18	19	45.00	47.50	13.04	1.89
2.083E+00	-	2.249E+00	15	34	37.50	85.00	17.63	0.39
2.249E+00	-	2.416E+00	4	38	10.00	95.00	6.18	0.77
2.416E+00	-	2.583E+00	2	40	5.00	100.00	0.56	3.72
	G		0	40	0.00	100.00	0.00	0.00
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 18 (S-SR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.466E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.151E+02 XXXXXXXXXX
3.157E+02 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+02
MAXIMUM ANTILOG = 3.00000E+02
GEOMETRIC MEAN = 1.32761E+02
GEOMETRIC DEVIATION = 1.36447E+00
VARIANCE OF LOGS = 1.82154E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 19 (S-BA)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	0.83	0.83
1.583E+00	-	1.750E+00	1	1	2.50	2.50	0.99	0.00
1.750E+00	-	1.916E+00	3	4	7.50	10.00	1.76	0.87
1.916E+00	-	2.083E+00	5	9	12.50	22.50	2.80	1.74
2.083E+00	-	2.250E+00	5	14	12.50	35.00	3.94	0.29
2.250E+00	-	2.416E+00	1	15	2.50	37.50	4.92	3.12
2.416E+00	-	2.583E+00	1	16	2.50	40.00	5.46	3.64
2.583E+00	-	2.750E+00	10	26	25.00	65.00	5.38	3.97
2.750E+00	-	2.916E+00	6	32	15.00	80.00	4.70	0.36
2.916E+00	-	3.083E+00	4	36	10.00	90.00	3.65	0.03
3.083E+00	-	3.250E+00	2	38	5.00	95.00	2.52	0.11
3.250E+00	-	3.416E+00	0	38	0.00	95.00	1.54	1.54
3.416E+00	-	3.583E+00	1	39	2.50	97.50	0.84	0.03
3.583E+00	-	3.750E+00	1	40	2.50	100.00	0.67	0.16
	G		0	40	0.00	100.00	0.83	0.83
	H		0	40				
	B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 19 (S-BA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+01 XXX
6.808E+01 XXXXXXXX
9.992E+01 XXXXXXXXXXXX
1.467E+02 XXXXXXXXXXXX
2.153E+02 XXX
3.160E+02 XXX
4.638E+02 XXXXXXXXXXXXXXXXXXXXXXXX
6.808E+02 XXXXXXXXXXXXXX
9.992E+02 XXXXXXXXXX
1.467E+03 XXXXX
2.153E+03
3.160E+03 XXX
4.638E+03 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E+01
MAXIMUM ANTILOG      =  5.00000E+03
GEOMETRIC MEAN       =  3.64784E+02
GEOMETRIC DEVIATION  =  3.02375E+00
VARIANCE OF LOGS     =  2.30924E-01
```

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 20 (S-LA)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		34	34	87.18	87.18		
L		0	34	0.00	87.18		
T		0	34	0.00	87.18	11.70	11.70
1.250E+00 -	1.417E+00	3	37	7.69	94.87	15.20	9.79
1.417E+00 -	1.583E+00	2	39	5.13	100.00	12.10	8.43
G		0	39	0.00	100.00	0.00	0.00
H		0	39				
B		1	40				

TOTALS LESS H AND B 39

HISTOGRAM FOR VARIABLE 20 (S-LA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

2.154E+01 XXXXXXXX
3.162E+01 XXXXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 3.00000E+01
GEOMETRIC MEAN = 2.35216E+01
GEOMETRIC DEVIATION = 1.24867E+00
VARIANCE OF LOGS = 9.30240E-03

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 21 (S-Y)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.15	0.15
1.083E+00 -	1.250E+00	2	2	5.00	5.00	3.14	0.41
1.250E+00 -	1.416E+00	12	14	30.00	35.00	14.87	0.55
1.416E+00 -	1.583E+00	22	36	55.00	90.00	16.91	1.53
1.583E+00 -	1.750E+00	4	40	10.00	100.00	4.93	0.17
G		0	40	0.00	100.00	0.15	0.15
H		0	40				
B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 21 (S-Y)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
1.467E+01 XXXXX
2.153E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.160E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.638E+01 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.50000E+01
MAXIMUM ANTILOG = 5.00000E+01
GEOMETRIC MEAN = 2.70039E+01
GEOMETRIC DEVIATION = 1.35128E+00
VARIANCE OF LOGS = 1.70945E-02

Table 7. Frequency tables and histograms of spectrographic data from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 22 (S-ZR)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.20	0.20
1.416E+00 -	1.583E+00	2	2	5.00	5.00	2.43	0.08
1.583E+00 -	1.749E+00	16	18	40.00	45.00	10.49	2.89
1.749E+00 -	1.916E+00	10	28	25.00	70.00	16.14	2.34
1.916E+00 -	2.083E+00	11	39	27.50	97.50	8.88	0.51
2.083E+00 -	2.249E+00	1	40	2.50	100.00	1.86	0.40
G		0	40	0.00	100.00	0.20	0.20
H		0	40				
B		0	40				

TOTALS LESS H AND B 40

HISTOGRAM FOR VARIABLE 22 (S-ZR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
3.157E+01 XXXXX
4.634E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.802E+01 XXXXXXXXXXXXXXXXXXXXXXXXX
9.985E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
1.466E+02 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  3.00000E+01
MAXIMUM ANTILOG      =  1.50000E+02
GEOMETRIC MEAN       =  6.59357E+01
GEOMETRIC DEVIATION  =  1.43486E+00
VARIANCE OF LOGS     =  2.45891E-02
```

Table 8. Correlation coefficients for spectrographic data from stream sediments from the Wonder Mountain area

COLUMN	VERSUS	COLUMN	CORRELATION COEFFICIENT	NO. OF PAIRS
1 (S-MG%)	2	(S-CA%)	0.5778	40
1 (S-MG%)	3	(S-FE%)	0.6896	40
1 (S-MG%)	4	(S-TI%)	0.5796	40
1 (S-MG%)	5	(S-SC)	0.5961	40
1 (S-MG%)	6	(S-V)	0.6829	40
1 (S-MG%)	7	(S-CR)	0.7152	40
1 (S-MG%)	8	(S-MN)	0.0348	36
1 (S-MG%)	9	(S-CO)	0.7777	40
1 (S-MG%)	10	(S-NI)	0.6116	40
1 (S-MG%)	11	(S-CU)	0.1970	40
1 (S-MG%)	12	(S-MO)	0.8008	4
1 (S-MG%)	13	(S-PB)	-0.3175	29
1 (S-MG%)	14	(S-B)	0.0210	40
1 (S-MG%)	15	(S-BE)	0.2898	24
1 (S-MG%)	16	(S-SR)	0.0991	39
1 (S-MG%)	17	(S-BA)	-0.3069	40
1 (S-MG%)	18	(S-LA)	-0.2998	5
1 (S-MG%)	19	(S-Y)	0.1593	40
1 (S-MG%)	20	(S-ZR)	0.2955	40
2 (S-CA%)	3	(S-FE%)	0.5078	40
2 (S-CA%)	4	(S-TI%)	0.6217	40
2 (S-CA%)	5	(S-SC)	0.7835	40
2 (S-CA%)	6	(S-V)	0.5913	40
2 (S-CA%)	7	(S-CR)	0.4942	40
2 (S-CA%)	8	(S-MN)	-0.0137	36
2 (S-CA%)	9	(S-CO)	0.4181	40
2 (S-CA%)	10	(S-NI)	0.2317	40
2 (S-CA%)	11	(S-CU)	0.3947	40
2 (S-CA%)	12	(S-MO)	0.5756	4
2 (S-CA%)	13	(S-PB)	-0.1368	29
2 (S-CA%)	14	(S-B)	-0.0787	40
2 (S-CA%)	15	(S-BE)	-0.0495	24
2 (S-CA%)	16	(S-SR)	-0.1603	39
2 (S-CA%)	17	(S-BA)	-0.5277	40
2 (S-CA%)	18	(S-LA)	0.3172	5
2 (S-CA%)	19	(S-Y)	0.1133	40
2 (S-CA%)	20	(S-ZR)	-0.0043	40
3 (S-FE%)	4	(S-TI%)	0.7068	40
3 (S-FE%)	5	(S-SC)	0.6962	40
3 (S-FE%)	6	(S-V)	0.8002	40
3 (S-FE%)	7	(S-CR)	0.3196	40
3 (S-FE%)	8	(S-MN)	0.2709	36
3 (S-FE%)	9	(S-CO)	0.7282	40
3 (S-FE%)	10	(S-NI)	0.3983	40
3 (S-FE%)	11	(S-CU)	0.5732	40
3 (S-FE%)	12	(S-MO)	0.0550	4
3 (S-FE%)	13	(S-PB)	-0.0088	29
3 (S-FE%)	14	(S-B)	0.2317	40
3 (S-FE%)	15	(S-BE)	0.3174	24
3 (S-FE%)	16	(S-SR)	0.0709	39
3 (S-FE%)	17	(S-BA)	-0.0216	40
3 (S-FE%)	18	(S-LA)	0.3536	5
3 (S-FE%)	19	(S-Y)	0.4591	40
3 (S-FE%)	20	(S-ZR)	0.3379	40
4 (S-TI%)	5	(S-SC)	0.7138	40
4 (S-TI%)	6	(S-V)	0.6640	40
4 (S-TI%)	7	(S-CR)	0.4972	40
4 (S-TI%)	8	(S-MN)	0.1036	36
4 (S-TI%)	9	(S-CO)	0.6116	40
4 (S-TI%)	10	(S-NI)	0.1804	40
4 (S-TI%)	11	(S-CU)	0.2982	40
4 (S-TI%)	12	(S-MO)	-0.1069	4
4 (S-TI%)	13	(S-PB)	-0.2157	29
4 (S-TI%)	14	(S-B)	0.1178	40
4 (S-TI%)	15	(S-BE)	0.3645	24
4 (S-TI%)	16	(S-SR)	0.0632	39
4 (S-TI%)	17	(S-BA)	-0.3104	40
4 (S-TI%)	18	(S-LA)	-0.1649	5
4 (S-TI%)	19	(S-Y)	0.1183	40
4 (S-TI%)	20	(S-ZR)	0.5817	40
5 (S-SC)	6	(S-V)	0.7560	40
5 (S-SC)	7	(S-CR)	0.3664	40
5 (S-SC)	8	(S-MN)	0.1448	36
5 (S-SC)	9	(S-CO)	0.6141	40
5 (S-SC)	10	(S-NI)	0.2414	40
5 (S-SC)	11	(S-CU)	0.5736	40
5 (S-SC)	12	(S-MO)	0.5041	4
5 (S-SC)	13	(S-PB)	-0.0575	29
5 (S-SC)	14	(S-B)	0.0360	40
5 (S-SC)	15	(S-BE)	0.1566	24
5 (S-SC)	16	(S-SR)	-0.0833	39
5 (S-SC)	17	(S-BA)	-0.3693	40
5 (S-SC)	18	(S-LA)	0.7591	5
5 (S-SC)	19	(S-Y)	0.3958	40
5 (S-SC)	20	(S-ZR)	0.2487	40
6 (S-V)	7	(S-CR)	0.2637	40
6 (S-V)	8	(S-MN)	0.2166	36
6 (S-V)	9	(S-CO)	0.6687	40
6 (S-V)	10	(S-NI)	0.4560	40
6 (S-V)	11	(S-CU)	0.5623	40
6 (S-V)	12	(S-MO)	0.4373	4
6 (S-V)	13	(S-PB)	-0.0053	29
6 (S-V)	14	(S-B)	0.1313	40
6 (S-V)	15	(S-BE)	0.4017	24
6 (S-V)	16	(S-SR)	0.2291	39
6 (S-V)	17	(S-BA)	-0.0239	40
6 (S-V)	18	(S-LA)	0.7135	5
6 (S-V)	19	(S-Y)	0.5001	40
6 (S-V)	20	(S-ZR)	0.3706	40
7 (S-CR)	8	(S-MN)	-0.2876	36

Table 8. Correlation coefficients for spectrographic data from stream sediments from the Wonder Mountain area--continued

COLUMN	VERSUS	COLUMN	CORRELATION COEFFICIENT	NO. OF PAIRS
7 (S-CR)	9	(S-CO)	0.5469	40
7 (S-CR)	10	(S-NI)	0.5227	40
7 (S-CR)	11	(S-CU)	-0.1965	40
7 (S-CR)	12	(S-MO)	0.1335	4
7 (S-CR)	13	(S-PB)	-0.4145	29
7 (S-CR)	14	(S-B)	-0.1870	40
7 (S-CR)	15	(S-BE)	0.1379	24
7 (S-CR)	16	(S-SR)	-0.0133	39
7 (S-CR)	17	(S-BA)	-0.5265	40
7 (S-CR)	18	(S-LA)	-0.7525	5
7 (S-CR)	19	(S-Y)	-0.2162	40
7 (S-CR)	20	(S-ZR)	0.2857	40
8 (S-MN)	9	(S-CO)	0.1366	36
8 (S-MN)	10	(S-NI)	0.0755	36
8 (S-MN)	11	(S-CU)	0.5675	36
8 (S-MN)	12	(S-MO)	0.5041	4
8 (S-MN)	13	(S-PB)	0.2585	25
8 (S-MN)	14	(S-B)	0.2776	36
8 (S-MN)	15	(S-BE)	-0.1159	20
8 (S-MN)	16	(S-SR)	0.1329	35
8 (S-MN)	17	(S-BA)	0.6155	36
8 (S-MN)	18	(S-LA)	********	2
8 (S-MN)	19	(S-Y)	0.4579	36
8 (S-MN)	20	(S-ZR)	0.0656	36
9 (S-CO)	10	(S-NI)	0.6763	40
9 (S-CO)	11	(S-CU)	0.3335	40
9 (S-CO)	12	(S-MO)	0.1711	4
9 (S-CO)	13	(S-PB)	0.0149	29
9 (S-CO)	14	(S-B)	0.2019	40
9 (S-CO)	15	(S-BE)	0.4384	24
9 (S-CO)	16	(S-SR)	0.1462	39
9 (S-CO)	17	(S-BA)	-0.1493	40
9 (S-CO)	18	(S-LA)	0.3554	5
9 (S-CO)	19	(S-Y)	0.2935	40
9 (S-CO)	20	(S-ZR)	0.5305	40
10 (S-NI)	11	(S-CU)	0.1518	40
10 (S-NI)	12	(S-MO)	0.9032	4
10 (S-NI)	13	(S-PB)	0.3236	29
10 (S-NI)	14	(S-B)	0.1283	40
10 (S-NI)	15	(S-BE)	0.3505	24
10 (S-NI)	16	(S-SR)	0.3793	39
10 (S-NI)	17	(S-BA)	0.1023	40
10 (S-NI)	18	(S-LA)	0.6567	5
10 (S-NI)	19	(S-Y)	0.3631	40
10 (S-NI)	20	(S-ZR)	0.3023	40
11 (S-CU)	12	(S-MO)	0.4807	4
11 (S-CU)	13	(S-PB)	0.2745	29
11 (S-CU)	14	(S-B)	0.2670	40
11 (S-CU)	15	(S-BE)	0.0277	24
11 (S-CU)	16	(S-SR)	-0.1631	39
11 (S-CU)	17	(S-BA)	0.2999	40
11 (S-CU)	18	(S-LA)	0.9194	5
11 (S-CU)	19	(S-Y)	0.5931	40
11 (S-CU)	20	(S-ZR)	0.0150	40
12 (S-MO)	13	(S-PB)	-0.9704	4
12 (S-MO)	14	(S-B)	0.8600	4
12 (S-MO)	15	(S-BE)	1.0000	2
12 (S-MO)	16	(S-SR)	-0.0957	4
12 (S-MO)	17	(S-BA)	0.6301	4
12 (S-MO)	18	(S-LA)	********	0
12 (S-MO)	19	(S-Y)	0.7104	4
12 (S-MO)	20	(S-ZR)	-0.0957	4
13 (S-PB)	14	(S-B)	0.2194	29
13 (S-PB)	15	(S-BE)	0.2195	23
13 (S-PB)	16	(S-SR)	0.3057	28
13 (S-PB)	17	(S-BA)	0.6207	29
13 (S-PB)	18	(S-LA)	0.7444	5
13 (S-PB)	19	(S-Y)	0.4220	29
13 (S-PB)	20	(S-ZR)	-0.0219	29
14 (S-B)	15	(S-BE)	0.5272	24
14 (S-B)	16	(S-SR)	-0.0066	39
14 (S-B)	17	(S-BA)	0.4435	40
14 (S-B)	18	(S-LA)	-0.6086	5
14 (S-B)	19	(S-Y)	0.1441	40
14 (S-B)	20	(S-ZR)	0.2087	40
15 (S-BE)	16	(S-SR)	0.6382	23
15 (S-BE)	17	(S-BA)	0.3514	24
15 (S-BE)	18	(S-LA)	********	5
15 (S-BE)	19	(S-Y)	0.3059	24
15 (S-BE)	20	(S-ZR)	0.7391	24
16 (S-SR)	17	(S-BA)	0.3779	39
16 (S-SR)	18	(S-LA)	0.5881	5
16 (S-SR)	19	(S-Y)	0.3549	39
16 (S-SR)	20	(S-ZR)	0.5148	39
17 (S-BA)	18	(S-LA)	0.0859	5
17 (S-BA)	19	(S-Y)	0.4227	40
17 (S-BA)	20	(S-ZR)	0.0877	40
18 (S-LA)	19	(S-Y)	0.6259	5
18 (S-LA)	20	(S-ZR)	-0.1667	5
19 (S-Y)	20	(S-ZR)	0.1843	40

Table 9. Fisher-K statistics for spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; T, trace (not used); G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

NO	COLUMN	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER QUAL VALUES	MINIMUM	MAXIMUM	NO
1	S-FE%	0	0	0	0	0	0	45	0	0.5000000	10.000000	1
2	S-MG%	0	0	0	0	0	0	45	0	0.0500000	2.0000000	2
3	S-CA%	0	0	0	0	0	0	45	0	3.0000000	15.000000	3
4	S-TI%	0	0	0	1	0	0	44	0	0.0150000	2.0000000	4
5	S-MN	0	0	0	0	0	0	45	0	200.00000	7000.0000	5
6	S-AG	45	0	0	0	0	0	0	0			6
7	S-AS	43	0	1	0	0	0	1	0	500.00000	500.00000	7
8	S-AU	45	0	0	0	0	0	0	0			8
9	S-B	0	0	1	8	0	0	36	0	20.000000	5000.0000	9
10	S-BA	0	0	1	11	0	0	33	0	50.000000	10000.000	10
11	S-BE	36	0	0	0	0	0	9	0	2.0000000	5.0000000	11
12	S-BI	45	0	0	0	0	0	0	0			12
13	S-CD	45	0	0	0	0	0	0	0			13
14	S-CO	31	0	0	0	0	0	14	0	10.000000	50.000000	14
15	S-CR	8	0	0	0	0	0	37	0	20.000000	300.00000	15
16	S-CU	0	0	2	0	0	0	43	0	10.000000	1000.0000	16
17	S-LA	44	0	0	0	0	0	1	0	70.000000	70.000000	17
18	S-MO	43	0	0	0	0	0	2	0	70.000000	100.00000	18
19	S-NB	43	0	2	0	0	0	0	0			19
20	S-NI	14	0	0	0	0	0	31	0	10.000000	200.00000	20
21	S-PB	39	0	3	0	0	0	3	0	20.000000	2000.0000	21
22	S-SB	45	0	0	0	0	0	0	0			22
23	S-SC	27	0	1	0	0	0	17	0	10.000000	30.000000	23
24	S-SN	44	0	0	0	0	0	1	0	20.000000	20.000000	24
25	S-SR	21	0	0	0	0	0	24	0	200.00000	10000.000	25
26	S-V	0	0	0	0	0	0	45	0	50.000000	500.00000	26
27	S-W	45	0	0	0	0	0	0	0			27
28	S-Y	32	0	0	0	0	0	13	0	20.000000	150.00000	28
29	S-ZN	45	0	0	0	0	0	0	0			29
30	S-ZR	5	0	0	5	0	0	35	0	20.000000	2000.0000	30
31	S-TH	45	0	0	0	0	0	0	0			31

Table 9. Fisher-K statistics for spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued.

NO	COLUMN	K1	SQRT(K2)	K2	K3	G1	K4	G2	NO
		MEAN	STD DEVIATION	VARIANCE		SKEWNESS		KURTOSIS	
1	S-FE%	2.7111111	2.2296781	4.9714646	21.885494	1.9743759	91.748491	3.7121902	1
2	S-MG%	0.6477778	0.5153282	0.2655631	0.1561122	1.1407358	0.0390311	0.5534460	2
3	S-CA%	8.6666667	2.6371472	6.9545455	-4.0274841	-0.2195992	18.590909	0.3843821	3
4	S-TI%	0.3312500	0.4202562	0.1766153	0.1684725	2.2697957	0.1771104	5.6778993	4
5	S-MN	1062.2222	1452.0031	2108313.1	1.0188620D+10	3.3282252	5.1396909D+13	11.562900	5
6	S-AG								6
7	S-AS	500.00000							7
8	S-AU								8
9	S-B	1291.9444	1741.7919	3033839.0	7.2407081D+09	1.3702262	4.0168089D+12	0.4364114	9
10	S-BA	3005.1515	3589.1287	12881845.	4.2755395D+10	0.9247489	-1.0796089D+14	-0.6505945	10
11	S-BE	2.6666667	1.0000000	1.0000000	1.8214286	1.8214286	3.6428571	3.6428571	11
12	S-BI								12
13	S-CD								13
14	S-CO	25.357143	12.320135	151.78571	2042.5824	1.0922781	13431.881	0.5830087	14
15	S-CR	67.567568	71.079197	5052.2523	754059.20	2.0997999	1.1718464D+08	4.5909298	15
16	S-CU	97.790698	209.81937	44024.169	36602038.	3.9624930	3.0221364D+10	15.593073	16
17	S-LA	70.000000							17
18	S-MO	85.000000	21.213203	450.00000					18
19	S-NB								19
20	S-NI	49.677419	47.186430	2226.5591	180090.16	1.7141097	14074959.	2.8390868	20
21	S-PB	690.00000	1134.5924	1287300.0	2.5277760D+09	1.7306886			21
22	S-SB								22
23	S-SC	17.058824	8.1122638	65.808824	440.80882	0.8257034	-4018.1197	-0.9278005	23
24	S-SN	20.000000							24
25	S-SR	2204.1667	3420.0787	11696938.	6.8793492D+10	1.7196460	1.9988978D+14	1.4609864	25
26	S-V	154.66667	83.355755	6948.1818	1154833.8	1.9939430	2.7378695D+08	5.6711403	26
27	S-W								27
28	S-Y	63.076923	41.909549	1756.4103	110013.99	1.4945449	4613711.0	1.4955414	28
29	S-ZN								29
30	S-ZR	269.14286	433.42257	187855.13	2.2908957D+08	2.8136543	2.9281290D+11	8.2974396	30
31	S-TH								31

NOTE: THE ABOVE STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY.

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; T, trace (not used); G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

FREQUENCY TABLE FOR VARIABLE 3 (S-MG%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.10	0.10
-1.417E+00	-1.250E+00	1	1	2.22	2.22	0.26	2.15
-1.250E+00	-1.084E+00	0	1	0.00	2.22	0.73	0.73
-1.084E+00	-9.170E-01	2	3	4.44	6.67	1.71	0.05
-9.170E-01	-7.503E-01	2	5	4.44	11.11	3.32	0.53
-7.503E-01	-5.837E-01	7	12	15.56	26.67	5.34	0.51
-5.837E-01	-4.170E-01	6	18	13.33	40.00	7.10	0.17
-4.170E-01	-2.503E-01	8	26	17.78	57.78	7.82	0.00
-2.503E-01	-8.366E-02	7	33	15.56	73.33	7.11	0.00
-8.366E-02	8.300E-02	5	38	11.11	84.44	5.36	0.02
8.300E-02	2.497E-01	5	43	11.11	95.56	3.34	0.83
2.497E-01	4.163E-01	2	45	4.44	100.00	2.81	0.23
G		0	45	0.00	100.00	0.10	0.10
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 3 (S-MG%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E-02 XX
6.808E-02
9.992E-02 XXXX
1.467E-01 XXXX
2.153E-01 XXXXXXXXXXXXXXXX
3.160E-01 XXXXXXXXXXXX
4.638E-01 XXXXXXXXXXXXXXXXXX
6.808E-01 XXXXXXXXXXXXXXXX
9.992E-01 XXXXXXXXXX
1.467E+00 XXXXXXXXXX
2.153E+00 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E-02
MAXIMUM ANTILOG      =  2.00000E+00
GEOMETRIC MEAN       =  4.64421E-01
GEOMETRIC DEVIATION  =  2.39778E+00
VARIANCE OF LOGS     =  1.44255E-01
```

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 4 (S-CA%)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	0.03	0.03
4.160E-01	-	5.827E-01	2	2	4.44	4.44	0.74	2.16
5.827E-01	-	7.493E-01	7	9	15.56	20.00	5.83	0.24
7.493E-01	-	9.160E-01	7	16	15.56	35.56	16.17	5.20
9.160E-01	-	1.083E+00	27	43	60.00	95.56	15.94	7.68
1.083E+00	-	1.249E+00	2	45	4.44	100.00	6.29	2.93
	G		0	45	0.00	100.00	0.03	0.03
	H		0	45				
	B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 4 (S-CA%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
3.157E+00 XXXX
4.634E+00 XXXXXXXXXXXXXXX
6.802E+00 XXXXXXXXXXXXXXX
9.985E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.466E+01 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	3.00000E+00
MAXIMUM ANTILOG	=	1.50000E+01
GEOMETRIC MEAN	=	8.19718E+00
GEOMETRIC DEVIATION	=	1.43337E+00
VARIANCE OF LOGS	=	2.44476E-02

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 5 (S-FE%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00	0.23	0.23
-4.170E-01	- -2.503E-01	1	1	2.22	2.22	0.82	0.04
-2.503E-01	- -8.367E-02	0	1	0.00	2.22	2.48	2.48
-8.367E-02	- 8.300E-02	7	8	15.56	17.78	5.46	0.43
8.300E-02	- 2.497E-01	13	21	28.89	46.67	8.74	2.07
2.497E-01	- 4.163E-01	9	30	20.00	66.67	10.16	0.13
4.163E-01	- 5.830E-01	6	36	13.33	80.00	8.57	0.77
5.830E-01	- 7.497E-01	5	41	11.11	91.11	5.25	0.01
7.497E-01	- 9.163E-01	2	43	4.44	95.56	2.33	0.05
9.163E-01	- 1.083E+00	2	45	4.44	100.00	0.96	1.12
	G	0	45	0.00	100.00	0.23	0.23
	H	0	45				
	B	0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 1 (S-FE%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E-01 XX
6.808E-01
9.992E-01 XXXXXXXXXXXXXXX
1.467E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.153E+00 XXXXXXXXXXXXXXXXXXX
3.160E+00 XXXXXXXXXXXXX
4.638E+00 XXXXXXXXXXX
6.808E+00 XXXX
9.992E+00 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E-01
MAXIMUM ANTILOG = 1.00000E+01
GEOMETRIC MEAN = 2.12653E+00
GEOMETRIC DEVIATION = 1.95237E+00
VARIANCE OF LOGS = 8.44265E-02

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 6 (S-TI%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.46	0.46
-1.917E+00	- -1.750E+00	1	1	2.22	2.22	0.58	0.30
-1.750E+00	- -1.584E+00	1	2	2.22	4.44	1.11	0.01
-1.584E+00	- -1.417E+00	0	2	0.00	4.44	1.90	1.90
-1.417E+00	- -1.250E+00	3	5	6.67	11.11	2.93	0.00
-1.250E+00	- -1.084E+00	7	12	15.56	26.67	4.06	2.13
-1.084E+00	- -9.170E-01	9	21	20.00	46.67	5.07	3.04
-9.170E-01	- -7.503E-01	4	25	8.89	55.56	5.71	0.51
-7.503E-01	- -5.837E-01	3	28	6.67	62.22	5.78	1.34
-5.837E-01	- -4.170E-01	4	32	8.89	71.11	5.27	0.30
-4.170E-01	- -2.503E-01	4	36	8.89	80.00	4.32	0.02
-2.503E-01	- -8.366E-02	3	39	6.67	86.67	3.19	0.01
-8.366E-02	- 8.300E-02	3	42	6.67	93.33	2.12	0.37
8.300E-02	- 2.497E-01	1	43	2.22	95.56	1.27	0.06
2.497E-01	- 4.163E-01	1	44	2.22	97.78	1.24	0.05
G		1	45	2.22	100.00	0.46	0.64
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 6 (S-TI%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
1.467E-02 XX
2.153E-02 XX
3.160E-02
4.638E-02 XXXXXXX
6.808E-02 XXXXXXXXXXXXXXXX
9.992E-02 XXXXXXXXXXXXXXXXXXXX
1.467E-01 XXXXXXXXX
2.153E-01 XXXXXXX
3.160E-01 XXXXXXXXX
4.638E-01 XXXXXXXXX
6.808E-01 XXXXXXX
9.992E-01 XXXXXXX
1.467E+00 XX
2.153E+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	1.50000E-02
MAXIMUM ANTILOG	=	2.00000E+00
GEOMETRIC MEAN	=	1.76105E-01
GEOMETRIC DEVIATION	=	3.10791E+00
VARIANCE OF LOGS	=	2.42525E-01

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 7 (S-SC)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		27	27	60.00	60.00		
L		1	28	2.22	62.22		
T		0	28	0.00	62.22	6.73	6.73
9.160E-01 -	1.083E+00	7	35	15.56	77.78	17.11	5.98
1.083E+00 -	1.249E+00	4	39	8.89	86.67	15.87	8.88
1.249E+00 -	1.416E+00	2	41	4.44	91.11	4.80	1.63
1.416E+00 -	1.583E+00	4	45	8.89	100.00	0.48	25.77
G		0	45	0.00	100.00	0.00	0.00
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 7 (S-SC)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXXXXXXXXXXXX
1.466E+01 XXXXXXXXX
2.151E+01 XXXX
3.157E+01 XXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+01
MAXIMUM ANTILOG      =  3.00000E+01
GEOMETRIC MEAN       =  1.54565E+01
GEOMETRIC DEVIATION  =  1.56645E+00
VARIANCE OF LOGS     =  3.79919E-02
```

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 8 (S-V)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.13	0.13
1.583E+00 -	1.750E+00	1	1	2.22	2.22	1.07	0.01
1.750E+00 -	1.916E+00	3	4	6.67	8.89	4.84	0.70
1.916E+00 -	2.083E+00	17	21	37.78	46.67	11.45	2.70
2.083E+00 -	2.250E+00	10	31	22.22	68.89	14.27	1.28
2.250E+00 -	2.416E+00	9	40	20.00	88.89	9.37	0.01
2.416E+00 -	2.583E+00	4	44	8.89	97.78	3.24	0.18
2.583E+00 -	2.750E+00	1	45	2.22	100.00	0.65	0.19
G		0	45	0.00	100.00	0.13	0.13
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 8 (S-V)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+01 XX
6.808E+01 XXXXXXX
9.992E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.467E+02 XXXXXXXXXXXXXXXXXXXXX
2.153E+02 XXXXXXXXXXXXXXXXXXXX
3.160E+02 XXXXXXXXX
4.638E+02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E+01
MAXIMUM ANTILOG      =  5.00000E+02
GEOMETRIC MEAN       =  1.38123E+02
GEOMETRIC DEVIATION  =  1.59358E+00
VARIANCE OF LOGS     =  4.09557E-02
```

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 9 (S-CR)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		8	8	17.78	17.78		
L		0	8	0.00	17.78		
T		0	8	0.00	17.78	7.87	7.87
1.250E+00 -	1.417E+00	14	22	31.11	48.89	6.35	9.23
1.417E+00 -	1.583E+00	6	28	13.33	62.22	7.87	0.44
1.583E+00 -	1.750E+00	4	32	8.89	71.11	7.95	1.96
1.750E+00 -	1.917E+00	2	34	4.44	75.56	6.55	3.16
1.917E+00 -	2.083E+00	5	39	11.11	86.67	4.40	0.08
2.083E+00 -	2.250E+00	4	43	8.89	95.56	2.41	1.05
2.250E+00 -	2.417E+00	0	43	0.00	95.56	1.07	1.07
2.417E+00 -	2.583E+00	2	45	4.44	100.00	0.54	3.94
G		0	45	0.00	100.00	0.00	0.00
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 9 (S-CR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.162E+01 XXXXXXXXXXXXX
4.642E+01 XXXXXXXXX
6.813E+01 XXXX
1.000E+02 XXXXXXXXXXX
1.468E+02 XXXXXXXXX
2.154E+02
3.162E+02 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	2.00000E+01
MAXIMUM ANTILOG	=	3.00000E+02
GEOMETRIC MEAN	=	4.51486E+01
GEOMETRIC DEVIATION	=	2.37026E+00
VARIANCE OF LOGS	=	1.40473E-01

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 10 (S-MN)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		0	0	0.00	0.00		
	T		0	0	0.00	0.00	2.15	2.15
2.250E+00	-	2.417E+00	2	2	4.44	4.44	3.08	0.38
2.417E+00	-	2.583E+00	6	8	13.33	17.78	5.36	0.08
2.583E+00	-	2.750E+00	18	26	40.00	57.78	7.49	14.77
2.750E+00	-	2.917E+00	8	34	17.78	75.56	8.40	0.02
2.917E+00	-	3.083E+00	2	36	4.44	80.00	7.58	4.10
3.083E+00	-	3.250E+00	2	38	4.44	84.44	5.49	2.22
3.250E+00	-	3.417E+00	3	41	6.67	91.11	3.19	0.01
3.417E+00	-	3.583E+00	2	43	4.44	95.56	1.49	0.17
3.583E+00	-	3.750E+00	0	43	0.00	95.56	0.56	0.56
3.750E+00	-	3.917E+00	2	45	4.44	100.00	0.22	14.49
	G		0	45	0.00	100.00	2.15	2.15
	H		0	45				
	B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 10 (S-MN)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+02 XXXX
3.162E+02 XXXXXXXXXXXXX
4.642E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.813E+02 XXXXXXXXXXXXXXXXXX
1.000E+03 XXXX
1.468E+03 XXXX
2.154E+03 XXXXXXX
3.162E+03 XXXX
4.642E+03
6.813E+03 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  2.00000E+02
MAXIMUM ANTILOG      =  7.00000E+03
GEOMETRIC MEAN       =  6.88538E+02
GEOMETRIC DEVIATION  =  2.25313E+00
VARIANCE OF LOGS     =  1.24458E-01
```

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 12 (S-NI)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		14	14	31.11	31.11		
L		0	14	0.00	31.11		
T		0	14	0.00	31.11	6.34	6.34
9.160E-01 -	1.083E+00	7	21	15.56	46.67	4.95	0.85
1.083E+00 -	1.249E+00	4	25	8.89	55.56	6.47	0.94
1.249E+00 -	1.416E+00	0	25	0.00	55.56	7.20	7.20
1.416E+00 -	1.583E+00	5	30	11.11	66.67	6.81	0.48
1.583E+00 -	1.749E+00	7	37	15.56	82.22	5.49	0.42
1.749E+00 -	1.916E+00	3	40	6.67	88.89	3.76	0.15
1.916E+00 -	2.083E+00	2	42	4.44	93.33	2.19	0.02
2.083E+00 -	2.249E+00	2	44	4.44	97.78	1.09	0.76
2.249E+00 -	2.416E+00	1	45	2.22	100.00	0.69	0.14
G		0	45	0.00	100.00	0.00	0.00
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 12 (S-NI)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXXXXXXXXXXXX
1.466E+01 XXXXXXXXX
2.151E+01
3.157E+01 XXXXXXXXXX
4.634E+01 XXXXXXXXXXXXXXX
6.802E+01 XXXXXXX
9.985E+01 XXXX
1.466E+02 XXXX
2.151E+02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+01
MAXIMUM ANTILOG      =  2.00000E+02
GEOMETRIC MEAN       =  3.32394E+01
GEOMETRIC DEVIATION  =  2.52345E+00
VARIANCE OF LOGS     =  1.61600E-01
```

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 13 (S-CU)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		2	2	4.44	4.44		
	T		0	2	0.00	4.44	4.26	4.26
9.160E-01	-	1.083E+00	6	8	13.33	17.78	3.07	2.79
1.083E+00	-	1.249E+00	5	13	11.11	28.89	4.24	0.14
1.249E+00	-	1.416E+00	6	19	13.33	42.22	5.24	0.11
1.416E+00	-	1.583E+00	7	26	15.56	57.78	5.83	0.24
1.583E+00	-	1.749E+00	6	32	13.33	71.11	5.81	0.01
1.749E+00	-	1.916E+00	2	34	4.44	75.56	5.20	1.97
1.916E+00	-	2.083E+00	5	39	11.11	86.67	4.18	0.16
2.083E+00	-	2.249E+00	2	41	4.44	91.11	3.02	0.34
2.249E+00	-	2.416E+00	1	42	2.22	93.33	1.95	0.47
2.416E+00	-	2.583E+00	1	43	2.22	95.56	1.14	0.02
2.583E+00	-	2.749E+00	0	43	0.00	95.56	0.59	0.59
2.749E+00	-	2.916E+00	0	43	0.00	95.56	0.28	0.28
2.916E+00	-	3.083E+00	2	45	4.44	100.00	0.18	18.13
	G		0	45	0.00	100.00	0.00	0.00
	H		0	45				
	B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 13 (S-CU)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXXXXXXXXXX
1.466E+01 XXXXXXXXXXX
2.151E+01 XXXXXXXXXXXXX
3.157E+01 XXXXXXXXXXXXXXXX
4.634E+01 XXXXXXXXXXXXX
6.802E+01 XXXX
9.985E+01 XXXXXXXXXXX
1.466E+02 XXXX
2.151E+02 XX
3.157E+02 XX
4.635E+02
6.803E+02
9.985E+02 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+01
MAXIMUM ANTILOG      =  1.00000E+03
GEOMETRIC MEAN       =  4.03275E+01
GEOMETRIC DEVIATION  =  3.16620E+00
VARIANCE OF LOGS     =  2.50538E-01
```

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 14 (S-MO)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N	43	43	95.56	95.56		
	L	0	43	0.00	95.56		
	T	0	43	0.00	95.56	44.99	44.99
1.750E+00 -	1.917E+00	1	44	2.22	97.78	0.00	0.00
1.917E+00 -	2.083E+00	1	45	2.22	100.00	0.01	184.10
	G	0	45	0.00	100.00	0.00	0.00
	H	0	45				
	B	0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 14 (S-MO)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

6.813E+01 XX
1.000E+02 XX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 7.00000E+01
MAXIMUM ANTILOG = 1.00000E+02
GEOMETRIC MEAN = 8.36660E+01
GEOMETRIC DEVIATION = 1.28686E+00
VARIANCE OF LOGS = 1.19973E-02

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 15 (S-PB)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		39	39	86.67	86.67		
	L		3	42	6.67	93.33		
	T		0	42	0.00	93.33	16.43	16.43
1.250E+00	-	1.417E+00	1	43	2.22	95.56	9.74	7.84
1.417E+00	-	1.583E+00	0	43	0.00	95.56	8.72	8.72
1.583E+00	-	1.750E+00	1	44	2.22	97.78	5.81	3.98
1.750E+00	-	1.917E+00	0	44	0.00	97.78	2.88	2.88
1.917E+00	-	2.083E+00	0	44	0.00	97.78	1.06	1.06
2.083E+00	-	2.250E+00	0	44	0.00	97.78	0.29	0.29
2.250E+00	-	2.417E+00	0	44	0.00	97.78	0.06	0.06
2.417E+00	-	2.583E+00	0	44	0.00	97.78	0.01	0.01
2.583E+00	-	2.750E+00	0	44	0.00	97.78	0.00	0.00
2.750E+00	-	2.917E+00	0	44	0.00	97.78	0.00	0.00
2.917E+00	-	3.083E+00	0	44	0.00	97.78	0.00	0.00
3.083E+00	-	3.250E+00	0	44	0.00	97.78	0.00	0.00
3.250E+00	-	3.417E+00	1	45	2.22	100.00	0.00	905.95
	G		0	45	0.00	100.00	0.00	0.00
	H		0	45				
	B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 15 (S-PB)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XX
3.162E+01
4.642E+01 XX
6.813E+01
1.000E+02
1.468E+02
2.154E+02
3.162E+02
4.642E+02
6.813E+02
1.000E+03
1.468E+03
2.154E+03 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  2.00000E+01
MAXIMUM ANTILOG      =  2.00000E+03
GEOMETRIC MEAN       =  1.25992E+02
GEOMETRIC DEVIATION  =  1.14470E+01
VARIANCE OF LOGS     =  1.12083E+00
```

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 16 (S-B)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		1	1	2.22	2.22		
	T		0	1	0.00	2.22	1.05	1.05
1.250E+00	-	1.417E+00	1	2	2.22	4.44	0.66	0.18
1.417E+00	-	1.583E+00	0	2	0.00	4.44	0.96	0.96
1.583E+00	-	1.750E+00	1	3	2.22	6.67	1.34	0.09
1.750E+00	-	1.917E+00	2	5	4.44	11.11	1.79	0.03
1.917E+00	-	2.083E+00	6	11	13.33	24.44	2.28	6.09
2.083E+00	-	2.250E+00	4	15	8.89	33.33	2.77	0.55
2.250E+00	-	2.417E+00	3	18	6.67	40.00	3.22	0.01
2.417E+00	-	2.583E+00	3	21	6.67	46.67	3.57	0.09
2.583E+00	-	2.750E+00	0	21	0.00	46.67	3.79	3.79
2.750E+00	-	2.917E+00	3	24	6.67	53.33	3.84	0.18
2.917E+00	-	3.083E+00	2	26	4.44	57.78	3.71	0.79
3.083E+00	-	3.250E+00	1	27	2.22	60.00	3.43	1.72
3.250E+00	-	3.417E+00	2	29	4.44	64.44	3.03	0.35
3.417E+00	-	3.583E+00	3	32	6.67	71.11	2.56	0.08
3.583E+00	-	3.750E+00	5	37	11.11	82.22	7.02	0.58
	G		8	45	17.78	100.00	0.00	0.00
	H		0	45				
	B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 16 (S-B)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XX
3.162E+01
4.642E+01 XX
6.813E+01 XXXX
1.000E+02 XXXXXXXXXXXX
1.468E+02 XXXXXXXXX
2.154E+02 XXXXXXX
3.162E+02 XXXXXXX
4.642E+02
6.813E+02 XXXXXXX
1.000E+03 XXXX
1.468E+03 XX
2.154E+03 XXXX
3.162E+03 XXXXXXX
4.642E+03 XXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 5.00000E+03
GEOMETRIC MEAN = 4.34529E+02
GEOMETRIC DEVIATION = 4.96270E+00
VARIANCE OF LOGS = 4.84023E-01

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 17 (S-BE)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		36	36	80.00	80.00		
L		0	36	0.00	80.00		
T		0	36	0.00	80.00	7.30	7.30
2.500E-01 -	4.167E-01	5	41	11.11	91.11	33.41	24.16
4.167E-01 -	5.833E-01	3	44	6.67	97.78	4.29	0.39
5.833E-01 -	7.500E-01	1	45	2.22	100.00	0.01	138.64
G		0	45	0.00	100.00	0.00	0.00
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 17 (S-BE)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+00 XXXXXXXXXX
3.162E+00 XXXXXXX
4.642E+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  2.00000E+00
MAXIMUM ANTILOG      =  5.00000E+00
GEOMETRIC MEAN       =  2.53479E+00
GEOMETRIC DEVIATION  =  1.37934E+00
VARIANCE OF LOGS     =  1.95077E-02
```

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 18 (S-SR)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		21	21	46.67	46.67		
L		0	21	0.00	46.67		
T		0	21	0.00	46.67	10.93	10.93
2.250E+00 -	2.417E+00	5	26	11.11	57.78	4.87	0.00
2.417E+00 -	2.583E+00	5	31	11.11	68.89	5.49	0.04
2.583E+00 -	2.750E+00	4	35	8.89	77.78	5.61	0.46
2.750E+00 -	2.917E+00	2	37	4.44	82.22	5.19	1.96
2.917E+00 -	3.083E+00	1	38	2.22	84.44	4.35	2.58
3.083E+00 -	3.250E+00	0	38	0.00	84.44	3.31	3.31
3.250E+00 -	3.417E+00	2	40	4.44	88.89	2.28	0.03
3.417E+00 -	3.583E+00	0	40	0.00	88.89	1.42	1.42
3.583E+00 -	3.750E+00	1	41	2.22	91.11	0.81	0.05
3.750E+00 -	3.917E+00	1	42	2.22	93.33	0.41	0.83
3.917E+00 -	4.083E+00	3	45	6.67	100.00	0.32	22.51
G		0	45	0.00	100.00	0.00	0.00
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 18 (S-SR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+02 XXXXXXXXXXX
3.162E+02 XXXXXXXXXXX
4.642E+02 XXXXXXXXX
6.813E+02 XXXX
1.000E+03 XX
1.468E+03
2.154E+03 XXXX
3.162E+03
4.642E+03 XX
6.813E+03 XX
1.000E+04 XXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+02
MAXIMUM ANTILOG = 1.00000E+04
GEOMETRIC MEAN = 7.88479E+02
GEOMETRIC DEVIATION = 4.00387E+00
VARIANCE OF LOGS = 3.62983E-01

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 19 (S-BA)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		0	0	0.00	0.00		
	L		1	1	2.22	2.22		
	T		0	1	0.00	2.22	1.16	1.16
1.583E+00	-	1.750E+00	1	2	2.22	4.44	0.66	0.18
1.750E+00	-	1.916E+00	1	3	2.22	6.67	0.94	0.00
1.916E+00	-	2.083E+00	4	7	8.89	15.56	1.28	5.82
2.083E+00	-	2.250E+00	1	8	2.22	17.78	1.67	0.27
2.250E+00	-	2.416E+00	2	10	4.44	22.22	2.10	0.00
2.416E+00	-	2.583E+00	4	14	8.89	31.11	2.54	0.84
2.583E+00	-	2.750E+00	3	17	6.67	37.78	2.94	0.00
2.750E+00	-	2.916E+00	2	19	4.44	42.22	3.28	0.50
2.916E+00	-	3.083E+00	0	19	0.00	42.22	3.51	3.51
3.083E+00	-	3.250E+00	0	19	0.00	42.22	3.61	3.61
3.250E+00	-	3.416E+00	3	22	6.67	48.89	3.56	0.09
3.416E+00	-	3.583E+00	0	22	0.00	48.89	3.37	3.37
3.583E+00	-	3.750E+00	4	26	8.89	57.78	3.07	0.28
3.750E+00	-	3.916E+00	4	30	8.89	66.67	2.69	0.64
3.916E+00	-	4.083E+00	4	34	8.89	75.56	8.64	2.49
	G		11	45	24.44	100.00	0.00	0.00
	H		0	45				
	B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 19 (S-BA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
 4.638E+01 XX
 6.808E+01 XX
 9.992E+01 XXXXXXXXX
 1.467E+02 XX
 2.153E+02 XXXX
 3.160E+02 XXXXXXXXX
 4.638E+02 XXXXXXX
 6.808E+02 XXXX
 9.992E+02
 1.467E+03
 2.153E+03 XXXXXXX
 3.160E+03
 4.638E+03 XXXXXXXXX
 6.808E+03 XXXXXXXXX
 9.992E+03 XXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 5.00000E+01 GEOMETRIC DEVIATION = 5.93839E+00
MAXIMUM ANTILOG = 1.00000E+04 VARIANCE OF LOGS = 5.98563E-01
GEOMETRIC MEAN = 9.38948E+02

Table 10. Frequency tables and histograms of spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area--continued

FREQUENCY TABLE FOR VARIABLE 20 (S-ZR)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		5	5	11.11	11.11		
L		0	5	0.00	11.11		
T		0	5	0.00	11.11	4.85	4.85
1.250E+00 -	1.417E+00	7	12	15.56	26.67	2.31	9.56
1.417E+00 -	1.583E+00	0	12	0.00	26.67	2.93	2.93
1.583E+00 -	1.750E+00	4	16	8.89	35.56	3.51	0.07
1.750E+00 -	1.917E+00	4	20	8.89	44.44	3.97	0.00
1.917E+00 -	2.083E+00	5	25	11.11	55.56	4.24	0.14
2.083E+00 -	2.250E+00	4	29	8.89	64.44	4.28	0.02
2.250E+00 -	2.417E+00	2	31	4.44	68.89	4.08	1.06
2.417E+00 -	2.583E+00	2	33	4.44	73.33	3.67	0.76
2.583E+00 -	2.750E+00	3	36	6.67	80.00	3.12	0.00
2.750E+00 -	2.917E+00	1	37	2.22	82.22	2.51	0.91
2.917E+00 -	3.083E+00	1	38	2.22	84.44	1.90	0.43
3.083E+00 -	3.250E+00	1	39	2.22	86.67	1.36	0.10
3.250E+00 -	3.417E+00	1	40	2.22	88.89	2.27	0.71
G		5	45	11.11	100.00	0.00	0.00
H		0	45				
B		0	45				

TOTALS LESS H AND B 45

HISTOGRAM FOR VARIABLE 20 (S-ZR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XXXXXXXXXXXXXXXX
3.162E+01
4.642E+01 XXXXXXXXX
6.813E+01 XXXXXXXXX
1.000E+02 XXXXXXXXXXX
1.468E+02 XXXXXXXXX
2.154E+02 XXXX
3.162E+02 XXXX
4.642E+02 XXXXXXX
6.813E+02 XX
1.000E+03 XX
1.468E+03 XX
2.154E+03 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  2.00000E+01
MAXIMUM ANTILOG      =  2.00000E+03
GEOMETRIC MEAN       =  1.13787E+02
GEOMETRIC DEVIATION  =  3.65762E+00
VARIANCE OF LOGS     =  3.17192E-01
```

Table 11. Correlation coefficients for spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area

COLUMN	VERSUS	COLUMN	CORRELATION COEFFICIENT	NO. OF PAIRS
1 (S-MG%)	2	(S-CA%)	-0.0263	45
1 (S-MG%)	3	(S-FE%)	0.7223	45
1 (S-MG%)	4	(S-TI%)	0.3856	44
1 (S-MG%)	5	(S-SC)	0.5842	17
1 (S-MG%)	6	(S-V)	0.7183	45
1 (S-MG%)	7	(S-CR)	0.7879	37
1 (S-MG%)	8	(S-MN)	0.5030	45
1 (S-MG%)	9	(S-AU)	********	0
1 (S-MG%)	10	(S-NI)	0.4971	31
1 (S-MG%)	11	(S-CU)	0.4618	43
1 (S-MG%)	12	(S-MO)	-1.0000	2
1 (S-MG%)	13	(S-PB)	0.7675	3
1 (S-MG%)	14	(S-B)	-0.1384	36
1 (S-MG%)	15	(S-BE)	-0.2373	9
1 (S-MG%)	16	(S-SR)	-0.4977	24
1 (S-MG%)	17	(S-BA)	0.3264	33
1 (S-MG%)	18	(S-ZR)	-0.0200	35
2 (S-CA%)	3	(S-FE%)	-0.2796	45
2 (S-CA%)	4	(S-TI%)	-0.3609	44
2 (S-CA%)	5	(S-SC)	0.0768	17
2 (S-CA%)	6	(S-V)	0.1281	45
2 (S-CA%)	7	(S-CR)	-0.2380	37
2 (S-CA%)	8	(S-MN)	-0.1215	45
2 (S-CA%)	9	(S-AU)	********	0
2 (S-CA%)	10	(S-NI)	-0.1463	31
2 (S-CA%)	11	(S-CU)	-0.2566	43
2 (S-CA%)	12	(S-MO)	-1.0000	2
2 (S-CA%)	13	(S-PB)	0.8107	3
2 (S-CA%)	14	(S-B)	0.2380	36
2 (S-CA%)	15	(S-BE)	0.5230	9
2 (S-CA%)	16	(S-SR)	-0.3033	24
2 (S-CA%)	17	(S-BA)	-0.1232	33
2 (S-CA%)	18	(S-ZR)	-0.0508	35
3 (S-FE%)	4	(S-TI%)	0.5221	44
3 (S-FE%)	5	(S-SC)	0.4873	17
3 (S-FE%)	6	(S-V)	0.6843	45
3 (S-FE%)	7	(S-CR)	0.5337	37
3 (S-FE%)	8	(S-MN)	0.5448	45
3 (S-FE%)	9	(S-AU)	********	0
3 (S-FE%)	10	(S-NI)	0.8073	31
3 (S-FE%)	11	(S-CU)	0.6189	43
3 (S-FE%)	12	(S-MO)	-1.0000	2
3 (S-FE%)	13	(S-PB)	0.0348	3
3 (S-FE%)	14	(S-B)	-0.3386	36
3 (S-FE%)	15	(S-BE)	-0.1899	9
3 (S-FE%)	16	(S-SR)	-0.4075	24
3 (S-FE%)	17	(S-BA)	0.3614	33
3 (S-FE%)	18	(S-ZR)	0.2089	35
4 (S-TI%)	5	(S-SC)	0.2009	16
4 (S-TI%)	6	(S-V)	0.3211	44
4 (S-TI%)	7	(S-CR)	0.2551	36
4 (S-TI%)	8	(S-MN)	0.3169	44
4 (S-TI%)	9	(S-AU)	********	0
4 (S-TI%)	10	(S-NI)	0.6087	30
4 (S-TI%)	11	(S-CU)	0.1836	42
4 (S-TI%)	12	(S-MO)	-1.0000	2
4 (S-TI%)	13	(S-PB)	-0.7391	3
4 (S-TI%)	14	(S-B)	-0.6082	35
4 (S-TI%)	15	(S-BE)	-0.4579	8
4 (S-TI%)	16	(S-SR)	-0.3052	23
4 (S-TI%)	17	(S-BA)	0.4135	32
4 (S-TI%)	18	(S-ZR)	0.6635	35
5 (S-SC)	6	(S-V)	0.8028	17
5 (S-SC)	7	(S-CR)	0.5833	17
5 (S-SC)	8	(S-MN)	0.5778	17
5 (S-SC)	9	(S-AU)	********	0
5 (S-SC)	10	(S-NI)	0.4253	16
5 (S-SC)	11	(S-CU)	0.2965	17
5 (S-SC)	12	(S-MO)	********	0
5 (S-SC)	13	(S-PB)	1.0000	2
5 (S-SC)	14	(S-B)	0.1440	14
5 (S-SC)	15	(S-BE)	0.1051	4
5 (S-SC)	16	(S-SR)	0.1625	10
5 (S-SC)	17	(S-BA)	0.5078	14
5 (S-SC)	18	(S-ZR)	0.0921	13
6 (S-V)	7	(S-CR)	0.4697	37
6 (S-V)	8	(S-MN)	0.6180	45
6 (S-V)	9	(S-AU)	********	0
6 (S-V)	10	(S-NI)	0.4523	31
6 (S-V)	11	(S-CU)	0.3651	43
6 (S-V)	12	(S-MO)	-1.0000	2
6 (S-V)	13	(S-PB)	0.8630	3
6 (S-V)	14	(S-B)	-0.0049	36
6 (S-V)	15	(S-BE)	-0.3381	9
6 (S-V)	16	(S-SR)	-0.2533	24
6 (S-V)	17	(S-BA)	0.1281	33
6 (S-V)	18	(S-ZR)	0.1699	35
7 (S-CR)	8	(S-MN)	0.3419	37
7 (S-CR)	9	(S-AU)	********	0
7 (S-CR)	10	(S-NI)	0.5126	29
7 (S-CR)	11	(S-CU)	0.2742	36
7 (S-CR)	12	(S-MO)	********	1
7 (S-CR)	13	(S-PB)	0.5473	3
7 (S-CR)	14	(S-B)	-0.2674	30
7 (S-CR)	15	(S-BE)	-0.3525	8
7 (S-CR)	16	(S-SR)	-0.1809	20
7 (S-CR)	17	(S-BA)	0.1999	29
7 (S-CR)	18	(S-ZR)	0.0288	30
8 (S-MN)	9	(S-AU)	********	0
8 (S-MN)	10	(S-NI)	0.4408	31

Table 11. Correlation coefficients for spectrographic data from panned concentrates from stream sediments from the Wonder Mountain area

COLUMN	VERSUS	COLUMN	CORRELATION COEFFICIENT	NO. OF PAIRS
8 (S-MN)	11	(S-CU)	0.7260	43
8 (S-MN)	12	(S-MO)	-1.0000	2
8 (S-MN)	13	(S-PB)	0.7983	3
8 (S-MN)	14	(S-B)	-0.0462	36
8 (S-MN)	15	(S-BE)	-0.2034	9
8 (S-MN)	16	(S-SR)	0.1928	24
8 (S-MN)	17	(S-BA)	0.4654	33
8 (S-MN)	18	(S-ZR)	0.2636	35
9 (S-AU)	10	(S-NI)	********	0
9 (S-AU)	11	(S-CU)	********	0
9 (S-AU)	12	(S-MO)	********	0
9 (S-AU)	13	(S-PB)	********	0
9 (S-AU)	14	(S-B)	********	0
9 (S-AU)	15	(S-BE)	********	0
9 (S-AU)	16	(S-SR)	********	0
9 (S-AU)	17	(S-BA)	********	0
9 (S-AU)	18	(S-ZR)	********	0
10 (S-NI)	11	(S-CU)	0.5036	31
10 (S-NI)	12	(S-MO)	-1.0000	2
10 (S-NI)	13	(S-PB)	0.0805	3
10 (S-NI)	14	(S-B)	-0.5633	24
10 (S-NI)	15	(S-BE)	0.4989	5
10 (S-NI)	16	(S-SR)	-0.2880	18
10 (S-NI)	17	(S-BA)	0.4052	24
10 (S-NI)	18	(S-ZR)	0.2279	27
11 (S-CU)	12	(S-MO)	-1.0000	2
11 (S-CU)	13	(S-PB)	0.2932	3
11 (S-CU)	14	(S-B)	-0.0020	34
11 (S-CU)	15	(S-BE)	-0.0138	9
11 (S-CU)	16	(S-SR)	0.0552	24
11 (S-CU)	17	(S-BA)	0.5693	31
11 (S-CU)	18	(S-ZR)	0.1095	34
12 (S-MO)	13	(S-PB)	********	0
12 (S-MO)	14	(S-B)	1.0000	2
12 (S-MO)	15	(S-BE)	********	0
12 (S-MO)	16	(S-SR)	1.0000	2
12 (S-MO)	17	(S-BA)	********	0
12 (S-MO)	18	(S-ZR)	-1.0000	2
13 (S-PB)	14	(S-B)	0.7451	3
13 (S-PB)	15	(S-BE)	********	0
13 (S-PB)	16	(S-SR)	********	2
13 (S-PB)	17	(S-BA)	0.2376	3
13 (S-PB)	18	(S-ZR)	-1.0000	2
14 (S-B)	15	(S-BE)	-0.2944	9
14 (S-B)	16	(S-SR)	0.4915	19
14 (S-B)	17	(S-BA)	-0.2719	27
14 (S-B)	18	(S-ZR)	-0.5207	28
15 (S-BE)	16	(S-SR)	-0.1637	6
15 (S-BE)	17	(S-BA)	-0.1352	7
15 (S-BE)	18	(S-ZR)	-0.1488	5
16 (S-SR)	17	(S-BA)	0.4817	13
16 (S-SR)	18	(S-ZR)	-0.0764	17
17 (S-BA)	18	(S-ZR)	0.2223	26

Table 12. Fisher-K statistics for spectrographic data from rocks collected form the Wonder Mountain area.

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; T, trace (not used); G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

NO	COLUMN	N	H	L	G	B	T	NO OF UNQUAL VALUES	NO OF IMPROPER QUAL VALUES	MINIMUM	MAXIMUM	NO
1	S-FE%	0	0	0	0	0	0	22	0	0.2000000	20.000000	1
2	S-MG%	0	0	0	0	0	0	22	0	0.0500000	2.0000000	2
3	S-CA%	0	0	0	0	0	0	22	0	0.1000000	10.000000	3
4	S-TI%	0	0	0	0	0	0	22	0	0.0020000	1.0000000	4
5	S-MN	0	0	0	7	0	0	15	0	500.00000	5000.0000	5
6	S-AG	22	0	0	0	0	0	0	0			6
7	S-AS	22	0	0	0	0	0	0	0			7
8	S-AU	22	0	0	0	0	0	0	0			8
9	S-B	1	0	1	0	0	0	20	0	10.000000	700.00000	9
10	S-BA	0	0	0	1	0	0	21	0	50.000000	5000.0000	10
11	S-BE	8	0	0	0	0	0	14	0	1.0000000	3.0000000	11
12	S-BI	22	0	0	0	0	0	0	0			12
13	S-CD	22	0	0	0	0	0	0	0			13
14	S-CO	2	0	0	0	0	0	20	0	7.0000000	1000.0000	14
15	S-CR	7	0	0	0	0	0	15	0	30.000000	300.00000	15
16	S-CU	0	0	0	0	0	0	22	0	10.000000	3000.0000	16
17	S-LA	16	0	0	0	0	0	6	0	20.000000	30.000000	17
18	S-MO	20	0	0	0	0	0	2	0	15.000000	20.000000	18
19	S-NB	20	0	1	0	0	0	1	0	20.000000	20.000000	19
20	S-NI	1	0	0	0	0	0	21	0	20.000000	500.00000	20
21	S-PB	13	0	2	0	0	0	7	0	10.000000	30.000000	21
22	S-SB	22	0	0	0	0	0	0	0			22
23	S-SC	4	0	0	0	0	0	18	0	5.0000000	50.000000	23
24	S-SN	22	0	0	0	0	0	0	0			24
25	S-SR	5	0	0	0	0	0	17	0	100.00000	5000.0000	25
26	S-V	0	0	0	0	0	0	22	0	50.000000	1500.0000	26
27	S-W	22	0	0	0	0	0	0	0			27
28	S-Y	2	0	0	0	0	0	20	0	20.000000	70.000000	28
29	S-ZN	20	0	1	0	0	0	1	0	300.00000	300.00000	29
30	S-ZR	3	0	0	0	0	0	19	0	20.000000	200.00000	30

Table 12. Fisher-K statistics for spectrographic data from rocks collected from the Wonder Mountain area--continued.

NO	COLUMN	K1 MEAN	SQRT(K2) STD DEVIATION	K2 VARIANCE	K3	G1 SKEWNESS	K4	G2 KURTOSIS	NO
1	S-FE%	6.1227273	4.1436046	17.169459	120.47468	1.6934051	1544.1852	5.2382494	1
2	S-MG%	1.1827273	0.6818335	0.4648970	-0.0359735	-0.1134873	-0.2609374	-1.2073212	2
3	S-CA%	3.2045455	3.3846259	11.455693	59.005388	1.5218072	104.06086	0.7929480	3
4	S-TI%	0.3037273	0.2932818	0.0860142	0.0323024	1.2804985	0.0082818	1.1194022	4
5	S-MN	2333.3333	1519.7118	2309523.8	3.3882784D+09	0.9653736	-4.6794872D+11	-0.0877311	5
6	S-AG								6
7	S-AS								7
8	S-AU								8
9	S-B	90.000000	155.03820	24036.842	13215351.	3.5461947	7.9991601D+09	13.844892	9
10	S-BA	588.09524	1073.3015	1151976.2	4.7290342D+09	3.8247866	2.1018334D+13	15.838399	10
11	S-BE	1.7857143	0.4688072	0.2197802	0.1098901	1.0665365	0.1336164	2.7661932	11
12	S-BI								12
13	S-CD								13
14	S-CO	83.100000	216.45004	46850.621	44910834.	4.4287186	4.3301905D+10	19.727693	14
15	S-CR	126.00000	86.915394	7554.2857	726764.84	1.1068883	16176527.	0.2834644	15
16	S-CU	240.22727	621.62322	386415.42	1.0960574D+09	4.5630120	3.1595912D+12	21.160309	16
17	S-LA	23.333333	5.1639778	26.666667	133.33333	0.9682458	-1333.3333	-1.8750000	17
18	S-MO	17.500000	3.5355339	12.500000					18
19	S-NB	20.000000							19
20	S-NI	130.95238	106.62574	11369.048	2860881.0	2.3600090	8.8061332D+08	6.8129795	20
21	S-PB	21.428571	8.9973541	80.952381	-257.14286	-0.3530450	-11904.762	-1.8166090	21
22	S-SB								22
23	S-SC	21.166667	13.465643	181.32353	2371.8750	0.9714279	16662.338	0.5067895	23
24	S-SN								24
25	S-SR	608.82353	1151.1184	1325073.5	5.9518173D+09	3.9020212	2.7469481D+13	15.644817	25
26	S-V	206.81818	294.51148	86737.013	1.1246769D+08	4.4027203	1.5127418D+11	20.107398	26
27	S-W								27
28	S-Y	38.000000	14.363697	206.31579	1150.8772	0.3883562	-30513.932	-0.7168582	28
29	S-ZN	300.00000							29
30	S-ZR	73.157895	46.553748	2167.2515	124172.34	1.2307247	8350079.1	1.7777553	30

NOTE: THE ABOVE STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY.

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

[The following qualifiers are used in reporting spectrographic data: --, no determination made; N, concentration less than the detection limit; L, detected, but present at a concentration less than the value reported; G, element present at a concentration greater than the upper calibration limit; and H, interfering spectra render analytical lines unusable.]

FREQUENCY TABLE FOR VARIABLE 1 (S-MG%)

LOG LIMITS LOWER - UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N	0	0	0.00	0.00		
L	0	0	0.00	0.00		
T	0	0	0.00	0.00	0.03	0.03
-1.417E+00 - -1.250E+00	1	1	4.55	4.55	0.07	12.89
-1.250E+00 - -1.084E+00	1	2	4.55	9.09	0.17	3.92
-1.084E+00 - -9.170E-01	0	2	0.00	9.09	0.39	0.39
-9.170E-01 - -7.503E-01	0	2	0.00	9.09	0.78	0.78
-7.503E-01 - -5.837E-01	1	3	4.55	13.64	1.35	0.09
-5.837E-01 - -4.170E-01	0	3	0.00	13.64	2.04	2.04
-4.170E-01 - -2.503E-01	2	5	9.09	22.73	2.70	0.18
-2.503E-01 - -8.366E-02	1	6	4.55	27.27	3.13	1.45
-8.366E-02 - 8.300E-02	7	13	31.82	59.09	3.17	4.61
8.300E-02 - 2.497E-01	2	15	9.09	68.18	2.82	0.24
2.497E-01 - 4.163E-01	7	22	31.82	100.00	5.35	0.51
G	0	22	0.00	100.00	0.03	0.03
H	0	22				
B	0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 1 (S-MG%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E-02 XXXXX
6.808E-02 XXXXX
9.992E-02
1.467E-01
2.153E-01 XXXXX
3.160E-01
4.638E-01 XXXXXXXXX
6.808E-01 XXXXX
9.992E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.467E+00 XXXXXXXXX
2.153E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E-02
MAXIMUM ANTILOG      =  2.00000E+00
GEOMETRIC MEAN       =  8.58971E-01
GEOMETRIC DEVIATION  =  2.84181E+00
VARIANCE OF LOGS     =  2.05749E-01
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 4 (S-CA%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00	0.05	0.05
-1.084E+00	-9.173E-01	1	1	4.55	4.55	0.09	9.66
-9.173E-01	-7.507E-01	0	1	0.00	4.55	0.20	0.20
-7.507E-01	-5.840E-01	0	1	0.00	4.55	0.43	0.43
-5.840E-01	-4.173E-01	0	1	0.00	4.55	0.80	0.80
-4.173E-01	-2.507E-01	1	2	4.55	9.09	1.33	0.08
-2.507E-01	-8.400E-02	2	4	9.09	18.18	1.95	0.00
-8.400E-02	8.267E-02	3	7	13.64	31.82	2.54	0.08
8.267E-02	2.493E-01	1	8	4.55	36.36	2.94	1.28
2.493E-01	4.160E-01	6	14	27.27	63.64	3.02	2.94
4.160E-01	5.827E-01	4	18	18.18	81.82	2.75	0.57
5.827E-01	7.493E-01	0	18	0.00	81.82	2.22	2.22
7.493E-01	9.160E-01	0	18	0.00	81.82	1.59	1.59
9.160E-01	1.083E+00	4	22	18.18	100.00	2.08	1.79
	G	0	22	0.00	100.00	0.05	0.05
	H	0	22				
	B	0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 4 (S-CA%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
 9.985E-02 XXXXX
 1.466E-01
 2.151E-01
 3.157E-01
 4.634E-01 XXXXX
 6.802E-01 XXXXXXXXX
 9.985E-01 XXXXXXXXXXXXX
 1.466E+00 XXXXX
 2.151E+00 XXXXXXXXXXXXXXXXXXXXXXXXXX
 3.157E+00 XXXXXXXXXXXXXXXXX
 4.635E+00
 6.803E+00
 9.985E+00 XXXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E-01
MAXIMUM ANTILOG      =  1.00000E+01
GEOMETRIC MEAN       =  1.92953E+00
GEOMETRIC DEVIATION  =  3.01750E+00
VARIANCE OF LOGS     =  2.30062E-01
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 5 (S-FE%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.01	0.01
-7.500E-01	-5.833E-01	1	1	4.55	4.55	0.02	40.33
-5.833E-01	-4.167E-01	0	1	0.00	4.55	0.08	0.08
-4.167E-01	-2.500E-01	0	1	0.00	4.55	0.21	0.21
-2.500E-01	-8.333E-02	0	1	0.00	4.55	0.50	0.50
-8.333E-02	8.333E-02	1	2	4.55	9.09	1.01	0.00
8.333E-02	2.500E-01	1	3	4.55	13.64	1.75	0.32
2.500E-01	4.167E-01	1	4	4.55	18.18	2.57	0.96
4.167E-01	5.833E-01	1	5	4.55	22.73	3.24	1.55
5.833E-01	7.500E-01	7	12	31.82	54.55	3.48	3.55
7.500E-01	9.167E-01	6	18	27.27	81.82	3.20	2.45
9.167E-01	1.083E+00	3	21	13.64	95.45	2.51	0.10
1.083E+00	1.250E+00	0	21	0.00	95.45	1.68	1.68
1.250E+00	1.417E+00	1	22	4.55	100.00	1.73	0.31
G		0	22	0.00	100.00	0.01	0.01
H		0	22				
U		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 5 (S-FE%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E-01 XXXXX
3.162E-01
4.642E-01
6.813E-01
1.000E+00 XXXXX
1.468E+00 XXXXX
2.154E+00 XXXXX
3.162E+00 XXXXX
4.642E+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.813E+00 XXXXXXXXXXXXXXXXXXXXXXXXXX
1.000E+01 XXXXXXXXXXXXX
1.469E+01
2.154E+01 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E-01
MAXIMUM ANTILOG = 2.00000E+01
GEOMETRIC MEAN = 4.57073E+00
GEOMETRIC DEVIATION = 2.61255E+00
VARIANCE OF LOGS = 1.73942E-01

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 6 (S-TI%)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00	0.04	0.04
-2.750E+00	-2.583E+00	1	1	4.55	4.55	0.04	20.28
-2.583E+00	-2.417E+00	0	1	0.00	4.55	0.09	0.09
-2.417E+00	-2.250E+00	0	1	0.00	4.55	0.16	0.16
-2.250E+00	-2.083E+00	0	1	0.00	4.55	0.28	0.28
-2.083E+00	-1.917E+00	1	2	4.55	9.09	0.45	0.68
-1.917E+00	-1.750E+00	0	2	0.00	9.09	0.68	0.68
-1.750E+00	-1.583E+00	0	2	0.00	9.09	0.97	0.97
-1.583E+00	-1.417E+00	1	3	4.55	13.64	1.29	0.07
-1.417E+00	-1.250E+00	2	5	9.09	22.73	1.62	0.09
-1.250E+00	-1.083E+00	2	7	9.09	31.82	1.91	0.00
-1.083E+00	-9.167E-01	1	8	4.55	36.36	2.12	0.59
-9.167E-01	-7.500E-01	0	8	0.00	36.36	2.20	2.20
-7.500E-01	-5.833E-01	3	11	13.64	50.00	2.15	0.34
-5.833E-01	-4.167E-01	5	16	22.73	72.73	1.97	4.66
-4.167E-01	-2.500E-01	3	19	13.64	86.36	1.70	1.00
-2.500E-01	-8.333E-02	1	20	4.55	90.91	1.37	0.10
-8.333E-02	8.334E-02	2	22	9.09	100.00	2.97	0.32
	G	0	22	0.00	100.00	0.04	0.04
	H	0	22				
	B	0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 6 (S-TI%)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E-03 XXXXX
3.162E-03
4.642E-03
6.813E-03
1.000E-02 XXXXX
1.468E-02
2.154E-02
3.162E-02 XXXXX
4.642E-02 XXXXXXXXX
6.813E-02 XXXXXXXXX
1.000E-01 XXXXX
1.468E-01
2.154E-01 XXXXXXXXXXXXX
3.162E-01 XXXXXXXXXXXXXXXXXXXXXXX
4.642E-01 XXXXXXXXXXXXX
6.813E-01 XXXXX
1.000E+00 XXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG	=	2.00000E-03
MAXIMUM ANTILOG	=	1.00000E+00
GEOMETRIC MEAN	=	1.53542E-01
GEOMETRIC DEVIATION	=	4.59692E+00
VARIANCE OF LOGS	=	4.38862E-01

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 7 (S-SC)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		4	4	18.18	18.18		
L		0	4	0.00	18.18		
T		0	4	0.00	18.18	1.13	1.13
5.830E-01 -	7.497E-01	1	5	4.55	22.73	1.65	0.26
7.497E-01 -	9.163E-01	3	8	13.64	36.36	2.86	0.01
9.163E-01 -	1.083E+00	1	9	4.55	40.91	3.91	2.17
1.083E+00 -	1.250E+00	3	12	13.64	54.55	4.24	0.36
1.250E+00 -	1.416E+00	4	16	18.18	72.73	3.63	0.04
1.416E+00 -	1.583E+00	4	20	18.18	90.91	2.46	0.97
1.583E+00 -	1.750E+00	2	22	9.09	100.00	2.13	0.01
G		0	22	0.00	100.00	0.00	0.00
H		0	22				
B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 7 (S-SC)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+00 XXXXX
6.808E+00 XXXXXXXXXXXXX
9.992E+00 XXXXX
1.467E+01 XXXXXXXXXXXXX
2.153E+01 XXXXXXXXXXXXXXXXXX
3.160E+01 XXXXXXXXXXXXXXXXXX
4.638E+01 XXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E+00
MAXINUM ANTILOG      =  5.00000E+01
GEOMETRIC MEAN       =  1.72740E+01
GEOMETRIC DEVIATION  =  1.97784E+00
VARIANCE OF LOGS     =  8.77293E-02
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 8 (S-V)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		0	0	0.00	0.00		
L		0	0	0.00	0.00		
T		0	0	0.00	0.00	0.49	0.49
1.583E+00 -	1.750E+00	2	2	9.09	9.09	1.16	0.61
1.750E+00 -	1.916E+00	0	2	0.00	9.09	2.57	2.57
1.916E+00 -	2.083E+00	6	8	27.27	36.36	4.16	0.82
2.083E+00 -	2.250E+00	7	15	31.82	68.18	4.92	0.88
2.250E+00 -	2.416E+00	5	20	22.73	90.91	4.25	0.13
2.416E+00 -	2.583E+00	1	21	4.55	95.45	2.68	1.06
2.583E+00 -	2.750E+00	0	21	0.00	95.45	1.24	1.24
2.750E+00 -	2.916E+00	0	21	0.00	95.45	0.42	0.42
2.916E+00 -	3.083E+00	0	21	0.00	95.45	0.10	0.10
3.083E+00 -	3.250E+00	1	22	4.55	100.00	0.02	45.40
G		0	22	0.00	100.00	0.49	0.49
H		0	22				
B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 8 (S-V)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+01 XXXXXXXXX
6.808E+01
9.992E+01 XXXXXXXXXXXXXXXXXXXXXXXXXX
1.467E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.153E+02 XXXXXXXXXXXXXXXXXXXXXXX
3.160E+02 XXXXX
4.638E+02
6.808E+02
9.992E+02
1.467E+03 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E+01
MAXIMUM ANTILOG      =  1.50000E+03
GEOMETRIC MEAN       =  1.48670E+02
GEOMETRIC DEVIATION  =  1.96588E+00
VARIANCE OF LOGS     =  8.61752E-02
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 9 (S-CR)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		7	7	31.82	31.82		
L		0	7	0.00	31.82		
T		0	7	0.00	31.82	6.80	6.80
1.416E+00 -	1.583E+00	2	9	9.09	40.91	2.54	0.12
1.583E+00 -	1.749E+00	0	9	0.00	40.91	2.70	2.70
1.749E+00 -	1.916E+00	4	13	18.18	59.09	2.60	0.75
1.916E+00 -	2.083E+00	4	17	18.18	77.27	2.28	1.30
2.083E+00 -	2.249E+00	1	18	4.55	81.82	1.82	0.37
2.249E+00 -	2.416E+00	2	20	9.09	90.91	1.32	0.35
2.416E+00 -	2.583E+00	2	22	9.09	100.00	1.93	0.00
G		0	22	0.00	100.00	0.00	0.00
H		0	22				
B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 9 (S-CR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
3.157E+01 XXXXXXXXX
4.634E+01
6.802E+01 XXXXXXXXXXXXXXXXX
9.985E+01 XXXXXXXXXXXXXXXXX
1.466E+02 XXXXX
2.151E+02 XXXXXXXXX
3.157E+02 XXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      = 3.00000E+01
MAXIMUM ANTILOG      = 3.00000E+02
GEOMETRIC MEAN       = 1.01034E+02
GEOMETRIC DEVIATION  = 2.02254E+00
VARIANCE OF LOGS     = 9.35728E-02
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 10 (S-MN)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00	0.12	0.12
2.583E+00 -	2.750E+00	2	2	9.09	9.09	0.34	8.19
2.750E+00 -	2.916E+00	0	2	0.00	9.09	0.94	0.94
2.916E+00 -	3.083E+00	1	3	4.55	13.64	2.04	0.53
3.083E+00 -	3.250E+00	2	5	9.09	22.73	3.39	0.57
3.250E+00 -	3.416E+00	6	11	27.27	50.00	4.35	0.63
3.416E+00 -	3.583E+00	1	12	4.55	54.55	4.31	2.54
3.583E+00 -	3.750E+00	3	15	13.64	68.18	6.53	1.90
	G	7	22	31.82	100.00	0.12	406.63
	H	0	22				
	B	0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 10 (S-MN)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+02 XXXXXXXXX
6.808E+02
9.992E+02 XXXXX
1.467E+03 XXXXXXXXX
2.153E+03 XXXXXXXXXXXXXXXXXXXXXXXXXXX
3.160E+03 XXXXX
4.638E+03 XXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E+02
MAXIMUM ANTILOG      =  5.00000E+03
GEOMETRIC MEAN       =  1.88519E+03
GEOMETRIC DEVIATION  =  2.04043E+00
VARIANCE OF LOGS     =  9.59270E-02
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 11 (S-CO)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		2	2	9.09	9.09		
L		0	2	0.00	9.09		
T		0	2	0.00	9.09	1.33	1.33
7.500E-01 -	9.167E-01	1	3	4.55	13.64	1.21	0.04
9.167E-01 -	1.083E+00	0	3	0.00	13.64	1.85	1.85
1.083E+00 -	1.250E+00	1	4	4.55	18.18	2.48	0.88
1.250E+00 -	1.417E+00	5	9	22.73	40.91	2.94	1.43
1.417E+00 -	1.583E+00	4	13	18.18	59.09	3.09	0.27
1.583E+00 -	1.750E+00	7	20	31.82	90.91	2.86	5.99
1.750E+00 -	1.917E+00	1	21	4.55	95.45	2.34	0.77
1.917E+00 -	2.083E+00	0	21	0.00	95.45	1.69	1.69
2.083E+00 -	2.250E+00	0	21	0.00	95.45	1.08	1.08
2.250E+00 -	2.417E+00	0	21	0.00	95.45	0.61	0.61
2.417E+00 -	2.583E+00	0	21	0.00	95.45	0.30	0.30
2.583E+00 -	2.750E+00	0	21	0.00	95.45	0.13	0.13
2.750E+00 -	2.917E+00	0	21	0.00	95.45	0.05	0.05
2.917E+00 -	3.083E+00	1	22	4.55	100.00	0.03	37.81
G		0	22	0.00	100.00	0.00	0.00
H		0	22				
B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 11 (S-CO)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
6.813E+00 XXXXX
1.000E+01
1.468E+01 XXXXX
2.154E+01 XXXXXXXXXXXXXXXXXXXXXX
3.162E+01 XXXXXXXXXXXXXXXXX
4.642E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.813E+01 XXXXX
1.000E+02
1.468E+02
2.154E+02
3.162E+02
4.642E+02
6.813E+02
1.000E+03 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 7.00000E+00
MAXIMUM ANTILOG = 1.00000E+03
GEOMETRIC MEAN = 3.61939E+01
GEOMETRIC DEVIATION = 2.61498E+00
VARIANCE OF LOGS = 1.74279E-01

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 12 (S-NI)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		1	1	4.55	4.55		
L		0	1	0.00	4.55		
T		0	1	0.00	4.55	0.95	0.95
1.250E+00 -	1.417E+00	1	2	4.55	9.09	1.15	0.02
1.417E+00 -	1.583E+00	0	2	0.00	9.09	1.94	1.94
1.583E+00 -	1.750E+00	3	5	13.64	22.73	2.79	0.02
1.750E+00 -	1.917E+00	4	9	18.18	40.91	3.40	0.11
1.917E+00 -	2.083E+00	5	14	22.73	63.64	3.52	0.62
2.083E+00 -	2.250E+00	4	18	18.18	81.82	3.10	0.26
2.250E+00 -	2.417E+00	2	20	9.09	90.91	2.32	0.04
2.417E+00 -	2.583E+00	1	21	4.55	95.45	1.47	0.15
2.583E+00 -	2.750E+00	1	22	4.55	100.00	1.36	0.09
G		0	22	0.00	100.00	0.00	0.00
H		0	22				
B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 12 (S-NI)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XXXXX
3.162E+01
4.642E+01 XXXXXXXXXXXXXX
6.813E+01 XXXXXXXXXXXXXXXXXX
1.000E+02 XXXXXXXXXXXXXXXXXXXXXXX
1.468E+02 XXXXXXXXXXXXXXXXXX
2.154E+02 XXXXXXXXX
3.162E+02 XXXXX
4.642E+02 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  2.00000E+01
MAXIMUM ANTILOG      =  5.00000E+02
GEOMETRIC MEAN       =  1.02901E+02
GEOMETRIC DEVIATION  =  2.02375E+00
VARIANCE OF LOGS     =  9.37315E-02
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 13 (S-CU)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	U	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00	0.61	0.61
9.160E-01	- 1.083E+00	1	1	4.55	4.55	0.58	0.30
1.083E+00	- 1.249E+00	1	2	4.55	9.09	0.95	0.00
1.249E+00	- 1.416E+00	2	4	9.09	18.18	1.42	0.24
1.416E+00	- 1.583E+00	1	5	4.55	22.73	1.92	0.44
1.583E+00	- 1.749E+00	3	8	13.64	36.36	2.36	0.17
1.749E+00	- 1.916E+00	2	10	9.09	45.45	2.64	0.16
1.916E+00	- 2.083E+00	3	13	13.64	59.09	2.69	0.04
2.083E+00	- 2.249E+00	2	15	9.09	68.18	2.49	0.10
2.249E+00	- 2.416E+00	5	20	22.73	90.91	2.10	4.01
2.416E+00	- 2.583E+00	1	21	4.55	95.45	1.61	0.23
2.583E+00	- 2.749E+00	0	21	0.00	95.45	1.12	1.12
2.749E+00	- 2.916E+00	0	21	0.00	95.45	0.71	0.71
2.916E+00	- 3.083E+00	0	21	0.00	95.45	0.41	0.41
3.083E+00	- 3.249E+00	0	21	0.00	95.45	0.22	0.22
3.249E+00	- 3.416E+00	0	21	0.00	95.45	0.10	0.10
3.416E+00	- 3.583E+00	1	22	4.55	100.00	0.07	12.03
	G	0	22	0.00	100.00	0.61	0.61
	H	0	22				
	B	0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 13 (S-CU)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXX
1.466E+01 XXXXX
2.151E+01 XXXXXXXXX
3.157E+01 XXXXX
4.634E+01 XXXXXXXXXXXXXX
6.802E+01 XXXXXXXXX
9.985E+01 XXXXXXXXXXXXXX
1.466E+02 XXXXXXXXX
2.151E+02 XXXXXXXXXXXXXXXXXXXXXXXX
3.157E+02 XXXXX
4.635E+02
6.803E+02
9.985E+02
1.466E+03
2.151E+03
3.157E+03 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
MAXIMUM ANTILOG = 3.00000E+03
GEOMETRIC MEAN = 8.86966E+01
GEOMETRIC DEVIATION = 3.46404E+00
VARIANCE OF LOGS = 2.91149E-01

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 15 (S-MO)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		20	20	90.91	90.91		
	L		0	20	0.00	90.91		
	T		0	20	0.00	90.91	21.60	21.60
1.083E+00	-	1.250E+00	1	21	4.55	95.45	0.38	1.01
1.250E+00	-	1.416E+00	1	22	4.55	100.00	0.02	51.18
	G		0	22	0.00	100.00	0.00	0.00
	H		0	22				
	B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 15 (S-MO)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
1.467E+01 XXXXX
2.153E+01 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.50000E+01
MAXIMUM ANTILOG      =  2.00000E+01
GEOMETRIC MEAN       =  1.73205E+01
GEOMETRIC DEVIATION  =  1.22559E+00
VARIANCE OF LOGS     =  7.80482E-03
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 16 (S-PB)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		13	13	59.09	59.09		
	L		2	15	9.09	68.18		
	I		0	15	0.00	68.18	3.58	3.58
9.160E-01	-	1.083E+00	2	17	9.09	77.27	6.94	3.52
1.083E+00	-	1.249E+00	0	17	0.00	77.27	7.28	7.28
1.249E+00	-	1.416E+00	2	19	9.09	86.36	3.42	0.59
1.416E+00	-	1.583E+00	3	22	13.64	100.00	0.78	6.25
	G		0	22	0.00	100.00	0.00	0.00
	H		0	22				
	B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 16 (S-PB)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXXXXXX
1.466E+01
2.151E+01 XXXXXXXXX
3.157E+01 XXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 1.00000E+01
MAXIMUM ANTILOG = 3.00000E+01
GEOMETRIC MEAN = 1.95204E+01
GEOMETRIC DEVIATION = 1.63492E+00
VARIANCE OF LOGS = 4.55808E-02

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 17 (S-B)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		1	1	4.55	4.55		
	L		1	2	4.55	9.09		
	T		0	2	0.00	9.09	1.97	1.97
9.160E-01	-	1.083E+00	1	3	4.55	13.64	1.48	0.16
1.083E+00	-	1.249E+00	4	7	18.18	31.82	2.07	1.80
1.249E+00	-	1.416E+00	3	10	13.64	45.45	2.59	0.07
1.416E+00	-	1.583E+00	2	12	9.09	54.55	2.90	0.28
1.583E+00	-	1.749E+00	3	15	13.64	68.18	2.89	0.00
1.749E+00	-	1.916E+00	3	18	13.64	81.82	2.59	0.07
1.916E+00	-	2.083E+00	0	18	0.00	81.82	2.07	2.07
2.083E+00	-	2.249E+00	1	19	4.55	86.36	1.48	0.16
2.249E+00	-	2.416E+00	2	21	9.09	95.45	0.95	1.18
2.416E+00	-	2.583E+00	0	21	0.00	95.45	0.54	0.54
2.583E+00	-	2.749E+00	0	21	0.00	95.45	0.28	0.28
2.749E+00	-	2.916E+00	1	22	4.55	100.00	0.21	3.08
	G		0	22	0.00	100.00	0.00	0.00
	H		0	22				
	B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 17 (S-B)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+00 XXXXX
1.466E+01 XXXXXXXXXXXXXXXXXX
2.151E+01 XXXXXXXXXXXXX
3.157E+01 XXXXXXXXX
4.634E+01 XXXXXXXXXXXXX
6.802E+01 XXXXXXXXXXXXX
9.985E+01
1.466E+02 XXXXX
2.151E+02 XXXXXXXXX
3.157E+02
4.635E+02
6.803E+02 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+01
MAXIMUM ANTILOG      =  7.00000E+02
GEOMETRIC MEAN       =  4.37379E+01
GEOMETRIC DEVIATION  =  3.03551E+00
VARIANCE OF LOGS     =  2.32547E-01
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 18 (S-BE)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		8	8	36.36	36.36		
	L		0	8	0.00	36.36		
	T		0	8	0.00	36.36	1.18	1.18
-8.400E-02	-	8.267E-02	1	9	4.55	40.91	5.82	4.00
8.267E-02	-	2.493E-01	6	15	27.27	68.18	9.43	1.25
2.493E-01	-	4.160E-01	6	21	27.27	95.45	4.78	0.31
4.160E-01	-	5.827E-01	1	22	4.55	100.00	0.78	0.06
	G		0	22	0.00	100.00	0.00	0.00
	H		0	22				
	B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 18 (S-BE)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
 9.985E-01 XXXXX
 1.466E+00 XXXXXXXXXXXXXXXXXXXXXXXXX
 2.151E+00 XXXXXXXXXXXXXXXXXXXXXXXXX
 3.157E+00 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+00
MAXIMUM ANTILOG      =  3.00000E+00
GEOMETRIC MEAN       =  1.73205E+00
GEOMETRIC DEVIATION  =  1.29171E+00
VARIANCE OF LOGS     =  1.23578E-02
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 19 (S-SR)

LOG LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N		5	5	22.73	22.73		
	L		0	5	0.00	22.73		
	T		0	5	0.00	22.73	2.57	2.57
1.916E+00	-	2.083E+00	2	7	9.09	31.82	2.19	0.02
2.083E+00	-	2.249E+00	1	8	4.55	36.36	2.99	1.33
2.249E+00	-	2.416E+00	2	10	9.09	45.45	3.48	0.63
2.416E+00	-	2.583E+00	7	17	31.82	77.27	3.45	3.67
2.583E+00	-	2.749E+00	3	20	13.64	90.91	2.90	0.00
2.749E+00	-	2.916E+00	0	20	0.00	90.91	2.07	2.07
2.916E+00	-	3.083E+00	1	21	4.55	95.45	1.26	0.05
3.083E+00	-	3.249E+00	0	21	0.00	95.45	0.65	0.65
3.249E+00	-	3.416E+00	0	21	0.00	95.45	0.29	0.29
3.416E+00	-	3.583E+00	0	21	0.00	95.45	0.11	0.11
3.583E+00	-	3.749E+00	1	22	4.55	100.00	0.05	19.87
	G		0	22	0.00	100.00	0.00	0.00
	H		0	22				
	B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 19 (S-SR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
9.985E+01 XXXXXXXXX
1.466E+02 XXXXX
2.151E+02 XXXXXXXXX
3.157E+02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.634E+02 XXXXXXXXXXXXXX
6.802E+02
9.985E+02 XXXXX
1.466E+03
2.151E+03
3.157E+03
4.635E+03 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  1.00000E+02
MAXIMUM ANTILOG      =  5.00000E+03
GEOMETRIC MEAN       =  3.34461E+02
GEOMETRIC DEVIATION  =  2.47751E+00
VARIANCE OF LOGS     =  1.55248E-01
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 20 (S-BA)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
	N	0	0	0.00	0.00		
	L	0	0	0.00	0.00		
	T	0	0	0.00	0.00	0.89	0.89
1.583E+00 -	1.750E+00	1	1	4.55	4.55	0.78	0.06
1.750E+00 -	1.916E+00	0	1	0.00	4.55	1.22	1.22
1.916E+00 -	2.083E+00	3	4	13.64	18.18	1.73	0.94
2.083E+00 -	2.250E+00	4	8	18.18	36.36	2.22	1.43
2.250E+00 -	2.416E+00	5	13	22.73	59.09	2.59	2.25
2.416E+00 -	2.583E+00	0	13	0.00	59.09	2.74	2.74
2.583E+00 -	2.750E+00	3	16	13.64	72.73	2.63	0.05
2.750E+00 -	2.916E+00	2	18	9.09	81.82	2.29	0.04
2.916E+00 -	3.083E+00	1	19	4.55	86.36	1.81	0.36
3.083E+00 -	3.250E+00	1	20	4.55	90.91	1.29	0.07
3.250E+00 -	3.416E+00	0	20	0.00	90.91	0.84	0.84
3.416E+00 -	3.583E+00	0	20	0.00	90.91	0.50	0.50
3.583E+00 -	3.750E+00	1	21	4.55	95.45	0.49	0.54
	G	1	22	4.55	100.00	0.89	0.01
	H	0	22				
	B	0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 20 (S-BA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
4.638E+01 XXXXX
6.803E+01
9.992E+01 XXXXXXXXXXXXXX
1.467E+02 XXXXXXXXXXXXXXXXXX
2.153E+02 XXXXXXXXXXXXXXXXXXXXXXX
3.160E+02
4.638E+02 XXXXXXXXXXXXXX
6.808E+02 XXXXXXXXX
9.992E+02 XXXXX
1.467E+03 XXXXX
2.153E+03
3.160E+03
4.638E+03 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  5.00000E+01
MAXIMUM ANTILOG      =  5.00000E+03
GEOMETRIC MEAN       =  2.85592E+02
GEOMETRIC DEVIATION  =  2.96991E+00
VARIANCE OF LOGS     =  2.23486E-01
```

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 21 (S-LA)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		16	16	72.73	72.73		
L		0	16	0.00	72.73		
T		0	16	0.00	72.73	2.15	2.15
1.250E+00 -	1.417E+00	4	20	18.18	90.91	19.25	12.08
1.417E+00 -	1.583E+00	2	22	9.09	100.00	0.60	3.27
G		0	22	0.00	100.00	0.00	0.00
H		0	22				
B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 21 (S-LA)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

2.154E+01 XXXXXXXXXXXXXXXXXX
3.162E+01 XXXXXXXXX

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 3.00000E+01
GEOMETRIC MEAN = 2.28943E+01
GEOMETRIC DEVIATION = 1.23291E+00
VARIANCE OF LOGS = 8.26881E-03

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 22 (S-Y)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		2	2	9.09	9.09		
L		0	2	0.00	9.09		
T		0	2	0.00	9.09	3.03	3.03
1.250E+00 -	1.417E+00	4	6	18.18	27.27	4.87	0.15
1.417E+00 -	1.583E+00	7	13	31.82	59.09	6.26	0.09
1.583E+00 -	1.750E+00	8	21	36.36	95.45	4.84	2.06
1.750E+00 -	1.917E+00	1	22	4.55	100.00	3.00	1.33
G		0	22	0.00	100.00	0.00	0.00
H		0	22				
B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 22 (S-Y)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XXXXXXXXXXXXXXXXX
3.162E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4.642E+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.813E+01 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM ANTILOG = 2.00000E+01
MAXIMUM ANTILOG = 7.00000E+01
GEOMETRIC MEAN = 3.54031E+01
GEOMETRIC DEVIATION = 1.47944E+00
VARIANCE OF LOGS = 2.89327E-02

Table 13. Frequency tables and histograms of spectrographic data from rocks collected from the Wonder Mountain area

FREQUENCY TABLE FOR VARIABLE 23 (S-ZR)

LOG LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ	THEOR FREQ (NORMAL DIST)	(THEOR FREQ - OBS FREQ)**2/THEOR FREQ
N		3	3	13.64	13.64		
L		0	3	0.00	13.64		
T		0	3	0.00	13.64	2.89	2.89
1.250E+00 -	1.417E+00	2	5	9.09	22.73	2.57	0.13
1.417E+00 -	1.583E+00	3	8	13.64	36.36	3.45	0.06
1.583E+00 -	1.750E+00	4	12	18.18	54.55	3.82	0.01
1.750E+00 -	1.917E+00	3	15	13.64	68.18	3.51	0.07
1.917E+00 -	2.083E+00	5	20	22.73	90.91	2.66	2.05
2.083E+00 -	2.250E+00	1	21	4.55	95.45	1.67	0.27
2.250E+00 -	2.417E+00	1	22	4.55	100.00	1.42	0.13
G		0	22	0.00	100.00	0.00	0.00
H		0	22				
B		0	22				

TOTALS LESS H AND B 22

HISTOGRAM FOR VARIABLE 23 (S-ZR)
MIDPOINTS ARE EXPRESSED AS ANTILOGS

```
2.154E+01 XXXXXXXXX
3.162E+01 XXXXXXXXXXXXXX
4.642E+01 XXXXXXXXXXXXXXXXXX
6.813E+01 XXXXXXXXXXXXXX
1.000E+02 XXXXXXXXXXXXXXXXXXXXXXX
1.468E+02 XXXXX
2.154E+02 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM ANTILOG      =  2.00000E+01
MAXIMUM ANTILOG      =  2.00000E+02
GEOMETRIC MEAN       =  6.04148E+01
GEOMETRIC DEVIATION  =  1.91942E+00
VARIANCE OF LOGS     =  8.01857E-02
```

Table 14. Correlation coefficients for spectrographic data from rocks collected from the Wonder Mountain area

COLUMN	VERSUS	COLUMN	CORRELATION COEFFICIENT	NO. OF PAIRS
1 (S-MG%)	2	(S-CA%)	0.2174	22
1 (S-MG%)	3	(S-FE%)	0.4307	22
1 (S-MG%)	4	(S-TI%)	0.9096	22
1 (S-MG%)	5	(S-SC)	0.7603	18
1 (S-MG%)	6	(S-V)	0.2046	22
1 (S-MG%)	7	(S-CR)	0.5258	15
1 (S-MG%)	8	(S-MN)	0.1220	15
1 (S-MG%)	9	(S-CO)	0.0430	20
1 (S-MG%)	10	(S-NI)	-0.0785	21
1 (S-MG%)	11	(S-CU)	0.0681	22
1 (S-MG%)	12	(S-ZN)	********	1
1 (S-MG%)	13	(S-MO)	********	2
1 (S-MG%)	14	(S-PB)	0.0392	7
1 (S-MG%)	15	(S-B)	-0.5519	20
1 (S-MG%)	16	(S-BE)	0.1943	14
1 (S-MG%)	17	(S-SR)	-0.1601	17
1 (S-MG%)	18	(S-BA)	-0.4149	21
1 (S-MG%)	19	(S-LA)	-0.2019	6
1 (S-MG%)	20	(S-Y)	-0.1605	20
1 (S-MG%)	21	(S-ZR)	0.4678	19
1 (S-MG%)	22	(S-NB)	********	1
2 (S-CA%)	3	(S-FE%)	0.2448	22
2 (S-CA%)	4	(S-TI%)	0.1157	22
2 (S-CA%)	5	(S-SC)	0.1410	18
2 (S-CA%)	6	(S-V)	0.1090	22
2 (S-CA%)	7	(S-CR)	-0.2513	15
2 (S-CA%)	8	(S-MN)	0.3106	15
2 (S-CA%)	9	(S-CO)	-0.0355	20
2 (S-CA%)	10	(S-NI)	0.5085	21
2 (S-CA%)	11	(S-CU)	-0.0525	22
2 (S-CA%)	12	(S-ZN)	********	1
2 (S-CA%)	13	(S-MO)	-1.0000	2
2 (S-CA%)	14	(S-PB)	0.9115	7
2 (S-CA%)	15	(S-B)	-0.3095	20
2 (S-CA%)	16	(S-BE)	-0.0856	14
2 (S-CA%)	17	(S-SR)	0.0615	17
2 (S-CA%)	18	(S-BA)	0.0245	21
2 (S-CA%)	19	(S-LA)	-0.5266	6
2 (S-CA%)	20	(S-Y)	-0.1000	20
2 (S-CA%)	21	(S-ZR)	-0.5517	19
2 (S-CA%)	22	(S-NB)	********	1
3 (S-FE%)	4	(S-TI%)	0.6062	22
3 (S-FE%)	5	(S-SC)	0.6982	18
3 (S-FE%)	6	(S-V)	-0.2019	22
3 (S-FE%)	7	(S-CR)	0.1153	15
3 (S-FE%)	8	(S-MN)	0.1570	15
3 (S-FE%)	9	(S-CO)	-0.1123	20
3 (S-FE%)	10	(S-NI)	0.2340	21
3 (S-FE%)	11	(S-CU)	-0.3575	22
3 (S-FE%)	12	(S-ZN)	********	1
3 (S-FE%)	13	(S-MO)	-1.0000	2
3 (S-FE%)	14	(S-PB)	0.6641	7
3 (S-FE%)	15	(S-B)	-0.5504	20
3 (S-FE%)	16	(S-BE)	-0.3652	14
3 (S-FE%)	17	(S-SR)	0.0843	17
3 (S-FE%)	18	(S-BA)	-0.5869	21
3 (S-FE%)	19	(S-LA)	-0.4178	6
3 (S-FE%)	20	(S-Y)	-0.0683	20
3 (S-FE%)	21	(S-ZR)	0.0204	19
3 (S-FE%)	22	(S-NB)	********	1
4 (S-TI%)	5	(S-SC)	0.7399	18
4 (S-TI%)	6	(S-V)	0.0993	22
4 (S-TI%)	7	(S-CR)	0.3417	15
4 (S-TI%)	8	(S-MN)	-0.0299	15
4 (S-TI%)	9	(S-CO)	0.0768	20
4 (S-TI%)	10	(S-NI)	-0.1529	21
4 (S-TI%)	11	(S-CU)	0.0321	22
4 (S-TI%)	12	(S-ZN)	********	1
4 (S-TI%)	13	(S-MO)	-1.0000	2
4 (S-TI%)	14	(S-PB)	-0.5181	7
4 (S-TI%)	15	(S-B)	-0.6077	20
4 (S-TI%)	16	(S-BE)	-0.1380	14
4 (S-TI%)	17	(S-SR)	0.0922	17
4 (S-TI%)	18	(S-BA)	-0.4542	21
4 (S-TI%)	19	(S-LA)	-0.6603	6
4 (S-TI%)	20	(S-Y)	-0.1863	20
4 (S-TI%)	21	(S-ZR)	0.6172	19
4 (S-TI%)	22	(S-NB)	********	1
5 (S-SC)	6	(S-V)	0.0663	18
5 (S-SC)	7	(S-CR)	0.4407	15
5 (S-SC)	8	(S-MN)	0.2736	14
5 (S-SC)	9	(S-CO)	0.2119	18
5 (S-SC)	10	(S-NI)	0.0699	18
5 (S-SC)	11	(S-CU)	0.0993	18
5 (S-SC)	12	(S-ZN)	********	1
5 (S-SC)	13	(S-MO)	********	1
5 (S-SC)	14	(S-PB)	-0.3093	7
5 (S-SC)	15	(S-B)	-0.5096	17
5 (S-SC)	16	(S-BE)	-0.5407	12
5 (S-SC)	17	(S-SR)	-0.1909	15
5 (S-SC)	18	(S-BA)	-0.5268	18
5 (S-SC)	19	(S-LA)	-0.7547	6
5 (S-SC)	20	(S-Y)	-0.3033	18
5 (S-SC)	21	(S-ZR)	-0.1344	17
5 (S-SC)	22	(S-NB)	********	1
6 (S-V)	7	(S-CR)	0.3896	15
6 (S-V)	8	(S-MN)	0.1319	15
6 (S-V)	9	(S-CO)	0.9055	20
6 (S-V)	10	(S-NI)	0.3744	21
6 (S-V)	11	(S-CU)	0.6741	22

Table 14. Correlation coefficients for spectrographic data from rocks collected from the Wonder Mountain area

COLUMN	VERSUS	COLUMN	CORRELATION COEFFICIENT	NO. OF PAIRS
6 (S-V)	12	(S-ZN)	********	1
6 (S-V)	13	(S-MO)	1.0000	2
6 (S-V)	14	(S-PB)	0.5605	7
6 (S-V)	15	(S-B)	0.3396	20
6 (S-V)	16	(S-BE)	-0.4389	14
6 (S-V)	17	(S-SR)	-0.2482	17
6 (S-V)	18	(S-BA)	-0.3515	21
6 (S-V)	19	(S-LA)	-0.4154	6
6 (S-V)	20	(S-Y)	0.2084	20
6 (S-V)	21	(S-ZR)	-0.2609	19
6 (S-V)	22	(S-NB)	********	1
7 (S-CR)	8	(S-MN)	0.0697	13
7 (S-CR)	9	(S-CO)	0.3422	15
7 (S-CR)	10	(S-NI)	0.0395	15
7 (S-CR)	11	(S-CU)	0.2393	15
7 (S-CR)	12	(S-ZN)	********	1
7 (S-CR)	13	(S-MO)	********	0
7 (S-CR)	14	(S-PB)	-0.5518	6
7 (S-CR)	15	(S-B)	-0.1391	14
7 (S-CR)	16	(S-BE)	0.1745	10
7 (S-CR)	17	(S-SR)	-0.1550	14
7 (S-CR)	18	(S-BA)	-0.2108	15
7 (S-CR)	19	(S-LA)	-0.9444	4
7 (S-CR)	20	(S-Y)	-0.4810	15
7 (S-CR)	21	(S-ZR)	-0.1062	15
7 (S-CR)	22	(S-NB)	********	0
8 (S-MN)	9	(S-CO)	0.2305	14
8 (S-MN)	10	(S-NI)	0.2755	14
8 (S-MN)	11	(S-CU)	0.1584	15
8 (S-MN)	12	(S-ZN)	********	1
8 (S-MN)	13	(S-MO)	********	0
8 (S-MN)	14	(S-PB)	0.9524	4
8 (S-MN)	15	(S-B)	-0.2844	13
8 (S-MN)	16	(S-BE)	0.1201	9
8 (S-MN)	17	(S-SR)	-0.1461	12
8 (S-MN)	18	(S-BA)	-0.1580	15
8 (S-MN)	19	(S-LA)	-1.0000	3
8 (S-MN)	20	(S-Y)	0.1334	14
8 (S-MN)	21	(S-ZR)	-0.3162	14
8 (S-MN)	22	(S-NB)	********	1
9 (S-CO)	10	(S-NI)	0.2805	20
9 (S-CO)	11	(S-CU)	0.7324	20
9 (S-CO)	12	(S-ZN)	********	1
9 (S-CO)	13	(S-MO)	1.0000	2
9 (S-CO)	14	(S-PB)	0.2886	7
9 (S-CO)	15	(S-B)	0.3237	19
9 (S-CO)	16	(S-BE)	-0.6220	14
9 (S-CO)	17	(S-SR)	-0.2587	16
9 (S-CO)	18	(S-BA)	-0.5036	19
9 (S-CO)	19	(S-LA)	-0.7047	6
9 (S-CO)	20	(S-Y)	0.1041	20
9 (S-CO)	21	(S-ZR)	-0.0725	19
9 (S-CO)	22	(S-NB)	********	1
10 (S-NI)	11	(S-CU)	0.0355	21
10 (S-NI)	12	(S-ZN)	********	1
10 (S-NI)	13	(S-MO)	-1.0000	2
10 (S-NI)	14	(S-PB)	0.6957	7
10 (S-NI)	15	(S-B)	0.3519	20
10 (S-NI)	16	(S-BE)	-0.2979	14
10 (S-NI)	17	(S-SR)	0.0364	17
10 (S-NI)	18	(S-BA)	-0.2894	20
10 (S-NI)	19	(S-LA)	-0.0060	6
10 (S-NI)	20	(S-Y)	0.0945	20
10 (S-NI)	21	(S-ZR)	-0.6885	19
10 (S-NI)	22	(S-NB)	********	1
11 (S-CU)	12	(S-ZN)	********	1
11 (S-CU)	13	(S-MO)	1.0000	2
11 (S-CU)	14	(S-PB)	0.2295	7
11 (S-CU)	15	(S-B)	0.1303	20
11 (S-CU)	16	(S-BE)	-0.3033	14
11 (S-CU)	17	(S-SR)	0.0677	17
11 (S-CU)	18	(S-BA)	-0.2137	21
11 (S-CU)	19	(S-LA)	-0.3719	6
11 (S-CU)	20	(S-Y)	0.3328	20
11 (S-CU)	21	(S-ZR)	0.0672	19
11 (S-CU)	22	(S-NB)	********	1
12 (S-ZN)	13	(S-MO)	********	0
12 (S-ZN)	14	(S-PB)	********	0
12 (S-ZN)	15	(S-B)	********	1
12 (S-ZN)	16	(S-BE)	********	1
12 (S-ZN)	17	(S-SR)	********	0
12 (S-ZN)	18	(S-BA)	********	1
12 (S-ZN)	19	(S-LA)	********	0
12 (S-ZN)	20	(S-Y)	********	1
12 (S-ZN)	21	(S-ZR)	********	1
12 (S-ZN)	22	(S-NB)	********	0
13 (S-MO)	14	(S-PB)	********	0
13 (S-MO)	15	(S-B)	1.0000	2
13 (S-MO)	16	(S-BE)	********	1
13 (S-MO)	17	(S-SR)	********	0
13 (S-MO)	18	(S-BA)	-1.0000	2
13 (S-MO)	19	(S-LA)	********	0
13 (S-MO)	20	(S-Y)	1.0000	2
13 (S-MO)	21	(S-ZR)	********	1
13 (S-MO)	22	(S-NB)	********	0
14 (S-PB)	15	(S-B)	-0.0259	7
14 (S-PB)	16	(S-BE)	0.1662	7
14 (S-PB)	17	(S-SR)	0.0255	7
14 (S-PB)	18	(S-BA)	-0.1845	7
14 (S-PB)	19	(S-LA)	0.4082	5

Table 14. Correlation coefficients for spectrographic data from rocks collected from the Wonder Mountain area

COLUMN	VERSUS	COLUMN	CORRELATION COEFFICIENT	NO. OF PAIRS
14 (S-PB)	20	(S-Y)	0.4849	7
14 (S-PB)	21	(S-ZR)	-0.8345	7
14 (S-PB)	22	(S-NB)	********	0
15 (S-B)	16	(S-BE)	0.1616	14
15 (S-B)	17	(S-SR)	-0.1239	16
15 (S-B)	18	(S-BA)	0.2297	19
15 (S-B)	19	(S-LA)	0.9148	6
15 (S-B)	20	(S-Y)	0.1446	19
15 (S-B)	21	(S-ZR)	-0.3056	18
15 (S-B)	22	(S-NB)	********	1
16 (S-BE)	17	(S-SR)	-0.3865	11
16 (S-BE)	18	(S-BA)	0.5069	13
16 (S-BE)	19	(S-LA)	0.6409	6
16 (S-BE)	20	(S-Y)	-0.0196	14
16 (S-BE)	21	(S-ZR)	0.3145	14
16 (S-BE)	22	(S-NB)	********	1
17 (S-SR)	18	(S-BA)	-0.0998	16
17 (S-SR)	19	(S-LA)	-0.3519	5
17 (S-SR)	20	(S-Y)	-0.0358	16
17 (S-SR)	21	(S-ZR)	-0.1852	16
17 (S-SR)	22	(S-NB)	********	0
18 (S-BA)	19	(S-LA)	-0.2247	6
18 (S-BA)	20	(S-Y)	-0.1177	19
18 (S-BA)	21	(S-ZR)	0.1563	18
18 (S-BA)	22	(S-NB)	********	1
19 (S-LA)	20	(S-Y)	0.6016	6
19 (S-LA)	21	(S-ZR)	0.2737	6
19 (S-LA)	22	(S-NB)	********	1
20 (S-Y)	21	(S-ZR)	0.1100	19
20 (S-Y)	22	(S-NB)	********	1
21 (S-ZR)	22	(S-NB)	********	1