UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

RESULTS OF GEOCHEMICAL SAMPLING IN THE WESTERN CLEARWATER MOUNTAINS, ALASKA

By

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This report is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards or nomenclature

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ABSTRACT

Two centers of gold mineralization in the Clearwater Mountains have been identified during a recent geochemical sampling program in the Healy A-1, B-1 quadrangles, Alaska. Both the Timberline Creek center and the Black Creek center are located near the same E-W trending fault system.

Sites of structural weakness along the zone have apparently guided the emplacement of small diorite and quartz diorite stocks that acted as hosts for later gold-quartz-carbonate veins. Recurrent movement along the faults has fractured and locally sheared the intrusives, providing discontinuous dilatant areas for subsequent vein deposition. Most of the auriferous veins are locallized within the fractured intrusives, although gold values in the range 0.02 to 20 ppm are found in much of the limonitic shear zone material in both intrusive and country rock. The coincidence of gold centers with intrusive bodies appears to be principally a tectonic association. Fractured dilatant intrusives along a generally impermeable fault zone have functioned as pipe-like avenues of ascent for mineralizing fluids.

A close association of gold and arsenic exists in both stream-sediment and bedrock geochemical samples. Mercury is concentrated along the major E-W trending shear system, but occurs between the gold centers, implying a crude hypogene zonation outward from the centers along the mineral belt.

The Denali Copper Prospect, discovered in 1963 (Kaufman, 1964, p. 6) and currently being explored is similarly located at a structural intersection along a major shear system trending N. 75° E. Additional minor occurrences of copper are located to the west along the same fault system on the south side of Windy Creek.

INTRODUCTION

Mining and exploration has proceeded intermittently in the western Clearwater Mountains since 1903 when gold placers were discovered along the lower reaches of Valdez Creek. More recently, interest has been renewed with the discovery of the Denali copper prospect near the headwaters of Windy Creek (Kaufman, 1964, p. 6 and Glavinovitch, 1967, p. 44), and in 1968-69 the area was reexamined.

The region discussed in this report is located about 160 miles northeast of Anchorage, east of the upper Susitna River (figure 1). Approximately 300 square miles in the Healy A-1 and B-1 quadrangles were examined during the investigation. The area lies about midway between the towns of Paxson and Cantwell, Alaska, and can be reached via the Denali Highway, which crosses the southern part of the Healy A-1 quadrangle. Several unimproved airstrips and small lakes within the quadrangles are accessible to light aircraft equipped with large tires or floats. Unimproved roads suitable for tracked vehicles or swamp buggies traverse the main valleys of Valdez and Windy Creeks.

Previous geologic and economic appraisals of the area have been made by Moffit (1912), Ross (1933), Tuck (1938), Kaufman (1963), and Glavinovitch (1967). This preliminary report presents analyses of stream-sediment and bedrock geochemical samples and new 1:31,680 scale geologic mapping in the Clearwater Mountains. In addition to the regional study, more detailed sample data and geologic maps of lode gold prospects at Timberline Creek and Black Creek are included. Several geochemical maps of selected elements, on both regional and prospect scales, are provided as a partial interpretation of the analytical data appended to this report.

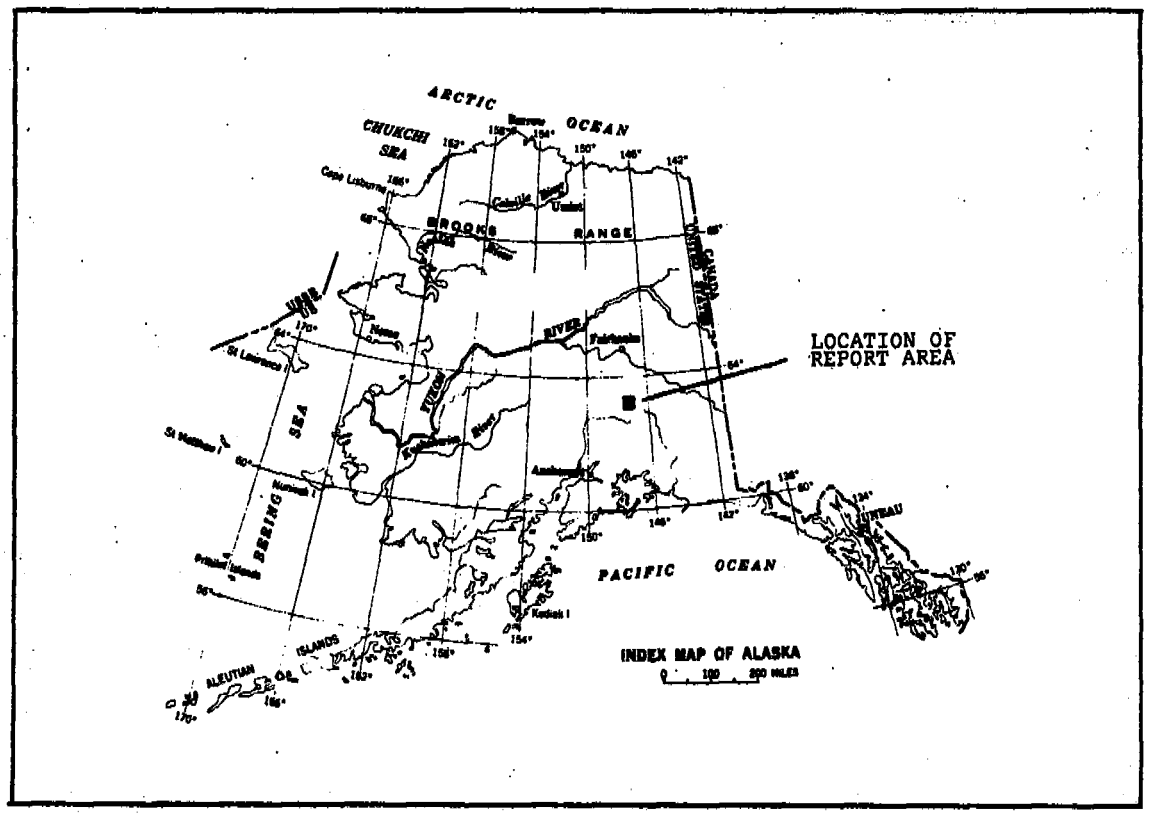


Figure 1. Index map of Alaska showing location of report area.

The author is indebted to the numerous individuals who hold claims in the Clearwater Mountains for permission to examine their properties and to include the results of those studies in this paper. Capable assistance was given by S. R. Bruff and S. W. Ivosevic, geologic field assistants during 1968 and 1969, respectively.

GEOLOGIC ENVIRONMENT

Bedrock underlying the Clearwater Mountains comprises two main rock sequences; a thick succession of metavolcanic rocks similar to the Amphitheater Basalts mapped farther east (Rose, 1966) and an overlying pelitic sequence, gradational from chlorite-bearing argillite in the south to kyanite-bearing rocks on the ridge north of Valdez Creek. The latter sequence is subdivided into three metamorphic units in figure 2.

Metavolcanic Rocks

The southern part of the Healy A-1 quadrangle is underlain by metavolcanic rocks consisting predominantly of dark gray or greenish metabasalts and basaltic andesites. These rocks crop out in a broad, northeasterly-trending belt that extends east and west for many miles beyond the area of the report (Moffit, 1912 and 1915; Chapin, 1918; and Rose, 1966). Dips within this unit are generally northwesterly and average about 55°.

In addition to the bedded flows, thin intercalated members of flow breccia, water-laid tuff, argillite, and discontinuous limestone lenses are locally present. Amygdaloidal flows are common throughout the volcanic succession. Individual amygdule fillings are most commonly epidote, quartz, chlorite, or calcite although locally native copper or bornite co-exists with the epidote.

Within the volcanic unit south of Windy Creek a prominent N.80°E. trending shear system has produced zones of intensely brecciated and altered rock up to 100 feet in width. Veinlets of quartz, calcite, hematite, bornite, and limonitic fracture fillings are pervasive in the shear zones, and secondary malachite staining is locally abundant along weathered veinlets.

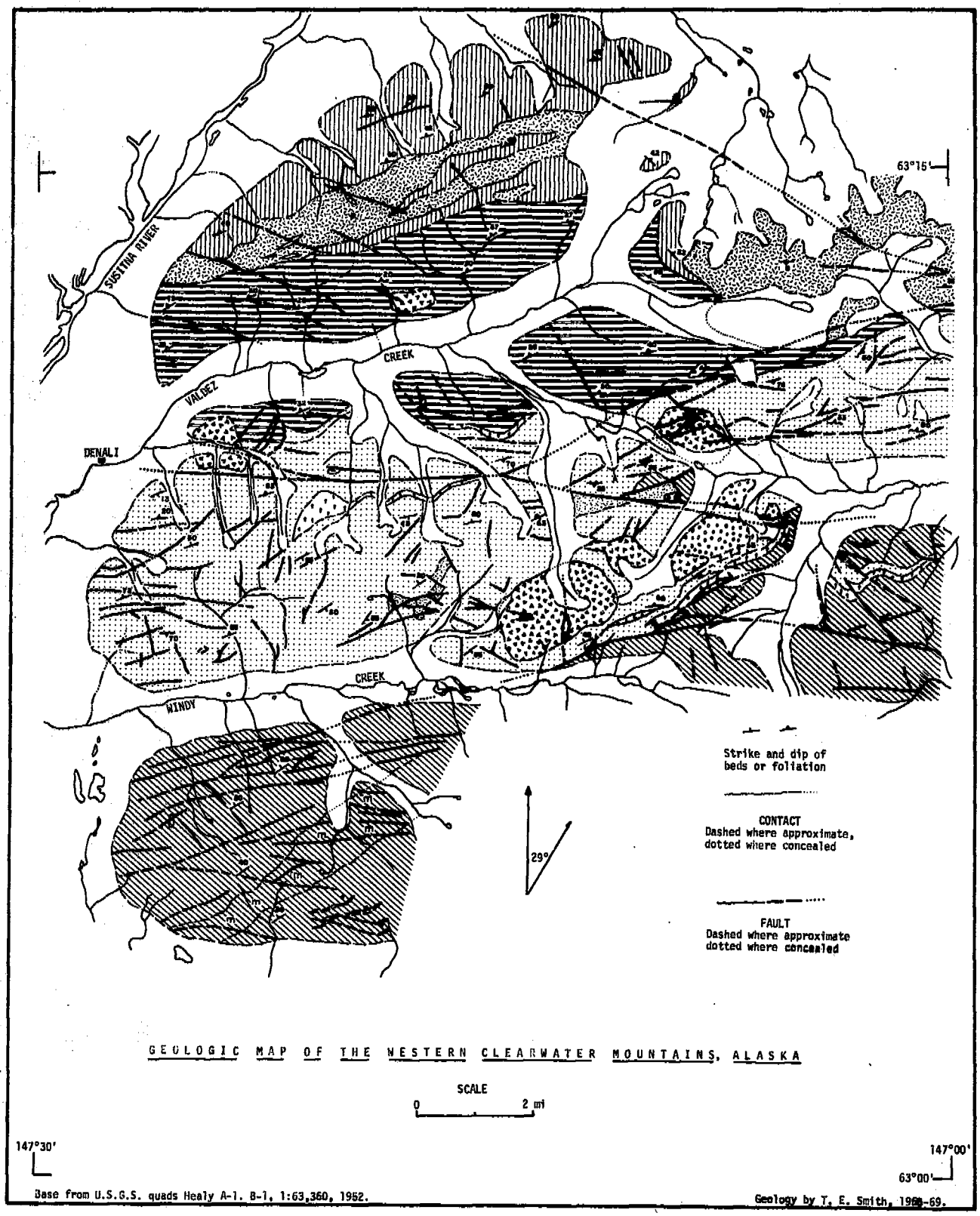
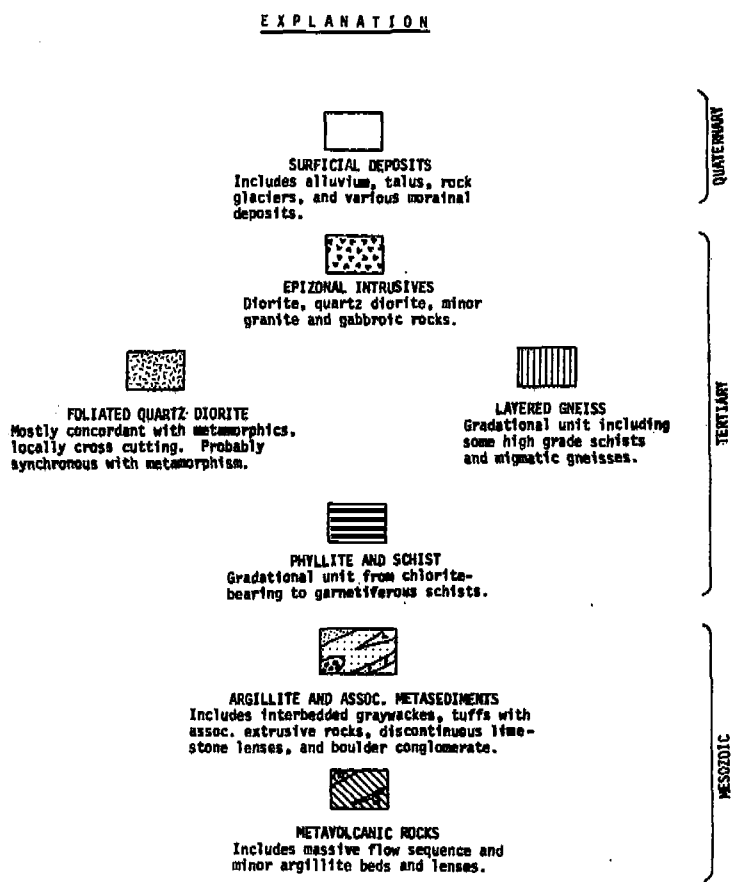


Figure 2. Generalized geologic map of the western Clearwater Mountains, Alaska.



*Probable metamorphic age shown for phyllite, schist, and gneiss

Figure 2. Continued.

Fossils collected from a limestone lens near the top of this unit are mid-Late Triassic in age (Moffit, 1912; N. Silberling, written comm., 1969), suggesting that the thick section of lavas below may be assigned entirely to the Triassic.

Pelitic Rocks

Conformably overlying the metavolcanic unit and bordering it on the north is a thick sequence of metamorphosed pelitic rocks (figure 2) that grade from chlorite-bearing argillite and graywacke just north of Windy Creek through phyllites and biotite schists near Valdez Creek to garnetiferous, kyanite-bearing schists and gneisses south of the Susitna River. These rocks are differentiated into three map units on figure 2, on the basis of metamorphic grade. The lower grade argillites and metagraywackes include minor tuffaceous strata, limestone lenses, and conglomerates.

The argillite is composed mainly of quartz, sericite, chlorite, and biotite, the dominant gray to black color being imparted by carbonaceous material in the matrix. Graded bedding, festooned cross-bedding, and load cast structures are abundant in this unit. Rhythmic bedding defined by two to six inch graded strata is locally present. Commonly, very fine-grained argillite grades vertically or laterally into fine- or medium-grained, greenish metagraywacke. Numerous beds and lenses of the latter attain thickness of 50 feet or more; several of the more persistent graywacke beds are shown with a dense stippled pattern on figure 2. No fossils have been recovered from the argillite, and, hence, on the basis of faunal evidence, its sedimentary age cannot be established more closely than post Late Triassic or probable Jura-Cretaceous. The argillite grades into more

intensely metamorphosed phyllites and spotted phyllites near Valdez Creek (figure 2). Northward from this contact is a telescoped metamorphic assemblage of the Barrovian Series. Pelitic rocks near Valdez Creek are spotted with clots of poikiloblastic biotite, retain relict sedimentary structures, and contain abundant chlorite. North of Valdez Creek the phyllites are gradational into fine-grained biotite schists, which similarly grade northward through biotite-garnet schists to biotite-garnet-kyanite schists and gneisses. A large sill-like body of foliated quartz diorite occupies the center of the highest grade terrane. This body was probably emplaced synkinematically during the regional metamorphism. The genesis of the metamorphic belt may be intimately linked to the uplift of the central Alaska Range, occurring in the late Cretaceous or early Tertiary (Gates and Gryc, 1963, p. 273).

Igneous Rocks

The belt of phyllite, schists, and gneiss is truncated in the eastern part of the area by a large mesozonal quartz diorite pluton, of similar chemical composition to the sill-like body farther west but much less foliated or gneissose. Margins of the pluton, where well exposed, are mildly foliated with attitudes closely paralleling those in adjoining schists and gneisses. Locally it is discordantly intrusive into the host rocks. Xenoliths of the metamorphics are abundant near these discordant contacts; elsewhere it is rare to find compositional variations near the margin.

Several smaller epizonal plutons ranging in composition from hornblende gabbro to strongly altered quartz diorite have intruded rocks of the pelitic sequence. Hornfelsed contact zones and pyritic halos are

commonly developed where these stocks intrude lower grade metamorphic rocks, but are not present when higher grade metamorphics are intruded. These small bodies have not been involved in the regional metamorphism and thus are tentatively assigned to the Tertiary Period.

Structure

The dominant structural grain in the western Clearwater Mountains strikes about N.75°E. Attitudes of flows in the metavolcanic succession show dips prevailingly to the northwest. A consistent northwesterly dip of foliation is also present in the schists and gneisses north of Valdez Creek. In contrast, the area between Valdez and Windy Creeks is characterized by gentle folding and local overturning of argillite strata; along certain horizons, interbed slippage and adjustments during folding have transformed the argillites into foliated, fissile rocks resembling slates. Opposite limbs of a large N.80°E. trending anticlinal fold are outlined by the tuffaceous strata south of Valdez Creek (figure 2).

Numerous high angle faults cut the older structural elements. Both strike-slip and vertical movements on these faults appear to have been recurrent throughout the Tertiary Period, although displacements are generally less than a few hundred feet. Several of the shear zones and faults are traceable entirely across the region. Structural intersections along the throughgoing E-W trending fault south of Valdez Creek and the shear zone crossing Windy Creek have been important in localizing gold and copper lode deposits in the area. Thrust faults in this region are confined to local interbed slippages and within disharmonic folds. Few of the mapped thrusts have appreciable continuity, and their displacements are measurable in tens of feet (for example see figure 19).

GEOCHEMICAL PROGRAM

Sample Media and Analytical Techniques

During the course of semi-regional mapping at a scale of 1:31,680, a comprehensive program of stream-sediment and bedrock geochemical sampling was carried out in order to delineate areas of lode mineralization and to examine whether metallic element concentrations in stream-sediments would show spatial correlation to bedrock anomalies in this geologic province.

Stream-sediment samples were generally taken from active stream channels. In smaller, steeper drainages it was occasionally necessary to remove sand and silt from mosses projecting into the active channel, and locally it was necessary to collect from higher level stream deposits adjacent to the active channel. Locations of all stream-sediment samples collected are shown on figure 4 (p. 26).

The sediment samples were seived and the minus-80 mesh fraction was analyzed for thirty elements by the six-step semiquantitative spectrographic method (data shown in Appendix I). Additionally, more accurate analyses for gold, silver, copper, and tellurium were made by atomic absorption. Tungsten and arsenic were determined by colorimetric techniques and mercury by an instrumental method. All stream-sediment analyses made by methods other than spectrographic are shown in Appendix II.

Bedrock samples collected during the mapping program (see figure 6 for location) consisted predominantly of limonitic fracture fillings, quartz and quartz-carbonate veinlets, and altered limonitic shear zone rock. Most of the samples were taken from fracture zones or near dikes and other locations which might be interpreted to connect with hydrothermal "plumbing"

systems. The majority of samples shown on figure 6 were selected grab samples or composite chip samples taken over a distance of 20 feet, and weighed 1/2 to 1 pound. Samples taken during follow-up procedures at Timberline Creek and Black Creek are of similar media but averaged about 5 pounds in weight. These also were composite chip samples except where otherwise noted on the figures or in the appendices.

All bedrock samples were crushed, homogenized, and splits were analyzed in the same manner as for stream sediments, except that for a number of bedrock samples, lead and zinc were also determined by atomic absorption (Appendix IV).

U.S. Geological Survey personnel who have provided the analytical data appended to this report are J. Motooka, R. Miller, D. P. Ritz, J. G. Frisken, H. King, R. J. Smith, J. G. Viets, L. W. Bailey, R. Leinz, R. B. Tripp, R. N. Babcock, W. Vaugn, D. G. Murrey, and K. J. Curry.

Limits of detection and other parameters related to the analytical and processing procedures are included in the appendices at the end of this report.

Selection of Background and Threshold Values

Several monoelemental or bielemental geochemical maps are presented within the body of this report. The data appearing on these maps can be found in Appendices II and IV, i.e., they are compiled from analyses done by methods other than spectrographic. The copper values shown on figure 8 are an exception; they are taken from the semiquantitative spectrographic data in Appendix III.

All selections of background, threshold, and anomalous value were made using the graphical method discussed by Lepeltier (1969). In this method, cumulative frequencies are plotted versus concentration on log-probability paper as shown on figure 3. Frequencies are cumulated from highest to lowest values, and frequency points are plotted against lower class intervals, which in this study are the class intervals normally used in reporting spectrographic results. Class limits are 1/6th order or about 0.166 log interval and have values in the series ..... 1.2, 1.8, 2.6, 3.8, 5.6, 8.3, ... The series may be extended in either direction to include the desired concentration range.

On cumulative frequency diagrams, a population that would form a bell-shaped or lognormal distribution on log-percent plots takes the form of a straight line (see for example the lognormal part of figure 3). Background values for this population and sample medium are taken at a cumulative frequency of 50%, corresponding to the geometric mean of the population. If all the population plots on a single line, a threshold value is usually selected at two standard deviations from the geometric mean, i.e., at a cumulative frequency of 2.5%. Where a complex population is sampled, as for example when the analyses contain values related to superimposed mineralization effects, a departure from a line of single slope is observed. This is shown on figure 3, where the bedrock samples containing high copper values lie along another lognormal line, but of a different slope. The threshold to anomalous values in this case is taken at the break in slope.

Application of this method reveals that the stream-sediment elements mercury, gold, and copper form complex populations, whereas silver and

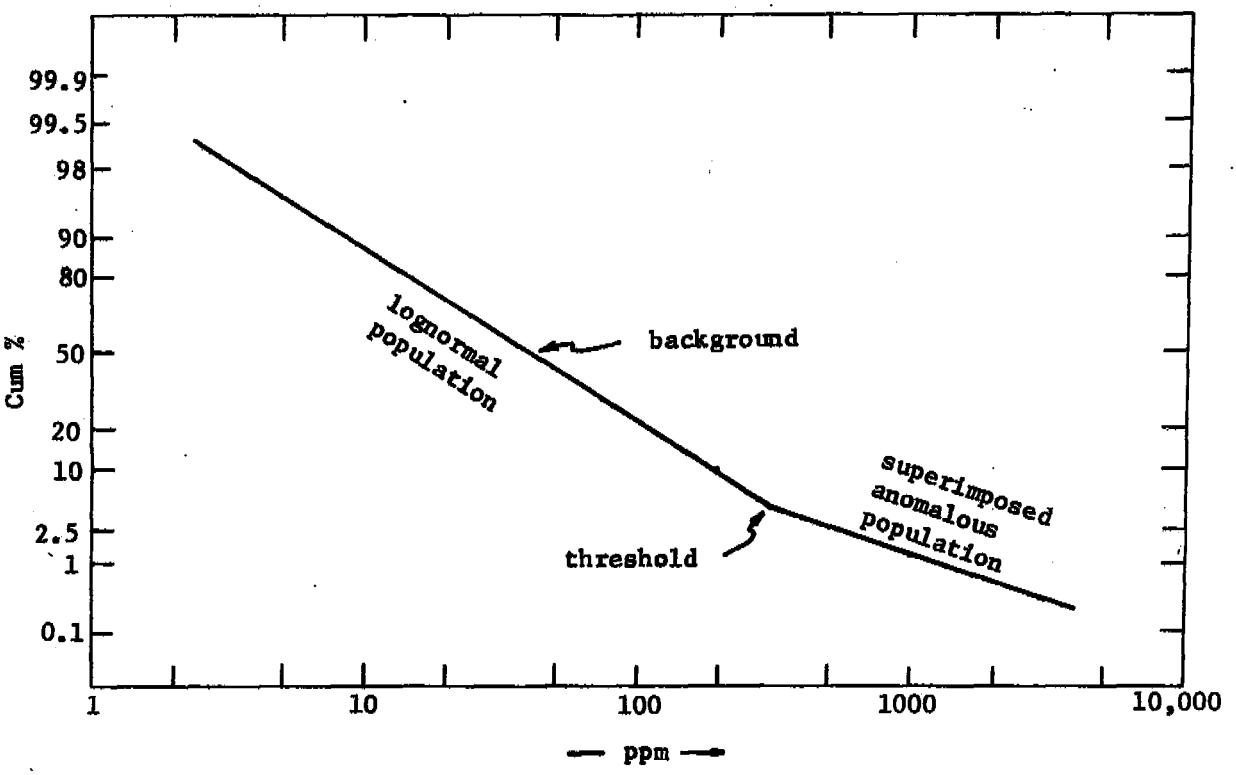


Figure 3. Cumulative frequency plot for copper values in bedrock geochemical samples, western Clearwater Mountains, Alaska.

arsenic are simply lognormal. The elements gold, copper, arsenic, and mercury from bedrock samples all plot as complex populations. A summary of background (geometric mean) values, thresholds, and enrichment of background over crustal averages is shown in table 1. In interpreting the values shown, it must be emphasized that they are unique to the sample media chosen for this study; a population utilizing a different medium might be characterized by different parameters.

Despite these limitations, an inspection of table 1 suggests several tentative conclusions. In both stream-sediment and bedrock samples, the background gold content is not enriched over crustal averages. Mercury and arsenic show a consistent enrichment of about 2 and 5 respectively in both media. Copper is present in near-crustal average abundance.

These observations suggest that, even though the region has a history of gold mining activity and, more recently, copper exploration, the volcanic and pelitic rocks comprising the main bedrock units are not unusual in their metallic content. This implication from the present study is in disagreement with the conclusions reached by Glavinovitch (1967, p. 35), that the copper content of all metavolcanic rocks in the Clearwater Mountains is abnormally high and averages near 1000 ppm. In contention with the previous work also is the fact that several unmineralized bulk samples of the metavolcanic rocks collected by the author and analyzed for copper show no values higher than 200 ppm. High values of both gold and copper appear to be restricted to obviously mineralized structures.

Table 1: Background, threshold, and enrichment values for geochemical samples

	Stream Sediment Samples					Bedrock Geochemical Samples			
Element	Au	Ag	As	Cu	Hg	Au	As	Cu	Hg
Background	0.007	0.9	9.0	90	0.16	0.008	10.0	40.0	0.2
Enrichment over crustal average*	1 X	13 X	5 X	1.6 X	2 X	1 X	5.5 X	0.7 X	2.5 X
Threshold (ppm)	0.09	1.5	120	250	0.9	0.18	90	300	0.6

*Crustal averages taken from Taylor (1964) and Jones (1968).

Correlation of Elements

and

Selection of Pathfinder Elements

One of the principal objectives of geochemical work in the Clearwater Mountains was to establish an exploration model, applicable to the search for gold and copper lodes within the belt of rocks examined in this study. An important part of the model construction was the determination of pathfinder elements associated with the economic metals.

Toward this objective, standard product-moment correlation coefficients were computed between all pairs in the 30 elements analyzed---as a means of examining intrasample element associations. This was done for both stream-sediment data and bedrock analyses. For the stream-sediment data, the more sensitive wet chemical analyses on gold, silver, copper, and arsenic were substituted for spectrographic results before correlating. Similarly for the bedrock data, gold and arsenic determinations by wet chemical methods replace the spectrographic data. Mercury determined by instrumental techniques is added for both sample media. In both cases, this provides a total of 30 elements for correlation computations.

Correlation coefficients between element pairs vary between -1 and +1. A +1 signifies a perfect positive correlation and -1 a perfect negative correlation. Absence of correlation is indicated by zero. A tabular summary of coefficients and of the number of paris used in the computation is provided in tables 2 and 3. No qualified values (e.g., L-less than, or G-greater than) from the analytical data were utilized in the computations. As a consequence, some coefficients are based on a very few samples that contain both elements in question. Obviously a very high correlation

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS

		1 FE PCT	2 MG PCT	3 CA PCT	4 TI PCT	5 MN PPM	6 AG PPM	7 B PPM	8 BA PPM	9 BE PPM	10 BI PPM
1	FE PCT	0.0	0.57729	0.08554	0.72906	0.51963	0.17567	-0.12793	0.26393	0.03302	0.0
2	MG PCT	633.	0.0	0.32118	0.54062	0.35453	-0.02688	-0.13591	0.18581	-0.28262	-0.03398
3	CA PCT	608.	608.	0.0	-0.02663	0.35285	0.06195	-0.06533	-0.09637	-0.19006	0.75299
4	TI PCT	629.	625.	600.	0.0	0.36476	0.07473	-0.14681	0.29801	-0.13678	0.02994
5	MN PPM	639.	632.	607.	628.	0.0	0.17480	-0.11038	0.12367	0.15553	0.21368
6	AG PPM	121.	122.	113.	120.	122.	0.0	-0.04961	-0.07944	0.32017	0.76566
7	B PPM	449.	450.	438.	445.	450.	86.	0.0	-0.08936	-0.00208	-0.28116
8	BA PPM	559.	561.	541.	552.	558.	104.	406.	0.0	0.12577	-0.16572
9	BE PPM	97.	98.	96.	96.	96.	30.	85.	98.	0.0	0.13245
10	BI PPM	10.	10.	9.	10.	10.	10.	5.	7.	4.	0.0
11	CO PPM	538.	538.	524.	532.	538.	103.	417.	485.	90.	7.
12	CR PPM	510.	510.	494.	504.	510.	84.	412.	459.	77.	5.
13	CU PPM	567.	566.	542.	560.	567.	115.	427.	511.	91.	10.
14	LA PPM	226.	227.	222.	222.	226.	24.	186.	226.	18.	0.
15	MO PPM	128.	130.	121.	127.	128.	62.	91.	129.	43.	5.
16	NB PPM	231.	233.	224.	230.	231.	78.	175.	188.	72.	5.
17	NI PPM	569.	568.	551.	561.	569.	112.	431.	505.	90.	9.
18	PB PPM	170.	171.	167.	169.	170.	53.	132.	163.	47.	9.
19	SB PPM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	SC PPM	544.	546.	537.	537.	544.	96.	433.	495.	92.	7.
21	SN PPM	4.	4.	4.	4.	4.	0.	3.	4.	0.	0.
22	SR PPM	535.	536.	529.	529.	533.	93.	409.	493.	95.	8.
23	V PPM	616.	615.	594.	606.	615.	121.	450.	553.	98.	10.
24	W PPM	2.	2.	2.	2.	2.	2.	2.	2.	1.	1.
25	Y PPM	543.	545.	534.	538.	542.	102.	431.	495.	94.	7.
26	ZN PPM	31.	31.	31.	31.	31.	16.	26.	30.	16.	3.
27	ZR PPM	570.	571.	557.	563.	571.	111.	438.	518.	95.	7.
28	AU PPM	198.	198.	184.	197.	198.	90.	136.	190.	59.	9.
29	AS PPM	368.	368.	354.	365.	369.	87.	291.	322.	68.	9.
30	HG PPM	558.	553.	530.	548.	557.	104.	392.	491.	73.	10.

Table 2: Bedrock sample correlation data.

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS - CONTINUED

		11 CO PPM	12 CR PPM	13 CU PPM	14 LA PPM	15 MO PPM	16 NB PPM	17 NI PPM	18 PB PPM	19 SB PPM	20 SC PPM
1	FE PCT	0.52326	0.39449	0.13425	0.29168	-0.11064	-0.06935	0.54480	-0.10336	********	0.52605
2	MG PCT	0.23014	0.52671	0.04334	0.14099	-0.19451	-0.21245	0.46452	-0.16712	********	0.60608
3	CA PCT	0.01239	0.18198	0.02043	-0.01699	0.07362	-0.23018	0.14715	0.11250	********	0.14708
4	TI PCT	0.37793	0.38906	0.09666	0.36785	-0.19128	-0.09339	0.49830	-0.16496	********	0.57169
5	MN PPM	0.38663	0.11203	0.04896	0.30248	0.00998	0.20451	0.24420	-0.00857	********	0.20427
6	AG PPM	0.28959	0.01778	0.24170	-0.14116	-0.10740	-0.06538	0.05582	0.48613	********	0.19001
7	B PPM	-0.09459	-0.10882	-0.03914	-0.04849	0.00942	-0.03197	-0.11738	0.03299	********	-0.09325
8	BA PPM	0.13701	0.16262	-0.06519	0.47630	-0.07109	0.16495	0.20737	-0.09427	********	0.18929
9	BE PPM	-0.02307	-0.22697	0.05715	-0.11149	0.57241	-0.00041	-0.16781	0.02814	********	-0.26226
10	BI PPM	0.79795	0.07538	0.37882	********	-0.39256	-0.18464	-0.11471	0.68192	********	0.40544
11	CO PPM	0.0	0.24470	0.11783	0.08237	-0.09361	-0.01330	0.45464	0.24656	********	0.30478
12	CR PPM	471.	0.0	0.12122	0.08348	-0.21222	-0.30368	0.65428	-0.10946	********	0.51466
13	CU PPM	508.	475.	0.0	0.04948	-0.07813	-0.07516	0.13772	0.05401	********	0.13296
14	LA PPM	214.	201.	214.	0.0	-0.11299	0.33318	0.22058	0.51786	********	0.09775
15	MO PPM	112.	99.	126.	18.	0.0	-0.04215	-0.19530	-0.04775	********	-0.30872
16	NB PPM	209.	187.	215.	29.	88.	0.0	-0.29381	-0.06326	********	-0.25412
17	NI PPM	513.	486.	521.	209.	119.	206.	0.0	-0.07558	********	0.47555
18	PB PPM	154.	143.	158.	71.	38.	69.	154.	0.0	********	-0.12864
19	SB PPM	0.	0.	0.	0.	0.	0.	0.	0.	0.0	********
20	SC PPM	503.	480.	507.	222.	102.	207.	509.	160.	0.	0.0
21	SN PPM	3.	2.	4.	2.	0.	0.	2.	2.	0.	4.
22	SR PPM	486.	454.	497.	226.	100.	195.	492.	162.	0.	507.
23	V PPM	537.	511.	561.	227.	127.	233.	561.	170.	0.	546.
24	W PPM	2.	2.	2.	0.	1.	2.	2.	1.	0.	2.
25	Y PPM	499.	475.	513.	224.	109.	216.	506.	165.	0.	526.
26	ZN PPM	29.	25.	31.	3.	15.	25.	30.	21.	0.	29.
27	ZR PPM	515.	490.	532.	225.	116.	222.	529.	160.	0.	531.
28	AU PPM	169.	147.	187.	37.	92.	124.	168.	62.	0.	155.
29	AS PPM	326.	312.	342.	131.	78.	142.	339.	104.	0.	327.
30	HG PPM	465.	437.	492.	219.	111.	196.	492.	142.	0.	474.

Table 2 - continued

AKRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS - CONTINUED

		21 SN PPM	22 SR PPM	23 V PPM	24 W PPM	25 Y PPM	26 ZN PPM	27 ZR PPM	28 AU PPM	29 AS PPM	30 HG PPM
1	FE PCT	-0.16330	-0.02710	0.62972	-1.00000	0.33812	0.63720	0.22746	0.17189	0.28477	0.13186
2	MG PCT	-0.27941	0.08038	0.55797	1.00000	0.16525	-0.26757	0.12838	-0.19340	-0.13503	-0.04557
3	CA PCT	-0.10937	0.29418	0.04584	-1.00000	0.09814	-0.16131	-0.20340	-0.03806	-0.12539	-0.00673
4	TI PCT	0.65320	-0.03604	0.71878	-1.00000	0.38418	0.16699	0.37053	0.01045	0.07538	0.04995
5	MN PPM	0.24188	0.11380	0.33876	-1.00000	0.32542	0.65108	0.11871	0.08997	0.33565	0.21871
6	AG PPM	********	0.05209	0.05746	-1.00000	0.13503	0.51983	0.01061	0.66843	0.29874	0.27063
7	B PPM	-0.99340	-0.04967	-0.11090	-1.00000	-0.00999	-0.00737	-0.07267	0.01088	0.08967	-0.03548
8	BA PPM	0.90844	0.11998	0.32069	********	0.15900	0.17858	0.43487	0.03333	0.09921	0.00335
9	BE PPM	********	-0.03135	-0.18656	********	0.69320	0.56957	0.19100	0.13137	0.10301	0.10249
10	BI PPM	********	0.86789	-0.11023	********	0.18181	0.76322	0.34896	0.31552	0.05890	0.09007
11	CO PPM	-0.99340	-0.05708	0.29703	-1.00000	0.16402	0.63720	0.02174	0.36915	0.33168	0.15634
12	CR PPM	1.00000	0.04879	0.39893	********	0.05289	-0.29894	0.08565	-0.14721	-0.13200	-0.06014
13	CU PPM	0.98000	-0.00163	0.07631	1.00000	0.06055	-0.06990	-0.05466	-0.01338	0.06181	-0.01296
14	LA PPM	********	0.31509	0.26816	********	0.24062	0.0	0.34347	0.08707	0.02607	-0.05544
15	MO PPM	********	-0.05049	-0.13554	********	0.19451	-0.39755	-0.18001	-0.06465	-0.09088	-0.11911
16	NB PPM	********	0.23878	-0.08788	********	0.02483	0.29537	0.29360	0.03347	0.16662	0.06972
17	NI PPM	1.00000	-0.08720	0.45342	-1.00000	0.12206	-0.27732	0.07187	-0.04223	-0.06929	-0.03197
18	PB PPM	1.00000	-0.06308	-0.20716	********	-0.03543	0.24119	-0.10512	0.26306	0.22738	0.07172
19	SB PPM	********	********	********	********	********	********	********	********	********	********
20	SC PPM	0.48990	0.08749	0.71259	1.00000	0.22372	-0.30395	0.12959	-0.12259	-0.14049	-0.07887
21	SN PPM	0.0	0.59976	0.20000	********	0.48990	********	0.32660	********	********	-0.12080
22	SR PPM	4.	0.0	0.06287	********	0.06991	0.05831	0.05215	-0.08373	-0.08482	-0.03557
23	V PPM	4.	534.	0.0	********	0.29174	-0.20485	0.23299	-0.10316	-0.06276	-0.01424
24	W PPM	0.	1.	2.	0.0	-1.00000	********	********	-1.00000	-1.00000	********
25	Y PPM	4.	510.	545.	2.	0.0	0.31128	0.31237	0.19189	0.10658	0.08409
26	ZN PPM	0.	28.	30.	1.	30.	0.0	0.56836	0.46122	0.78300	0.90333
27	ZR PPM	4.	512.	571.	1.	526.	29.	0.0	0.13413	0.21915	0.14930
28	AU PPM	0.	157.	198.	2.	162.	19.	176.	0.0	0.56805	0.42950
29	AS PPM	0.	312.	362.	2.	328.	22.	338.	140.	0.0	0.64160
30	HG PPM	4.	465.	535.	1.	473.	26.	494.	172.	325.	0.0

Table 2 - continued

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS

		1 FE PCT	2 MG PCT	3 CA PCT	4 TI PCT	5 MN PPM	6 B PPM	7 BA PPM	8 BE PPM	9 BI PPM	10 CO PPM
1	FE PCT	0.0	0.28847	0.51792	0.33409	0.46366	-0.08126	-0.19580	-0.34134	********	0.48681
2	MG PCT	215.	0.0	0.40100	0.15757	0.16143	-0.17028	0.09532	-0.36931	********	0.24975
3	CA PCT	215.	216.	0.0	0.30290	0.28494	-0.32533	-0.26065	-0.26981	********	0.26164
4	TI PCT	213.	214.	214.	0.0	0.21711	-0.06386	-0.15687	0.03811	********	0.16633
5	MN PPM	214.	215.	215.	213.	0.0	-0.07136	0.07280	0.04674	********	0.39034
6	B PPM	196.	197.	197.	195.	196.	0.0	0.12737	0.0	********	0.05613
7	BA PPM	215.	216.	216.	214.	215.	197.	0.0	-0.35304	********	0.10803
8	BE PPM	33.	33.	33.	33.	33.	31.	33.	0.0	********	********
9	BI PPM	0.	0.	0.	0.	0.	0.	0.	0.0	0.0	********
10	CO PPM	213.	214.	214.	212.	213.	196.	214.	32.	0.	0.0
11	CR PPM	215.	216.	216.	214.	215.	197.	216.	33.	0.	214.
12	LA PPM	186.	187.	187.	185.	187.	172.	187.	33.	0.	185.
13	MO PPM	12.	12.	12.	12.	12.	12.	12.	4.	0.	12.
14	NB PPM	63.	64.	64.	62.	63.	57.	64.	16.	0.	64.
15	NI PPM	215.	216.	216.	214.	215.	197.	216.	33.	0.	214.
16	PB PPM	200.	201.	201.	201.	201.	183.	201.	33.	0.	199.
17	SB PPM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	SC PPM	215.	216.	216.	214.	215.	197.	216.	33.	0.	214.
19	SN PPM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	SR PPM	214.	215.	215.	213.	214.	197.	215.	32.	0.	214.
21	V PPM	215.	216.	216.	214.	215.	197.	216.	33.	0.	214.
22	W PPM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	Y PPM	214.	215.	215.	213.	214.	197.	215.	32.	0.	214.
24	ZN PPM	1.	1.	1.	1.	1.	1.	1.	0.	0.	1.
25	ZR PPM	215.	216.	216.	214.	215.	197.	216.	33.	0.	214.
26	AU PPM	51.	52.	52.	51.	51.	50.	52.	9.	0.	51.
27	AG PPM	189.	190.	190.	190.	190.	174.	190.	32.	0.	188.
28	CU PPM	214.	215.	215.	213.	214.	196.	215.	33.	0.	213.
29	AS PPM	94.	95.	95.	95.	95.	94.	95.	15.	0.	93.
30	HG PPM	214.	215.	215.	213.	214.	196.	215.	33.	0.	213.

Table 3: Stream-sediment sample correlation data.

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS - CONTINUED

		11 CR PPM	12 LA PPM	13 MO PPM	14 NB PPM	15 NI PPM	16 PB PPM	17 SB PPM	18 SC PPM	19 SN PPM	20 SR PPM
1	FE PCT	0.11082	-0.08101	-0.15646	0.04365	0.19438	-0.11452	********	0.43046	********	0.04995
2	MG PCT	0.41308	-0.01714	-0.26038	0.19034	0.23724	-0.22066	********	0.26640	********	0.19411
3	CA PCT	0.20820	-0.03296	-0.28093	0.18270	0.11215	-0.19802	********	0.37707	********	0.18317
4	TI PCT	0.04342	0.00242	0.29407	0.20399	0.15011	-0.02835	********	0.14926	********	-0.04288
5	MN PPM	0.15512	0.08489	-0.28313	0.06069	0.28405	-0.04319	********	0.37804	********	0.18240
6	B PPM	-0.16460	-0.08072	0.19461	0.22585	-0.03160	0.11656	********	-0.04995	********	-0.11137
7	BA PPM	0.06334	0.22613	0.43125	-0.03910	0.11603	-0.06852	********	-0.06704	********	0.30335
8	BE PPM	-0.27910	0.66591	********	********	0.61808	0.98875	********	0.19655	********	********
9	BI PPM	********	********	********	********	********	********	********	********	********	********
10	CO PPM	0.29354	-0.15022	-0.12745	0.02701	0.49504	0.03087	********	0.50762	********	0.01248
11	CR PPM	0.0	-0.07219	-0.20721	-0.13301	0.66718	-0.02653	********	0.35590	********	-0.10353
12	LA PPM	187.	0.0	0.01564	0.08681	0.15150	0.42565	********	-0.02250	********	0.24399
13	MO PPM	12.	12.	0.0	0.0	-0.13016	-0.12999	********	-0.27014	********	-0.09313
14	NB PPM	64.	57.	4.	0.0	-0.15359	0.01198	********	-0.00517	********	0.21959
15	NI PPM	216.	187.	12.	64.	0.0	0.27013	********	0.34306	********	-0.18895
16	PB PPM	201.	178.	12.	58.	201.	0.0	********	0.02245	********	-0.14352
17	SB PPM	0.	0.	0.	0.	0.	0.	0.0	********	********	********
18	SC PPM	216.	187.	12.	64.	216.	201.	0.	0.0	********	0.19574
19	SN PPM	0.	0.	0.	0.	0.	0.	0.	0.	0.0	********
20	SR PPM	215.	186.	12.	64.	215.	200.	0.	215.	0.	0.0
21	V PPM	216.	187.	12.	64.	216.	201.	0.	216.	0.	215.
22	W PPM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	Y PPM	215.	186.	12.	64.	215.	200.	0.	215.	0.	215.
24	ZN PPM	1.	1.	1.	1.	1.	1.	0.	1.	0.	1.
25	ZR PPM	216.	187.	12.	64.	216.	201.	0.	216.	0.	215.
26	AU PPM	52.	47.	4.	18.	52.	49.	0.	52.	0.	51.
27	AG PPM	190.	176.	12.	51.	190.	182.	0.	190.	0.	189.
28	CU PPM	215.	187.	12.	64.	215.	200.	0.	215.	0.	214.
29	AS PPM	95.	88.	10.	21.	95.	91.	0.	95.	0.	94.
30	HG PPM	215.	187.	12.	64.	215.	200.	0.	215.	0.	214.

Table 3 - continued

ARRAY OF NUMBER OF PAIRS AND CORRELATION COEFFICIENTS - CONTINUED

		21 V PPM	22 W PPM	23 Y PPM	24 ZN PPM	25 ZR PPM	26 AU PPM	27 AG PPM	28 CU PPM	29 AS PPM	30 HG PPM
1	FE PCT	0.60312	********	0.31849	********	0.02147	0.03219	0.20218	0.17952	0.22411	-0.06083
2	MG PCT	0.23074	********	0.11827	********	-0.00298	0.13476	-0.07413	0.05863	0.06077	-0.12958
3	CA PCT	0.42711	********	0.15789	********	-0.02421	-0.01159	0.08007	-0.02007	0.06363	-0.04501
4	TI PCT	0.21752	********	0.16405	********	0.11142	0.22163	0.19910	0.09006	0.20141	-0.08315
5	MN PPM	0.30213	********	0.45595	********	0.08690	0.03363	0.06026	0.20660	0.05793	-0.05968
6	B PPM	-0.06648	********	0.00195	********	0.10044	0.31164	0.08698	-0.06173	-0.03058	0.12716
7	BA PPM	-0.16125	********	0.04535	********	0.11348	-0.19877	-0.20910	-0.04598	-0.20355	-0.06737
8	BE PPM	-0.49473	********	********	********	-0.04955	0.0	-0.10104	-0.04789	-0.28043	-0.06762
9	BI PPM	********	********	********	********	********	********	********	********	********	********
10	CO PPM	0.51029	********	0.15226	********	-0.04583	-0.21929	0.42329	0.20593	0.10248	0.03413
11	CR PPM	0.11214	********	0.05342	********	-0.08703	-0.18899	0.26932	0.18496	-0.05641	0.08890
12	LA PPM	-0.14175	********	0.08915	********	0.12397	0.02772	-0.27904	-0.09021	-0.02002	-0.07337
13	MO PPM	0.43552	********	0.51357	********	0.40811	0.87039	-0.20081	-0.52644	0.46194	0.32183
14	NB PPM	0.05491	********	-0.02092	********	-0.01527	0.69823	-0.11314	0.06129	0.31508	-0.05891
15	NI PPM	0.16939	********	0.05453	********	0.05769	-0.14778	0.39805	0.29213	-0.01048	-0.03104
16	PB PPM	-0.14181	********	-0.12289	********	-0.01267	-0.08349	0.06790	-0.00703	-0.06776	0.01339
17	SB PPM	********	********	********	********	********	********	********	********	********	********
18	SC PPM	0.44348	********	0.39497	********	0.10088	0.00021	0.15732	0.12776	-0.00360	-0.00126
19	SN PPM	********	********	********	********	********	********	********	********	********	********
20	SR PPM	0.05900	********	-0.05783	********	0.04990	0.09161	-0.51489	-0.17353	-0.05348	-0.01089
21	V PPM	0.0	********	0.14355	********	0.01840	-0.06281	0.21055	0.15051	0.11095	-0.02131
22	W PPM	0.	0.0	********	********	********	********	********	********	********	********
23	Y PPM	215.	0.	0.0	********	0.21794	0.09724	-0.02831	0.11460	-0.04877	-0.06988
24	ZN PPM	1.	0.	1.	0.0	********	********	********	********	********	********
25	ZR PPM	216.	0.	215.	1.	0.0	0.20923	-0.06987	0.03214	-0.02567	-0.08089
26	AU PPM	52.	0.	51.	0.	52.	0.0	-0.16524	-0.07275	0.34304	-0.06602
27	AG PPM	190.	0.	189.	1.	190.	46.	0.0	0.35526	0.02957	0.18599
28	CU PPM	215.	0.	214.	1.	215.	52.	190.	0.0	-0.01563	0.01618
29	AS PPM	95.	0.	94.	1.	95.	37.	94.	95.	0.0	0.05482
30	HG PPM	215.	0.	214.	1.	215.	52.	190.	215.	95.	0.0

Table 3 - continued

computed from very few pairs has a low statistical significance. For the purpose of this study, the author has arbitrarily selected coefficients of +0.25 or higher as meaningful. Given this level of correlation, 25 or more pairs are considered minimal for stream sediments and 75 or more for bedrock samples in computing meaningful associations.

Tables 2 and 3 are read by locating the coordinate between element pairs of interest and noting the coefficient value above the lined diagonal. Once the coefficient is noted, the number of samples used in its computation is found by locating the conjugate coordinate for the same elements, but below the diagonal. For example in table 3, page 23, under column 26 (gold), a correlation of 0.31 with row 6 (boron) is noted. Considering the conjugate coordinate, under column 6 (boron) on page 21 and at row 26 (gold), one notes that 50 samples contained unqualified values of boron and gold. Various correlation coefficients between selected trace elements important to this investigation are underlined in tables 2 and 3.

For the bedrock sample data summarized in table 2, gold shows meaningful correlation with silver (0.67), arsenic (0.57), and mercury (0.43). Silver is correlative with cobalt (0.29) and arsenic (0.30). Copper shows no strong association with any trace elements and has only a low correlation with silver.

Inspection of the stream-sediment correlations (table 3) shows that gold in this medium is associated with boron (0.31) and arsenic (0.34). To some degree, copper follows nickel (0.29) and silver (0.36). Silver shows definite mafic or ultramafic affiliations with cobalt (0.42), chromium (0.27), nickel (0.40), and copper.

These observations imply that arsenic and mercury should be useful

index elements for gold in bedrock sampling programs over this region, and that at least arsenic should be determined when exploring for gold by stream-sediment sampling. This geochemical association of gold with arsenic and mercury has also been reported for the disseminated gold deposits of eastern Nevada (Erickson and others, 1966, p. 1), except that there, antimony and tungsten show appreciable enrichment as well.

Silver exhibits little consistency of association between the two sample media. In bedrock samples it seems to follow the gold-associated elements, whereas in stream sediments it displays a typical ultramafic affiliation. It is probable that stream-sediment silver is largely silicate bound, while in bedrock samples it is predominantly in limonitic residue. The latter may effectively bypass the stream-sediment medium by solution transport.

The fact that copper in stream sediments follows nickel and silver suggests that the mafic elements may be potentially useful indicators for copper mineralization, particularly in stream draining the metavolcanic belt. Analysis for copper itself appears to be the best technique in limonitic materials collected from bedrock.

LOCATION AND ANOMALY MAPS OF SELECTED ELEMENTS

Stream Sediment Samples

The locations of all stream-sediment samples collected during the present study are shown on figure 4. Sample locations are numbered from left to right by section and vertically down the page. A single exception is sample 216 which is located near location 104. All location numbers correspond to sample or location numbers in Appendices I and II.

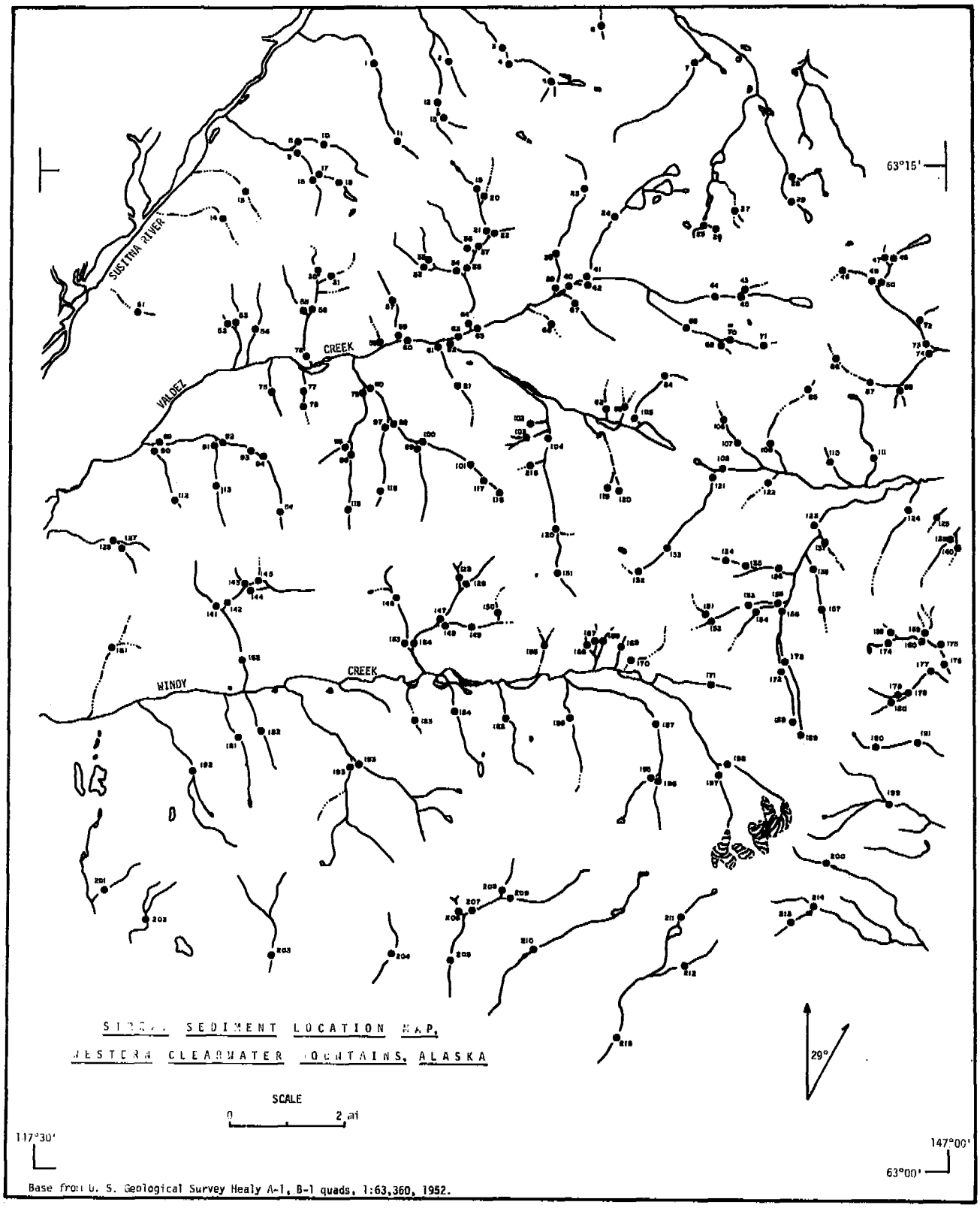


Figure 4. Map showing location of stream sediments collected in western Clearwater Mountains.

Figure 5 shows the locations of anomalous gold and copper in stream sediments over the region. Thresholds and anomalous value were determined by the method discussed in a previous section.

Gold anomalies are largely restricted to streams which have a history of placer activity. The strongest anomalies are confined to the Timberline Creek, White Creek, and Lucky Gulch drainages. Sample location numbers for these anomalous areas are 93, 80-98, and 61-81 respectively. The anomaly at location 58 is from a small creek draining an area of heavy tundra cover. No evidence of previous mining or exploration activity is present at this location. Other, less striking gold anomalies occur in the headwaters of Valdez Creek and south of Windy Creek.

Copper anomalies in stream-sediments are confined to an area near the headwaters of Windy Creek. Samples 151, 153, and 155 were collected from a small creek draining an area of active copper exploration. A comparison of figures 2 and 5 shows that most strong anomalies cluster along a major E-W trending fault zone. The anomalous sample in upper Windy Creek is similarly from a tributary draining a fault zone of comparable trend, but just south of the geologic map.

Regional Bedrock Geochemical Samples

Locations of most geochemical samples collected from bedrock outcrops in the present investigation are plotted on figure 6. The remaining bedrock samples are shown on later detailed prospect maps. In the same manner as was done for stream-sediments, samples are numbered from right to left and down the page of figure 6. All location numbers correspond to the sample and location numbers in Appendices III and IV. In addition to bedrock sample locations, the general areas of Timberline Creek and Black Creek are indicated, providing an index for detailed maps in later sections.

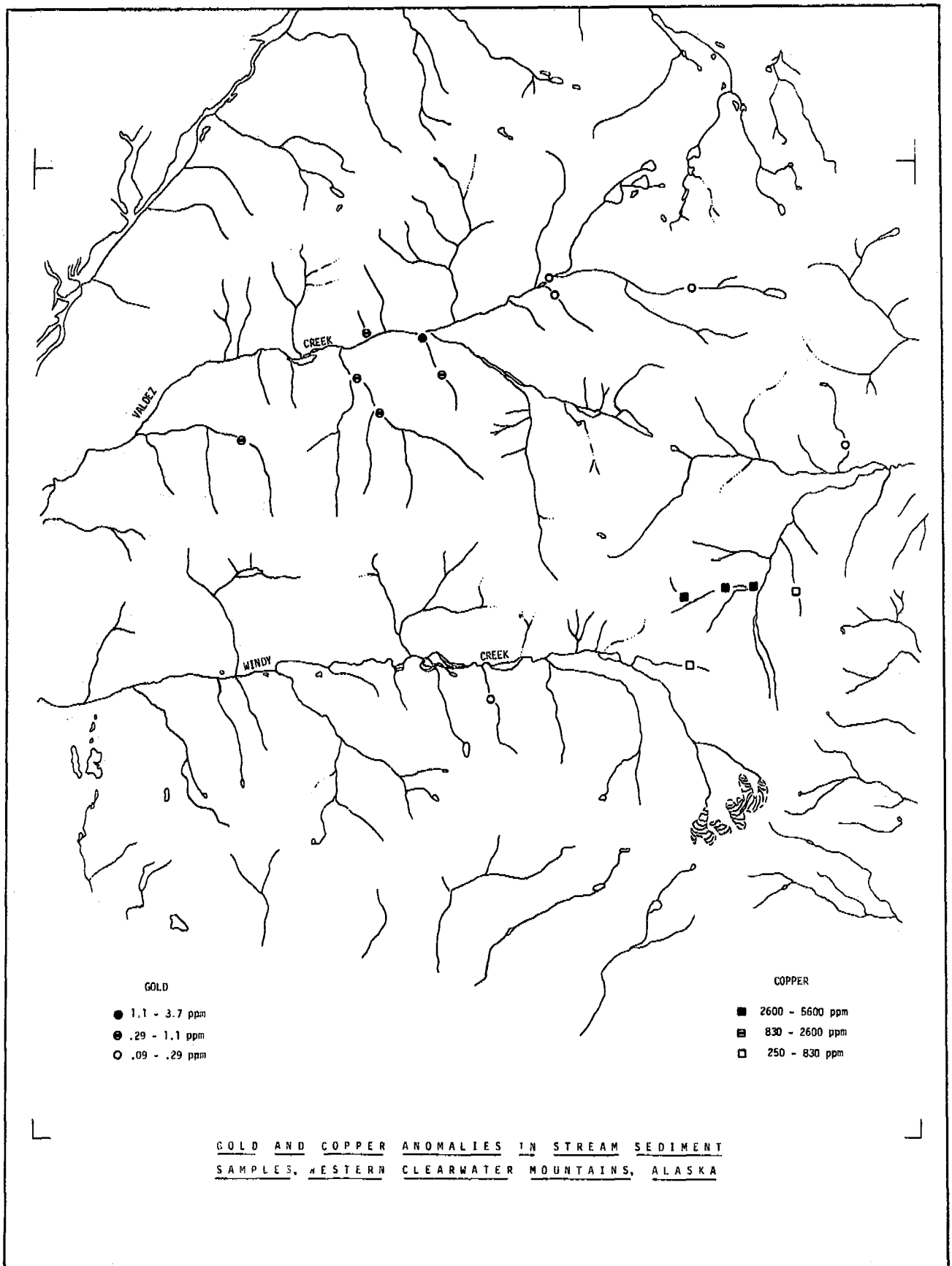


Figure 5. Map showing location of anomalous gold and copper in stream sediments.

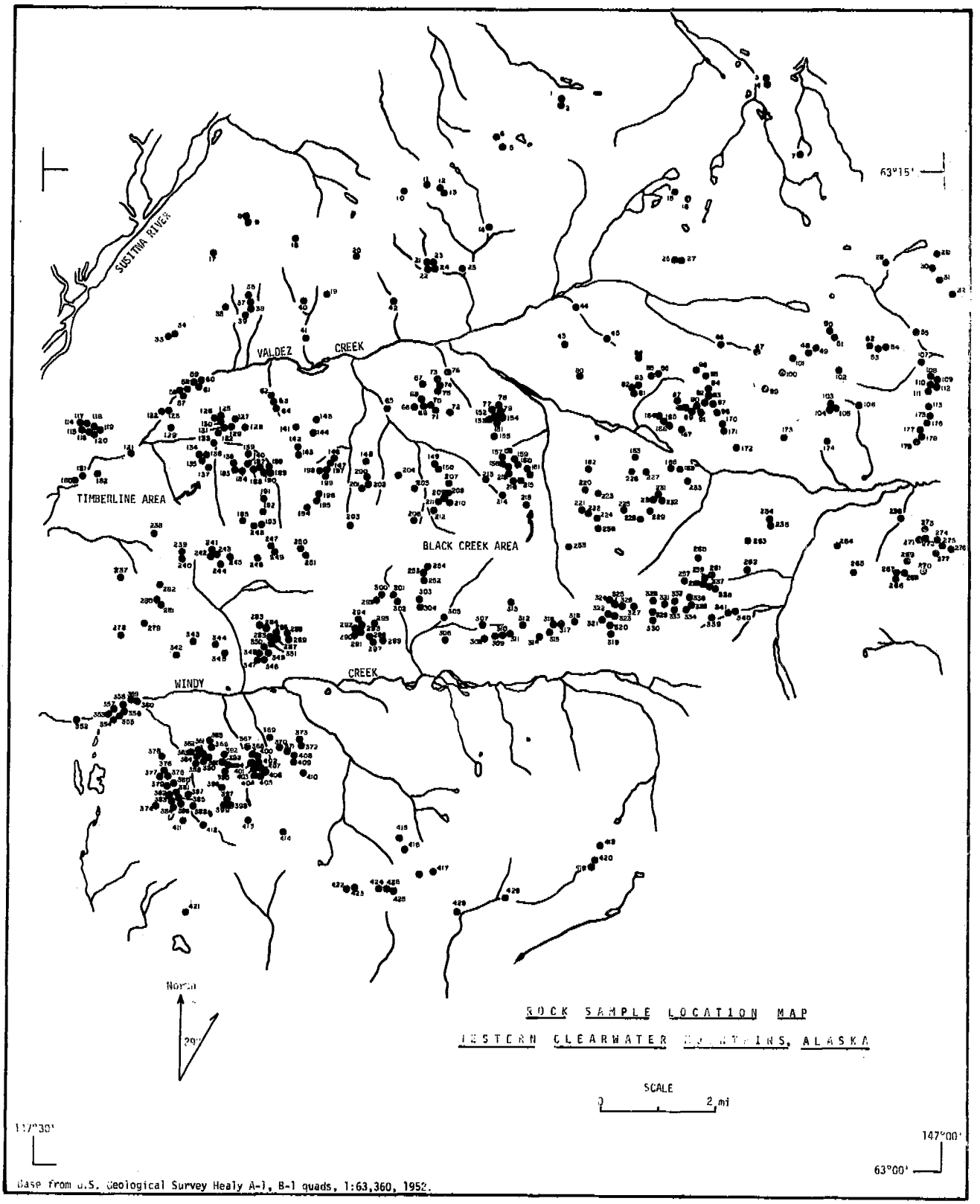


Figure 6. Map showing location of geochemical samples collected from bedrock in the western Clearwater Mountains.

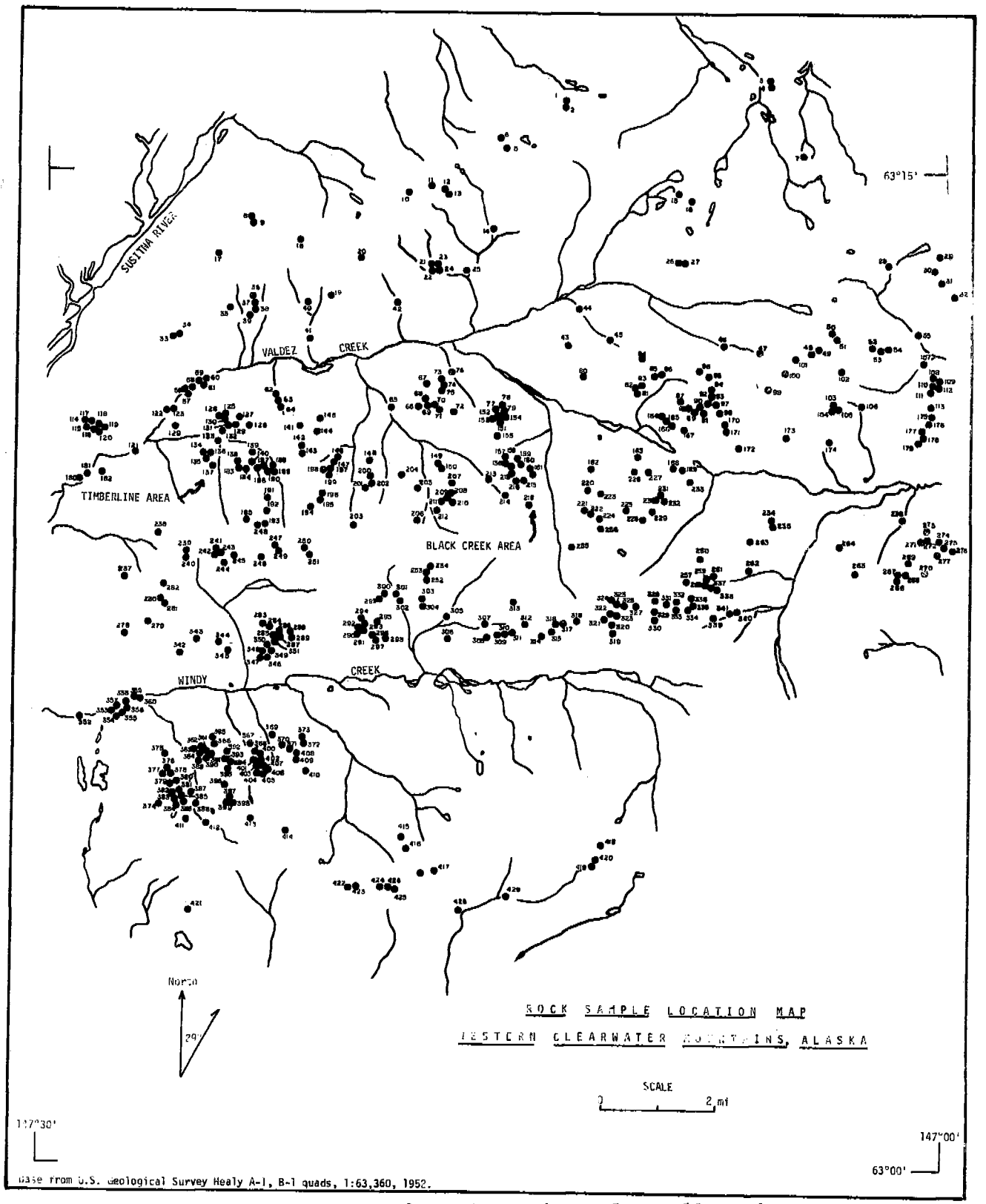


Figure 6. Map showing location of geochemical samples collected from bedrock in the western Clearwater Mountains.

The major clusters of gold anomalies shown on figure 7 are within the Timberline and Black Creek areas. Samples 67 and 74, located northwest of Black Creek, were collected from dike rock and quartz veins in shear zones crossing Lucky Gulch. A comparison of figures 2 and 7 shows that the Black Creek anomalies are spatially related to an intersection of two major faults. Anomalies in Timberline Creek samples are mostly in sheared argillite or schist and quartz-carbonate veins within the small intrusive exposed there. Much of the shear zone rock away from the quartz-diorite stock contains anomalous gold also. These local areas are shown in more detail in following sections.

Copper anomalies in bedrock sampleas are mostly restricted to shear zones in the metavolcanic rocks south of Windy Creek and to the Denali Prospect area near the headwaters of Windy Creek (figure 8). Several samples from gold prospects near Valdez Creek contained appreciable copper also.

Monoelemental anomaly maps of arsenic and mercury are shown in figures 9 and 10. A comparison of figures 7 and 9 illustrates spatial association of gold and arsenic; clusters of arsenic anomalies are present in the Timberline and Black Creek areas. In contrast, mercury anomalies (figure 10) appear to be concentrated in the area between centers of gold mineralization. The superposition of figures 7 and 10 outlines an E-W trending mineral belt about one mile wide and six miles long, and which shows a crude hypogene zonation along the belt, with mercury enrichment occurring between centers of gold concentration. The mineral belt roughly coincides with a complex system of shears and fractures trending approximately parallel to and south of Valdez Creek. A detailed distribution of faults and fractures in the gold centers is shown on Figures 11

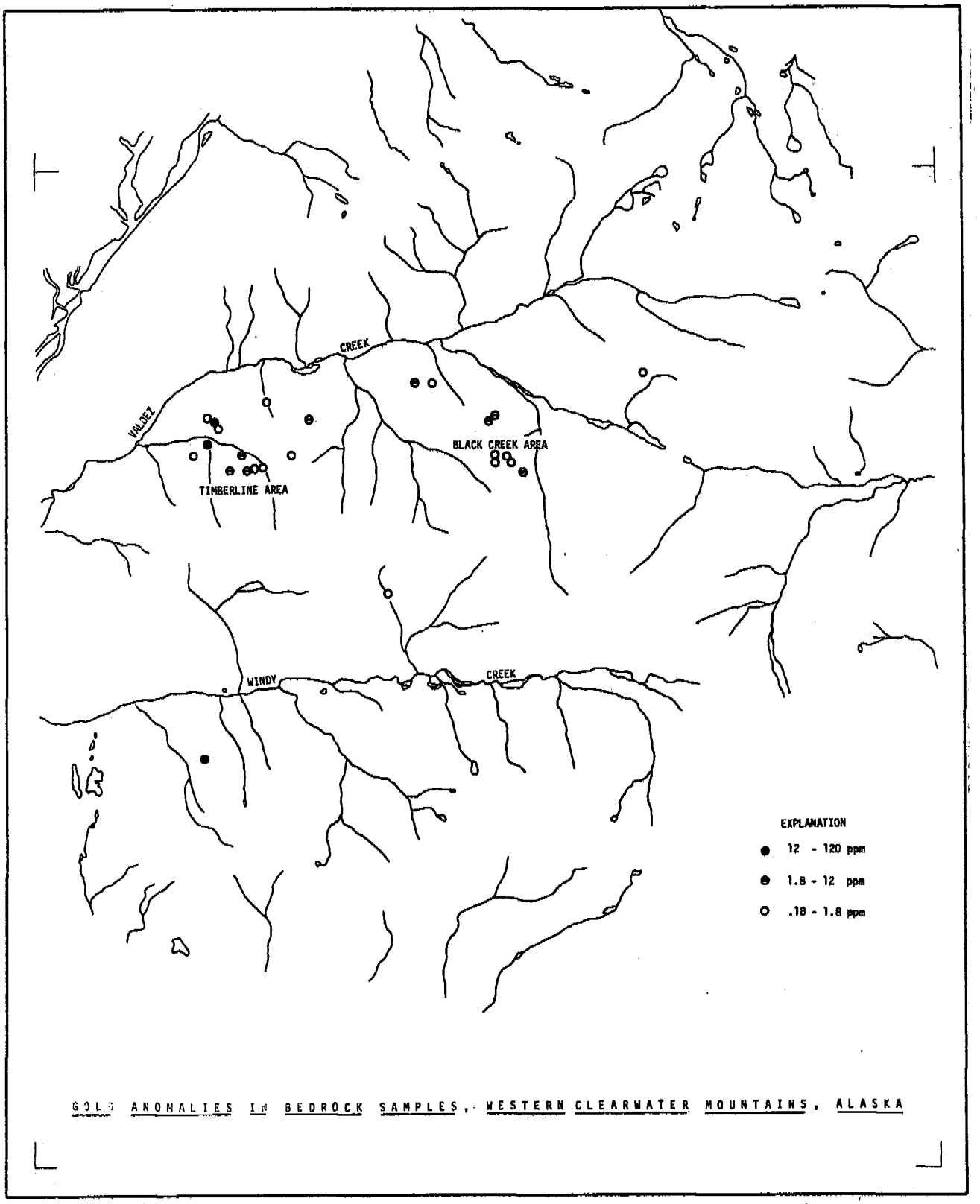


Figure 7. Map showing location of bedrock samples containing anomalous gold.

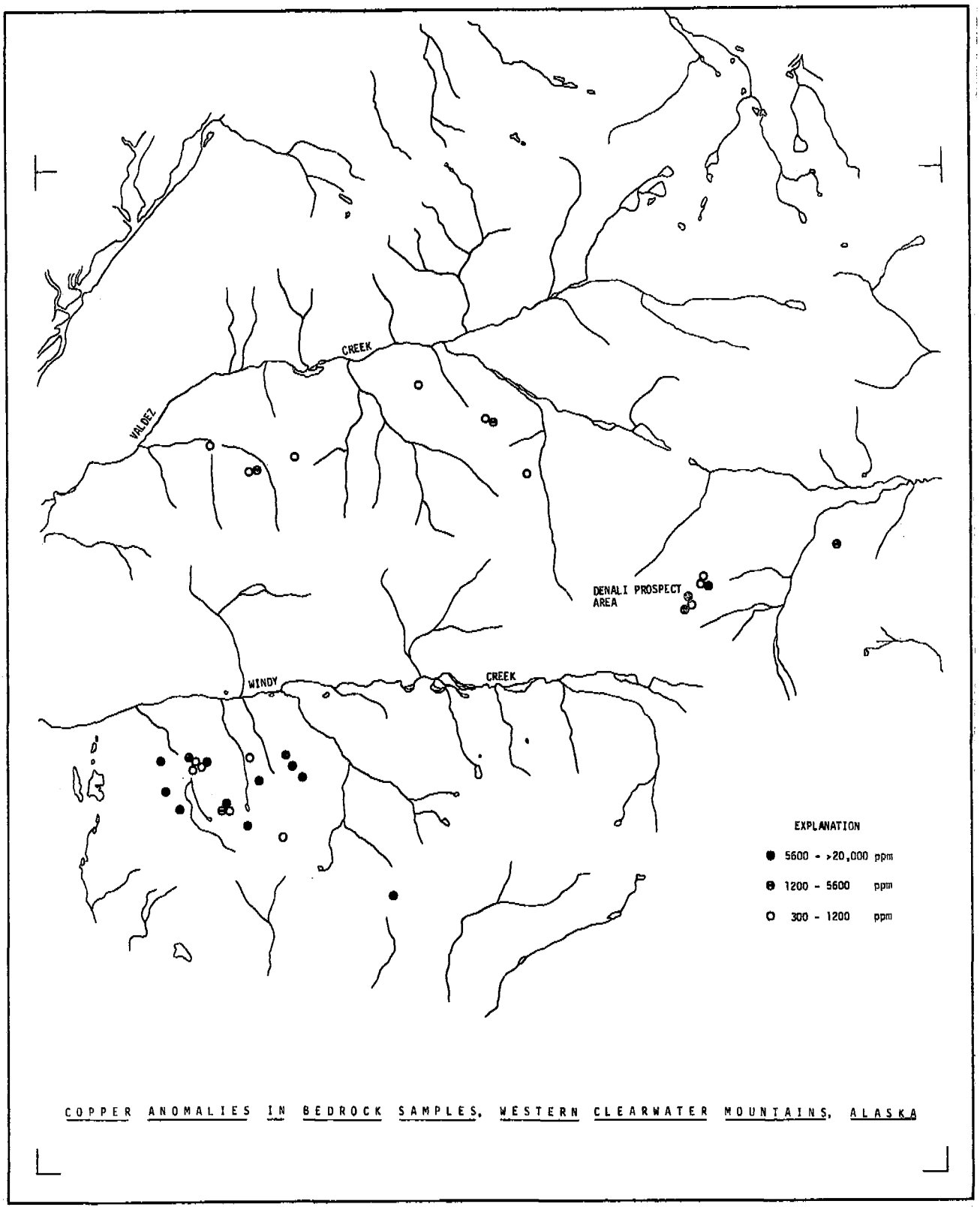


Figure 8. Map showing location of bedrock samples containing anomalous copper.

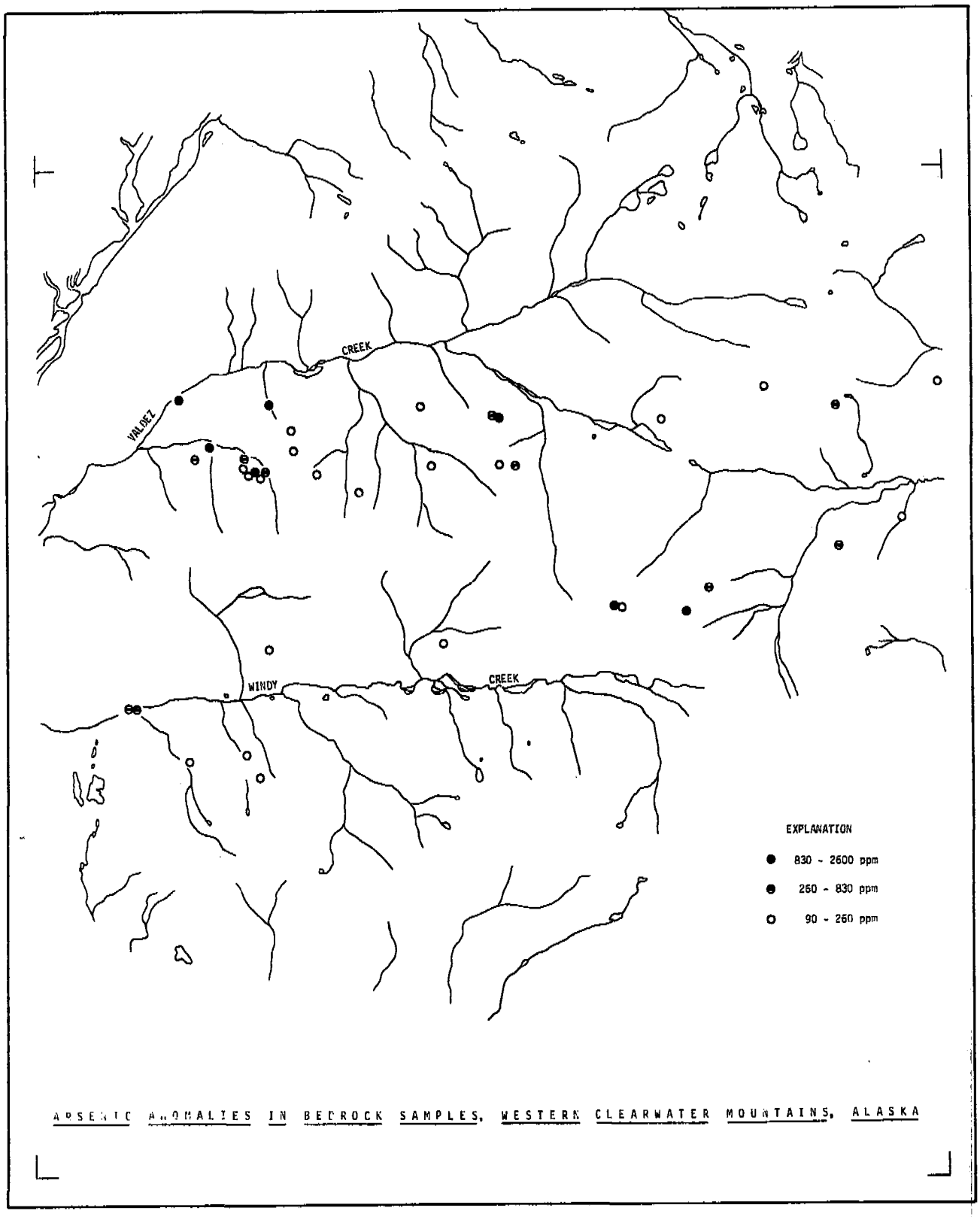


Figure 9. Map showing location of bedrock samples containing anomalous arsenic.

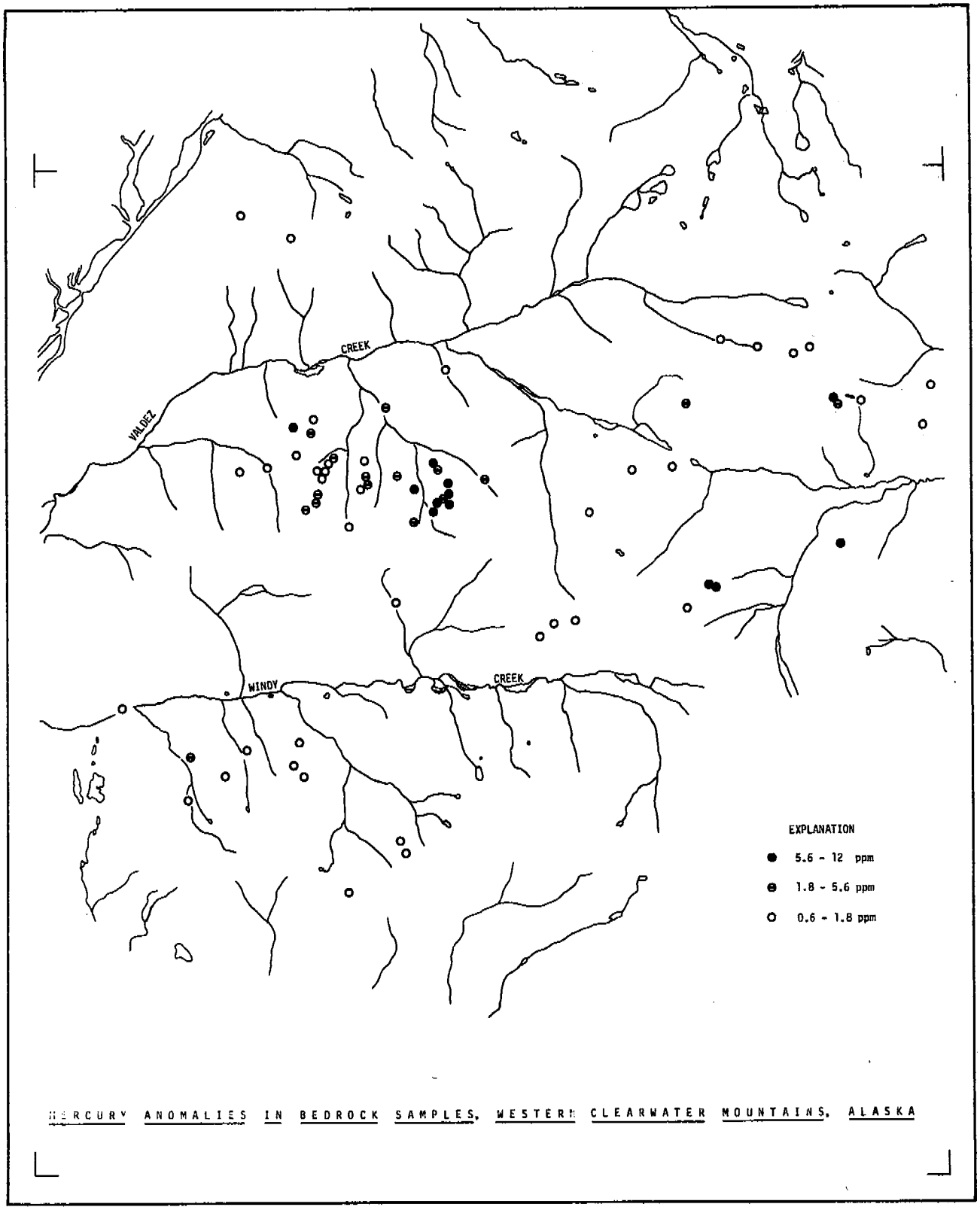


Figure 10. Map showing location of bedrock samples containing anomalous mercury.

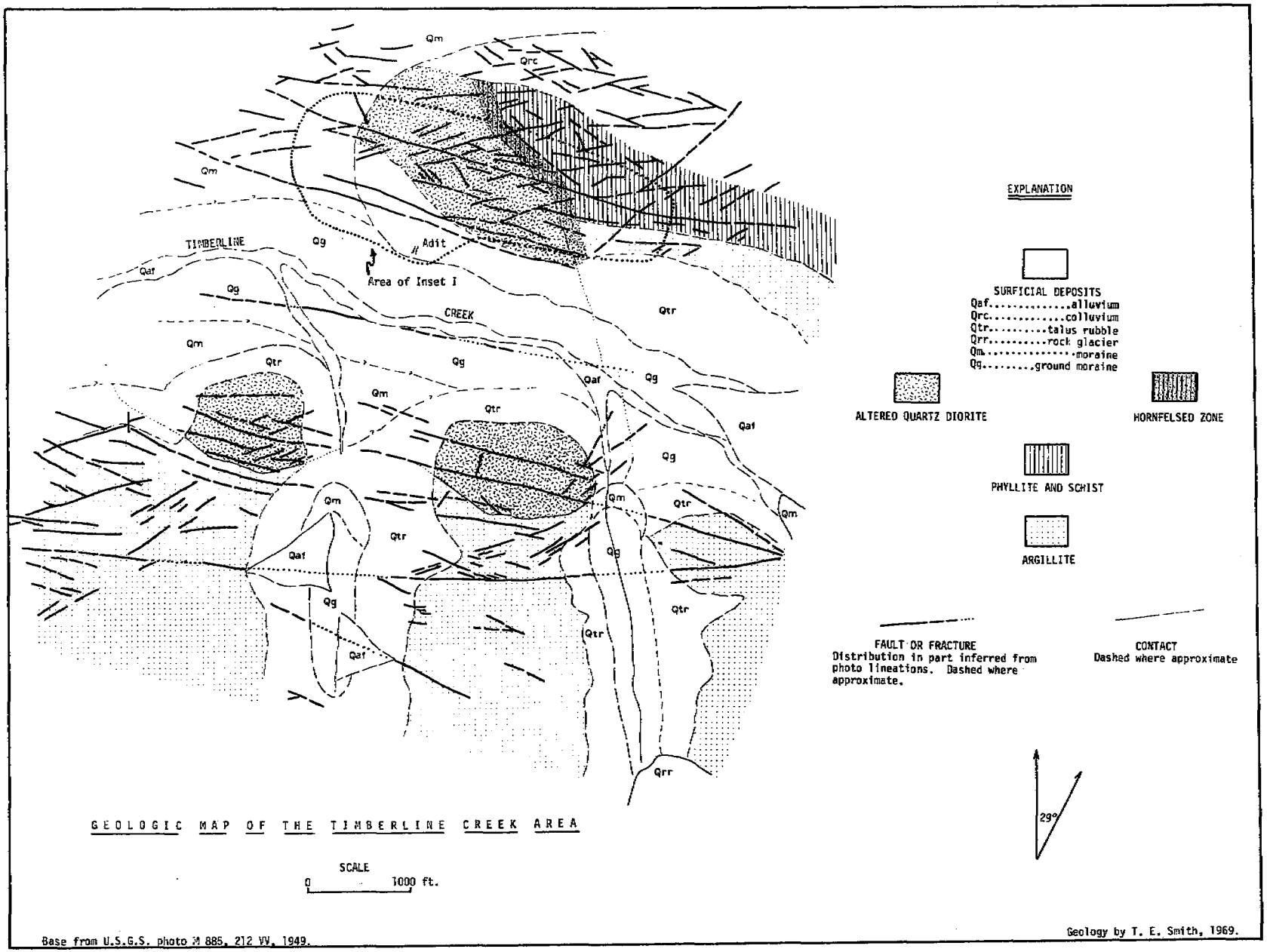


Figure 11. Geologic map of the Timberline Creek area. For general location see figure 6.

and 19. In addition to the obvious association of the mineral belt with fault structures, it is nearly coincident also with the core of a large anticline whose axis trends eastward from the abandoned town of Denali (figure 2). A further relationship of potential exploration significance is the coincidence of the mineral belt with the transitional boundary between strongly recrystallized schists on the north and weakly metamorphosed argillites on the south. This boundary and the anticlinal structure have probably provided a zone of mechanical discontinuity or weakness that focussed later fracturing and shearing. Locally, dilatant fractures in the intrusive rocks have been the most important sites of quartz-carbonate vein deposition, suggesting that the competent, but highly fractured stocks in shears and shear intersections have acted as central conduits for mineralizing solutions. This interpretation explains the prevalence of strong gold anomalies within the fractured stocks and the less intense, leakage(?) anomalies which extend out along shear zones away from the igneous rocks.

Timberline Creek Area

Figure 11 shows detailed geologic relationships in the Timberline Creek area, and in particular the density of faults and fractures important to the gold mineralization. Most throughgoing faults are of N.80°W. or E-W trend, whereas the conjugate fractures trend predominantly N.55°E. Offsets in the contact of the Timberline pluton north of the creek imply a component of left-lateral strike-slip displacement along the major faults. This sense of movement is indirectly supported by the prevalence of discontinuous quartz lodes in N.55°E. trending fractures conjugate to the main faults; fractures and joints of this trend would experience a dilation upon left lateral movement along the main faults.

The locations of geochemical samples taken near Timberline Creek are plotted on figure 12. Gold and arsenic anomalies corresponding to these locations are shown on figure 13 and 14 respectively. A detailed location map and corresponding gold-arsenic anomaly map of the ridge north of Timberline Creek are shown in figures 15 and 16.

The geology in the Timberline adit was also mapped during the sampling program and is shown in figure 17; typical relationships between the major shear zones and gold mineralization are illustrated by inspection of figures 17 and 18. Note particularly the coincidence of gold anomalies with the Big Caribou Fault zone.

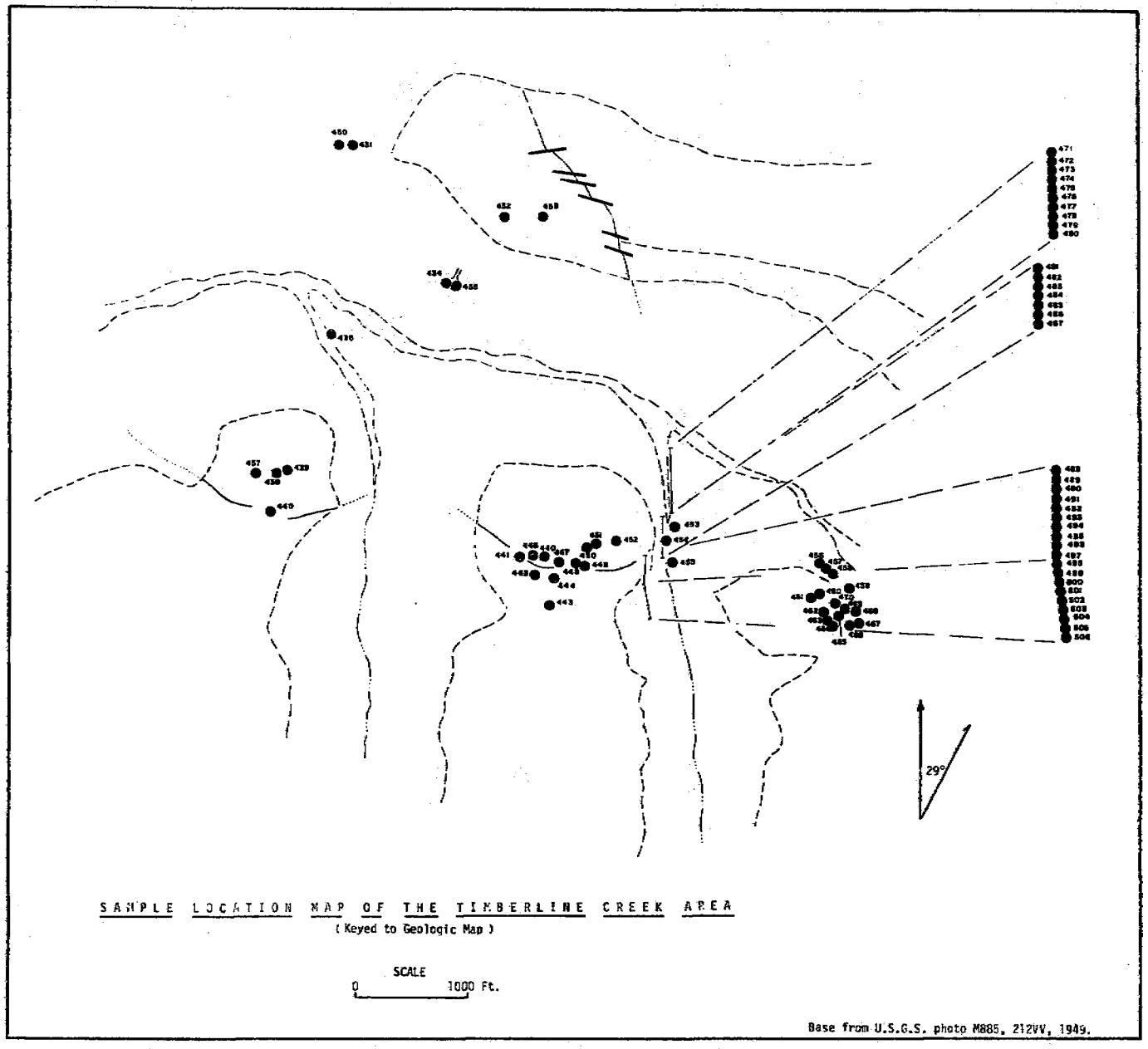


Figure 12. Map showing location of geochemical samples collected from bedrock in the Timberline Creek area. (Keyed to figure 11).

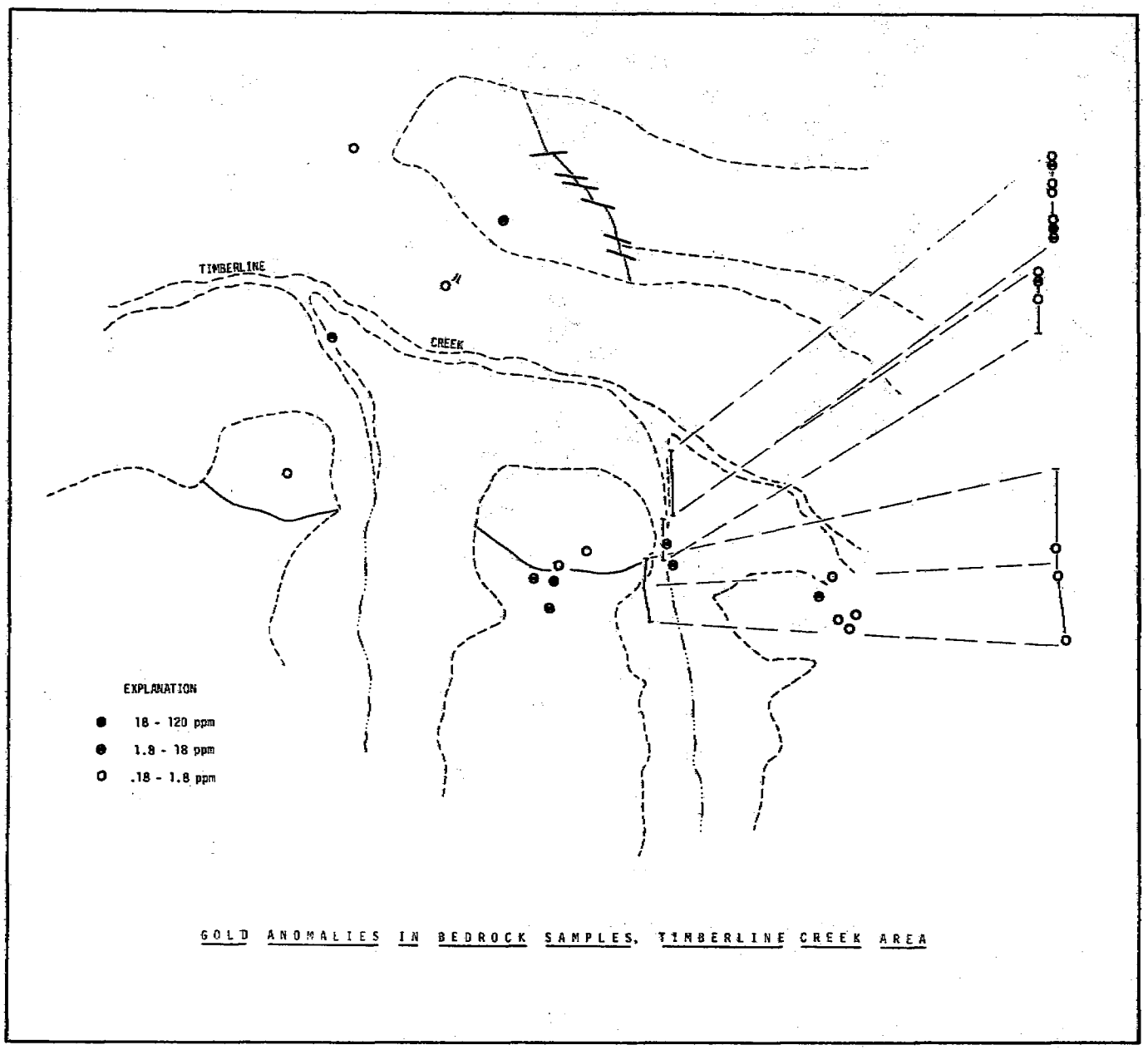


Figure 13. Map showing location of gold anomalies in the Timberline Creek area. (Keyed to figure 11).

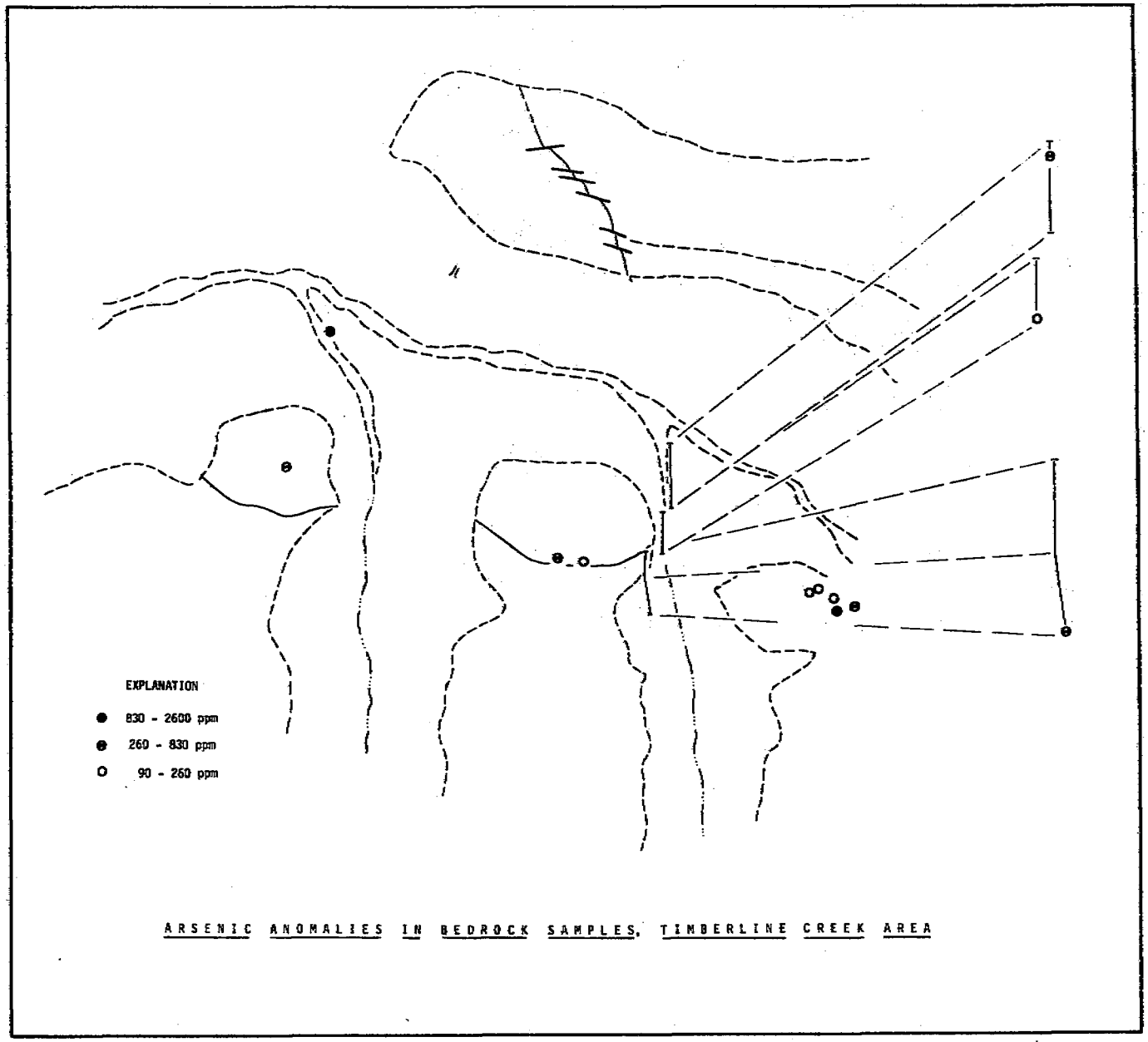


Figure 14. Map showing location of arsenic amonalies in the Timberline Creek area. (Keyed to figure 11).

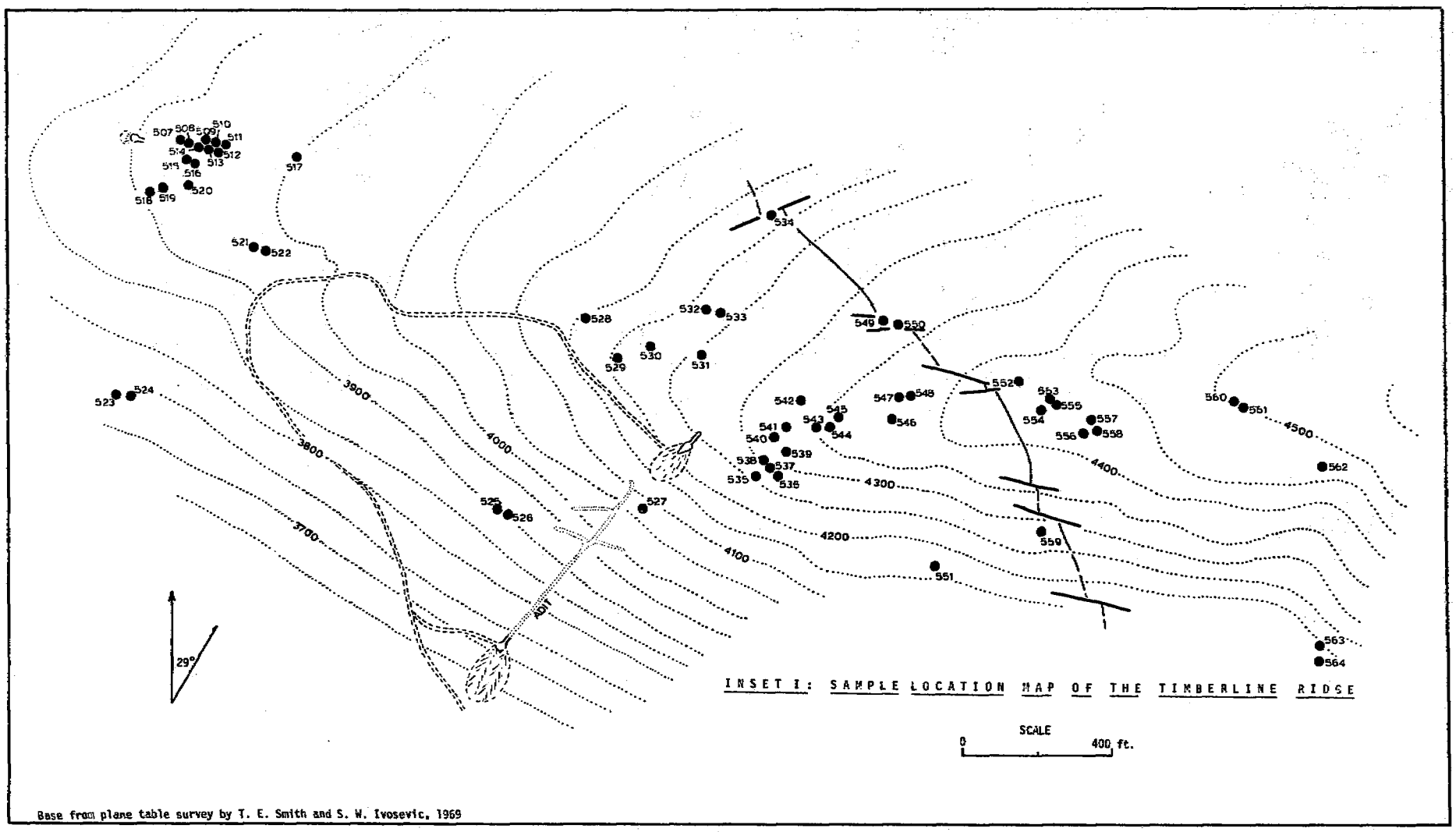


Figure 15. Geochemical sample location map of the ridge north of Timberline Creek. For location see figure 11.

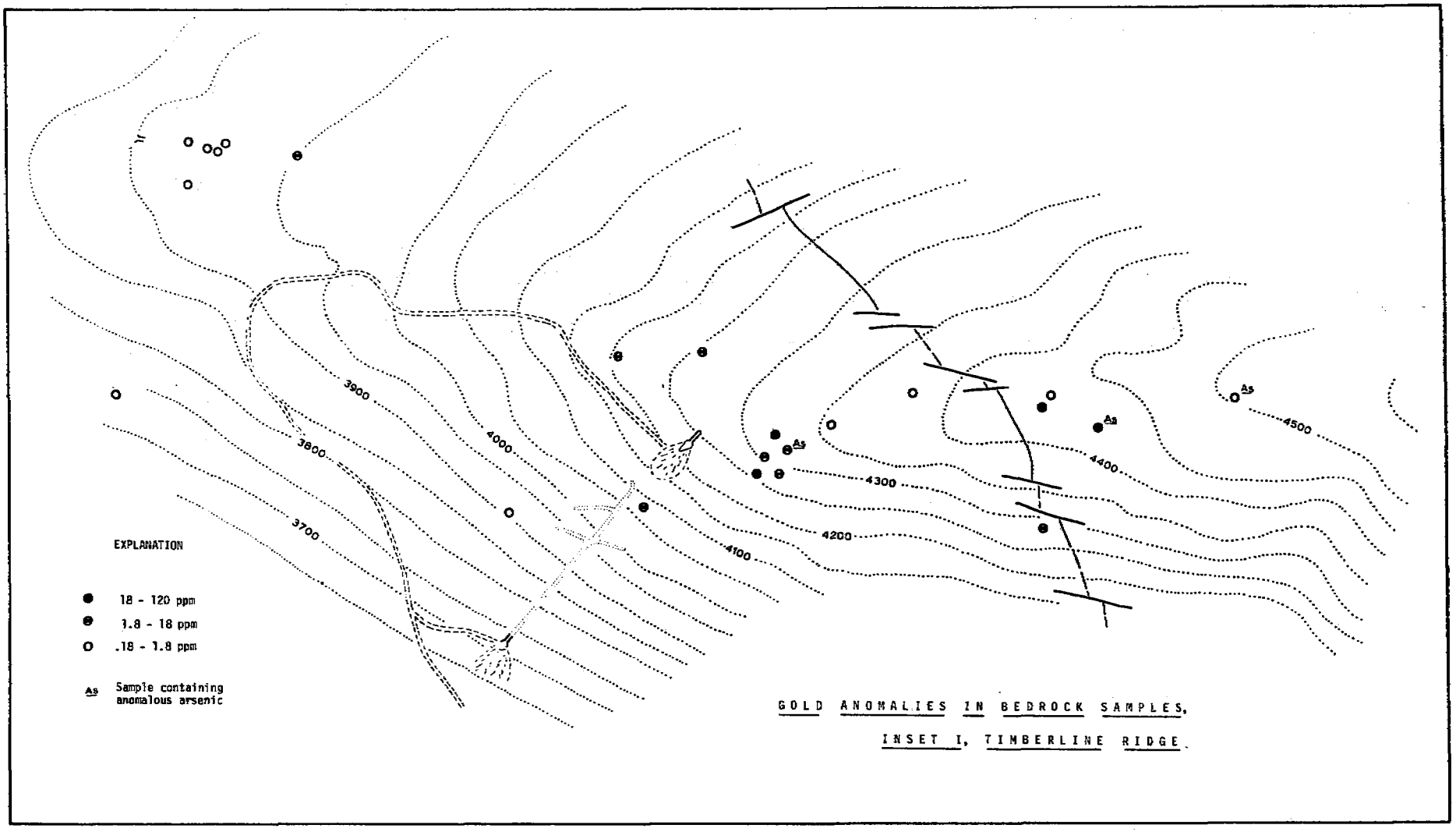


Figure 16.Bielemental map of gold and arsenic anomalies on the ridge north of Timberline Creek. For location see figure 11.

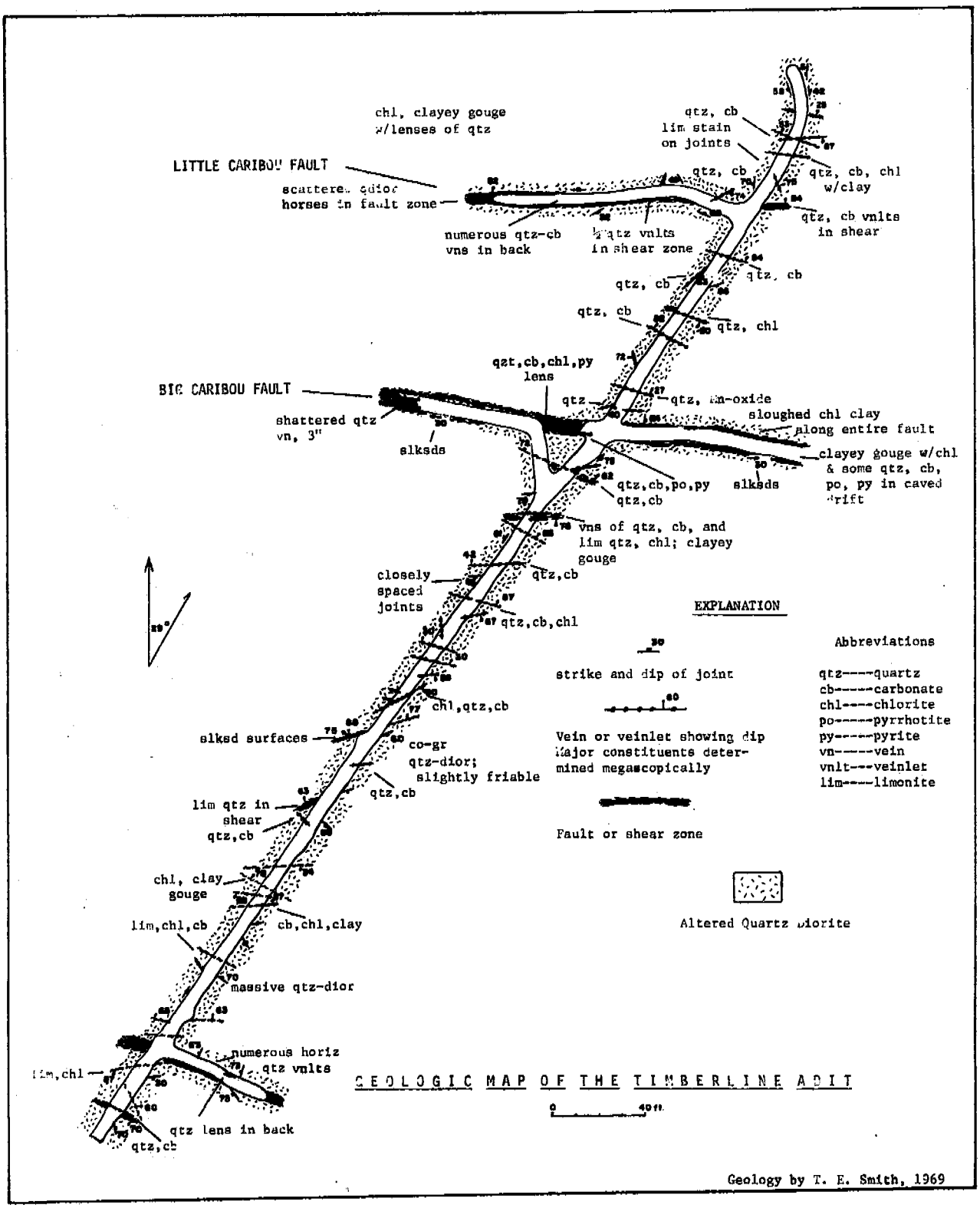


Figure 17. Mine map showing geologic relationship in the Timberline adit. For location of adit, see figures 11 and 15.

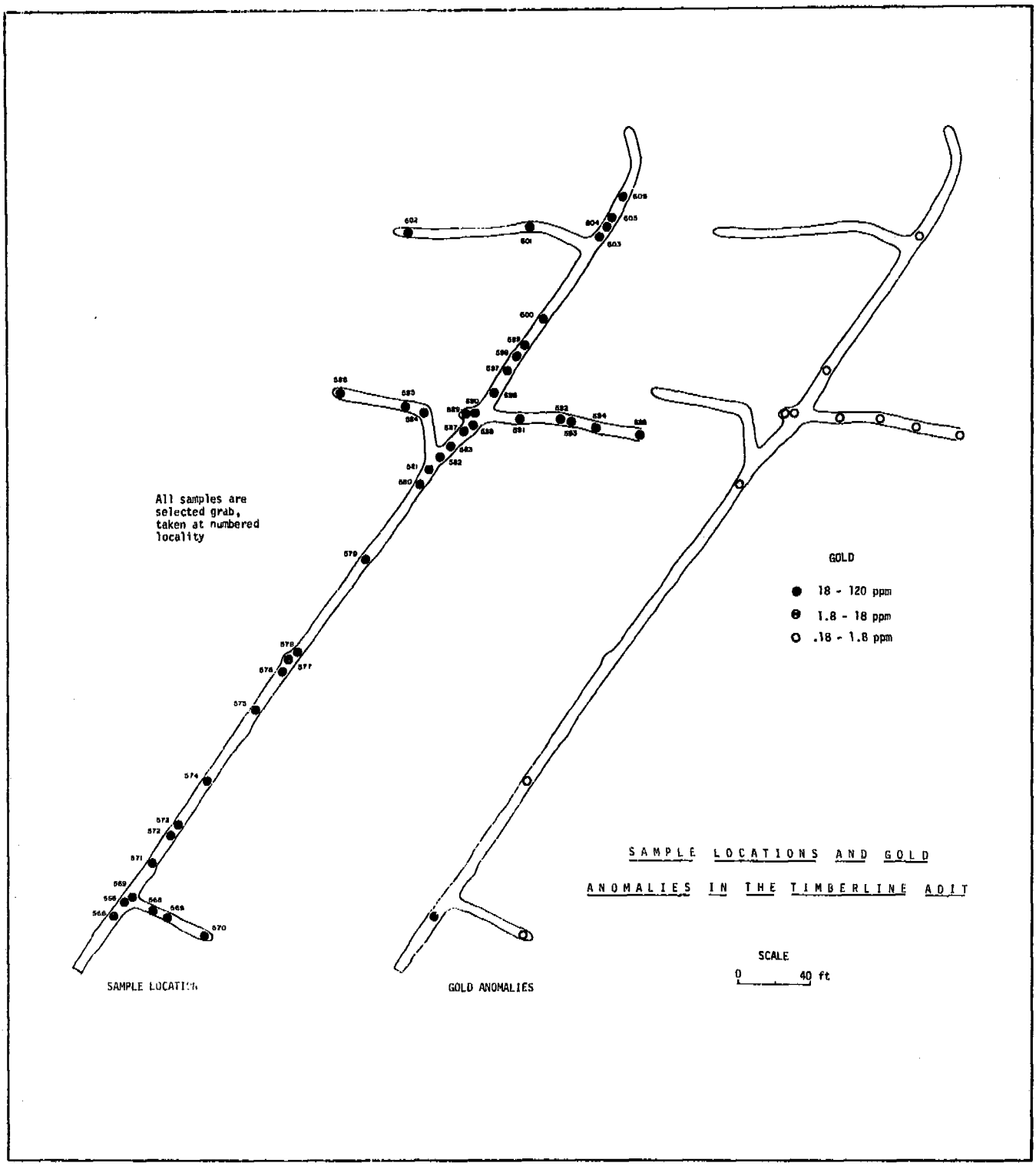


Figure 18. Mine maps showing location of geochemical samples and gold anomalies in the Timberline adit. For location see figures 11 and 15.

Black Creek Area

The geologic relationships at the Black Creek gold prospect are shown in figure 19. The prospect area is located at the intersection of two major faults (figure 2) and is underlain by the argillite sequence---differentiated into four members for the prospect study. Small, highly altered intrusives of intermediate composition have been emplaced in the highly sheared hosts. Later recurrent movement along the faults has sheared and shattered the igneous rocks also. Pyrite, pyrrhotite, and their alteration or weathering products are ubiquitous in the rocks underlying the prospect and have produced a reddish stained area over the entire Black Creek saddle. Auriferous quartz veins in the shattered intrusive north of Black Creek (figure 19) have focussed most lode mining efforts at the prospect, although anomalous gold concentrations are present away from the intrusives as was similarly noted at the Timberline Creek area.

Figures 20 and 21 show the locations of bedrock samples taken at the prospect and the location of samples containing anomalous gold and arsenic. Mine maps illustrating the geology and gold-arsenic anomalies in the Black Creek adit are provided in figures 22 and 23. Very high concentrations of gold, ranging from 4 to 86 ppm in adit samples, are largely restricted to the small intrusive body near the portal (figure 23). All of the samples yielding these high gold-arsenic values are composite samples, taken over ten foot intervals; each contained an appreciable amount of vein material or limonitic residue found over the same interval. It is important to note (figure 19) that the larger intrusive, from which quartz veins were mined on the surface, was not penetrated by the exploration adit and that the larger intrusive body may be similarly mineralized at depth.

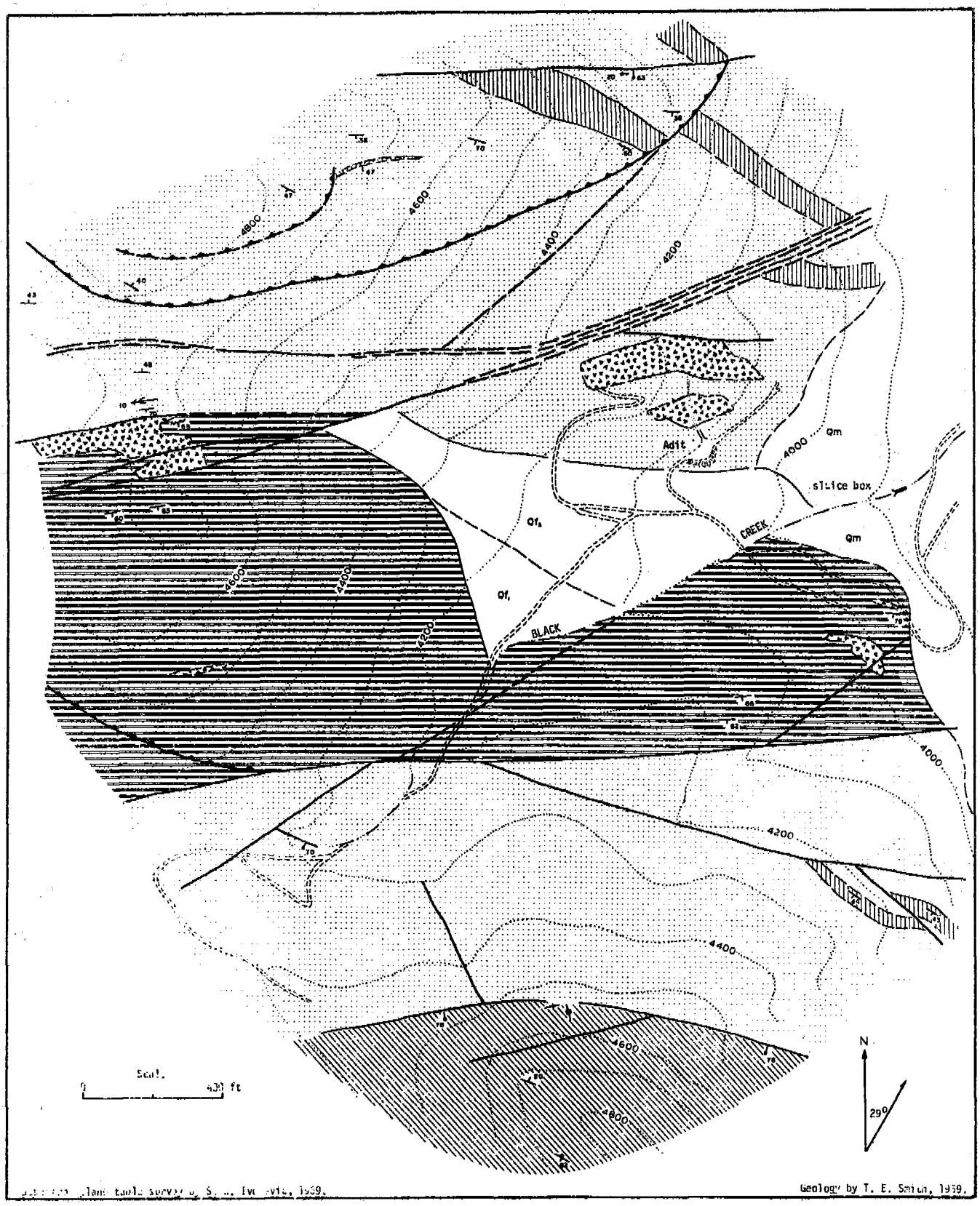


Figure 19. Geologic map of the Black Creek area. For location see figure 6.

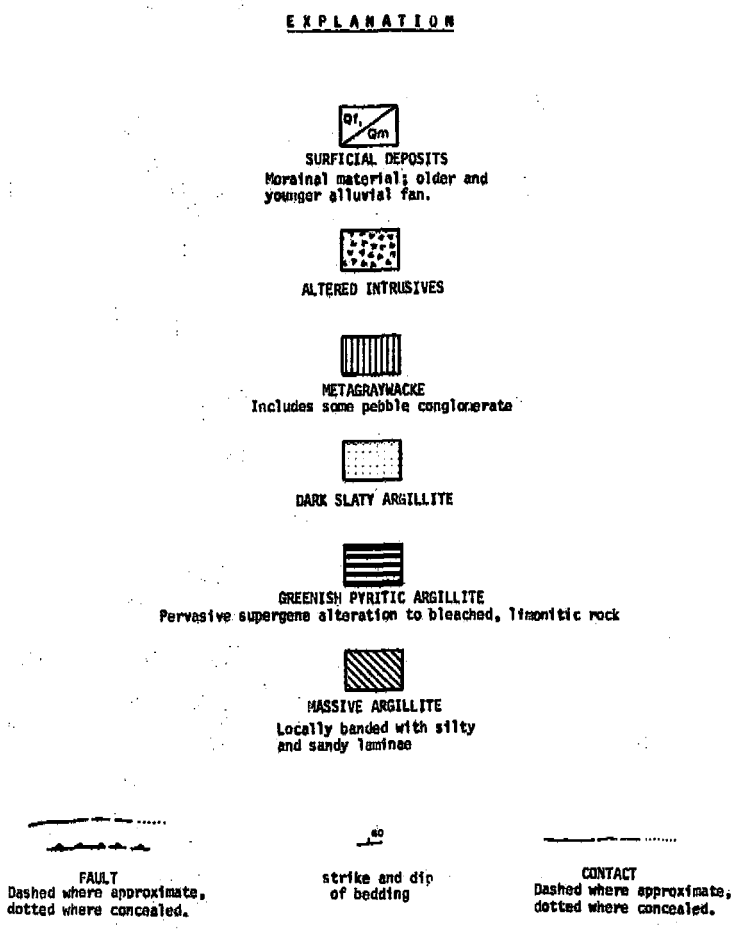


Figure 19. Continued.

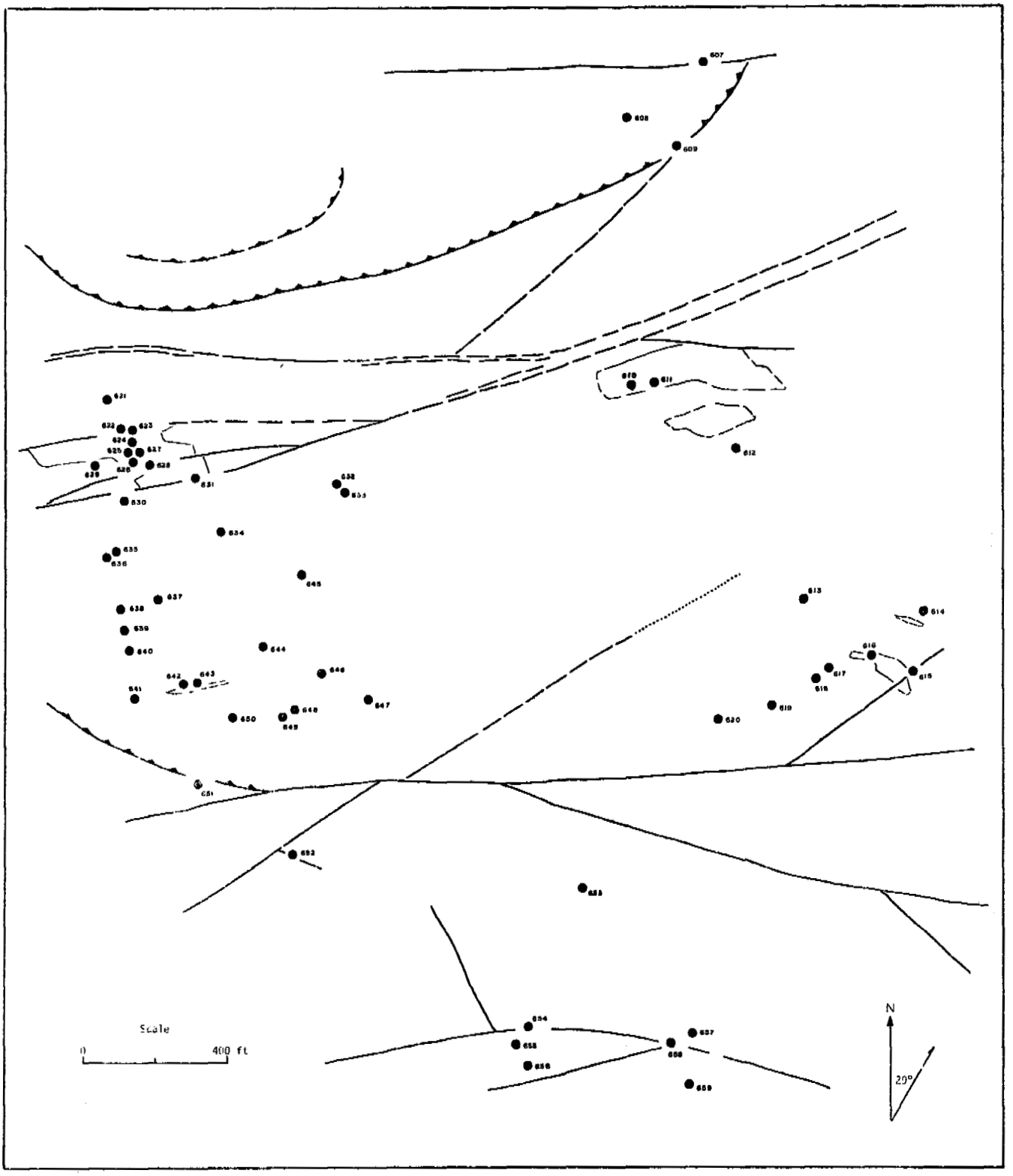


Figure 20. Map showing location of geochemical samples in Black Creek area.

(Keyed to figure 19).

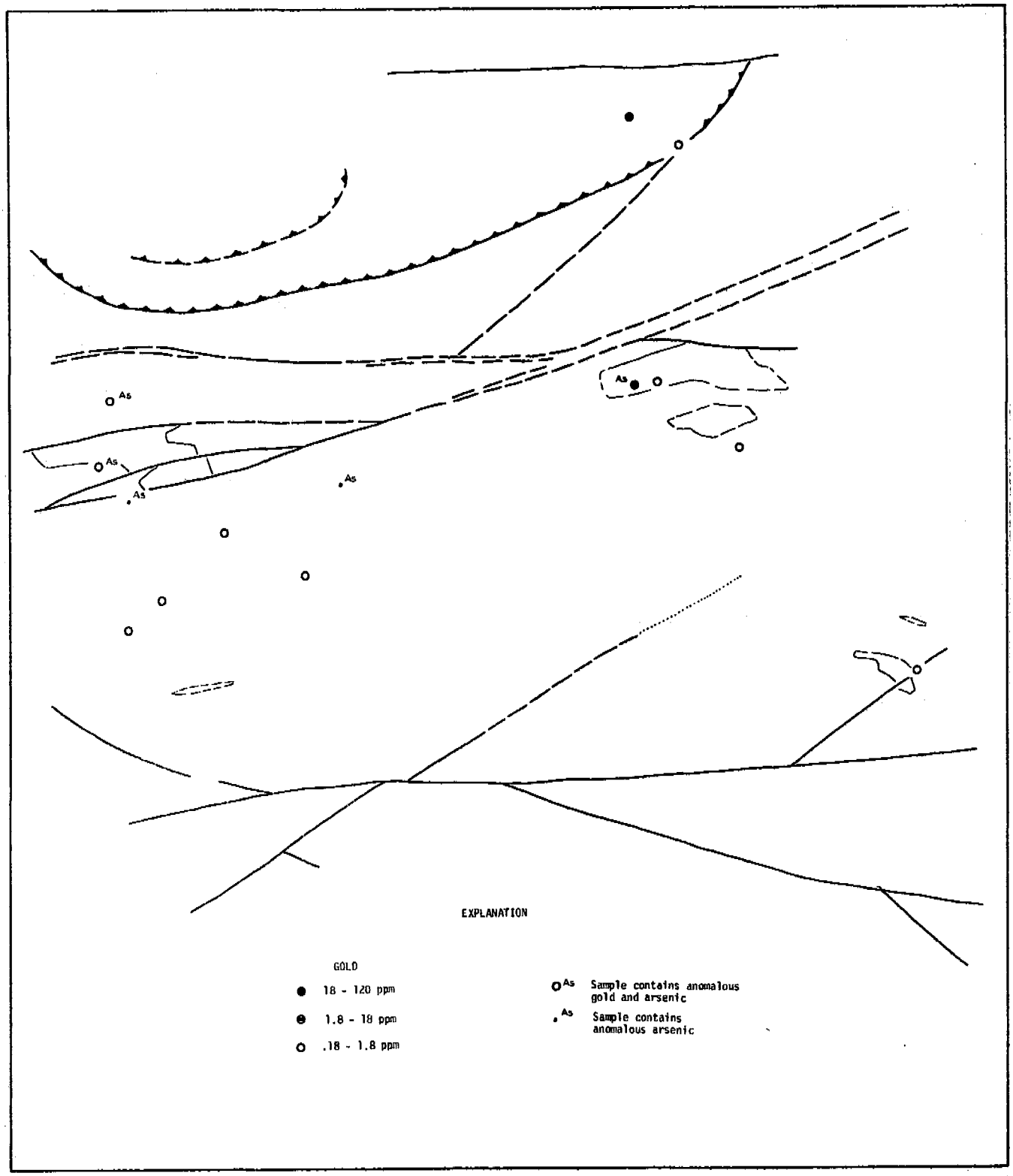


Figure 21. Map showing location of anomalous gold and arsenic in the Black Creek area. (Keyed to figure 19).

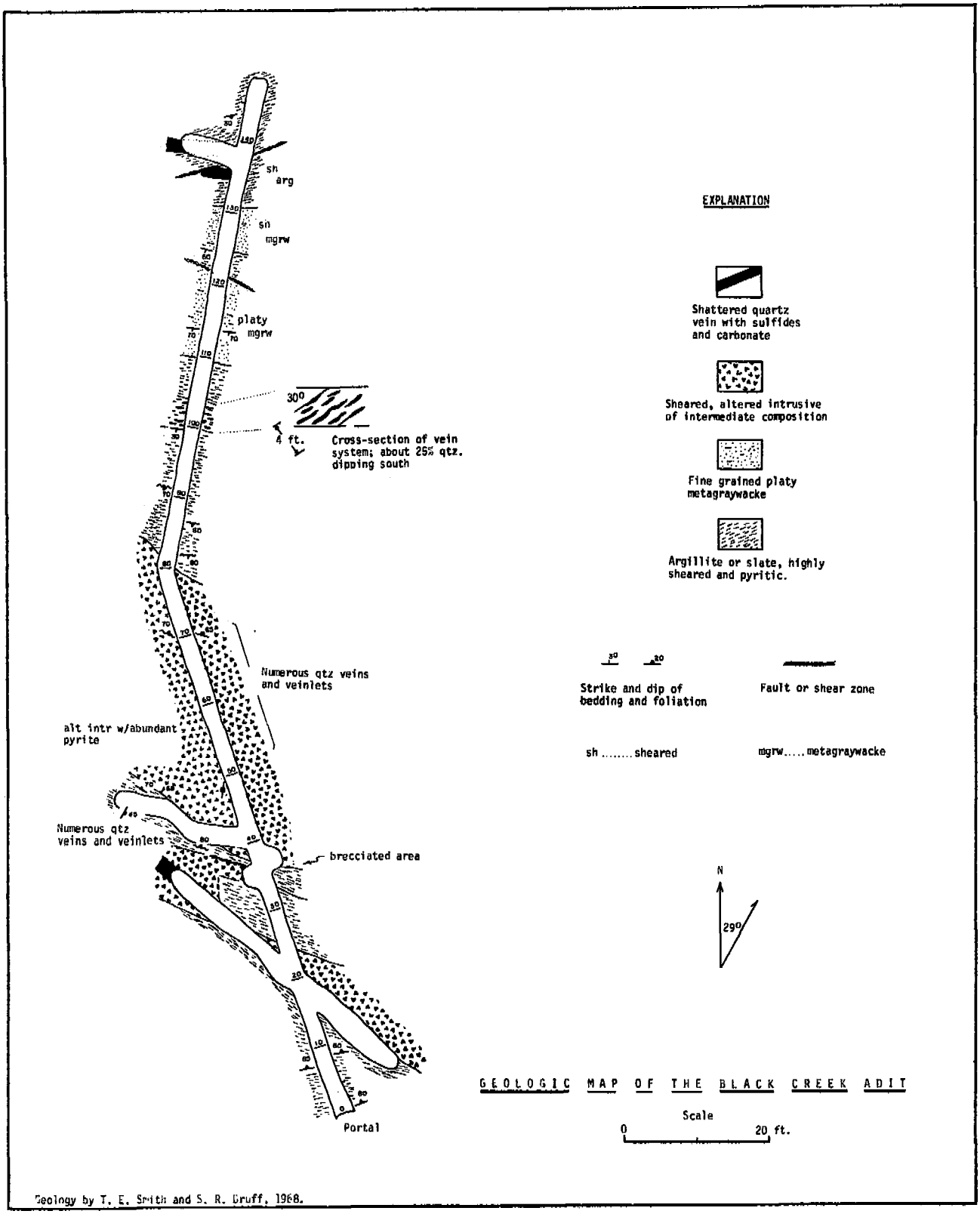


Figure 22. Geologic mine map of the Black Creek adit. For location of adit, see figure 19.

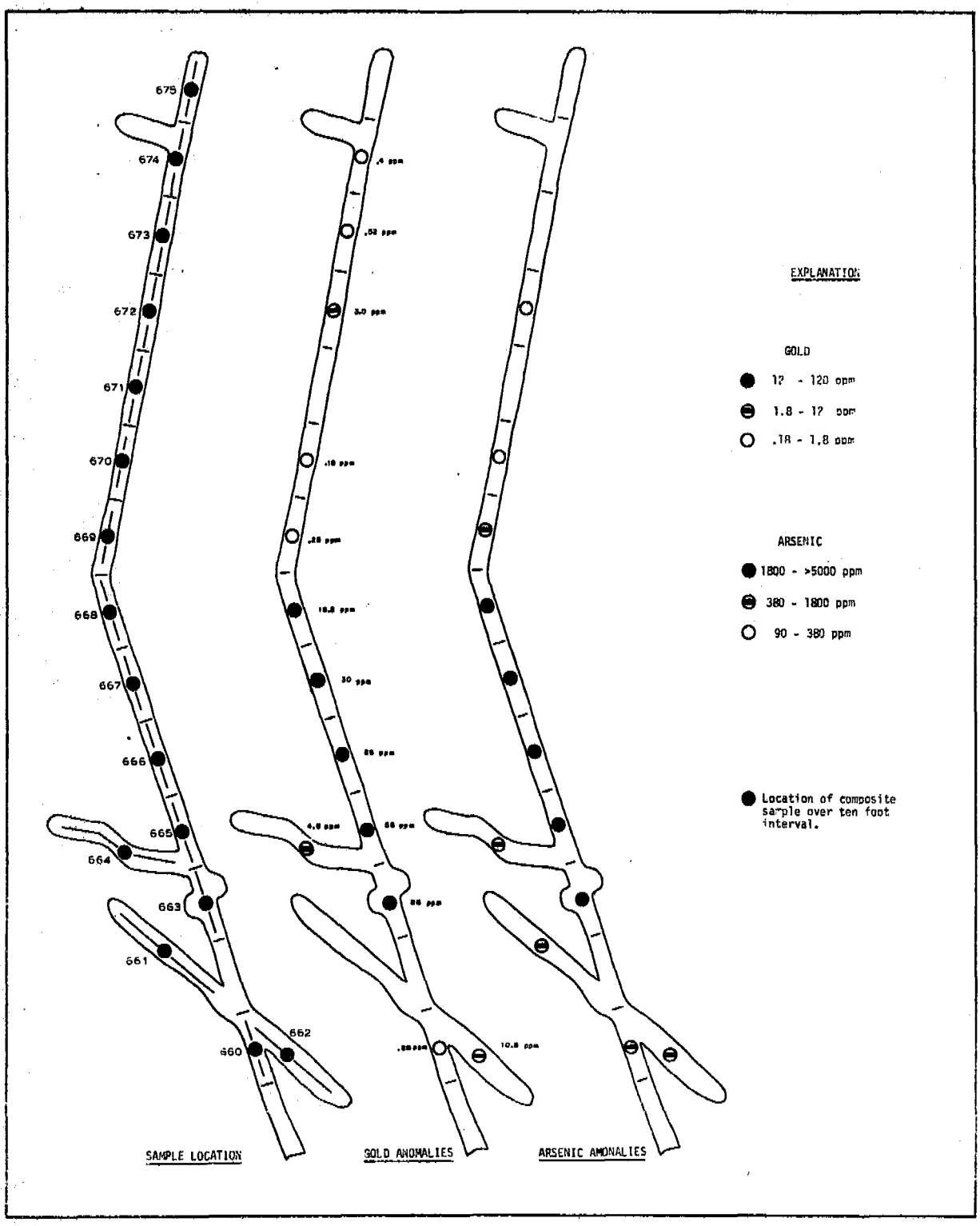


Figure 23. Mine maps showing sample locations, gold anomalies and arsenic anomalies in the Black Creek adit. For location of adit, see figure 19. Scale, 1" = 20'.

SUMMARY AND RECOMMENDATIONS

The program of geochemical sampling discussed in this report delineates two centers of gold mineralization in the western Clearwater Mountains. The easternmost of these, the Black Creek prospect is clearly coincident with the intersection of major faults crossing the area. The Timberline Creek center to the west is located in close proximity to the same major E-W trending structure as the Black Creek occurrence. Appreciable enrichment of mercury values is concentrated along the same E-W structural belt, but between centers of gold mineralization, defining an elongate pattern of hypogene zoning.

Arsenic shows close association with the gold occurrences in both bedrock and stream-sediment samples. Mercury is also correlative with gold in bedrock samples; however, the highest values are not spatially associated as illustrated on the regional anomaly maps (figures 7 and 10). These elements should be considered as potential indices to gold occurrence in subsequent exploration programs throughout this region.

Highly fractured and altered intrusive bodies at the mineralization centers have been the host rock for deposition of auriferous quartz veins, which were the target of most early lode mining efforts. Sampling and analysis of limonitic shear zone rock around the gold centers has shown that gold enrichment is not entirely restricted to the intrusive bodies. At Timberline Creek, significant tonnages of low grade shear zone rock may be present under thin surficial cover in local areas of subdued topography. Additional physical exploration is needed in both this area and at the Black Creek prospect in order to assess total mineral potential. The determination of subsurface extent and of tenor in the small, mineralized

intrusive bodies near the Black Creek adit should be primary objectives in the exploration of that prospect.

Occurrences of copper within this belt of rocks are largely confined to favorable structural sites near the metavolcanic-argillite contact. The active Denali Prospect, near the head of Windy Creek is located at a fault intersection along the major shear zone which trends down and across Windy Creek. Numerous, minor vein-type copper occurrences are also present along the same structure to the west, but on the south side of the creek.

Stream sediment sampling appears to have been totally ineffective in identifying the copper mineralization south of Windy Creek (compare for example figures 5 and 8). The Denali Prospect area generates a high stream-sediment anomaly, but this might well be atrributed to the active exploration there before the sampling program. Copper exploration ventures in these rock units should include a photogeologic appraisal if possible, and at least a visual reconnaissance to establish important structural trends. This study suggests that copper deposits of the type found in this area may escape identification in routine sediment sampling programs.

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APPENDIX I

Spectrographic Analyses and Statistical Parameters

for

Stream-Sediment Samples

Explanation of Appendix I

The semiquantitative spectrographic data in this appendix have been processed by a computer program known as GEOSUM. The GEOSUM program was written for the purpose of summarizing and tabulating geochemical data---in particular the semiquantitative spectrographic analyses by laboratories of the U.S. Geological Survey.

The program provides (1) a tabulation of the analyses, (2) histograms and cumulative frequency distributions for all elements, and (3) a statistical summary including geometric means and deviations.

The tabulated analyses are given in values such as 5.000 ppm, 10.0000 percent, etc., or as qualified values such as 2.5000 L. The letter codes are N = not detected, L = less than specified limit of detection, G = greater than value shown, B = no data, and H = interference. The rightmost zero digits for each analytical value may or may not be significant. Specified limits of detection are as follows:

Fe PCT	Mg PCT	Ca PCT	Ti PCT	Mn PPM	Ag PPM	As PPM
0.0500	0.0200	0.0500	0.0020	10.0000	0.5000	200.0000
Au PPM	B PPM	Ba PPM	Be PPM	Bi PPM	Co PPM	Cr PPM
10.0000	10.0000	20.0000	1.0000	10.0000	5.0000	5.0000
Cu PPM	La PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Sb PPM
5.0000	20.0000	5.0000	10.0000	5.0000	10.0000	100.0000
Sc PPM	Sn PPM	Sr PPM	V PPM	W PPM	Y PPM	Zn PPM
5.0000	10.0000	100.0000	10.0000	50.0000	10.0000	200.0000
Zr PPM						
10.0000						

Semiquantitative spectrographic analyses by the U.S. Geological Survey are reported as geometric midpoints (1.0, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, etc.) of geometric brackets having the limits 1.2, 0.83, 0.56, 0.38, 0.26, 0.18, 0.12, 0.083, etc. The frequency distributions and histograms are on logarithmic scales and are computed using these brackets as class intervals. For example, a reported value of 1.0 is between the limits 0.83 and 1.2.

On the histograms, decimal numbers are shown as powers of 10. A listed value of 7.0E-01 means 7.0×10^{-1} or 0.7. Similarly, 7.0 E 03 means 7.0×10^{3} or 7000.0, etc. The histogram bars are constructed of X's, each of which represents 1 percent of the total number of samples.

The histograms and statistics given with them are computed from stated analytical values in the data. The histograms are, therefore, somewhat incomplete and are biased if data qualified with N, L, G, B, or H codes are present. Statistical estimates unbiased in this manner are given at the end of the appendix. The geometric mean is the antilog of the arithmetic mean of the logs of the analyses and represents a "central tendency" of a population that is nearly symmetrical on a log scale. It is therefore useful for characterizing many geochemical distributions, though it is not a rigorous statement of geochemical abundance. The geometric deviation is the antilog of the standard deviation of the logs of the analyses. The reader is referred to USGS Professional Paper 574-B and USGS Bulletin 1147E for further discussion and explanation.

In the statistical summary at the end of the appendix, and where data are qualified with the codes N, L, or G, the estimates of geometric mean and deviation are based on a method developed by A. J. Cohen for treating censored distributions. (See USGS Professional Paper 574-B).

The estimates are unbiased in a rigorous sense only where the data are derived from a lognormal parent population. Experiments have shown, however, that large departures from this constraint may not greatly invalidate the results. Acceptance and use of the estimates, however, is the responsibility of the individual.

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
1	5.0000	2.0000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	1000.0000
2	5.0000	1.5000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	100.0000	1000.0000
3	5.0000	1.5000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
4	5.0000	2.0000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	5.0000L	1500.0000
5	10.0000	5.0000	2.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
6	3.0000	1.0000	0.7000	0.3000	500.0000	0.7000	0.0 N	0.0 N	50.0000	700.0000
7	5.0000	2.0000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	1000.0000
8	7.0000	5.0000	2.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
9	5.0000	2.0000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	2000.0000
10	7.0000	3.0000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
11	7.0000	3.0000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	1000.0000
12	7.0000	2.0000	1.5000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	1500.0000
13	5.0000	1.5000	1.0000	0.3000	700.0000	0.5000	0.0 N	0.0 N	20.0000	1000.0000
14	7.0000	2.0000	1.0000	0.3000	5000.0000	0.0 N	0.0 N	0.0 N	50.0000	2000.0000
15	7.0000	2.0000	1.5000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	5.0000L	1500.0000
16	7.0000	3.0000	2.0000	0.7000	5000.0000	0.0 N	0.0 N	0.0 N	15.0000	2000.0000
17	5.0000	2.0000	1.0000	0.5000	2000.0000	0.7000	0.0 N	0.0 N	50.0000	1500.0000
18	5.0000	2.0000	1.0000	0.3000	3000.0000	0.5000	0.0 N	0.0 N	15.0000	1500.0000
19	5.0000	2.0000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
20	5.0000	2.0000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
21	5.0000	2.0000	1.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
22	5.0000	2.0000	2.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
23	5.0000	1.5000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
24	5.0000	1.5000	1.5000	0.5000	5000.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
25	7.0000	2.0000	1.5000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
26	20.0000	3.0000	3.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
27	10.0000	5.0000	3.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
28	5.0000	2.0000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
29	10.0000	5.0000	3.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
30	10.0000	2.0000	2.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
31	10.0000	2.0000	2.0000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
32	3.0000	2.0000	1.5000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
33	10.0000	2.0000	2.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
34	5.0000	2.0000	1.5000	0.5000	300.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
35	5.0000	1.5000	2.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
36	3.0000	1.5000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
37	3.0000	2.0000	1.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
38	5.0000	1.5000	1.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
39	3.0000	1.5000	2.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
40	10.0000	3.0000	5.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
41	10.0000	2.0000	1.5000	0.5000	5000.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
42	7.0000	2.0000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
43	10.0000	2.0000	2.0000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
44	7.0000	2.0000	2.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
45	10.0000	2.0000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	15.0000	1000.0000
46	7.0000	3.0000	2.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
47	7.0000	2.0000	2.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
48	5.0000	1.5000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	1000.0000
49	10.0000	1.5000	1.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	50.0000	2000.0000
50	5.0000	1.5000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	1500.0000

STR SED ANALYSES. CNTRL ALASKA

SAMPLE	BE PPM	BI PPM	CD PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
1	0.5000L	0.0 N	50.0000	200.0000	30.0000	50.0000	0.0 N	10.0000	100.0000	10.0000
2	1.0000	0.0 N	20.0000	150.0000	20.0000	20.0000	0.0 N	5.0000L	70.0000	15.0000
3	0.5000L	0.0 N	30.0000	200.0000	15.0000	70.0000	0.0 N	5.0000L	70.0000	10.0000
4	0.5000L	0.0 N	30.0000	200.0000	20.0000	20.0000	0.0 N	10.0000	100.0000	10.0000
5	0.5000L	0.0 N	50.0000	500.0000	30.0000	20.0000	0.0 N	10.0000	70.0000	10.0000
6	1.0000	0.0 N	30.0000	100.0000	50.0000	30.0000	0.0 N	5.0000L	100.0000	15.0000
7	1.0000	0.0 N	20.0000	150.0000	15.0000	50.0000	0.0 N	10.0000	70.0000	10.0000
8	0.5000L	0.0 N	50.0000	300.0000	50.0000	30.0000	0.0 N	10.0000	100.0000	10.0000
9	0.5000L	0.0 N	50.0000	200.0000	70.0000	30.0000	0.0 N	10.0000	100.0000	10.0000
10	0.5000L	0.0 N	50.0000	500.0000	70.0000	20.0000	0.0 N	5.0000L	100.0000	10.0000
11	0.5000L	0.0 N	50.0000	300.0000	50.0000	30.0000	0.0 N	5.0000L	100.0000	10.0000
12	0.5000L	0.0 N	50.0000	200.0000	30.0000	30.0000	0.0 N	10.0000	100.0000	15.0000
13	1.0000	0.0 N	50.0000	200.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	20.0000
14	1.0000	0.0 N	70.0000	200.0000	50.0000	30.0000	0.0 N	10.0000	150.0000	10.0000
15	0.5000L	0.0 N	50.0000	200.0000	50.0000	50.0000	0.0 N	5.0000L	100.0000	10.0000
16	0.5000L	0.0 N	100.0000	300.0000	50.0000	30.0000	0.0 N	10.0000	100.0000	15.0000
17	1.0000	0.0 N	50.0000	200.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	20.0000
18	1.0000	0.0 N	70.0000	300.0000	50.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
19	0.5000L	0.0 N	50.0000	200.0000	50.0000	100.0000	0.0 N	5.0000L	100.0000	20.0000
20	0.5000L	0.0 N	20.0000	150.0000	20.0000	30.0000	0.0 N	5.0000L	70.0000	15.0000
21	0.5000L	0.0 N	20.0000	150.0000	30.0000	30.0000	0.0 N	5.0000L	70.0000	20.0000
22	0.5000L	0.0 N	30.0000	150.0000	20.0000	10.0000L	0.0 N	5.0000L	100.0000	15.0000
23	0.5000L	0.0 N	30.0000	150.0000	30.0000	20.0000	0.0 N	5.0000L	70.0000	15.0000
24	0.5000L	0.0 N	30.0000	100.0000	20.0000	30.0000	0.0 N	5.0000L	100.0000	10.0000
25	1.0000	0.0 N	100.0000	200.0000	100.0000	20.0000	2.5000L	5.0000L	150.0000	20.0000
26	0.0 N	0.0 N	70.0000	200.0000	20.0000	30.0000	0.0 N	5.0000L	70.0000	10.0000
27	1.0000	0.0 N	50.0000	300.0000	20.0000	50.0000	0.0 N	10.0000	100.0000	10.0000
28	0.5000L	0.0 N	50.0000	200.0000	30.0000	30.0000	10.0000	10.0000	70.0000	20.0000
29	0.5000L	0.0 N	70.0000	300.0000	30.0000	20.0000	0.0 N	20.0000	70.0000	15.0000
30	0.5000L	0.0 N	30.0000	150.0000	50.0000	30.0000	0.0 N	5.0000L	100.0000	15.0000
31	0.5000L	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
32	0.5000L	0.0 N	30.0000	100.0000	20.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
33	0.5000L	0.0 N	30.0000	150.0000	30.0000	30.0000	0.0 N	5.0000L	70.0000	10.0000
34	0.5000L	0.0 N	15.0000	100.0000	30.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000
35	0.5000L	0.0 N	15.0000	70.0000	20.0000	10.0000L	0.0 N	10.0000	50.0000	5.0000L
36	0.5000L	0.0 N	20.0000	100.0000	15.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000
37	0.5000L	0.0 N	20.0000	150.0000	20.0000	10.0000L	0.0 N	5.0000L	70.0000	15.0000
38	0.5000H	0.0 N	20.0000	100.0000	20.0000	20.0000	0.0 N	5.0000L	50.0000	15.0000
39	0.5000L	0.0 N	15.0000	100.0000	15.0000	30.0000	0.0 N	10.0000	50.0000	10.0000
40	0.5000L	0.0 N	20.0000	150.0000	70.0000	10.0000L	0.0 N	10.0000	70.0000	15.0000
41	0.5000L	0.0 N	30.0000	150.0000	30.0000	20.0000	0.0 N	10.0000	50.0000	10.0000
42	0.5000L	0.0 N	30.0000	100.0000	20.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
43	0.5000L	0.0 N	50.0000	200.0000	20.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
44	0.5000L	0.0 N	50.0000	200.0000	20.0000	30.0000	0.0 N	5.0000L	70.0000	10.0000
45	0.5000L	0.0 N	50.0000	200.0000	30.0000	50.0000	0.0 N	5.0000L	70.0000	15.0000
46	0.5000L	0.0 N	50.0000	200.0000	20.0000	20.0000	0.0 N	10.0000	70.0000	15.0000
47	1.0000	0.0 N	50.0000	200.0000	20.0000	30.0000	0.0 N	10.0000	100.0000	15.0000
48	1.0000	0.0 N	20.0000	150.0000	30.0000	50.0000	5.0000	10.0000	70.0000	15.0000
49	0.5000L	0.0 N	50.0000	200.0000	20.0000	30.0000	0.0 N	10.0000	100.0000	20.0000
50	1.0000	0.0 N	30.0000	200.0000	30.0000	70.0000	0.0 N	10.0000	100.0000	15.0000

STR SED ANALYSES. CNTRL ALASKA

SAMPLE	SB PPM		SC PPM	SN PPM		SR PPM	V PPM	W PPM		Y PPM	ZN PPM		ZR PPM
1	0.0	N	50.0000	0.0	N	700.0000	200.0000	0.0	N	30.0000	0.0	N	70.0000
2	0.0	N	30.0000	0.0	N	700.0000	150.0000	0.0	N	20.0000	0.0	N	100.0000
3	0.0	N	50.0000	0.0	N	1000.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
4	0.0	N	30.0000	0.0	N	1000.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
5	0.0	N	100.0000	0.0	N	1000.0000	500.0000	0.0	N	50.0000	0.0	N	70.0000
6	0.0	N	20.0000	0.0	N	300.0000	150.0000	0.0	N	20.0000	0.0	N	70.0000
7	0.0	N	50.0000	0.0	N	700.0000	200.0000	0.0	N	30.0000	0.0	N	200.0000
8	0.0	N	50.0000	0.0	N	1000.0000	200.0000	0.0	N	50.0000	0.0	N	70.0000
9	0.0	N	20.0000	0.0	N	700.0000	300.0000	0.0	N	20.0000	0.0	N	70.0000
10	0.0	N	50.0000	0.0	N	700.0000	200.0000	0.0	N	30.0000	0.0	N	50.0000
11	0.0	N	50.0000	0.0	N	1000.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
12	0.0	N	50.0000	0.0	N	700.0000	200.0000	0.0	N	50.0000	0.0	N	150.0000
13	0.0	N	20.0000	0.0	N	500.0000	200.0000	0.0	N	15.0000	0.0	N	70.0000
14	0.0	N	30.0000	0.0	N	500.0000	200.0000	0.0	N	50.0000	0.0	N	100.0000
15	0.0	N	30.0000	0.0	N	700.0000	300.0000	0.0	N	30.0000	0.0	N	100.0000
16	0.0	N	50.0000	0.0	N	700.0000	300.0000	0.0	N	100.0000	0.0	N	50.0000
17	0.0	N	20.0000	0.0	N	500.0000	200.0000	0.0	N	20.0000	0.0	N	150.0000
18	0.0	N	30.0000	0.0	N	700.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
19	0.0	N	20.0000	0.0	N	500.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
20	0.0	N	20.0000	0.0	N	700.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
21	0.0	N	20.0000	0.0	N	500.0000	300.0000	0.0	N	50.0000	0.0	N	70.0000
22	0.0	N	20.0000	0.0	N	500.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
23	0.0	N	20.0000	0.0	N	500.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
24	0.0	N	30.0000	0.0	N	500.0000	200.0000	0.0	N	50.0000	0.0	N	100.0000
25	0.0	N	30.0000	0.0	N	700.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
26	0.0	N	50.0000	0.0	N	1000.0000	300.0000	0.0	N	50.0000	0.0	N	100.0000
27	0.0	N	50.0000	0.0	N	500.0000	300.0000	0.0	N	50.0000	0.0	N	70.0000
28	0.0	N	20.0000	0.0	N	500.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
29	0.0	N	50.0000	0.0	N	1000.0000	300.0000	0.0	N	50.0000	0.0	N	70.0000
30	0.0	N	30.0000	0.0	N	700.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
31	0.0	N	30.0000	0.0	N	1000.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
32	0.0	N	20.0000	0.0	N	700.0000	200.0000	0.0	N	20.0000	0.0	N	50.0000
33	0.0	N	30.0000	0.0	N	700.0000	300.0000	0.0	N	20.0000	0.0	N	100.0000
34	0.0	N	15.0000	0.0	N	300.0000	200.0000	0.0	N	15.0000	100.0000	L	70.0000
35	0.0	N	20.0000	0.0	N	300.0000	150.0000	0.0	N	20.0000	0.0	N	100.0000
36	0.0	N	30.0000	0.0	N	500.0000	200.0000	0.0	N	30.0000	0.0	N	50.0000
37	0.0	N	30.0000	0.0	N	700.0000	300.0000	0.0	N	30.0000	0.0	N	100.0000
38	0.0	N	20.0000	0.0	N	500.0000	300.0000	0.0	N	20.0000	0.0	N	70.0000
39	0.0	N	30.0000	0.0	N	300.0000	150.0000	0.0	N	30.0000	0.0	N	70.0000
40	0.0	N	50.0000	0.0	N	700.0000	200.0000	0.0	N	50.0000	0.0	N	150.0000
41	0.0	N	50.0000	0.0	N	500.0000	200.0000	0.0	N	100.0000	0.0	N	200.0000
42	0.0	N	30.0000	0.0	N	700.0000	200.0000	0.0	N	50.0000	0.0	N	70.0000
43	0.0	N	30.0000	0.0	N	1000.0000	200.0000	0.0	N	30.0000	0.0	N	50.0000
44	0.0	N	50.0000	0.0	N	1000.0000	300.0000	0.0	N	30.0000	0.0	N	100.0000
45	0.0	N	30.0000	0.0	N	700.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
46	0.0	N	50.0000	0.0	N	1000.0000	200.0000	0.0	N	30.0000	0.0	N	70.0000
47	0.0	N	50.0000	0.0	N	1000.0000	200.0000	0.0	N	30.0000	0.0	N	500.0000
48	0.0	N	20.0000	0.0	N	700.0000	200.0000	0.0	N	30.0000	0.0	N	150.0000
49	0.0	N	50.0000	0.0	N	1000.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
50	0.0	N	50.0000	0.0	N	1000.0000	200.0000	0.0	N	50.0000	0.0	N	150.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
51	10.0000	3.0000	2.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
52	10.0000	3.0000	3.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
53	10.0000	3.0000	5.0000	1.0000	3000.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
54	7.0000	2.0000	1.5000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
55	10.0000	3.0000	2.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
56	7.0000	2.0000	1.5000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
57	10.0000	3.0000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
58	5.0000	2.0000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	300.0000
59	5.0000	1.0000	1.5000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
60	10.0000	2.0000	2.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
61	7.0000	1.5000	1.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	200.0000	300.0000
62	10.0000	2.0000	2.0000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	100.0000	1000.0000
63	5.0000	2.0000	1.5000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
64	3.0000	1.5000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
65	5.0000	2.0000	1.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
66	5.0000	2.0000	1.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
67	15.0000	2.0000	1.5000	0.7000	5000.0000G	0.0 N	0.0 N	0.0 N	30.0000	70.0000
68	7.0000	1.5000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
69	10.0000	1.5000	1.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	100.0000	500.0000
70	10.0000	2.0000	2.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
71	7.0000	2.0000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
72	5.0000	2.0000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	1000.0000
73	7.0000	1.5000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
74	5.0000	1.5000	1.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
75	7.0000	3.0000	2.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
76	5.0000	2.0000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
77	7.0000	2.0000	1.0000	0.7000	500.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
78	5.0000	1.5000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	500.0000
79	10.0000	3.0000	2.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
80	15.0000	5.0000	2.0000	1.0000G	1500.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
81	7.0000	3.0000	2.0000	1.0000	700.0000	0.0 N	200.0000	0.0 N	30.0000	500.0000
82	7.0000	1.5000	0.7000	0.5000	1000.0000	0.5000	0.0 N	0.0 N	100.0000	500.0000
83	7.0000	2.0000	1.5000	0.5000	1500.0000	0.5000	0.0 N	0.0 N	100.0000	700.0000
84	5.0000	1.0000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
85	5.0000	2.0000	1.0000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	50.0000	700.0000
86	5.0000	2.0000	1.0000	0.5000	1500.0000	0.5000	0.0 N	0.0 N	50.0000	700.0000
87	7.0000	2.0000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
88	5.0000	1.5000	0.7000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	200.0000	1000.0000
89	2.0000	0.0500	0.0500	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	0.0 N	100.0000
90	7.0000	3.0000	1.5000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	100.0000	1000.0000
91	7.0000	3.0000	1.5000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
92	10.0000	2.0000	2.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	300.0000
93	7.0000	2.0000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
94	10.0000	3.0000	1.5000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
95	5.0000	2.0000	1.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
96	7.0000	2.0000	1.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	150.0000	700.0000
97	7.0000	2.0000	1.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
98	7.0000	2.0000	1.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
99	7.0000	3.0000	1.5000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	500.0000
100	7.0000	3.0000	1.5000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	70.0000	500.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
51	0.5000L	0.0 N	50.0000	100.0000	50.0000	0.0 N	0.0 N	5.0000L	70.0000	15.0000
52	0.5000L	0.0 N	30.0000	150.0000	100.0000	10.0000L	0.0 N	10.0000	70.0000	10.0000
53	1.0000	0.0 N	30.0000	150.0000	100.0000	70.0000	0.0 N	15.0000	70.0000	15.0000
54	0.5000L	0.0 N	15.0000	70.0000	70.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000
55	0.5000L	0.0 N	15.0000	150.0000	20.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000
56	0.5000L	0.0 N	15.0000	100.0000	70.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000
57	0.5000L	0.0 N	20.0000	70.0000	70.0000	10.0000L	0.0 N	5.0000L	70.0000	15.0000
58	0.5000L	0.0 N	20.0000	100.0000	30.0000	20.0000	0.0 N	10.0000	50.0000	10.0000
59	0.5000L	0.0 N	20.0000	100.0000	20.0000	20.0000	0.0 N	0.0 L	50.0000	15.0000
60	0.5000L	0.0 N	20.0000	100.0000	100.0000	30.0000	0.0 N	5.0000L	50.0000	15.0000
61	0.5000L	0.0 N	30.0000	100.0000	70.0000	30.0000	0.0 N	20.0000	70.0000	15.0000
62	1.0000	0.0 N	50.0000	100.0000	50.0000	20.0000	0.0 N	20.0000	70.0000	15.0000
63	0.5000L	0.0 N	50.0000	150.0000	30.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000
64	0.5000L	0.0 N	20.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	70.0000	15.0000
65	0.5000L	0.0 N	30.0000	100.0000	20.0000	20.0000	0.0 N	5.0000L	50.0000	15.0000
66	0.5000L	0.0 N	20.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	30.0000
67	0.5000L	0.0 N	30.0000	200.0000	15.0000	10.0000L	0.0 N	10.0000	20.0000	5.0000L
68	0.5000L	0.0 N	30.0000	100.0000	30.0000	20.0000	2.5000L	5.0000L	50.0000	10.0000
69	0.5000L	0.0 N	70.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
70	0.5000L	0.0 N	50.0000	150.0000	30.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
71	1.0000	0.0 N	50.0000	150.0000	30.0000	20.0000	0.0 N	5.0000L	70.0000	15.0000
72	0.5000L	0.0 N	30.0000	200.0000	50.0000	30.0000	0.0 N	10.0000	70.0000	20.0000
73	0.5000L	0.0 N	30.0000	150.0000	50.0000	20.0000	0.0 N	10.0000	70.0000	20.0000
74	1.0000	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	10.0000	100.0000	15.0000
75	0.5000L	0.0 N	70.0000	150.0000	100.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
76	0.5000L	0.0 N	30.0000	100.0000	30.0000	20.0000	0.0 N	10.0000	70.0000	15.0000
77	0.5000L	0.0 N	30.0000	100.0000	70.0000	20.0000	0.0 N	10.0000	70.0000	10.0000
78	0.5000L	0.0 N	50.0000	100.0000	30.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
79	0.5000L	0.0 N	50.0000	150.0000	100.0000	20.0000	0.0 N	10.0000	100.0000	5.0000L
80	0.5000L	0.0 N	70.0000	150.0000	70.0000	20.0000	0.0 N	10.0000	100.0000	5.0000L
81	0.5000L	0.0 N	50.0000	70.0000	150.0000	30.0000	0.0 N	20.0000	70.0000	15.0000
82	0.5000L	0.0 N	50.0000	100.0000	70.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
83	0.5000L	0.0 N	50.0000	100.0000	50.0000	30.0000	0.0 N	5.0000L	50.0000	30.0000
84	0.5000L	0.0 N	20.0000	70.0000	20.0000	20.0000	0.0 N	5.0000L	20.0000	20.0000
85	1.0000	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	15.0000
86	0.5000L	0.0 N	70.0000	150.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	20.0000
87	0.5000L	0.0 N	50.0000	150.0000	70.0000	20.0000	0.0 N	5.0000L	100.0000	20.0000
88	1.0000	0.0 N	50.0000	200.0000	70.0000	20.0000	0.0 N	5.0000L	100.0000	20.0000
89	5.0000	0.0 N	0.0 N	70.0000	20.0000	100.0000	0.0 N	2000.0000G	200.0000	200.0000
90	0.5000L	0.0 N	50.0000	150.0000	50.0000	30.0000	0.0 N	5.0000L	70.0000	15.0000
91	0.0 N	0.0 N	50.0000	150.0000	70.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000
92	0.5000L	0.0 N	15.0000	70.0000	70.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
93	0.5000L	0.0 N	30.0000	50.0000	20.0000	30.0000	0.0 N	5.0000L	20.0000	10.0000
94	0.0 N	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	10.0000	100.0000	10.0000
95	0.5000L	0.0 N	50.0000	100.0000	50.0000	30.0000	0.0 N	5.0000L	70.0000	15.0000
96	0.5000L	0.0 N	50.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
97	0.5000L	0.0 N	30.0000	150.0000	100.0000	10.0000L	0.0 N	5.0000L	70.0000	15.0000
98	0.5000L	0.0 N	30.0000	100.0000	70.0000	10.0000L	0.0 N	10.0000	70.0000	10.0000
99	0.5000L	0.0 N	20.0000	100.0000	100.0000	10.0000L	0.0 N	10.0000	70.0000	10.0000
100	0.0 N	0.0 N	70.0000	100.0000	100.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
51	0.0 N	20.0000	0.0 N	1500.0000	200.0000	0.0 N	20.0000	0.0 N	50.0000
52	0.0 N	30.0000	0.0 N	700.0000	200.0000	0.0 N	30.0000	0.0 N	150.0000
53	0.0 N	30.0000	0.0 N	700.0000	200.0000	0.0 N	30.0000	100.0000L	100.0000
54	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
55	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	150.0000
56	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
57	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
58	0.0 N	30.0000	0.0 N	1000.0000	200.0000	0.0 N	30.0000	0.0 N	70.0000
59	0.0 N	20.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
60	0.0 N	30.0000	0.0 N	1000.0000	200.0000	0.0 N	30.0000	0.0 N	150.0000
61	0.0 N	50.0000	0.0 N	500.0000	200.0000	0.0 N	50.0000	0.0 N	200.0000
62	0.0 N	50.0000	0.0 N	1000.0000	500.0000	0.0 N	20.0000	0.0 N	70.0000
63	0.0 N	20.0000	0.0 N	700.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
64	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	200.0000
65	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	50.0000
66	0.0 N	30.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
67	0.0 N	70.0000	0.0 N	150.0000	200.0000	0.0 N	200.0000	100.0000L	150.0000
68	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
69	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
70	0.0 N	30.0000	0.0 N	1000.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
71	0.0 N	30.0000	0.0 N	1000.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
72	0.0 N	30.0000	0.0 N	700.0000	200.0000	0.0 N	30.0000	0.0 N	70.0000
73	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
74	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
75	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
76	0.0 N	50.0000	0.0 N	700.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
77	0.0 N	20.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
78	0.0 N	20.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
79	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	100.0000L	100.0000
80	0.0 N	50.0000	0.0 N	300.0000	300.0000	0.0 N	50.0000	100.0000L	150.0000
81	0.0 N	20.0000	0.0 N	500.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
82	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
83	0.0 N	30.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
84	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
85	0.0 N	50.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
86	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	200.0000
87	0.0 N	50.0000	0.0 N	500.0000	300.0000	0.0 N	30.0000	0.0 N	150.0000
88	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	30.0000	0.0 N	150.0000
89	0.0 N	50.0000	0.0 N	0.0 N	20.0000	0.0 N	200.0000G	0.0 N	100.0000
90	0.0 N	30.0000	0.0 N	500.0000	500.0000	0.0 N	20.0000	0.0 N	300.0000
91	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
92	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
93	0.0 N	20.0000	0.0 N	1000.0000	200.0000	0.0 N	30.0000	0.0 N	200.0000
94	0.0 N	50.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	70.0000
95	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	50.0000	0.0 N	100.0000
96	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
97	0.0 N	20.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
98	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
99	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
100	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
101	10.0000	2.0000	1.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	200.0000	700.0000
102	5.0000	2.0000	1.0000	0.3000	1000.0000	0.7000	0.0 N	0.0 N	70.0000	500.0000
103	7.0000	2.0000	1.0000	0.5000	1500.0000	0.7000	0.0 N	0.0 N	100.0000	500.0000
104	10.0000	2.0000	2.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	1000.0000
105	5.0000	1.5000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	70.0000	500.0000
106	7.0000	2.0000	1.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
107	5.0000	2.0000	0.7000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	100.0000	1000.0000
108	3.0000	0.7000	0.7000	0.2000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
109	5.0000	1.5000	0.7000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
110	10.0000	2.0000	0.7000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	100.0000	1000.0000
111	5.0000	1.5000	0.7000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
112	7.0000	1.5000	1.0000	0.5000	2000.0000	1.0000	0.0 N	0.0 N	150.0000	700.0000
113	10.0000	1.5000	1.0000	0.7000	2000.0000	0.5000	0.0 N	0.0 N	150.0000	500.0000
114	20.0000	2.0000	1.5000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
115	7.0000	2.0000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	100.0000	500.0000
116	5.0000	2.0000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
117	7.0000	2.0000	1.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	200.0000	500.0000
118	7.0000	1.5000	1.0000	0.5000	2000.0000	0.2500L	0.0 N	0.0 N	200.0000	700.0000
119	5.0000	1.0000	1.0000	0.5000	2000.0000	0.5000	0.0 N	0.0 N	200.0000	700.0000
120	5.0000	1.5000	1.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	500.0000	500.0000
121	5.0000	1.5000	1.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
122	5.0000	1.0000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
123	5.0000	3.0000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
124	20.0000	2.0000	3.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
125	15.0000	2.0000	3.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	70.0000
126	5.0000	2.0000	1.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
127	7.0000	3.0000	2.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
128	5.0000	1.0000	1.0000	0.2000	1000.0000	0.5000	0.0 N	0.0 N	70.0000	500.0000
129	5.0000	1.0000	0.7000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	100.0000	500.0000
130	10.0000	3.0000	2.0000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
131	10.0000	2.0000	3.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	1500.0000
132	7.0000	1.5000	1.0000	0.5000	1500.0000	0.5000	0.0 N	0.0 N	70.0000	1000.0000
133	10.0000	1.5000	1.0000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
134	5.0000	2.0000	1.0000	0.3000	1000.0000	1.0000	0.0 N	0.0 N	200.0000	1000.0000
135	7.0000	2.0000	1.0000	0.5000	2000.0000	0.7000	0.0 N	0.0 N	100.0000	1000.0000
136	10.0000	2.0000	1.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
137	10.0000	2.0000	2.0000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	1000.0000
138	7.0000	2.0000	2.0000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
139	10.0000	3.0000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
140	20.0000	2.0000	2.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
141	5.0000	2.0000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
142	5.0000	2.0000	1.0000	0.3000	1500.0000	0.5000N	0.0 N	0.0 N	100.0000	700.0000
143	5.0000	2.0000	1.0000	0.3000	1500.0000	0.5000	0.0 N	0.0 N	50.0000	700.0000
144	5.0000	1.5000	1.0000	0.3000	1000.0000	0.5000	0.0 N	0.0 N	70.0000	700.0000
145	5.0000	2.0000	1.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
146	5.0000	1.0000	0.7000	0.2000	1500.0000	0.5000	0.0 N	0.0 N	100.0000	500.0000
147	5.0000	1.0000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
148	7.0000	2.0000	2.0000	0.2000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
149	10.0000	2.0000	2.0000	0.2000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
150	20.0000	2.0000	3.0000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
101	0.5000L	0.0 N	70.0000	150.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
102	0.5000L	0.0 N	70.0000	100.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	20.0000
103	0.5000L	0.0 N	50.0000	100.0000	100.0000	30.0000	0.0 N	5.0000L	70.0000	20.0000
104	0.5000L	0.0 N	70.0000	100.0000	30.0000	30.0000	0.0 N	5.0000L	50.0000	10.0000
105	0.5000L	0.0 N	50.0000	100.0000	30.0000	20.0000	0.0 N	5.0000L	50.0000	20.0000
106	0.5000L	0.0 N	30.0000	200.0000	50.0000	30.0000	0.0 N	5.0000L	70.0000	20.0000
107	1.0000	0.0 N	50.0000	200.0000	70.0000	20.0000	0.0 N	10.0000	70.0000	20.0000
108	1.0000	0.0 N	20.0000	70.0000	20.0000	20.0000	5.0000	5.0000L	20.0000	20.0000
109	1.0000	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	10.0000	70.0000	20.0000
110	0.5000L	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	10.0000	100.0000	20.0000
111	1.0000	0.0 N	30.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	15.0000
112	1.0000	0.0 N	50.0000	100.0000	100.0000	30.0000	0.0 N	10.0000	100.0000	20.0000
113	0.5000L	0.0 N	50.0000	150.0000	70.0000	30.0000	0.0 N	10.0000	100.0000	20.0000
114	0.5000L	0.0 N	50.0000	150.0000	70.0000	30.0000	0.0 N	5.0000L	100.0000	20.0000
115	0.5000L	0.0 N	50.0000	150.0000	50.0000	30.0000	0.0 N	5.0000L	100.0000	15.0000
116	0.5000L	0.0 N	50.0000	150.0000	70.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
117	0.5000L	0.0 N	70.0000	150.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
118	0.5000L	0.0 N	70.0000	100.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	20.0000
119	0.5000L	0.0 N	50.0000	150.0000	70.0000	20.0000	0.0 N	5.0000L	70.0000	20.0000
120	0.5000L	0.0 N	30.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	15.0000
121	1.0000	0.0 N	20.0000	200.0000	50.0000	30.0000	5.0000	5.0000L	50.0000	10.0000
122	0.5000L	0.0 N	30.0000	100.0000	30.0000	20.0000	0.0 N	10.0000	50.0000	20.0000
123	0.0 N	0.0 N	50.0000	1000.0000	50.0000	20.0000	0.0 N	5.0000L	200.0000	15.0000
124	0.0 N	0.0 N	70.0000	200.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	5.0000L
125	0.0 N	0.0 N	50.0000	200.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	5.0000L
126	1.0000	0.0 N	50.0000	200.0000	50.0000	20.0000	0.0 N	10.0000	70.0000	15.0000
127	0.5000L	0.0 N	70.0000	150.0000	100.0000	20.0000	0.0 N	10.0000	70.0000	5.0000L
128	0.5000L	0.0 N	50.0000	70.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
129	0.5000L	0.0 N	50.0000	70.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	20.0000
130	0.5000L	0.0 N	70.0000	100.0000	50.0000	30.0000	0.0 N	5.0000L	30.0000	15.0000
131	0.5000L	0.0 N	70.0000	200.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
132	0.5000L	0.0 N	30.0000	100.0000	30.0000	50.0000	7.0000	5.0000L	70.0000	15.0000
133	1.0000	0.0 N	30.0000	70.0000	50.0000	30.0000	5.0000	5.0000L	50.0000	10.0000
134	0.5000L	0.0 N	50.0000	200.0000	50.0000	30.0000	5.0000	10.0000	100.0000	50.0000
135	0.5000L	0.0 N	50.0000	200.0000	150.0000	30.0000	0.0 N	5.0000L	100.0000	20.0000
136	0.5000L	0.0 N	50.0000	200.0000	100.0000	30.0000	0.0 N	5.0000L	100.0000	20.0000
137	0.5000L	0.0 N	50.0000	200.0000	70.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
138	0.0 N	0.0 N	70.0000	200.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
139	0.0 N	0.0 N	70.0000	200.0000	70.0000	0.0 N	0.0 N	5.0000L	70.0000	5.0000L
140	0.0 N	0.0 N	70.0000	200.0000	200.0000	20.0000	0.0 N	5.0000L	100.0000	10.0000
141	0.5000L	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	10.0000	70.0000	10.0000
142	0.5000L	0.0 N	50.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	20.0000
143	0.5000L	0.0 N	50.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	15.0000
144	0.5000L	0.0 N	50.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	30.0000
145	0.5000L	0.0 N	70.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	15.0000
146	0.5000L	0.0 N	70.0000	100.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	20.0000
147	0.5000L	0.0 N	50.0000	70.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
148	0.5000L	0.0 N	70.0000	150.0000	50.0000	30.0000	0.0 N	5.0000L	70.0000	20.0000
149	0.0 N	0.0 N	70.0000	300.0000	70.0000	20.0000	0.0 N	5.0000L	70.0000	20.0000
150	0.5000L	0.0 N	100.0000	150.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	SB PPM		SC PPM	SN PPM		SR PPM	V PPM	W PPM		Y PPM	ZN PPM		ZR PPM
101	0.0	N	50.0000	0.0	N	500.0000	300.0000	0.0	N	30.0000	0.0	N	100.0000
102	0.0	N	30.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
103	0.0	N	30.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
104	0.0	N	50.0000	0.0	N	1500.0000	500.0000	0.0	N	20.0000	0.0	N	70.0000
105	0.0	N	30.0000	0.0	N	500.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
106	0.0	N	30.0000	0.0	N	500.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
107	0.0	N	30.0000	0.0	N	200.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
108	0.0	N	20.0000	0.0	N	300.0000	200.0000	0.0	N	15.0000	0.0	N	50.0000
109	0.0	N	30.0000	0.0	N	300.0000	150.0000	0.0	N	30.0000	0.0	N	100.0000
110	0.0	N	30.0000	0.0	N	200.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
111	0.0	N	30.0000	0.0	N	200.0000	200.0000	0.0	N	20.0000	0.0	N	150.0000
112	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	50.0000	0.0	N	200.0000
113	0.0	N	50.0000	0.0	N	500.0000	200.0000	0.0	N	50.0000	0.0	N	100.0000
114	0.0	N	50.0000	0.0	N	500.0000	300.0000	0.0	N	50.0000	0.0	N	100.0000
115	0.0	N	30.0000	0.0	N	300.0000	300.0000	0.0	N	20.0000	0.0	N	100.0000
116	0.0	N	20.0000	0.0	N	300.0000	300.0000	0.0	N	20.0000	0.0	N	70.0000
117	0.0	N	50.0000	0.0	N	500.0000	300.0000	0.0	N	30.0000	0.0	N	100.0000
118	0.0	N	50.0000	0.0	N	500.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
119	0.0	N	30.0000	0.0	N	500.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
120	0.0	N	30.0000	0.0	N	500.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
121	0.0	N	30.0000	0.0	N	700.0000	200.0000	0.0	N	30.0000	0.0	N	70.0000
122	0.0	N	20.0000	0.0	N	500.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
123	0.0	N	30.0000	0.0	N	150.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
124	0.0	N	50.0000	0.0	N	300.0000	500.0000	0.0	N	50.0000	0.0	N	100.0000
125	0.0	N	50.0000	0.0	N	300.0000	500.0000	0.0	N	30.0000	0.0	N	100.0000
126	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
127	0.0	N	20.0000	0.0	N	300.0000	800.0000	0.0	N	30.0000	100.0000	L	150.0000
128	0.0	N	30.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
129	0.0	N	20.0000	0.0	N	200.0000	150.0000	0.0	N	30.0000	0.0	N	100.0000
130	0.0	N	50.0000	0.0	N	1500.0000	500.0000	0.0	N	30.0000	0.0	N	50.0000
131	0.0	N	70.0000	0.0	N	1500.0000	300.0000	0.0	N	20.0000	0.0	N	50.0000
132	0.0	N	30.0000	0.0	N	500.0000	300.0000	0.0	N	50.0000	0.0	N	100.0000
133	0.0	N	20.0000	0.0	N	500.0000	200.0000	0.0	N	30.0000	0.0	N	70.0000
134	0.0	N	30.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	70.0000
135	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	50.0000	0.0	N	100.0000
136	0.0	N	50.0000	0.0	N	300.0000	300.0000	0.0	N	50.0000	0.0	N	150.0000
137	0.0	N	50.0000	0.0	N	200.0000	200.0000	0.0	N	50.0000	0.0	N	100.0000
138	0.0	N	50.0000	0.0	N	300.0000	300.0000	0.0	N	30.0000	0.0	N	100.0000
139	0.0	N	20.0000	0.0	N	100.0000	200.0000	0.0	N	15.0000	0.0	N	50.0000
140	0.0	N	50.0000	0.0	N	200.0000	500.0000	0.0	N	50.0000	0.0	N	100.0000
141	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	50.0000	0.0	N	100.0000
142	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
143	0.0	N	30.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
144	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
145	0.0	N	50.0000	0.0	N	300.0000	300.0000	0.0	N	30.0000	0.0	N	100.0000
146	0.0	N	30.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
147	0.0	N	30.0000	0.0	N	200.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
148	0.0	N	70.0000	0.0	N	700.0000	500.0000	0.0	N	30.0000	0.0	N	50.0000
149	0.0	N	70.0000	0.0	N	500.0000	300.0000	0.0	N	20.0000	0.0	N	30.0000
150	0.0	N	70.0000	0.0	N	1000.0000	500.0000	0.0	N	30.0000	0.0	N	30.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
151	10.0000	3.0000	1.5000	0.7000	3000.0000	0.7000	0.0 N	0.0 N	10.0000	500.0000
152	3.0000	1.0000	1.0000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	20.0000	700.0000
153	20.0000	2.0000	1.5000	1.0000	3000.0000	0.7000	0.0 N	0.0 N	20.0000	700.0000
154	7.0000	2.0000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
155	7.0000	2.0000	1.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
156	10.0000	2.0000	2.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
157	7.0000	2.0000	2.0000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
158	10.0000	1.5000	2.0000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
159	7.0000	2.0000	2.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
160	5.0000	1.5000	1.5000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
161	7.0000	3.0000	2.0000	1.0000G	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
162	5.0000	0.3000	1.0000	0.1500	200.0000	0.0 N	0.0 N	0.0 N	150.0000	700.0000
163	3.0000	1.5000	1.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
164	5.0000	1.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
165	7.0000	3.0000	2.0000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
166	5.0000	1.0000	1.5000	0.5000	1500.0000	0.7000	0.0 N	0.0 N	150.0000	1500.0000
167	15.0000	2.0000	2.0000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
168	2.0000	1.0000	3.0000	0.1000	200.0000	0.7000	0.0 N	0.0 N	20.0000	300.0000
169	3.0000	1.5000	1.0000	0.2000	500.0000	0.5000	0.0 N	0.0 N	20.0000	500.0000
170	5.0000	2.0000	1.5000	0.5000	1000.0000	0.7000	0.0 N	0.0 N	50.0000	500.0000
171	20.0000	2.0000	2.0000	0.7000	5000.0000	0.0 N	0.0 N	0.0 N	150.0000	100.0000
172	20.0000	2.0000	3.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
173	10.0000	2.0000	2.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
174	10.0000	1.5000	2.0000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
175	20.0000	2.0000	3.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
176	10.0000	2.0000	2.0000	0.5000	2000.0000	0.5000	0.0 N	0.0 N	15.0000	500.0000
177	10.0000	2.0000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
178	15.0000	2.0000	3.0000	7.0000	3000.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
179	15.0000	2.0000	3.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
180	7.0000	2.0000	2.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	150.0000	200.0000
181	20.0000G	2.0000	3.0000	1.0000	3000.0000	0.0 N	0.0 N	0.0 N	20.0000	150.0000
182	20.0000	2.0000	2.0000	1.0000	3000.0000	0.0 N	0.0 N	0.0 N	30.0000	100.0000
183	20.0000	2.0000	3.0000	1.0000	3000.0000	0.0 N	0.0 N	0.0 N	100.0000	100.0000
184	10.0000	2.0000	3.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
185	7.0000	2.0000	2.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	100.0000	200.0000
186	5.0000	2.0000	2.0000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
187	5.0000	3.0000	2.0000	0.3000	1500.0000	0.5000	0.0 N	0.0 N	20.0000	700.0000
188	15.0000	2.0000	3.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	100.0000
189	7.0000	1.5000	1.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
190	5.0000	1.5000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
191	5.0000	1.5000	2.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
192	5.0000	1.5000	1.5000	0.3000	2000.0000	0.2500L	0.0 N	0.0 N	10.0000	200.0000
193	20.0000	2.0000	3.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
194	15.0000	2.0000	2.0000	0.7000	2000.0000	0.7000	0.0 N	0.0 N	10.0000	200.0000
195	5.0000	5.0000	2.0000	0.5000	1500.0000	0.5000	0.0 N	0.0 N	20.0000	700.0000
196	5.0000	2.0000	2.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	1000.0000
197	10.0000	2.0000	5.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
198	5.0000	2.0000	1.5000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
199	3.0000	1.5000	1.5000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
200	5.0000	2.0000	2.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
151	0.0 N	0.0 N	70.0000	300.0000	0.0 I	0.0 N	0.0 N	5.0000L	150.0000	5.0000L
152	0.5000L	0.0 N	20.0000	100.0000	100.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
153	0.0 N	0.0 N	70.0000	500.0000	5000.0000	0.0 N	0.0 N	5.0000L	150.0000	5.0000L
154	0.5000L	0.0 N	50.0000	100.0000	100.0000	10.0000L	0.0 N	5.0000L	70.0000	10.0000
155	0.0 N	0.0 N	70.0000	500.0000	1000.0000	20.0000	0.0 N	5.0000L	150.0000	15.0000
156	0.0 N	0.0 N	50.0000	300.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	10.0000
157	0.0 N	0.0 N	50.0000	150.0000	150.0000	20.0000	0.0 N	5.0000L	70.0000	5.0000L
158	0.0 N	0.0 N	70.0000	300.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
159	0.0 N	0.0 N	30.0000	150.0000	100.0000	20.0000	0.0 N	5.0000L	50.0000	5.0000L
160	0.0 N	0.0 N	50.0000	150.0000	100.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
161	0.5000L	0.0 N	30.0000	150.0000	70.0000	20.0000	0.0 N	10.0000	70.0000	5.0000L
162	1.0000	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	30.0000
163	0.5000L	0.0 N	20.0000	70.0000	70.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
164	0.5000L	0.0 N	20.0000	70.0000	70.0000	10.0000L	0.0 N	5.0000L	70.0000	5.0000L
165	0.5000L	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	5.0000L	50.0000	15.0000
166	0.5000L	0.0 N	20.0000	70.0000	50.0000	20.0000	10.0000	10.0000	70.0000	10.0000
167	0.5000L	0.0 N	70.0000	100.0000	70.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
168	0.5000L	0.0 N	0.0 N	70.0000	20.0000	20.0000	0.0 N	5.0000L	20.0000	10.0000
169	0.5000L	0.0 N	20.0000	150.0000	30.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
170	0.5000L	0.0 N	30.0000	150.0000	50.0000	20.0000	0.0 N	5.0000L	100.0000	10.0000
171	0.0 N	0.0 N	70.0000	300.0000	200.0000	0.0 N	0.0 N	10.0000	100.0000	10.0000
172	0.0 N	0.0 N	70.0000	500.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
173	0.0 N	0.0 N	50.0000	300.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	10.0000
174	0.0 N	0.0 N	70.0000	200.0000	150.0000	0.0 N	0.0 N	5.0000L	100.0000	10.0000
175	0.0 N	0.0 N	70.0000	300.0000	150.0000	0.0 N	0.0 N	5.0000L	100.0000	10.0000
176	0.0 N	0.0 N	50.0000	300.0000	100.0000	20.0000	0.0 N	5.0000L	70.0000	15.0000
177	0.0 N	0.0 N	50.0000	150.0000	100.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
178	0.0 N	0.0 N	70.0000	200.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
179	0.0 N	0.0 N	70.0000	200.0000	150.0000	20.0000	0.0 N	5.0000L	150.0000	10.0000
180	0.5000L	0.0 N	70.0000	300.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	20.0000
181	0.0 N	0.0 N	100.0000	300.0000	150.0000	20.0000	0.0 N	10.0000	150.0000	10.0000
182	0.0 N	0.0 N	70.0000	200.0000	100.0000	20.0000	0.0 N	10.0000	100.0000	10.0000
183	0.0 N	0.0 N	100.0000	200.0000	150.0000	20.0000	0.0 N	10.0000	100.0000	10.0000
184	0.5000L	0.0 N	50.0000	150.0000	100.0000	20.0000	0.0 N	10.0000	70.0000	10.0000
185	0.5000L	0.0 N	50.0000	500.0000	100.0000	20.0000	0.0 N	10.0000	100.0000	20.0000
186	0.5000L	0.0 N	70.0000	700.0000	50.0000	20.0000	0.0 N	5.0000L	150.0000	15.0000
187	0.5000L	0.0 N	50.0000	1000.0000	100.0000	20.0000	0.0 L	0.0 L	200.0000	20.0000
188	0.0 N	0.0 N	70.0000	300.0000	200.0000	20.0000	0.0 N	10.0000	100.0000	10.0000
189	0.5000L	0.0 N	50.0000	100.0000	100.0000	20.0000	0.0 N	10.0000	70.0000	15.0000
190	0.5000L	0.0 N	50.0000	200.0000	100.0000	20.0000	0.0 N	5.0000L	70.0000	10.0000
191	0.5000L	0.0 N	50.0000	200.0000	100.0000	20.0000	0.0 N	10.0000	70.0000	10.0000
192	0.5000L	0.0 N	30.0000	100.0000	100.0000	20.0000	0.0 N	10.0000	70.0000	15.0000
193	0.0 N	0.0 N	70.0000	200.0000	100.0000	20.0000	0.0 N	10.0000	100.0000	10.0000
194	0.0 N	0.0 N	50.0000	150.0000	150.0000	0.0 N	0.0 N	5.0000L	100.0000	100.0000
195	0.5000L	0.0 N	50.0000	1500.0000	100.0000	20.0000	5.0000	5.0000L	200.0000	20.0000
196	0.5000L	0.0 N	50.0000	500.0000	100.0000	20.0000	0.0 L	0.0 L	150.0000	15.0000
197	0.0 N	0.0 N	70.0000	200.0000	150.0000	20.0000	0.0 N	5.0000L	100.0000	10.0000
198	0.5000L	0.0 N	50.0000	150.0000	200.0000	20.0000	0.0 N	5.0000L	70.0000	15.0000
199	0.5000L	0.0 N	30.0000	30.0000	30.0000	20.0000	5.0000	0.0 L	50.0000	15.0000
200	0.0 N	0.0 N	50.0000	200.0000	50.0000	20.0000	5.0000	5.0000L	70.0000	50.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
151	0.0 N	50.0000	0.0 N	150.0000	300.0000	0.0 N	50.0000	0.0 N	100.0000
152	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	30.0000	0.0 N	70.0000
153	0.0 N	50.0000	0.0 N	150.0000	500.0000	0.0 N	50.0000	0.0 N	100.0000
154	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
155	0.0 N	50.0000	0.0 N	150.0000	300.0000	0.0 N	50.0000	0.0 N	150.0000
156	0.0 N	70.0000	0.0 N	200.0000	500.0000	0.0 N	50.0000	0.0 N	100.0000
157	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
158	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
159	0.0 N	70.0000	0.0 N	2000.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
160	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
161	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	100.0000L	150.0000
162	0.0 N	50.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
163	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	100.0000L	70.0000
164	0.0 N	30.0000	0.0 N	300.0000	150.0000	0.0 N	10.0000	100.0000L	70.0000
165	0.0 N	70.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
166	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	100.0000	300.0000	150.0000
167	0.0 N	20.0000	0.0 N	200.0000	150.0000	0.0 N	50.0000	0.0 N	50.0000
168	0.0 N	10.0000	0.0 N	200.0000	100.0000	25.0000L	50.0000	0.0 N	30.0000
169	0.0 N	20.0000	0.0 N	200.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
170	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	50.0000	0.0 N	100.0000
171	0.0 N	50.0000	0.0 N	200.0000	500.0000	0.0 N	30.0000	0.0 N	100.0000
172	0.0 N	70.0000	0.0 N	200.0000	500.0000	0.0 N	50.0000	0.0 N	100.0000
173	0.0 N	50.0000	0.0 N	300.0000	300.0000	0.0 N	50.0000	0.0 N	100.0000
174	0.0 N	50.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
175	0.0 N	70.0000	0.0 N	300.0000	300.0000	0.0 N	50.0000	0.0 N	100.0000
176	0.0 N	50.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
177	0.0 N	20.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
178	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	50.0000	0.0 N	100.0000
179	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	50.0000	0.0 N	100.0000
180	0.0 N	50.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
181	0.0 N	100.0000	0.0 N	700.0000	1000.0000	0.0 N	50.0000	0.0 N	100.0000
182	0.0 N	50.0000	0.0 N	300.0000	500.0000	0.0 N	30.0000	0.0 N	70.0000
183	0.0 N	50.0000	0.0 N	1000.0000	700.0000	0.0 N	50.0000	0.0 N	100.0000
184	0.0 N	30.0000	0.0 N	300.0000	500.0000	0.0 N	30.0000	0.0 N	100.0000
185	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
186	0.0 N	50.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	50.0000
187	0.0 N	50.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	50.0000
188	0.0 N	50.0000	0.0 N	200.0000	500.0000	0.0 N	30.0000	0.0 N	100.0000
189	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
190	0.0 N	50.0000	0.0 N	500.0000	300.0000	0.0 N	30.0000	0.0 N	70.0000
191	0.0 N	50.0000	0.0 N	500.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
192	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
193	0.0 N	50.0000	0.0 N	500.0000	500.0000	0.0 N	30.0000	0.0 N	100.0000
194	0.0 N	30.0000	0.0 N	200.0000	500.0000	0.0 N	20.0000	0.0 N	50.0000
195	0.0 N	50.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
196	0.0 N	50.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
197	0.0 N	70.0000	0.0 N	300.0000	500.0000	0.0 N	50.0000	0.0 N	100.0000
198	0.0 N	50.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
199	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
200	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
201	5.0000	1.0000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
202	5.0000	1.5000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
203	7.0000	2.0000	3.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
204	5.0000	2.0000	2.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
205	5.0000	2.0000	2.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
206	5.0000	2.0000	3.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
207	7.0000	2.0000	2.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
208	5.0000	1.5000	1.5000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
209	5.0000	1.5000	1.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
210	3.0000	1.0000	1.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	200.0000
211	3.0000	1.0000	0.7000	0.3000	1000.0000	1.0000	0.0 N	0.0 N	20.0000	700.0000
212	2.0000	1.0000	1.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
213	3.0000	1.5000	1.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
214	5.0000	1.5000	1.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
215	5.0000	1.5000	2.0000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
216	7.0000	2.0000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	75.0000	300.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
201	1.0000	0.0 N	30.0000	100.0000	70.0000	20.0000	0.0 N	5.0000L	70.0000	20.0000
202	1.0000	0.0 N	30.0000	200.0000	50.0000	20.0000	0.0 N	10.0000	70.0000	20.0000
203	0.5000L	0.0 N	70.0000	500.0000	100.0000	20.0000	0.0 N	5.0000L	100.0000	15.0000
204	1.0000	0.0 N	50.0000	300.0000	50.0000	20.0000	0.0 N	10.0000	70.0000	20.0000
205	1.0000	0.0 N	50.0000	300.0000	50.0000	20.0000	0.0 N	0.0 L	100.0000	20.0000
206	0.0 N	0.0 N	70.0000	500.0000	70.0000	20.0000	0.0 N	0.0 L	150.0000	20.0000
207	0.5000L	0.0 N	50.0000	500.0000	50.0000	20.0000	0.0 N	5.0000L	150.0000	0.0 N
208	1.0000	0.0 N	50.0000	200.0000	50.0000	30.0000	0.0 N	10.0000	100.0000	30.0000
209	0.5000L	0.0 N	50.0000	150.0000	50.0000	20.0000	0.0 N	5.0000L	70.0000	20.0000
210	0.5000L	0.0 N	20.0000	100.0000	100.0000	20.0000	0.0 N	0.0 N	20.0000	20.0000
211	0.5000L	0.0 N	20.0000	100.0000	50.0000	30.0000	10.0000	0.0 L	50.0000	30.0000
212	0.5000L	0.0 N	10.0000	70.0000	20.0000	20.0000	0.0 N	0.0 N	15.0000	15.0000
213	0.5000L	0.0 N	20.0000	150.0000	30.0000	20.0000	0.0 N	0.0 L	50.0000	20.0000
214	0.5000L	0.0 N	30.0000	150.0000	30.0000	20.0000	0.0 N	0.0 L	70.0000	15.0000
215	0.5000L	0.0 N	20.0000	150.0000	20.0000	20.0000	0.0 N	5.0000L	50.0000	10.0000
216	0.5000L	0.0 N	30.0000	150.0000	70.0000	10.0000L	0.0 N	5.0000L	70.0000	15.0000

STR SED ANALYSES, CNTRL ALASKA

SAMPLE	SB PPM		SC PPM	SN PPM		SR PPM	V PPM	W PPM		Y PPM	ZN PPM		ZR PPM
201	0.0	N	30.0000	0.0	N	200.0000	200.0000	0.0	N	20.0000	0.0	N	70.0000
202	0.0	N	50.0000	0.0	N	700.0000	200.0000	0.0	N	50.0000	0.0	N	150.0000
203	0.0	N	50.0000	0.0	N	500.0000	300.0000	0.0	N	30.0000	0.0	N	100.0000
204	0.0	N	50.0000	0.0	N	700.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
205	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	150.0000
206	0.0	N	50.0000	0.0	N	500.0000	200.0000	0.0	N	30.0000	0.0	N	70.0000
207	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	50.0000	0.0	N	70.0000
208	0.0	N	50.0000	0.0	N	500.0000	200.0000	0.0	N	50.0000	0.0	N	150.0000
209	0.0	N	50.0000	0.0	N	300.0000	200.0000	0.0	N	50.0000	0.0	N	100.0000
210	0.0	N	20.0000	0.0	N	200.0000	150.0000	0.0	N	20.0000	0.0	N	50.0000
211	0.0	N	20.0000	0.0	N	300.0000	200.0000	0.0	N	30.0000	0.0	N	70.0000
212	0.0	N	15.0000	0.0	N	200.0000	150.0000	0.0	N	20.0000	0.0	N	70.0000
213	0.0	N	30.0000	0.0	N	300.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
214	0.0	N	30.0000	0.0	N	300.0000	200.0000	0.0	N	20.0000	0.0	N	100.0000
215	0.0	N	30.0000	0.0	N	700.0000	200.0000	0.0	N	30.0000	0.0	N	100.0000
216	0.0	N	20.0000	0.0	N	300.0000	300.0000	0.0	N	20.0000	0.0	N	70.0000

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

FREQUENCY TABLE FOR COLUMN 1 (FF PCT)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	0	0	0.0	0.0
5.6E-02 -	8.3E-02	0	0	0.0	0.0
8.3E-02 -	1.2E-01	0	0	0.0	0.0
1.2E-01 -	1.8E-01	0	0	0.0	0.0
1.8E-01 -	2.6E-01	0	0	0.0	0.0
2.6E-01 -	3.8E-01	0	0	0.0	0.0
3.8E-01 -	5.6E-01	0	0	0.0	0.0
5.6E-01 -	8.3E-01	0	0	0.0	0.0
8.3E-01 -	1.2E 00	0	0	0.0	0.0
1.2E 00 -	1.8E 00	0	0	0.0	0.0
1.8E 00 -	2.6E 00	3	3	1.39	1.39
2.6E 00 -	3.8E 00	14	17	6.48	7.87
3.8E 00 -	5.6E 00	80	97	37.04	44.91
5.6E 00 -	8.3E 00	55	152	25.46	70.37
8.3E 00 -	1.2E 01	43	195	19.91	90.28
1.2E 01 -	1.8E 01	8	203	3.70	93.98
1.8E 01 -	2.6E 01	12	215	5.56	99.54

HISTOGRAM FOR COLUMN 1 (FF PCT)

```
      2.0E 00 X
      3.0E 00 XXXXXX
      5.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      7.0E 00 XXXXXXXXXXXXXXXXXXXXXXXX
      1.0E 01 XXXXXXXXXXXXXXXXXXX
      1.5E 01 XXXX
      2.0E 01 XXXXXX
```

N	L	H	R	T	G	ANALYTICAL VALUES
0	0	0	0	0	1	215
0.0	0.0			0.0	0.46	

MAXIMUM = 2.00000E 01

MINIMUM = 2.00000E 00

GEOMETRIC MEAN = 6.72832E 00

GEOMETRIC DEVIATION = 1.59648E 00

FREQUENCY TABLE FOR COLUMN 2 (MG PCT)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E-02 - 2.6E-02	0	0	0.0	0.0
2.6E-02 - 3.8E-02	0	0	0.0	0.0
3.8E-02 - 5.6E-02	1	1	0.46	0.46
5.6E-02 - 8.3E-02	0	1	0.0	0.46
8.3E-02 - 1.2E-01	0	1	0.0	0.46
1.2E-01 - 1.8E-01	0	1	0.0	0.46
1.8E-01 - 2.6E-01	0	1	0.0	0.46
2.6E-01 - 3.8E-01	1	2	0.46	0.93
3.8E-01 - 5.6E-01	0	2	0.0	0.93
5.6E-01 - 8.3E-01	1	3	0.46	1.39
8.3E-01 - 1.2E 00	16	19	7.41	8.80
1.2E 00 - 1.8E 00	49	68	22.69	31.48
1.8E 00 - 2.6E 00	115	183	53.24	84.72
2.6E 00 - 3.8E 00	27	210	12.50	97.22
3.8E 00 - 5.6E 00	6	216	2.78	100.00

HISTOGRAM FOR COLUMN 2 (MG PCT)

```
1.0E 00 XXXXXXX

1.5E 00 XXXXXXXXXXXXXXXXXXXXXXX

2.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 00 XXXXXXXXXXXXX

5.0E 00 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	216
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 00

MINIMUM = 5.00000E-02

GEOMETRIC MEAN = 1.86255E 00

GEOMETRIC DEVIATION = 1.52621E 00

FREQUENCY TABLE FOR COLUMN 3 (CA PCT)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	1	1	0.46	0.46
5.6E-02 -	8.3E-02	0	1	0.0	0.46
8.3E-02 -	1.2E-01	0	1	0.0	0.46
1.2E-01 -	1.8E-01	0	1	0.0	0.46
1.8E-01 -	2.6E-01	0	1	0.0	0.46
2.6E-01 -	3.8E-01	0	1	0.0	0.46
3.8E-01 -	5.6E-01	0	1	0.0	0.46
5.6E-01 -	8.3E-01	11	12	5.09	5.56
8.3E-01 -	1.2E 00	69	81	31.94	37.50
1.2E 00 -	1.8E 00	53	134	24.54	62.04
1.8E 00 -	2.6E 00	57	191	26.39	88.43
2.6E 00 -	3.8E 00	22	213	10.19	98.61
3.8E 00 -	5.6E 00	3	216	1.39	100.00

HISTOGRAM FOR COLUMN 3 (CA PCT)

```
       7.0E-01 XXXXX

       1.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       1.5E 00 XXXXXXXXXXXXXXXXXXXXXXXX

       2.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXX

       3.0E 00 XXXXXXXXXX

       5.0E 00 X
```

N	L	H	R	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	216
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 00

MINIMUM = 5.00000E-02

GEOMETRIC MEAN = 1.46905E 00

GEOMETRIC DEVIATION = 1.61065E 00

FREQUENCY TABLE FOR COLUMN 4 (TI PCT)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E-03 -	2.6E-03	0	0	0.0	0.0
2.6E-03 -	3.8E-03	0	0	0.0	0.0
3.8E-03 -	5.6E-03	0	0	0.0	0.0
5.6E-03 -	8.3E-03	0	0	0.0	0.0
8.3E-03 -	1.2E-02	0	0	0.0	0.0
1.2E-02 -	1.8E-02	0	0	0.0	0.0
1.8E-02 -	2.6E-02	0	0	0.0	0.0
2.6E-02 -	3.8E-02	0	0	0.0	0.0
3.8E-02 -	5.6E-02	0	0	0.0	0.0
5.6E-02 -	8.3E-02	0	0	0.0	0.0
8.3E-02 -	1.2E-01	1	1	0.46	0.46
1.2E-01 -	1.8E-01	1	2	0.46	0.93
1.8E-01 -	2.6E-01	9	11	4.17	5.09
2.6E-01 -	3.8E-01	46	57	21.30	26.39
3.8E-01 -	5.6E-01	95	152	43.98	70.37
5.6E-01 -	8.3E-01	48	200	22.22	92.59
8.3E-01 -	1.2E 00	13	213	6.02	98.61
1.2E 00 -	1.8E 00	0	213	0.0	98.61
1.8E 00 -	2.6E 00	0	213	0.0	98.61
2.6E 00 -	3.8E 00	0	213	0.0	98.61
3.8E 00 -	5.6E 00	0	213	0.0	98.61
5.6E 00 -	8.3E 00	1	214	0.46	99.07

HISTOGRAM FOR COLUMN 4 (TI PCT)

```
2.0E-01 XXXX
3.0E-01 XXXXXXXXXXXXXXXXXXXX
5.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E-01 XXXXXXXXXXXXXXXXXXXX
1.0E 00 XXXXXX
1.5E 00
2.0E 00
3.0E 00
5.0E 00
7.0E 00
```

N	L	H	R	T	G	ANALYTICAL VALUES
0	0	0	0	0	2	214
0.0	0.0			0.0	0.93	

MAXIMUM = 7.000000E 00

MINIMUM = 1.000000E-01

GEOMETRIC MEAN = 4.84464E-01

GEOMETRIC DEVIATION = 1.55926E 00

FREQUENCY TABLE FOR COLUMN 5 (MN PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	0	0	0.0	0.0
1.8E 01 -	2.6E 01	0	0	0.0	0.0
2.6E 01 -	3.8E 01	0	0	0.0	0.0
3.8E 01 -	5.6E 01	0	0	0.0	0.0
5.6E 01 -	8.3E 01	0	0	0.0	0.0
8.3E 01 -	1.2E 02	0	0	0.0	0.0
1.2E 02 -	1.8E 02	0	0	0.0	0.0
1.8E 02 -	2.6E 02	2	2	0.93	0.93
2.6E 02 -	3.8E 02	1	3	0.46	1.39
3.8E 02 -	5.6E 02	4	7	1.85	3.24
5.6E 02 -	8.3E 02	11	18	5.09	8.33
8.3E 02 -	1.2E 03	35	53	16.20	24.54
1.2E 03 -	1.8E 03	67	120	31.02	55.56
1.8E 03 -	2.6E 03	64	184	29.63	85.19
2.6E 03 -	3.8E 03	26	210	12.04	97.22
3.8E 03 -	5.6E 03	5	215	2.31	99.54

HISTOGRAM FOR COLUMN 5 (MN PPM)

```
      2.0E 02 X

      3.0E 02

      5.0E 02 XX

      7.0E 02 XXXXX

      1.0E 03 XXXXXXXXXXXXXXX

      1.5E 03 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

      2.0E 03 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

      3.0E 03 XXXXXXXXXXXX

      5.0E 03 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	1	215
0.0	0.0			0.0	0.46	

MAXIMUM = 5.00000E 03

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 1.57017E 03

GEOMETRIC DEVIATION = 1.64012E 00

FREQUENCY TABLE FOR COLUMN 6 (AG PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-01 -	5.6E-01	16	16	7.41	7.41
5.6E-01 -	8.3E-01	11	27	5.09	12.50
8.3E-01 -	1.2E 00	3	30	1.39	13.89

HISTOGRAM FOR COLUMN 6 (AG PPM)

5.0E-01 XXXXXXX

7.0E-01 XXXXX

1.0E 00 X

N	L	H	R	T	G	ANALYTICAL VALUES
182	4	0	0	0	0	30
84.26	1.85			0.0	0.0	

MAXIMUM = 1.00000E 00

MINIMUM = 5.00000E-01

GEOMETRIC MEAN = 6.06253E-01

GEOMETRIC DEVIATION = 1.26224E 00

FREQUENCY TABLE FOR COLUMN 7 (AS PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 02 - 2.6E 02	1	1	0.46	0.46

HISTOGRAM FOR COLUMN 7 (AS PPM)

N	L	H	R	T	G	ANALYTICAL VALUES
215	0	0	0	0	0	1
99.54	0.0			0.0	0.0	

MAXIMUM = 2.00000E 02

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 2.00000E 02

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 8 (AV PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
					ANALYTICAL
N	L	H	R	T	G	VALUES
216	0	0	0	0	0	0
*****	0.0			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 9 (B PPM)

LIMITS LOWER	– UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 –	1.2E 01	39	39	18.06	18.06
1.2E 01 –	1.8E 01	20	59	9.26	27.31
1.8E 01 –	2.6E 01	38	97	17.59	44.91
2.6E 01 –	3.8E 01	20	117	9.26	54.17
3.8E 01 –	5.6E 01	27	144	12.50	66.67
5.6E 01 –	8.3E 01	14	158	6.48	73.15
8.3E 01 –	1.2E 02	24	182	11.11	84.26
1.2E 02 –	1.8E 02	7	189	3.24	87.50
1.8E 02 –	2.6E 02	7	196	3.24	90.74
2.6E 02 –	3.8E 02	0	196	0.0	90.74
3.8E 02 –	5.6E 02	1	197	0.46	91.20

HISTOGRAM FOR COLUMN 9 (B PPM)

```
       1.0E 01 XXXXXXXXXXXXXXXXX

       1.5E 01 XXXXXXXXX

       2.0E 01 XXXXXXXXXXXXXXXXX

       3.0E 01 XXXXXXXXX

       5.0E 01 XXXXXXXXXXXX

       7.0E 01 XXXXXX

       1.0E 02 XXXXXXXXXX

       1.5E 02 XXX

       2.0E 02 XXX

       3.0E 02

       5.0E 02
```

N	L	H	B	T	G	ANALYTICAL VALUES
1	18	0	0	0	0	197
0.46	8.33			0.0	0.0	

MAXIMUM = 5.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 3.15382E 01

GEOMETRIC DEVIATION = 2.50796E 00

FREQUENCY TABLE FOR COLUMN 10 (BA PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 01 -	2.6E 01	0	0	0.0	0.0
2.6E 01 -	3.8E 01	0	0	0.0	0.0
3.8E 01 -	5.6E 01	0	0	0.0	0.0
5.6E 01 -	8.3E 01	2	2	0.93	0.93
8.3E 01 -	1.2E 02	9	11	4.17	5.09
1.2E 02 -	1.8E 02	10	21	4.63	9.72
1.8E 02 -	2.6E 02	16	37	7.41	17.13
2.6E 02 -	3.8E 02	23	60	10.65	27.78
3.8E 02 -	5.6E 02	66	126	30.56	58.33
5.6E 02 -	8.3E 02	50	176	23.15	81.48
8.3E 02 -	1.2E 03	28	204	12.96	94.44
1.2E 03 -	1.8E 03	8	212	3.70	98.15
1.8E 03 -	2.6E 03	4	216	1.85	100.00

HISTOGRAM FOR COLUMN 10 (BA PPM)

```
       7.0E 01 X
       1.0E 02 XXXX
       1.5E 02 XXXXX
       2.0E 02 XXXXXXX
       3.0E 02 XXXXXXXXXXX
       5.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
       7.0E 02 XXXXXXXXXXXXXXXXXXXXXX
       1.0E 03 XXXXXXXXXXXXX
       1.5E 03 XXXX
       2.0E 03 XX
```

N	L	H	R	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	216
0.0	0.0			0.0	0.0	

MAXIMUM = 2.00000E 03

MINIMUM = 7.00000E 01

GEOMETRIC MEAN = 4.85546E 02

GEOMETRIC DEVIATION = 1.98877E 00

FREQUENCY TABLE FOR COLUMN 11 (BF PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-01 -	1.2E 00	32	32	14.81	14.81
1.2E 00 -	1.8E 00	0	32	0.0	14.81
1.8E 00 -	2.6E 00	0	32	0.0	14.81
2.6E 00 -	3.8E 00	0	32	0.0	14.81
3.8E 00 -	5.6E 00	1	33	0.46	15.28

HISTOGRAM FOR COLUMN 11 (BF PPM)

1.0E 00 XXXXXXXXXXXXXX

1.5E 00

2.0E 00

3.0E 00

5.0E 00

N	L	M	R	T	G	ANALYTICAL VALUES
37	146	0	0	0	0	33
17.13	67.59			0.0	0.0	

MAXIMUM = 5.00000E 00

MINIMUM = 1.00000E 00

GEOMETRIC MEAN = 1.04998E 00

GEOMETRIC DEVIATION = 1.32335E 00

FREQUENCY TABLE FOR COLUMN 12 (BI PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
216	0	0	0	0	0	0
*****	0.0			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 13 (CO PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	0	0	0.0	0.0
5.6E 00 -	8.3E 00	0	0	0.0	0.0
8.3E 00 -	1.2E 01	1	1	0.46	0.46
1.2E 01 -	1.8E 01	7	8	3.24	3.70
1.8E 01 -	2.6E 01	28	36	12.96	16.67
2.6E 01 -	3.8E 01	40	76	18.52	35.19
3.8E 01 -	5.6E 01	89	165	41.20	76.39
5.6E 01 -	8.3E 01	44	209	20.37	96.76
8.3E 01 -	1.2E 02	5	214	2.31	99.07

HISTOGRAM FOR COLUMN 13 (CO PPM)

```
       1.5E 01 XXX

       2.0E 01 XXXXXXXXXXXX

       3.0E 01 XXXXXXXXXXXXXXXXXX

       5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       7.0E 01 XXXXXXXXXXXXXXXXXXX

       1.0E 02 XX
```


N	L	H	R	T	G	ANALYTICAL VALUES
7	0	0	0	0	0	214
0.93	0.0			0.0	0.0	

MAXIMUM = 1.000000E 02

MINIMUM = 1.000000E 01

GEOMETRIC MEAN = 4.18891E 01

GEOMETRIC DEVIATION = 1.60355E 00

FREQUENCY TABLE FOR COLUMN 14 (CR PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	0	0	0.0	0.0
5.6E 00 -	8.3E 00	0	0	0.0	0.0
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	0	0	0.0	0.0
1.8E 01 -	2.6E 01	0	0	0.0	0.0
2.6E 01 -	3.8E 01	1	1	0.46	0.46
3.8E 01 -	5.6E 01	1	2	0.46	0.93
5.6E 01 -	8.3E 01	17	19	7.87	8.80
8.3E 01 -	1.2E 02	54	73	25.00	33.80
1.2E 02 -	1.8E 02	61	134	28.24	62.04
1.8E 02 -	2.6E 02	49	183	22.69	84.72
2.6E 02 -	3.8E 02	19	202	8.80	93.52
3.8E 02 -	5.6E 02	10	212	4.63	98.15
5.6E 02 -	8.3E 02	1	213	0.46	98.61
8.3E 02 -	1.2E 03	2	215	0.93	99.54
1.2E 03 -	1.8E 03	1	216	0.46	100.00

HISTOGRAM FOR COLUMN 14 (CR PPM)

```
      7.0E 01 XXXXXXXX

      1.0E 02 XXXXXXXXXXXXXXXXXXXXXXXX

      1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX

      2.0E 02 XXXXXXXXXXXXXXXXXXXXXX

      3.0E 02 XXXXXXXXX

      5.0E 02 XXXXX

      7.0E 02

      1.0E 03 X

      1.5E 03
```

N	L	H	R	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	216
0.0	0.0			0.0	0.0	

MAXIMUM = 1.50000E 03

MINIMUM = 3.00000E 01

GEOMETRIC MEAN = 1.56849E 02

GEOMETRIC DEVIATION = 1.73154E 00

FREQUENCY TABLE FOR COLUMN 15 (CU PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	0	0	0.0	0.0
5.6E 00 -	8.3E 00	0	0	0.0	0.0
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	5	5	2.33	2.33
1.8E 01 -	2.6E 01	27	32	12.56	14.88
2.6E 01 -	3.8E 01	29	61	13.49	28.37
3.8E 01 -	5.6E 01	60	121	27.91	56.28
5.6E 01 -	8.3E 01	30	151	13.95	70.23
8.3E 01 -	1.2E 02	40	191	18.60	88.84
1.2E 02 -	1.8E 02	18	209	8.37	97.21
1.8E 02 -	2.6E 02	4	213	1.86	99.07
2.6E 02 -	3.8E 02	0	213	0.0	99.07
3.8E 02 -	5.6E 02	0	213	0.0	99.07
5.6E 02 -	8.3E 02	0	213	0.0	99.07
8.3E 02 -	1.2E 03	1	214	0.47	99.53
1.2E 03 -	1.8E 03	0	214	0.0	99.53
1.8E 03 -	2.6E 03	0	214	0.0	99.53
2.6E 03 -	3.8E 03	0	214	0.0	99.53
3.8E 03 -	5.6E 03	1	215	0.47	100.00

HISTOGRAM FOR COLUMN 15 (CU PPM)

```
      1.5E 01 XX
      2.0E 01 XXXXXXXXXXXX
      3.0E 01 XXXXXXXXXXXX
      5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      7.0E 01 XXXXXXXXXXXXX
      1.0E 02 XXXXXXXXXXXXXXXXXX
      1.5E 02 XXXXXXXX
      2.0E 02 XX
      3.0E 02
      5.0E 02
      7.0E 02
      1.0E 03
      1.5E 03
      2.0E 03
      3.0E 03
      5.0E 03
```

0	0	0	0	0	0	215
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 03

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 5.62053E 01

GEOMETRIC DEVIATION = 2.09367E 00

FREQUENCY TABLE FOR COLUMN 16 (LA PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 01 - 2.6E 01	133	133	61.57	61.57
2.6E 01 - 3.8E 01	42	175	19.44	81.02
3.8E 01 - 5.6E 01	7	182	3.24	84.26
5.6E 01 - 8.3E 01	3	185	1.39	85.65
8.3E 01 - 1.2E 02	2	187	0.93	86.57

HISTOGRAM FOR COLUMN 16 (LA PPM)

```
2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 01 XXXXXXXXXXXXXXXXXXX

5.0E 01 XXX

7.0E 01 X

1.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
8	21.	0	0	0	0	187
3.70	9.72			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 2.35327E 01

GEOMETRIC DEVIATION = 1.36158E 00

FREQUENCY TABLE FOR COLUMN 17 (MO PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	8	8	3.70	3.70
5.6E 00 -	8.3E 00	1	9	0.46	4.17
8.3E 00 -	1.2E 01	3	12	1.39	5.56

HISTOGRAM FOR COLUMN 17 (MO PPM)

5.0E 00 XXXX

7.0E 00

1.0E 01 X

N	L	H	R	T	G	ANALYTICAL VALUES
200	4	0	0	0	0	12
92.59	1.85			0.0	0.0	

MAXIMUM = 1.00000E 01

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 6.11511E 00

GEOMETRIC DEVIATION = 1.36564E 00

FREQUENCY TABLE FOR COLUMN 18 (NB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	59	59	27.31	27.31
1.2E 01 -	1.8E 01	1	60	0.46	27.78
1.8E 01 -	2.6E 01	4	64	1.85	29.63

HISTOGRAM FOR COLUMN 18 (NB PPM)

```
1.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXX

1.5E 01

2.0E 01 XX
```

N	L	H	R	T	G	ANALYTICAL VALUES
3	148	0	0	0	1	64
1.39	68.52			0.0	0.46	

MAXIMUM = 2.000000E 01

MINIMUM = 1.000000E 01

GEOMETRIC MEAN = 1.050888E 01

GEOMETRIC DEVIATION = 1.19140E 00

FREQUENCY TABLE FOR COLUMN 19 (NI PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	0	0	0.0	0.0
5.6E 00 -	8.3E 00	0	0	0.0	0.0
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	1	1	0.46	0.46
1.8E 01 -	2.6E 01	6	7	2.78	3.24
2.6E 01 -	3.8E 01	1	8	0.46	3.70
3.8E 01 -	5.6E 01	35	43	16.20	19.91
5.6E 01 -	8.3E 01	92	135	42.59	62.50
8.3E 01 -	1.2E 02	66	201	30.56	93.06
1.2E 02 -	1.8E 02	11	212	5.09	98.15
1.8E 02 -	2.6E 02	4	216	1.85	100.00

HISTOGRAM FOR COLUMN 19 (NI PPM)

```
       2.0E 01 XXX

       3.0E 01

       5.0E 01 XXXXXXXXXXXXXXXX

       7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       1.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       1.5E 02 XXXXX

       2.0E 02 XX
```

N	L	H	A	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	216
0.0	0.0			0.0	0.0	

MAXIMUM = 2.00000E 02

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 7.48339E 01

GEOMETRIC DEVIATION = 1.49547E 00

FREQUENCY TABLE FOR COLUMN 20 (PB PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	79	79	36.57	36.57
1.2E 01 -	1.8E 01	66	145	30.56	67.13
1.8E 01 -	2.6E 01	46	191	21.30	88.43
2.6E 01 -	3.8E 01	6	197	2.78	91.20
3.8E 01 -	5.6E 01	2	199	0.93	92.13
5.6E 01 -	8.3E 01	0	199	0.0	92.13
8.3E 01 -	1.2E 02	1	200	0.46	92.59
1.2E 02 -	1.8E 02	0	200	0.0	92.59
1.8E 02 -	2.6E 02	1	201	0.46	93.06

HISTOGRAM FOR COLUMN 20 (PB PPM)

```
      1.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

      1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

      2.0E 01 XXXXXXXXXXXXXXXXXXX

      3.0E 01 XXX

      5.0E 01 X

      7.0E 01

      1.0E 02

      1.5E 02

      2.0E 02
```

N	L	H	R	T	G	ANALYTICAL VALUES
1	14	0	0	0	0	201
0.46	6.48			0.0	0.0	

MAXIMUM = 2.000000E 02

MINIMUM = 1.000000E 01

GEOMETRIC MEAN = 1.44328E 01

GEOMETRIC DEVIATION = 1.49732E 00

FREQUENCY TABLE FOR COLUMN 21 (SR PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	R	T	G	ANALYTICAL VALUES
216	0	0	0	0	0	0
*****	0.0			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 22 (SC PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	0	0	0.0	0.0
5.6E 00 -	8.3E 00	0	0	0.0	0.0
8.3E 00 -	1.2E 01	1	1	0.46	0.46
1.2E 01 -	1.8E 01	2	3	0.93	1.39
1.8E 01 -	2.6E 01	46	49	21.30	22.69
2.6E 01 -	3.8E 01	74	123	34.26	56.94
3.8E 01 -	5.6E 01	80	203	37.04	93.98
5.6E 01 -	8.3E 01	11	214	5.09	99.07
8.3E 01 -	1.2E 02	2	216	0.93	100.00

HISTOGRAM FOR COLUMN 22 (SC PPM)

```
       1.5E 01 X

       2.0E 01 XXXXXXXXXXXXXXXXXXXX

       3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       7.0E 01 XXXXX

       1.0E 02 X
```

N	L	H	R	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	216
0.0	0.0			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 3.46998E 01

GEOMETRIC DEVIATION = 1.51370E 00

FREQUENCY TABLE FOR COLUMN 23 (SN PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	R	T	G
216	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 24 (SR PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 01 -	1.2E 02	1	1	0.46	0.46
1.2E 02 -	1.8E 02	9	10	4.17	4.63
1.8E 02 -	2.6E 02	37	47	17.13	21.76
2.6E 02 -	3.8E 02	58	105	26.85	48.61
3.8E 02 -	5.6E 02	47	152	21.76	70.37
5.6E 02 -	8.3E 02	36	188	16.67	87.04
8.3E 02 -	1.2E 03	22	210	10.19	97.22
1.2E 03 -	1.8E 03	4	214	1.85	99.07
1.8E 03 -	2.6E 03	1	215	0.46	99.54

HISTOGRAM FOR COLUMN 24 (SR PPM)

```
      1.5E 02 XXXX

      2.0E 02 XXXXXXXXXXXXXXXX

      3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX

      5.0E 02 XXXXXXXXXXXXXXXXXXXXXX

      7.0E 02 XXXXXXXXXXXXXXXX

      1.0E 03 XXXXXXXXXX

      1.5E 03 XX

      2.0E 03
```

N	L	H	R	T	G	ANALYTICAL VALUES
1	0	0	0	0	0	215
0.46	0.0			0.0	0.0	

MAXIMUM = 2.000000E 03

MINIMUM = 1.000000E 02

GEOMETRIC MEAN = 4.09635E 02

GEOMETRIC DEVIATION = 1.80701E 00

FREQUENCY TABLE FOR COLUMN 25 (V PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	0	0	0.0	0.0
1.8E 01 -	2.6E 01	1	1	0.46	0.46
2.6E 01 -	3.8E 01	0	1	0.0	0.46
3.8E 01 -	5.6E 01	0	1	0.0	0.46
5.6E 01 -	8.3E 01	0	1	0.0	0.46
8.3E 01 -	1.2E 02	1	2	0.46	0.93
1.2E 02 -	1.8E 02	13	15	6.02	6.94
1.8E 02 -	2.6E 02	123	138	56.94	63.89
2.6E 02 -	3.8E 02	55	193	25.46	89.35
3.8E 02 -	5.6E 02	20	213	9.26	98.61
5.6E 02 -	8.3E 02	2	215	0.93	99.54
8.3E 02 -	1.2E 03	1	216	0.46	100.00

HISTOGRAM FOR COLUMN 25 (V PPM)

```
1.5E 02 XXXXXX

2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXX

5.0E 02 XXXXXXXXX

7.0E 02 X

1.0E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	216
0.0	0.0			0.0	0.0	

MAXIMUM = 1.00000E 03

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 2.38604E 02

GEOMETRIC DEVIATION = 1.47221E 00

FREQUENCY TABLE FOR COLUMN 26 (W PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
					ANALYTICAL
N	L	H	R	T	G	VALUES
215	1	0	0	0	0	0
99.54	0.46			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 27 (Y PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	1	1	0.46	0.46
1.2E 01 -	1.8E 01	7	8	3.24	3.70
1.8E 01 -	2.6E 01	77	85	35.65	39.35
2.6E 01 -	3.8E 01	82	167	37.96	77.31
3.8E 01 -	5.6E 01	44	211	20.37	97.69
5.6E 01 -	8.3E 01	0	211	0.0	97.69
8.3E 01 -	1.2E 02	3	214	1.39	99.07
1.2E 02 -	1.8E 02	0	214	0.0	99.07
1.8E 02 -	2.6E 02	1	215	0.46	99.54

HISTOGRAM FOR COLUMN 27 (Y PPM)

```
      1.5E 01 XXX
      2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      5.0E 01 XXXXXXXXXXXXXXXXXXX
      7.0E 01
      1.0E 02 X
      1.5E 02
      2.0E 02
```

N	L	H	R	T	G	ANALYTICAL VALUES
0	0	0	0	0	1	215
0.0	0.0			0.0	0.46	

MAXIMUM = 2.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.87438E 01

GEOMETRIC DEVIATION = 1.50976E 00

FREQUENCY TABLE FOR COLUMN 28 (ZN PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 02 -	2.6E 02	0	0	0.0	0.0
2.6E 02 -	3.8E 02	1	1	0.46	0.46

HISTOGRAM FOR COLUMN 28 (ZN PPM)

N	L	H	R	T	G	ANALYTICAL VALUES
204	11	0	0	0	0	1
94.44	5.09			0.0	0.0	

MAXIMUM = 3.00000E 02

MINIMUM = 3.00000E 02

GEOMETRIC MEAN = 2.99999E 02

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 29 (ZR PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 - 1.2E 01	0	0	0.0	0.0
1.2E 01 - 1.8E 01	0	0	0.0	0.0
1.8E 01 - 2.6E 01	0	0	0.0	0.0
2.6E 01 - 3.8E 01	3	3	1.39	1.39
3.8E 01 - 5.6E 01	17	20	7.87	9.26
5.6E 01 - 8.3E 01	64	84	29.63	38.89
8.3E 01 - 1.2E 02	102	186	47.22	86.11
1.2E 02 - 1.8E 02	21	207	9.72	95.83
1.8E 02 - 2.6E 02	7	214	3.24	99.07
2.6E 02 - 3.8E 02	1	215	0.46	99.54
3.8E 02 - 5.6E 02	1	216	0.46	100.00

HISTOGRAM FOR COLUMN 29 (ZR PPM)

```
3.0E 01 X

5.0E 01 XXXXXXXX

7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1.5E 02 XXXXXXXXXX

2.0E 02 XXX

3.0E 02

5.0E 02
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	216
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 02

MINIMUM = 3.00000E 01

GEOMETRIC MEAN = 9.02485E 01

GEOMETRIC DEVIATION = 1.44470E 00

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

A470 STATISTICAL SUMMARY DATE 1/13/70

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
FE PCT	0	0	0	0	0	1	215
MG PCT	0	0	0	0	0	0	216
CA PCT	0	0	0	0	0	0	216
TI PCT	0	0	0	0	0	2	214
MN PPM	0	0	0	0	0	1	215
AG PPM	182	4	0	0	0	0	30
AS PPM	215	0	0	0	0	0	1
AU PPM	216	0	0	0	0	0	0
B PPM	1	18	0	0	0	0	197
BA PPM	0	0	0	0	0	0	216
BE PPM	37	146	0	0	0	0	33
BI PPM	216	0	0	0	0	0	0
CD PPM	2	0	0	0	0	0	214
CR PPM	0	0	0	0	0	0	216
CU PPM	0	0	0	0	0	0	215
LA PPM	8	21	0	0	0	0	187
MO PPM	200	4	0	0	0	0	12
NB PPM	3	148	0	0	0	1	64
NI PPM	0	0	0	0	0	0	216
PB PPM	1	14	0	0	0	0	201
SB PPM	216	0	0	0	0	0	0
SC PPM	0	0	0	0	0	0	216
SN PPM	216	0	0	0	0	0	0
SR PPM	1	0	0	0	0	0	215
V PPM	0	0	0	0	0	0	216
W PPM	215	1	0	0	0	0	0
Y PPM	0	0	0	0	0	1	215
ZN PPM	204	11	0	0	0	0	1
ZR PPM	0	0	0	0	0	0	216

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS		
FE PCT	********	******	1 GREATER THAN VALUES. NO COMPUTATIONS.		
MG PCT	1.862550	1.53	216 SAMPLES AND 216 ANALYTICAL VALUES.		
CA PCT	1.469048	1.61	216 SAMPLES AND 216 ANALYTICAL VALUES.		
TI PCT	********	******	2 GREATER THAN VALUES. NO COMPUTATIONS.		
MN PPM	********	******	1 GREATER THAN VALUES. NO COMPUTATIONS.		
AG PPM	0.153028	2.29	186 NOT DETECTED, LESS THAN, OR TRACE VALUES.	30	REPORTED VALUES.
AS PPM	********	******	215 NOT DETECTED, LESS THAN, OR TRACE VALUES.	1	REPORTED VALUES. NO COMPUTATIONS.
AU PPM	********	******	216 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0	REPORTED VALUES. NO COMPUTATIONS.
B PPM	26.791199	2.81	19 NOT DETECTED, LESS THAN, OR TRACE VALUES.	197	REPORTED VALUES.
BA PPM	485.544678	1.99	216 SAMPLES AND 216 ANALYTICAL VALUES.		
BE PPM	********	******	183 NOT DETECTED, LESS THAN, OR TRACE VALUES.	33	REPORTED VALUES. NO COMPUTATIONS.
BI PPM	********	******	216 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0	REPORTED VALUES. NO COMPUTATIONS.
CD PPM	40.930557	1.69	2 NOT DETECTED, LESS THAN, OR TRACE VALUES.	214	REPORTED VALUES.
CR PPM	156.648987	1.73	216 SAMPLES AND 216 ANALYTICAL VALUES.		
CU PPM	56.205170	2.09	216 SAMPLES AND 216 ANALYTICAL VALUES.		
LA PPM	********	******	29 NOT DETECTED, LESS THAN, OR TRACE VALUES.	187	REPORTED VALUES. NO COMPUTATIONS.
MO PPM	********	******	204 NOT DETECTED, LESS THAN, OR TRACE VALUES.	12	REPORTED VALUES. NO COMPUTATIONS.
NB PPM	********	******	1 GREATER THAN VALUES. NO COMPUTATIONS.		
NI PPM	74.833710	1.50	216 SAMPLES AND 216 ANALYTICAL VALUES.		
PB PPM	13.674527	1.55	15 NOT DETECTED, LESS THAN, OR TRACE VALUES.	201	REPORTED VALUES.
SB PPM	********	******	216 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0	REPORTED VALUES. NO COMPUTATIONS.
SC PPM	34.699768	1.51	216 SAMPLES AND 216 ANALYTICAL VALUES.		
SN PPM	********	******	216 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0	REPORTED VALUES. NO COMPUTATIONS.

SR	PPM	406.242188	1.83	1	NOT DETECTED, LESS THAN, OR TRACE VALUES.	215	REPORTED VALUES.		
V	PPM	238.603226	1.47	216	SAMPLES AND	216	ANALYTICAL VALUES.		
W	PPM	********	******	216	NOT DETECTED, LESS THAN, OR TRACE VALUES.	0	REPORTED VALUES.	NO	COMPUTATIONS.
Y	PPM	********	******	1	GREATER THAN VALUES.	NO	COMPUTATIONS.		
ZN	PPM	********	******	215	NOT DETECTED, LESS THAN, OR TRACE VALUES.	1	REPORTED VALUES.	NO	COMPUTATIONS.
ZR	PPM	90.248276	1.44	216	SAMPLES AND	216	ANALYTICAL VALUES.		

APPENDIX II

Analyses of Stream-Sediment Samples

by

Methods Other Than Spectrographic

Explanation of Appendix II

The analyses listed on the following pages were determined by methods generally more sensitive than spectrographic techniques. Gold, silver, copper, and tellurium were analyzed by atomic absorption. Tungsten and arsenic were determined by colorimetric methods and mercury by an instrumental technique.

Appropriate limits of detection for the various elements are:

Au PPM	Ag PPM	Cu PPM	As PPM	Hg PPM	Te PPM	W PPM
0.02	0.2	10.0	10.0	0.01	0.2	20.0

Location No.	Au	Ag	Cu	As	Hg	Te	W
1	L 0.02	0.6	56.0	N 10.0	0.09	L 0.2	N 20.0
2	L 0.02	0.6	30.0	N 10.0	0.07	L 0.2	N 20.0
3	L 0.02	0.6	28.0	N 10.0	0.06	L 0.2	N 20.0
4	L 0.02	0.8	42.0	N 10.0	0.013	L 0.2	N 20.0
5	L 0.02	0.4	52.0	N 10.0	0.10	L 0.2	N 20.0
6	L 0.02	1.2	94.0	N 10.0	0.21	L 0.2	N 20.0
7	L 0.02	0.8	32.0	N 10.0	0.08	L 0.2	N 20.0
8	L 0.02	0.8	72.0	N 10.0	0.09	L 0.2	N 20.0
9	L 0.02	1.0	90.0	N 10.0	0.11	L 0.2	N 20.0
10	L 0.02	1.0	110.0	N 10.0	0.18	L 0.2	N 20.0
11	L 0.02	0.8	68.0	N 10.0	0.13	L 0.2	N 20.0
12	L 0.02	0.8	62.0	N 10.0	0.08	L 0.2	N 20.0
13	L 0.02	1.0	82.0	N 10.0	0.09	L 0.2	N 20.0
14	L 0.02	1.0	92.0	N 10.0	0.11	L 0.2	N 20.0
15	L 0.02	0.8	72.0	N 10.0	0.06	L 0.2	N 20.0
16	L 0.02	1.0	100.0	N 10.0	0.11	L 0.2	N 20.0
17	L 0.02	1.2	120.0	N 10.0	0.14	L 0.2	N 20.0
18	L 0.02	1.0	68.0	N 10.0	0.09	L 0.2	N 20.0
19	L 0.02	0.8	54.0	N 10.0	0.55	L 0.2	N 20.0
20	L 0.02	0.8	74.0	N 10.0	0.20	L 0.2	N 20.0
21	L 0.02	1.0	82.0	N 10.0	0.16	H 0.8	N 20.0
	L 0.02	0.8	44.0	N 10.0	0.28	L 0.2	N 20.0
22	L 0.02	0.6	38.0	N 10.0	0.24	H 0.4	N 20.0
23	L 0.02	1.0	68.0	N 10.0	0.30	L 0.2	N 20.0
24	L 0.02	0.6	40.0	N 10.0	0.18	L 0.2	N 20.0
25	L 0.02	1.2	120.0	N 10.0	0.24	H 0.4	N 20.0

Location No.	Au	Ag	Cu	As	Hg	Te	W
26	L 0.02	0.4	24.0	N 10.0	0.14	L 0.2	N 20.0
27	L 0.02	0.4	32.0	N 10.0	0.04	L 0.2	N 20.0
28	L 0.02	0.6	34.0	N 10.0	0.11	L 0.2	N 20.0
29	L 0.02	0.6	40.0	N 10.0	0.13	L 0.2	N 20.0
30	L 0.02	0.6	56.0	N 10.0	0.20	H 0.3	N 20.0
31	L 0.02	0.8	48.0	N 10.0	0.11	L 0.2	N 20.0
32	L 0.02	0.6	40.0	N 10.0	0.26	L 0.2	N 20.0
33	0.02	0.8	58.0	N 10.0	0.28	H 0.4	N 20.0
34	L 0.02	---	----	----	0.04	L 0.2	----
35	L 0.02	---	----	----	0.04	L 0.2	----
36	L 0.02	0.4	42.0	N 10.0	0.14	L 0.2	N 20.0
37	0.02	0.8	46.0	N 10.0	0.20	L 0.2	N 20.0
38	L 0.02	0.6	44.0	N 10.0	0.14	L 0.2	N 20.0
39	L 0.02	---	----	----	0.05	L 0.2	----
40	0.1	---	----	----	0.04	---	----
41	L 0.02	0.4	32.0	N 10.0	0.08	L 0.2	N 20.0
42	L 0.02	0.6	52.0	L 10.0	0.06	L 0.2	N 20.0
43	L 0.02	0.4	22.0	N 10.0	0.24	L 0.2	N 20.0
44	0.20	0.6	28.0	N 10.0	0.50	L 0.2	N 20.0
45	0.02	1.2	40.0	20.0	0.80	L 0.2	N 20.0
46	L 0.02	0.6	32.0	N 10.0	0.09	L 0.2	N 20.0
47	0.02	0.6	30.0	N 10.0	0.09	H 0.8	N 20.0
48	L 0.02	0.8	42.0	N 10.0	0.14	H 0.8	N 20.0
49	L 0.02	0.8	38.0	N 10.0	0.08	H 0.8	N 20.0
50	L 0.02	0.6	32.0	N 10.0	0.13	L 0.2	N 20.0

Location No.	Au	Ag	Cu	As	Hg	Te	W
51	0.08	0.6	62.0	N 10.0	0.09	L 0.2	N 20.0
52	N	0.8	52.0	L 10.0	0.03	L 0.2	N 20.0
53	N	---	----	----	0.04	---	----
54	L 0.02	---	----	----	0.07	L 0.2	----
55	L 0.02	---	----	----	0.04	L 0.2	----
56	L 0.02	---	----	----	0.05	L 0.2	----
57	N	---	----	----	0.03	---	----
58	0.50	1.0	58.0	N 10.0	0.16	H 0.6	N 20.0
59	L 0.02	0.8	56.0	N 10.0	0.13	L 0.2	N 20.0
60	L 0.02	0.8	64.0	40.0	0.20	L 0.2	N 20.0
61	1.70	0.8	120.0	10.0	0.06	L 0.2	N 20.0
62	L 0.02	1.0	68.0	20.0	0.10	L 0.2	N 20.0
63	L 0.02	0.8	54.0	10.0	0.26	L 0.2	N 20.0
64	L 0.02	0.4	38.0	N 10.0	0.35	L 0.2	N 20.0
65	L 0.02	0.6	46.0	10.0	0.14	L 0.2	N 20.0
66	L 0.02	1.0	64.0	L 10.0	0.09	L 0.2	N 20.0
67	0.1	---	----	----	0.04	L 0.5	----
68	L 0.02	0.8	52.0	L 10.0	0.13	L 0.2	N 20.0
69	L 0.02	1.2	110.0	60.0	0.22	H 0.4	N 20.0
70	L 0.02	0.6	52.0	N 10.0	0.11	L 0.2	N 20.0
71	L 0.02	0.8	64.0	10.0	0.20	L 0.2	N 20.0
72	0.02	0.8	60.0	10.0	0.13	H 0.6	N 20.0
73	L 0.02	0.8	68.0	30.0	0.08	H 0.3	N 20.0
74	0.02	1.0	70.0	60.0	0.30	H 1.0	N 20.0
75	L 0.02	---	----	----	0.03	0.2	N 20.0

Location No.	Au	Ag	Cu	As	Hg	Te	W
76	L 0.02	0.8	58.0	N 10.0	0.14	L 0.2	N 20.0
77	0.04	---	----	----	0.05	0.2	----
78	0.06	0.8	100.0	20.0	0.10	L 0.2	N 20.0
79	N	---	----	----	0.04	---	----
80	0.50	---	----	----	0.08	---	----
81	0.30	---	----	----	0.04	0.2	----
82	0.04	1.2	92.0	20.0	0.26	H 0.4	N 20.0
83	0.04	1.2	78.0	30.0	0.13	H 0.8	N 20.0
84	L 0.02	1.0	54.0	20.0	0.18	L 0.2	N 20.0
85	0.02	1.0	90.0	60.0	0.20	H 0.3	N 20.0
86	0.02	1.0	110.0	100.0	0.26	H 0.6	N 20.0
87	0.02	1.0	110.0	100.0	0.14	L 0.2	N 20.0
88	L 0.02	1.0	96.0	40.0	0.60	L 0.2	N 20.0
89	0.02	0.8	70.0	10.0	0.14	L 0.2	N 20.0
90	L 0.02	1.0	80.0	10.0	0.10	L 0.2	N 20.0
91	L 0.02	---	----	----	0.07	L 0.2	----
92	L 0.02	---	----	----	0.03	0.2	----
93	0.50	0.8	60.0	20.0	0.14	H 0.2	N 20.0
94	0.02	1.0	100.0	10.0	0.13	L 0.2	N 20.0
95	L 0.02	0.8	94.0	10.0	0.12	H 0.2	N 20.0
96	L 0.02	1.2	130.0	10.0	0.13	L 0.2	N 20.0
97	L 0.02	---	----	----	0.07	L 0.5	----
98	0.40	---	----	----	0.07	L 0.2	----
99	L 0.02	---	----	----	0.14	L 0.2	----
100	L 0.02	---	----	----	0.18	L 0.2	----

Location No.	Au	Ag	Cu	As	Hg	Te	W
101	0.02	1.0	110.0	10.0	0.45	L 0.2	N 20.0
102	0.06	1.2	170.0	100.0	0.30	H 0.4	N 20.0
103	0.04	1.2	120.0	80.0	0.13	H 0.4	N 20.0
104	L 0.02	0.6	80.0	20.0	0.20	L 0.2	N 20.0
105	0.04	1.0	70.0	30.0	0.13	H 0.8	N 20.0
106	0.06	1.0	82.0	20.0	0.09	L 0.2	N 20.0
107	L 0.02	1.2	100.0	20.0	0.26	L 0.2	N 20.0
108	0.02	1.0	92.0	20.0	0.65	L 0.2	N 20.0
109	0.02	1.2	98.0	40.0	0.60	H 0.2	N 20.0
110	L 0.02	0.8	96.0	30.0	0.28	L 0.2	N 20.0
111	0.20	1.0	100.0	40.0	0.20	H 0.8	N 20.0
112	L 0.02	1.0	140.0	10.0	0.08	L 0.2	N 20.0
113	L 0.02	1.0	120.0	L 10.0	0.06	L 0.2	N 20.0
114	L 0.02	1.0	130.0	L 10.0	0.11	L 0.2	N 20.0
115	L 0.02	1.2	110.0	L 10.0	0.13	L 0.2	N 20.0
116	L 0.02	1.0	110.0	10.0	0.24	L 0.2	N 20.0
117	0.02	1.2 1.0	120.0 140.0	10.0 10.0	0.50	L 0.2 L 0.2	N 20.0 N 20.0
118	L 0.02	1.2	140.0	20.0	0.60	H 0.8	N 20.0
119	L 0.02	1.2	130.0	20.0	0.50	H 0.6	N 20.0
120	0.02	1.0	110.0	10.0	0.45	H 0.2	N 20.0
121	0.02	0.6	62.0	20.0	0.18	L 0.2	N 20.0
122	0.06	1.0	82.0	20.0	0.70	H 0.4	N 20.0
123	L 0.02	1.2	100.0	60.0	0.35	L 0.2	N 20.0
124	L 0.02	1.4	160.0	N 10.0	0.26	H 0.4	N 20.0
125	L 0.02	1.6	180.0	N 10.0	0.14	L 0.2	N 20.0

Location No.	Au	Ag	Cu	As	Hg	Te	W
126	L 0.02	1.0	94.0	L 10.0	0.24	L 0.2	N 20.0
127	L 0.02	---	----	----	0.08	L 0.2	----
128	L 0.02	1.0	78.0	10.0	0.22	H 1.0	N 20.0
129	L 0.02	1.0	110.0	20.0	0.30	H 0.8	N 20.0
130	L 0.02	0.8	86.0	L 10.0	0.20	H 0.4	N 20.0
131	0.02	0.8	100.0	L 10.0	0.16	L 0.2	L 10.0
132	0.06	0.8	74.0	30.0	0.22	L 0.2	L 20.0
133	L 0.02	0.8	84.0	30.0	0.20	L 0.2	N 20.0
134	0.04	1.0	80.0	30.0	0.26	L 0.2	N 20.0
135	0.04	1.0	100.0	30.0	0.26	L 0.2	N 20.0
136	0.02	1.0	100.0	20.0	0.55	L 0.2	N 20.0
137	L 0.02	1.2	96.0	L 10.0	0.40	H 0.5	N 20.0
138	L 0.02	1.2	160.0	10.0	0.45	H 0.4	N 20.0
139	L 0.02	1.2	160.0	30.0	0.02	H 0.2	N 20.0
140	0.02	1.0	240.0	N 10.0	0.90	H 0.6	N 20.0
141	0.02	1.2	100.0	10.0	0.22	H 0.8	N 20.0
142	L 0.02	1.2	94.0	10.0	0.40	H 0.8	N 20.0
143	0.08	1.2	100.0	10.0	0.22	H 1.0	N 20.0
144	L 0.02	1.0	80.0	20.0	0.10	H 0.8	N 20.0
145	L 0.02	1.2	130.0	20.0	0.20	H 0.2	N 20.0
146	0.06	1.2	110.0	30.0	0.65	H 0.4	N 20.0
147	L 0.02	0.8	84.0	80.0	2.4	H 0.6	N 20.0
148	L 0.02	0.8	120.0	100.0	0.35	H 0.8	N 20.0
149	0.04	1.0	130.0	100.0	0.65	H 0.8	N 20.0
150	0.02	1.0	190.0	N 10.0	0.55	H 0.2	N 20.0

Location No.	Au	Ag	Cu	As	Hg	Te	W
151	0.02	1.8	4000.0	30.0	0.26	H 1.0	N 20.0
152	L 0.02	0.8	170.0	30.0	0.65	H 0.6	N 20.0
153	L 0.02	1.4	3000.0	20.0	0.30	H 0.5	N 20.0
154	L 0.02	0.8	120.0	10.0	0.30	L 0.2	20.0
155	0.02	1.4	2800.0	30.0	0.30	L 0.2	N 20.0
156	L 0.02	1.2	160.0	20.0	0.11	H 0.6	N 20.0
157	L 0.02	1.4	280.0	N 10.0	0.16	H 0.2	N 20.0
158	L 0.02	1.2	150.0	10.0	0.50	H 0.6	N 20.0
159	L 0.02	1.2	130.0	L 10.0	2.8	H 0.6	N 20.0
160	L 0.02	1.2	150.0	N 10.0	0.80	H 0.2	N 20.0
161	L 0.02	---	-----	----	0.04	L 0.2	N 20.0
162	L 0.02	0.8	62.0	L 10.0	0.80	H 0.2	N 20.0
163	L 0.02	---	-----	----	----	---	----
164	L 0.02	---	-----	----	----	---	----
165	L 0.02	0.8	84.0	N 10.0	0.65	H 0.8	N 20.0
166	L 0.02	1.0	68.0	40.0	0.65	H 1.0	N 20.0
167	L 0.02	0.8	110.0	N 10.0	0.16	H 1.0	N 20.0
168	L 0.02	1.2	50.0	10.0	0.80	H 1.0	N 20.0
169	L 0.02	1.0	64.0	30.0	0.45	H 1.0	N 20.0
170	L 0.02	0.8	76.0	30.0	0.35	H 0.8	N 20.0
171	L 0.02	1.4	300.0	100.0	0.14	L 0.2	N 20.0
172	L 0.02	1.2	170.0	20.0	0.08	L 0.2	N 20.0
173	L 0.02	1.2	170.0	N 10.0	0.10	H 0.6	N 20.0
174	L 0.02	1.2	170.0	L 10.0	0.14	H 0.6	N 20.0
175	L 0.02	1.2	140.0	10.0	0.11	H 0.8	N 20.0

Location No.	Au	Ag	Cu	As	Hg	Te	W
176	L 0.02	1.2	140.0	L 10.0	0.14	H 0.4	N 20.0
177	L 0.02	1.2	180.0	N 10.0	0.26	H 0.6	N 20.0
178	L 0.02	1.6	240.0	L 10.0	0.09	H 0.3	N 20.0
179	L 0.02	1.4	160.0	N 10.0	0.08	H 0.3	N 20.0
180	0.04	1.4	190.0	N 10.0	0.13	L 0.2	N 20.0
181	0.04	1.2	140.0	10.0	0.13	L 0.2	N 20.0
182	L 0.02	1.2	120.0	300.0	0.16	H 0.4	N 20.0
183	L 0.02	1.0	130.0	30.0	0.13	L 0.2	N 20.0
184	L 0.02	1.2	150.0	N 10.0	0.18	H 0.4	N 20.0
185	0.10	1.6	120.0	N 10.0	6.5	L 0.2	N 20.0
186	L 0.02	1.4	120.0	N 10.0	0.11	L 0.2	N 20.0
187	L 0.02	1.2	82.0	L 10.0	0.55	L 0.2	N 20.0
188	L 0.02	1.2	160.0	10.0	0.14	L 0.2	N 20.0
189	L 0.02	1.0	180.0	N 10.0	0.18	L 0.2	N 20.0
190	0.06	1.0	130.0	N 10.0	0.09	L 0.2	N 20.0
191	L 0.02	1.0	120.0	N 10.0	0.30	L 0.2	N 20.0
192	L 0.02	1.0	180.0	N 10.0	0.26	L 0.2	N 20.0
193	L 0.02	1.2	120.0	N 10.0	0.11	L 0.2	N 20.0
194	L 0.02	1.2	120.0	N 10.0	0.16	L 0.2	N 20.0
195	L 0.02	1.2	94.0	10.0	0.15	L 0.2	N 20.0
196	L 0.02	1.4	120.0	10.0	0.14	L 0.2	N 20.0
197	L 0.02	1.0	130.0	N 10.0	0.11	L 0.2	N 20.0
198	L 0.02	1.2	210.0	L 10.0	0.16	L 0.2	N 20.0
199	L 0.02	1.0	94.0	100.0	0.24	L 0.2	N 20.0
200	L 0.02	1.2	110.0	10.0	0.15	L 0.2	N 20.0

Location No.	Au	Ag	Cu	As	Hg	Te	W
201	0.02	1.2	100.0	20.0	0.13	L 0.2	N 20.0
202	L 0.02	0.6	78.0	N 10.0	0.07	L 0.2	N 20.0
203	L 0.02	1.2	130.0	N 10.0	0.08	L 0.2	N 20.0
204	L 0.02	0.8	48.0	N 10.0	0.20	L 0.2	N 20.0
205	L 0.02	1.2	82.0	N 10.0	0.10	L 0.2	N 20.0
206	L 0.02	1.2	100.0	N 10.0	0.18	L 0.2	N 20.0
207	L 0.02	1.2	80.0	10.0	0.11	L 0.2	N 20.0
208	L 0.02	1.2	86.0	10.0	0.20	L 0.2	N 20.0
209	L 0.02	1.0	86.0	N 10.0	0.16	L 0.2	N 20.0
210	0.02	0.4	40.0	40.0	0.55	L 0.2	N 20.0
211	L 0.02	1.0	66.0	10.0	0.40	L 0.2	N 20.0
212	L 0.02	0.6	72.0	20.0	0.55	L 0.2	N 20.0
213	L 0.02	1.2	76.0	L 10.0	0.14	L 0.2	N 20.0
214	L 0.02	1.2	70.0	20.0	0.16	L 0.2	N 20.0
215	L 0.02	0.6	42.0	30.0	0.18	L 0.2	N 20.0
216	0.02	---	----	----	----	---	----

APPENDIX III

Spectrographic Analyses and Statistical Parameters

for

Bedrock Geochemical Samples

Explanation of Appendix III

(See explanation prefixed to Appendix I, page 56).

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
1	2.0000	1.0000	0.7000	0.0500	300.0000	0.2500L	0.0 N	0.0 N	0.0 N	500.0000
2	15.0000	3.0000	3.0000	0.5000	500.0000	0.2500L	0.0 N	0.0 N	15.0000	1500.0000
3	5.0000	1.5000	1.5000	0.3000	1000.0000	7.0000	0.0 N	0.0 N	10.0000	1500.0000
4	5.0000	2.0000	1.5000	0.3000	1000.0000	0.2500L	0.0 N	0.0 N	5.0000L	1500.0000
5	5.0000	2.0000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	1000.0000
6	10.0000	3.0000	0.7000	0.7000	300.0000	0.2500L	0.0 N	0.0 N	5.0000L	1500.0000
7	5.0000	2.0000	1.5000	0.3000	700.0000	0.2500L	0.0 N	0.0 N	0.0 N	1500.0000
8	1.5000	0.3000	0.7000	0.2000	100.0000	0.0 N	0.0 N	0.0 N	5.0000L	2000.0000
9	5.0000	1.5000	2.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	1000.0000
10	7.0000	3.0000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
11	15.0000	5.0000	2.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 N	700.0000
12	10.0000	3.0000	3.0000	0.7000	1500.0000	0.2500L	0.0 N	0.0 N	10.0000	1500.0000
13	15.0000	3.0000	0.5000	0.7000	300.0000	1.5000	0.0 N	0.0 N	10.0000	1000.0000
14	5.0000	1.0000	2.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
15	15.0000	1.5000	1.5000	0.7000	1500.0000	0.2500L	0.0 N	0.0 N	5.0000L	700.0000
16	7.0000	1.5000	1.5000	0.7000	500.0000	0.2500L	0.0 N	0.0 N	0.0 N	700.0000
17	15.0000	5.0000	7.0000	1.0000G	1500.0000	0.5000	0.0 N	0.0 N	5.0000L	5000.0000
18	5.0000	0.5000	0.7000	0.1500	100.0000	0.5000	0.0 N	0.0 N	5.0000L	500.0000
19	10.0000	3.0000	5.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
20	1.0000	0.5000	1.0000	0.1000	300.0000	0.0 N	0.0 N	0.0 N	5.0000L	100.0000
21	0.1500	0.0500	0.3000	0.0100	70.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
22	15.0000	5.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
23	1.5000	0.2000	0.3000	0.1500	70.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
24	0.3000	0.1500	0.2000	0.0200	70.0000	0.0 N	0.0 N	0.0 N	5.0000L	70.0000
25	15.0000	7.0000	10.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
26	7.0000	1.5000	1.0000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	5.0000L	700.0000
27	5.0000	2.0000	3.0000	0.5000	1000.0000	0.2500L	0.0 N	0.0 N	10.0000	700.0000
28	10.0000	1.0000	5.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	50.0000	2000.0000
29	3.0000	1.0000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	1500.0000
30	3.0000	0.7000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	1000.0000
31	2.0000	0.5000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	1000.0000
32	5.0000	1.0000	3.0000	0.5000	700.0000	1.0000	0.0 N	0.0 N	200.0000	700.0000
33	0.3000	0.0700	0.1000	0.0100	30.0000	0.0 N	0.0 N	0.0 N	5.0000L	20.0000
34	7.0000	2.0000	3.0000	0.7000	700.0000	0.2500L	0.0 N	0.0 N	10.0000	500.0000
35	5.0000	1.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
36	5.0000	1.0000	1.5000	1.0000G	700.0000	0.5000	0.0 N	0.0 N	20.0000	2000.0000
37	0.7000	0.0700	0.3000	0.0100	30.0000	0.0 N	0.0 N	0.0 N	5.0000L	50.0000
38	1.5000	0.3000	0.5000	0.2000	150.0000	0.0 N	0.0 N	0.0 N	5.0000L	70.0000
39	1.5000	0.3000	1.5000	0.1000	200.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
40	1.5000	0.3000	0.2000	0.3000	100.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
41	1.0000	0.2000	2.0000	0.0200	150.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
42	0.5000	0.1000	0.1000	0.0150	70.0000	0.0 N	0.0 N	0.0 N	5.0000L	20.0000
43	0.0700	0.0100L	0.0300L	0.0100	20.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
44	0.2000	0.1500	0.1000	0.0300	70.0000	0.0 N	0.0 N	0.0 N	5.0000L	70.0000
45	0.2000	0.0500	0.0300L	0.0100	70.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
46	1.5000	0.3000	1.0000	0.0300	200.0000	0.0 N	200.0000	0.0 N	5.0000L	20.0000
47	1.5000	0.2000	0.7000	0.0700	100.0000	0.0 N	0.0 N	0.0 N	5.0000L	50.0000
48	2.0000	0.7000	2.0000	0.2000	500.0000	0.0 N	0.0 N	0.0 N	100.0000	150.0000
49	2.0000	1.0000	2.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	50.0000	100.0000
50	3.0000	1.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
1	0.5000L	0.0 N	0.0 N	30.0000	5.0000	0.0 N	2.5000L	10.0000	15.0000	30.0000
2	0.5000L	0.0 N	10.0000	300.0000	70.0000	0.0 N	2.5000L	10.0000	70.0000	15.0000
3	0.0 N	0.0 N	10.0000	70.0000	5.0000	10.0000L	2.5000L	10.0000	30.0000	30.0000
4	0.5000L	0.0 N	10.0000	70.0000	7.0000	0.0 N	2.5000L	10.0000	30.0000	20.0000
5	0.5000L	0.0 N	10.0000	150.0000	5.0000	0.0 N	0.0 N	5.0000L	30.0000	20.0000
6	0.5000L	0.0 N	15.0000	300.0000	30.0000	10.0000L	2.5000L	10.0000	100.0000	15.0000
7	0.5000L	0.0 N	7.0000	70.0000	2.5000L	0.0 N	0.0 N	5.0000L	20.0000	30.0000
8	0.0 N	0.0 N	5.0000	10.0000	10.0000	20.0000	15.0000	0.0 N	30.0000	0.0 N
9	0.0 N	0.0 N	15.0000	20.0000	5.0000	20.0000	0.0 N	0.0 N	7.0000	50.0000
10	0.0 N	0.0 N	30.0000	500.0000	70.0000	0.0 N	0.0 N	0.0 N	50.0000	0.0 N
11	0.0 N	0.0 N	20.0000	300.0000	30.0000	20.0000	0.0 N	10.0000	30.0000	5.0000L
12	1.0000	0.0 N	20.0000	150.0000	30.0000	70.0000	2.5000L	10.0000	50.0000	30.0000
13	0.5000L	0.0 N	20.0000	300.0000	30.0000	20.0000	2.5000L	10.0000	150.0000	20.0000
14	0.0 N	0.0 N	20.0000	150.0000	2.5000L	20.0000	0.0 N	0.0 N	15.0000	10.0000
15	0.5000L	0.0 N	10.0000	150.0000	30.0000	0.0 N	2.5000L	10.0000	30.0000	10.0000
16	0.0 N	0.0 N	10.0000	150.0000	20.0000	10.0000L	0.0 N	10.0000	30.0000	5.0000L
17	0.5000L	0.0 N	30.0000	150.0000	200.0000	70.0000	20.0000	10.0000	100.0000	5.0000L
18	1.0000	0.0 N	2.5000L	0.0 N	200.0000	10.0000L	0.0 N	0.0 N	7.0000	0.0 N
19	0.0 N	0.0 N	20.0000	100.0000	15.0000	10.0000L	0.0 N	0.0 N	50.0000	0.0 N
20	0.5000L	0.0 N	2.5000L	10.0000	0.0 N	10.0000L	0.0 N	0.0 N	10.0000	0.0 N
21	0.5000L	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N
22	0.5000L	0.0 N	15.0000	200.0000	150.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
23	0.5000L	0.0 N	2.5000L	10.0000	5.0000	10.0000L	0.0 N	5.0000L	0.0 N	10.0000
24	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
25	0.0 N	0.0 N	50.0000	1000.0000	20.0000	20.0000	0.0 N	0.0 N	70.0000	5.0000L
26	0.5000L	0.0 N	7.0000	150.0000	50.0000	0.0 N	0.0 N	10.0000	30.0000	5.0000L
27	1.5000	0.0 N	10.0000	150.0000	2.5000L	10.0000L	0.0 N	10.0000	30.0000	10.0000
28	0.5000L	0.0 N	20.0000	200.0000	30.0000	50.0000	0.0 N	0.0 N	50.0000	10.0000
29	0.5000L	0.0 N	100.0000	100.0000	20.0000	20.0000	0.0 N	0.0 N	50.0000	5.0000L
30	0.5000L	0.0 N	100.0000	100.0000	2.5000L	20.0000	0.0 N	0.0 N	20.0000	5.0000L
31	0.5000L	0.0 N	150.0000	150.0000	0.0 N	20.0000	0.0 N	0.0 N	15.0000	0.0 N
32	0.5000L	0.0 N	50.0000	50.0000	50.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
33	0.0 N	0.0 N	0.0 N	0.0 N	20.0000	10.0000L	0.0 N	0.0 N	0.0 N	0.0 N
34	0.0 N	0.0 N	20.0000	50.0000	150.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
35	0.0 N	0.0 N	7.0000	30.0000	30.0000	10.0000L	0.0 N	0.0 N	20.0000	0.0 N
36	1.0000	0.0 N	0.0 N	0.0 N	30.0000	100.0000	20.0000	30.0000	0.0 N	100.0000
37	0.0 N	0.0 N	0.0 N	0.0 N	7.0000	10.0000L	10.0000	0.0 N	2.5000L	0.0 N
38	0.0 N	0.0 N	2.5000L	0.0 N	10.0000	10.0000L	7.0000	0.0 N	7.0000	0.0 N
39	0.5000L	0.0 N	5.0000	10.0000	15.0000	20.0000	0.0 N	0.0 N	7.0000	0.0 N
40	0.5000L	0.0 N	0.0 N	0.0 N	15.0000	20.0000	0.0 N	20.0000	0.0 N	30.0000
41	0.0 N	0.0 N	5.0000	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	30.0000	0.0 N
42	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N
43	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N
44	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	10.0000L	0.0 N	5.0000L	2.5000L	0.0 N
45	0.0 N	0.0 N	0.0 N	0.0 N	20.0000	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
46	0.0 N	0.0 N	10.0000	0.0 N	200.0000	10.0000L	0.0 N	0.0 N	5.0000	0.0 N
47	0.0 N	0.0 N	7.0000	0.0 N	200.0000	10.0000L	0.0 N	0.0 N	15.0000	0.0 N
48	0.0 N	0.0 N	30.0000	30.0000	15.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
49	0.5000L	0.0 N	30.0000	30.0000	2.5000L	20.0000	0.0 N	0.0 N	7.0000	5.0000L
50	0.5000L	0.0 N	150.0000	150.0000	5.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
1	0.0 N	5.0000	0.0 N	700.0000	30.0000	0.0 N	10.0000	0.0 N	150.0000
2	0.0 N	15.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	200.0000	150.0000
3	0.0 N	10.0000	0.0 N	700.0000	70.0000	0.0 N	15.0000	100.0000L	500.0000
4	0.0 N	7.0000	0.0 N	700.0000	100.0000	0.0 N	10.0000	200.0000	300.0000
5	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	10.0000	100.0000L	70.0000
6	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	100.0000L	150.0000
7	0.0 N	10.0000	0.0 N	500.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
8	0.0 N	10.0000	0.0 N	150.0000	150.0000	0.0 N	30.0000	0.0 N	100.0000
9	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	10.0000	100.0000L	50.0000
10	0.0 N	30.0000	0.0 N	150.0000	500.0000	0.0 N	20.0000	0.0 N	15.0000
11	0.0 N	30.0000	0.0 N	700.0000	300.0000	0.0 N	30.0000	0.0 N	70.0000
12	0.0 N	20.0000	0.0 N	1000.0000	200.0000	0.0 N	30.0000	100.0000L	300.0000
13	0.0 N	20.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	100.0000L	200.0000
14	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
15	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	100.0000L	70.0000
16	0.0 N	15.0000	0.0 N	300.0000	100.0000	0.0 N	10.0000	100.0000L	150.0000
17	0.0 N	50.0000	0.0 N	500.0000	1000.0000	0.0 N	70.0000	0.0 N	200.0000
18	0.0 N	5.0000	0.0 N	300.0000	70.0000	0.0 N	0.0 N	0.0 N	70.0000
19	0.0 N	15.0000	0.0 N	700.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
20	0.0 N	5.0000	0.0 N	100.0000	70.0000	0.0 N	5.0000L	0.0 N	10.0000
21	0.0 N	0.0 N	0.0 N	150.0000	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
22	0.0 N	30.0000	0.0 N	500.0000	500.0000	0.0 N	30.0000	0.0 N	150.0000
23	0.0 N	7.0000	0.0 N	300.0000	100.0000	0.0 N	10.0000	0.0 N	70.0000
24	0.0 N	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
25	0.0 N	50.0000	0.0 N	700.0000	500.0000	0.0 N	30.0000	0.0 N	100.0000
26	0.0 N	15.0000	0.0 N	150.0000	300.0000	0.0 N	10.0000	100.0000L	150.0000
27	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	100.0000L	200.0000
28	0.0 N	30.0000	0.0 N	1000.0000	300.0000	0.0 N	30.0000	0.0 N	150.0000
29	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	150.0000
30	0.0 N	10.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
31	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
32	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
33	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	200.0000	0.0 N
34	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
35	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	10.0000	0.0 N	20.0000
36	0.0 N	7.0000	0.0 N	2000.0000	200.0000	0.0 N	20.0000	0.0 N	200.0000
37	0.0 N	2.5000L	0.0 N	200.0000	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
38	0.0 N	2.5000L	0.0 N	50.0000L	20.0000	0.0 N	0.0 N	0.0 N	10.0000
39	0.0 N	5.0000	0.0 N	200.0000	30.0000	0.0 N	0.0 N	0.0 N	10.0000
40	0.0 N	2.5000L	0.0 N	1000.0000	70.0000	0.0 N	10.0000	0.0 N	150.0000
41	0.0 N	5.0000	0.0 N	300.0000	50.0000	0.0 N	5.0000L	0.0 N	5.0000L
42	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
43	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
44	0.0 N	0.0 N	0.0 N	50.0000L	15.0000	0.0 N	0.0 N	0.0 N	70.0000
45	0.0 N	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
46	0.0 N	2.5000L	0.0 N	50.0000L	10.0000	0.0 N	0.0 N	0.0 N	0.0 N
47	0.0 N	2.5000L	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
48	0.0 N	10.0000	0.0 N	200.0000	150.0000	0.0 N	10.0000	0.0 N	50.0000
49	0.0 N	10.0000	0.0 N	300.0000	100.0000	0.0 N	15.0000	0.0 N	100.0000
50	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
51	3.0000	1.0000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
52	5.0000	1.5000	10.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
53	7.0000	0.3000	20.0000	0.0700	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	100.0000
54	5.0000	1.0000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
55	5.0000	1.5000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
56	2.0000	0.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	1000.0000
57	2.0000	0.2000	1.5000	0.2000	700.0000	0.5000	1000.0000	0.0 N	15.0000	500.0000
58	3.0000	1.0000	2.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
59	3.0000	1.0000	2.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
60	3.0000	1.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
61	0.1500	0.1000	0.3000	0.0150	150.0000	0.0 N	0.0 N	0.0 N	5.0000L	20.0000
62	1.0000	0.1500	3.0000	0.0300	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	20.0000
63	5.0000	1.0000	3.0000	0.3000	700.0000	0.7000	500.0000	0.0 N	15.0000	500.0000
64	5.0000	1.0000	2.0000	0.3000	700.0000	0.5000	0.0 N	0.0 N	5.0000L	150.0000
65	3.0000	0.3000	20.0000	0.0100	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	50.0000
66	5.0000	1.5000	7.0000	0.1500	1500.0000	0.0 N	0.0 N	0.0 N	2000.0000G	10.0000L
67	15.0000	0.3000	5.0000	0.0300	1500.0000	1.5000	0.0 N	0.0 N	30.0000	100.0000
68	0.1500	0.0300	0.0300L	0.0030	10.0000	0.0 N	0.0 N	0.0 N	150.0000	0.0 N
69	0.1500	0.0200	0.0500	0.0020	50.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
70	0.1500	0.0100L	0.0300L	0.0020	20.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
71	0.0500	0.0100L	0.0300L	0.0 N	10.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
72	2.0000	0.7000	1.0000	0.3000	200.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
73	3.0000	0.5000	0.3000	0.3000	200.0000	1.0000	0.0 N	0.0 N	5.0000L	300.0000
74	2.0000	0.3000	0.1500	0.2000	150.0000	0.5000	0.0 N	0.0 N	0.0 N	700.0000
75	3.0000	0.3000	0.7000	0.3000	700.0000	0.7000	0.0 N	0.0 N	0.0 N	700.0000
76	3.0000	1.5000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
77	2.0000	0.7000	0.7000	0.3000	200.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
78	0.2000	0.0200	1.0000	0.0300	100.0000	0.0 N	0.0 N	0.0 N	5.0000L	20.0000
79	0.2000	0.0700	0.2000	0.0070	50.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
80	3.0000	0.7000	1.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
81	0.1000	0.0200	0.0500	0.0070	50.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
82	2.0000	0.5000	0.2000	0.3000	150.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
83	3.0000	0.7000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
84	1.5000	0.5000	2.0000	0.0700	500.0000	0.0 N	0.0 N	0.0 N	30.0000	30.0000
85	2.0000	0.5000	2.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
86	5.0000	1.0000	3.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	70.0000	200.0000
87	5.0000	1.5000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
88	5.0000	1.5000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	150.0000	300.0000
89	5.0000	1.5000	10.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	150.0000	200.0000
90	5.0000	1.5000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	200.0000	300.0000
91	5.0000	2.0000	5.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	30.0000	200.0000
92	3.0000	2.0000	5.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
93	5.0000	1.5000	3.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
94	0.1000	0.0200	0.7000	0.0020	100.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
95	1.0000	0.3000	5.0000	0.0700	500.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
96	0.5000	0.0100L	0.0500	0.0200	50.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
97	0.3000	0.1000	0.1000	0.0300	150.0000	0.0 N	0.0 N	0.0 N	10.0000	30.0000
98	3.0000	1.0000	10.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
99	5.0000	1.5000	7.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
100	0.1000	0.0200	0.0500	0.0050	20.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
51	0.5000L	0.0 N	10.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
52	0.5000L	0.0 N	10.0000	100.0000	30.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
53	0.0 N	0.0 N	5.0000	20.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
54	0.0 N	0.0 N	15.0000	150.0000	50.0000	20.0000	0.0 N	0.0 N	50.0000	5.0000L
55	0.5000L	0.0 N	10.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	50.0000	5.0000L
56	0.5000L	0.0 N	2.5000L	0.0 N	15.0000	20.0000	0.0 N	0.0 N	2.5000L	0.0 N
57	0.5000L	0.0 N	2.5000L	0.0 N	15.0000	10.0000L	0.0 N	15.0000	2.5000L	5.0000L
58	0.0 N	0.0 N	10.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	20.0000	5.0000L
59	0.0 N	0.0 N	15.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
60	0.0 N	0.0 N	15.0000	100.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
61	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
62	0.0 N	0.0 N	2.5000L	0.0 N	7.0000	0.0 N	7.0000	0.0 N	7.0000	0.0 N
63	0.5000L	0.0 N	15.0000	100.0000	50.0000	20.0000	0.0 N	0.0 N	50.0000	5.0000L
64	0.0 N	0.0 N	10.0000	70.0000	70.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
65	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	10.0000L	5.0000	0.0 N	5.0000	10.0000
66	0.0 N	0.0 N	5.0000	2.5000L	2.5000L	0.0 N	0.0 N	5.0000L	2.5000L	0.0 N
67	0.0 N	0.0 N	20.0000	10.0000	700.0000	0.0 N	2.5000L	5.0000L	20.0000	70.0000
68	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N
69	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
70	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
71	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
72	0.5000L	0.0 N	5.0000	20.0000	50.0000	20.0000	0.0 N	5.0000L	10.0000	0.0 N
73	0.0 N	0.0 N	5.0000	2.5000L	30.0000	0.0 N	0.0 N	10.0000	10.0000	5.0000L
74	0.0 N	0.0 N	0.0 N	2.5000L	50.0000	20.0000	0.0 N	10.0000	0.0 N	70.0000
75	0.5000L	0.0 N	5.0000	2.5000L	30.0000	30.0000	0.0 N	10.0000	10.0000	30.0000
76	0.0 N	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
77	0.0 N	0.0 N	7.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	15.0000	0.0 N
78	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
79	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
80	0.5000L	0.0 N	7.0000	50.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
81	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N
82	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	10.0000L	0.0 N	0.0 N	2.5000L	0.0 N
83	0.5000L	0.0 N	7.0000	0.0 N	50.0000	20.0000	0.0 N	0.0 N	2.5000L	5.0000L
84	0.0 N	0.0 N	5.0000	10.0000	5.0000	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
85	0.0 N	0.0 N	7.0000	50.0000	15.0000	10.0000L	0.0 N	0.0 N	7.0000	5.0000L
86	0.0 N	0.0 N	10.0000	70.0000	15.0000	10.0000L	0.0 N	0.0 N	10.0000	5.0000L
87	0.0 N	0.0 N	10.0000	50.0000	70.0000	20.0000	0.0 N	0.0 N	10.0000	10.0000
88	0.5000L	0.0 N	10.0000	70.0000	10.0000	20.0000	0.0 N	0.0 N	30.0000	20.0000
89	0.5000L	0.0 N	10.0000	50.0000	15.0000	10.0000L	0.0 N	0.0 N	15.0000	10.0000
90	0.0 N	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
91	0.0 N	0.0 N	15.0000	30.0000	70.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
92	0.0 N	0.0 N	10.0000	70.0000	20.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
93	0.5000L	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
94	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	10.0000L	0.0 N	0.0 N	2.5000L	0.0 N
95	0.5000L	0.0 N	5.0000	0.0 N	5.0000	20.0000	0.0 N	0.0 N	7.0000	0.0 N
96	0.0 N	0.0 N	0.0 N	10.0000	2.5000L	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
97	0.0 N	0.0 N	0.0 N	20.0000	0.0 N	10.0000L	0.0 N	0.0 N	2.5000L	0.0 N
98	0.5000L	0.0 N	10.0000	100.0000	20.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
99	0.0 N	0.0 N	15.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	30.0000	10.0000
100	0.0 N	0.0 N	2.5000N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
51	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
52	0.0 N	20.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	0.0 N	50.0000
53	0.0 N	10.0000	0.0 N	200.0000	70.0000	0.0 N	50.0000	0.0 N	20.0000
54	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
55	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
56	0.0 N	7.0000	0.0 N	700.0000	100.0000	0.0 N	15.0000	0.0 N	100.0000
57	0.0 N	5.0000	0.0 N	300.0000	70.0000	0.0 N	10.0000	0.0 N	150.0000
58	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
59	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
60	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
61	0.0 N	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
62	0.0 N	2.5000L	0.0 N	100.0000	20.0000	0.0 N	0.0 N	0.0 N	0.0 N
63	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
64	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
65	0.0 N	7.0000	0.0 N	1000.0000	10.0000	0.0 N	50.0000	0.0 N	0.0 N
66	0.0 N	0.0 N	0.0 N	300.0000	100.0000	0.0 N	5.0000L	0.0 N	0.0 N
67	0.0 N	5.0000	0.0 N	200.0000	30.0000	0.0 N	15.0000	100.0000L	5.0000L
68	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
69	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
70	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
71	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
72	0.0 N	7.0000	0.0 N	500.0000	100.0000	0.0 N	15.0000	0.0 N	150.0000
73	0.0 N	2.5000L	0.0 N	150.0000	70.0000	0.0 N	5.0000L	0.0 N	70.0000
74	0.0 N	0.0 N	0.0 N	300.0000	30.0000	0.0 N	10.0000	0.0 N	150.0000
75	0.0 N	0.0 N	0.0 N	500.0000	50.0000	0.0 N	10.0000	0.0 N	150.0000
76	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
77	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
78	0.0 N	0.0 N	0.0 N	100.0000	10.0000	0.0 N	5.0000L	0.0 N	0.0 N
79	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
80	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
81	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
82	0.0 N	7.0000	10.0000	150.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
83	0.0 N	15.0000	100.0000	500.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
84	0.0 N	5.0000	0.0 N	150.0000	70.0000	0.0 N	5.0000L	0.0 N	10.0000
85	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
86	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
87	0.0 N	20.0000	0.0 N	700.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
88	0.0 N	15.0000	30.0000	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
89	0.0 N	15.0000	20.0000	500.0000	150.0000	0.0 N	20.0000	0.0 N	50.0000
90	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
91	0.0 N	30.0000	0.0 N	1000.0000	300.0000	0.0 N	20.0000	0.0 N	10.0000
92	0.0 N	7.0000	0.0 N	500.0000	100.0000	0.0 N	20.0000	0.0 N	20.0000
93	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
94	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
95	0.0 N	5.0000	0.0 N	300.0000	30.0000	0.0 N	10.0000	0.0 N	0.0 N
96	0.0 N	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
97	0.0 N	2.5000L	0.0 N	0.0 N	10.0000	0.0 N	0.0 N	0.0 N	0.0 N
98	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	50.0000
99	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	50.0000
100	0.0 N	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
101	5.0000	0.7000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	150.0000
102	5.0000	1.5000	10.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
103	5.0000	1.5000	10.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
104	7.0000	2.0000	3.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	1000.0000
105	3.0000	1.5000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	500.0000
106	5.0000	1.0000	0.7000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
107	7.0000	0.7000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	100.0000	500.0000
108	3.0000	1.0000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
109	3.0000	1.0000	0.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
110	3.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
111	2.0000	2.0000	3.0000	0.0700	700.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
112	7.0000	1.5000	7.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
113	5.0000	0.7000	10.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
114	0.0500	0.0200	0.0700	0.0050	30.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
115	5.0000	1.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	100.0000
116	3.0000	1.5000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
117	3.0000	1.0000	3.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
118	3.0000	1.5000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
119	3.0000	1.5000	3.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
120	5.0000	1.5000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	500.0000
121	3.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
122	3.0000	1.5000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
123	3.0000	1.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
124	0.5000	0.1500	0.1500	0.0500	100.0000	0.5000	0.0 N	0.0 N	5.0000L	200.0000
125	1.0000	0.0200	0.0300L	0.0100	70.0000	0.2500L	0.0 N	0.0 N	5.0000L	20.0000
126	3.0000	0.5000	0.7000	0.1500	700.0000	1.0000	0.0 N	0.0 N	15.0000	300.0000
127	3.0000	0.7000	1.0000	0.2000	200.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
128	5.0000	1.0000	1.5000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
129	0.1000	0.0100L	0.0300L	0.0100	150.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
130	1.5000	0.2000	0.1000	0.0700	100.0000	0.5000	0.0 N	0.0 N	5.0000L	100.0000
131	1.5000	0.1000	3.0000	0.0300	700.0000	1.0000	0.0 N	0.0 N	5.0000L	50.0000
132	1.5000	0.3000	2.0000	0.1500	500.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
133	20.0000	1.5000	2.0000	0.5000	1500.0000	5.0000	3000.0000	5.0000L	70.0000	1000.0000
134	5.0000	0.5000	0.0500	1.0000	200.0000	0.2500L	700.0000	0.0 N	5.0000L	300.0000
135	5.0000	0.7000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
136	7.0000	2.0000	5.0000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	5.0000L	300.0000
137	3.0000	1.5000	2.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
138	3.0000	1.0000	2.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
139	5.0000	1.0000	0.3000	0.3000	1500.0000	7.0000	300.0000	0.0 N	20.0000	300.0000
140	10.0000	1.5000	1.0000	0.5000	1500.0000	1.5000	0.0 N	0.0 N	10.0000	300.0000
141	3.0000	1.0000	3.0000	0.3000	500.0000	0.5000	0.0 N	0.0 N	30.0000	500.0000
142	5.0000	1.0000	7.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
143	5.0000	1.0000	0.7000	0.7000	150.0000	0.7000	0.0 N	0.0 N	5.0000L	700.0000
144	0.1000	0.0200	0.0700	0.0050	50.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
145	0.1500	0.0200	0.0300L	0.0050	50.0000	7.0000	0.0 N	0.0 N	5.0000L	10.0000L
146	3.0000	0.7000	1.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
147	3.0000	0.7000	1.0000	0.2000	300.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
148	2.0000	0.7000	15.0000	0.0700	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	100.0000
149	7.0000	0.7000	1.5000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
150	2.0000	0.7000	2.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
101	0.5000L	0.0 N	15.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
102	0.5000L	0.0 N	15.0000	50.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
103	0.0 N	0.0 N	7.0000	70.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	0.0 N
104	0.5000L	0.0 N	10.0000	100.0000	150.0000	20.0000	0.0 N	0.0 N	20.0000	20.0000
105	0.5000L	0.0 N	10.0000	200.0000	30.0000	20.0000	0.0 N	0.0 N	50.0000	5.0000L
106	0.5000L	0.0 N	10.0000	150.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
107	0.5000L	0.0 N	15.0000	300.0000	2.5000L	20.0000	0.0 N	0.0 N	100.0000	5.0000L
108	0.0 N	0.0 N	10.0000	100.0000	15.0000	20.0000	0.0 N	0.0 N	20.0000	10.0000
109	0.5000L	0.0 N	7.0000	50.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
110	0.5000L	0.0 N	10.0000	70.0000	20.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
111	0.0 N	0.0 N	7.0000	150.0000	10.0000	10.0000L	0.0 N	0.0 N	20.0000	5.0000L
112	0.5000L	0.0 N	10.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	30.0000	30.0000
113	0.5000L	0.0 N	10.0000	70.0000	20.0000	10.0000L	0.0 N	0.0 N	30.0000	10.0000
114	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
115	0.0 N	0.0 N	15.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	0.0 N
116	0.0 N	0.0 N	15.0000	70.0000	30.0000	20.0000	2.5000L	0.0 N	30.0000	5.0000L
117	0.0 N	0.0 N	10.0000	70.0000	20.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
118	0.0 N	0.0 N	10.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
119	0.0 N	0.0 N	10.0000	100.0000	70.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
120	0.0 N	0.0 N	15.0000	100.0000	30.0000	10.0000L	0.0 N	0.0 N	20.0000	0.0 N
121	0.5000L	0.0 N	15.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
122	0.5000L	0.0 N	15.0000	100.0000	70.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
123	0.0 N	0.0 N	10.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	30.0000	10.0000
124	0.0 N	5.0000L	0.0 N	0.0 N	2.5000L	10.0000L	0.0 N	0.0 N	5.0000	5.0000L
125	0.0 N	0.0 N	5.0000	0.0 N	15.0000	0.0 N	20.0000	0.0 N	2.5000L	0.0 N
126	0.5000L	0.0 N	10.0000	0.0 N	30.0000	10.0000L	50.0000	0.0 N	5.0000	5.0000L
127	0.5000L	0.0 N	5.0000	20.0000	5.0000	20.0000	0.0 N	0.0 N	2.5000L	5.0000L
128	0.5000L	0.0 N	10.0000	50.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
129	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N
130	0.5000L	0.0 N	2.5000L	0.0 N	5.0000	10.0000L	5.0000	5.0000L	2.5000L	0.0 N
131	0.5000N	0.0 N	7.0000	0.0 N	70.0000	10.0000L	30.0000	0.0 N	5.0000	0.0 N
132	0.5000L	0.0 N	5.0000	0.0 N	5.0000	20.0000	30.0000	10.0000	2.5000L	5.0000L
133	1.5000	20.0000	70.0000	15.0000	300.0000	0.0 N	150.0000	15.0000	15.0000	15.0000
134	0.0 N	0.0 N	20.0000	10.0000	100.0000	0.0 N	2.5000L	5.0000L	7.0000	0.0 N
135	0.0 N	0.0 N	7.0000	70.0000	100.0000	10.0000L	30.0000	0.0 N	30.0000	5.0000L
136	0.0 N	0.0 N	15.0000	10.0000	70.0000	10.0000L	2.5000L	5.0000L	7.0000	5.0000L
137	0.0 N	0.0 N	10.0000	100.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
138	0.5000L	0.0 N	10.0000	0.0 N	30.0000	10.0000L	2.5000L	0.0 N	7.0000	0.0 N
139	1.5000	0.0 N	15.0000	15.0000	100.0000	0.0 N	70.0000	15.0000	30.0000	100.0000
140	1.0000	0.0 N	30.0000	10.0000	70.0000	0.0 N	15.0000	10.0000	10.0000	0.0 N
141	0.5000L	0.0 N	15.0000	30.0000	70.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
142	0.0 N	0.0 N	10.0000	30.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
143	0.5000L	0.0 N	10.0000	0.0 N	300.0000	20.0000	2.5000L	10.0000	5.0000	5.0000L
144	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
145	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	0.0 N	10.0000	0.0 N	5.0000	100.0000
146	0.0 N	0.0 N	5.0000	10.0000	15.0000	20.0000	0.0 N	0.0 N	2.5000L	5.0000L
147	0.0 N	0.0 N	5.0000	50.0000	15.0000	10.0000L	0.0 N	0.0 N	15.0000	0.0 N
148	0.0 N	0.0 N	2.5000L	20.0000	2.5000L	10.0000L	0.0 N	0.0 N	10.0000	5.0000L
149	0.5000L	0.0 N	15.0000	70.0000	100.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
150	1.0000	0.0 N	5.0000	0.0 N	5.0000	20.0000	0.0 N	0.0 N	0.0 N	5.0000L

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
101	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	30.0000	0.0 N	150.0000
102	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
103	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	30.0000	0.0 N	100.0000
104	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	150.0000
105	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
106	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	150.0000
107	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
108	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	20.0000	0.0 N	50.0000
109	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
110	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	50.0000
111	0.0 N	10.0000	0.0 N	300.0000	100.0000	0.0 N	10.0000	0.0 N	20.0000
112	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	30.0000	100.0000L	50.0000
113	0.0 N	15.0000	0.0 N	300.0000	100.0000	0.0 N	30.0000	0.0 N	70.0000
114	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
115	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
116	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
117	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
118	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
119	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
120	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
121	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	30.0000	0.0 N	70.0000
122	0.0 N	20.0000	0.0 N	500.0000	150.0000	0.0 N	30.0000	0.0 N	100.0000
123	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	100.0000
124	0.0 N	2.5000L	0.0 N	0.0 N	20.0000	0.0 N	0.0 N	0.0 N	10.0000
125	0.0 N	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
126	0.0 N	7.0000	0.0 N	100.0000	100.0000	0.0 N	10.0000	0.0 N	10.0000
127	0.0 N	15.0000	0.0 N	1000.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
128	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
129	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
130	0.0 N	2.5000L	0.0 N	0.0 N	20.0000	0.0 N	0.0 N	0.0 N	50.0000
131	0.0 N	2.5000L	0.0 N	200.0000	15.0000	0.0 N	5.0000L	0.0 N	10.0000
132	0.0 N	5.0000	0.0 N	200.0000	50.0000	0.0 N	15.0000	0.0 N	100.0000
133	0.0 N	15.0000	0.0 N	200.0000	300.0000	0.0 N	15.0000	100.0000L	100.0000
134	0.0 N	2.5000L	0.0 N	0.0 N	100.0000	0.0 N	0.0 N	0.0 N	5.0000L
135	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	10.0000	0.0 N	50.0000
136	0.0 N	20.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	100.0000L	30.0000
317	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
138	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	10.0000	0.0 N	50.0000
139	0.0 N	2.5000L	0.0 N	150.0000	150.0000	0.0 N	10.0000	500.0000	100.0000
140	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	100.0000L	70.0000
141	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	150.0000
142	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	0.0 N	50.0000
143	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
144	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
145	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
146	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
147	0.0 N	10.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
148	0.0 N	7.0000	0.0 N	700.0000	50.0000	0.0 N	20.0000	0.0 N	20.0000
149	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
150	0.0 N	10.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
151	5.0000	1.0000	2.0000	0.5000	300.0000	7.0000	0.0 N	0.0 N	5.0000L	200.0000
152	5.0000	1.5000	2.0000	0.3000	200.0000	0.2500L	0.0 N	0.0 N	5.0000L	500.0000
153	5.0000	1.0000	2.0000	0.5000	200.0000	0.2500L	0.0 N	0.0 N	5.0000L	500.0000
154	1.5000	0.3000	1.0000	0.0700	100.0000	0.5000	700.0000	0.0 N	1500.0000	30.0000
155	0.1000	0.0200	0.2000	0.0050	50.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
156	10.0000	2.0000	5.0000	0.5000	1000.0000	0.2500L	0.0 N	0.0 N	30.0000	3000.0000
157	3.0000	1.5000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
158	15.0000	5.0000	5.0000	1.0000	1000.0000	0.2500L	0.0 N	0.0 N	30.0000	1000.0000
159	0.3000	0.0200	0.0300L	0.0010L	30.0000	0.0 N	100.0000L	0.0 N	0.0 N	30.0000
160	5.0000	1.5000	2.0000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	5.0000L	1500.0000
161	10.0000	5.0000	5.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
162	3.0000	3.0000	20.0000	0.0700	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
163	3.0000	1.0000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
164	5.0000	1.5000	3.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	700.0000	100.0000
165	5.0000	1.5000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	300.0000	300.0000
166	5.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	100.0000	300.0000
167	5.0000	1.5000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
168	5.0000	2.0000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	300.0000
169	3.0000	1.0000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
170	3.0000	2.0000	10.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	200.0000
171	5.0000	1.0000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	300.0000
172	1.5000	2.0000	5.0000	0.0700	200.0000	0.0 N	0.0 N	0.0 N	10.0000	70.0000
173	5.0000	1.0000	10.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
174	5.0000	1.0000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
175	5.0000	1.0000	5.0000	0.3000	700.0000	0.5000	0.0 N	0.0 N	50.0000	500.0000
176	5.0000	2.0000	7.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
177	5.0000	1.0000	3.0000	0.3000	700.0000	2.0000	0.0 N	0.0 N	100.0000	500.0000
178	5.0000	1.0000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
179	5.0000	1.0000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
180	3.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
181	3.0000	1.0000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
182	0.5000	0.2000	10.0000	0.0500	1000.0000	0.2500L	0.0 N	0.0 N	5.0000L	20.0000
183	3.0000	0.5000	1.0000	0.2000	300.0000	1.5000	0.0 N	0.0 N	5.0000L	150.0000
184	3.0000	0.2000	5.0000	0.1500	700.0000	1.5000	0.0 N	0.0 N	50.0000	700.0000
185	3.0000	0.7000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
186	15.0000	0.5000	1.5000	0.1500	700.0000	1.5000	0.0 N	0.0 N	5.0000L	50.0000
187	1.0000	0.1000	2.0000	0.0500	200.0000	30.0000	700.0000	0.0 N	5.0000L	100.0000
188	3.0000	0.5000	0.5000	0.2000	150.0000	0.7000	100.0000L	0.0 N	10.0000	300.0000
189	5.0000	0.7000	1.5000	0.3000	500.0000	0.5000	0.0 N	0.0 N	10.0000	700.0000
190	5.0000	0.7000	1.5000	0.2000	500.0000	30.0000	200.0000	0.0 N	5.0000L	500.0000
191	5.0000	1.0000	3.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	300.0000	700.0000
192	2.0000	0.7000	1.0000	0.2000	200.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
193	2.0000	0.7000	1.0000	0.1500	300.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
194	5.0000	1.5000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
195	3.0000	1.5000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
196	3.0000	1.0000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
197	3.0000	1.0000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
198	0.5000	0.0200	0.0300L	0.0100	50.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
199	3.0000	1.0000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
200	3.0000	1.0000	1.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
151	0.5000L	0.0 N	10.0000	0.0 N	2000.0000	30.0000	0.0 N	0.0 N	15.0000	0.0 N
152	0.5000L	0.0 N	7.0000	0.0 N	100.0000	20.0000	0.0 N	0.0 N	2.5000L	5.0000L
153	0.5000L	0.0 N	10.0000	0.0 N	300.0000	30.0000	0.0 N	5.0000L	2.5000L	5.0000L
154	0.0 N	0.0 N	5.0000	10.0000	30.0000	10.0000L	0.0 N	0.0 N	10.0000	50.0000
155	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
156	1.0000	0.0 N	10.0000	10.0000	150.0000	20.0000	2.5000L	15.0000	2.5000L	15.0000
157	0.5000L	0.0 N	5.0000	50.0000	100.0000	20.0000	0.0 N	0.0 N	10.0000	0.0 N
158	0.0 N	0.0 N	10.0000	200.0000	200.0000	20.0000	7.0000	5.0000L	70.0000	5.0000L
159	0.0 N	0.0 N	10.0000	7.0000	15.0000	10.0000L	0.0 N	5.0000L	0.0 N	20.0000
160	0.5000L	0.0 N	15.0000	5.0000	15.0000	30.0000	0.0 N	10.0000	2.5000L	20.0000
161	0.5000L	0.0 N	10.0000	150.0000	150.0000	20.0000	5.0000	10.0000	30.0000	10.0000
162	0.0 N	0.0 N	2.5000L	10.0000	5.0000	10.0000L	0.0 N	0.0 N	5.0000	0.0 N
163	0.0 N	0.0 N	2.5000L	70.0000	20.0000	10.0000L	0.0 N	0.0 N	7.0000	5.0000L
164	0.0 N	0.0 N	15.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
165	0.0 N	0.0 N	10.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
166	0.0 N	0.0 N	10.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	15.0000
167	0.0 N	0.0 N	10.0000	100.0000	50.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
168	0.0 N	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
169	0.0 N	0.0 N	10.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
170	0.5000L	0.0 N	7.0000	50.0000	20.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
171	0.5000L	0.0 N	15.0000	10.0000	30.0000	20.0000	0.0 N	0.0 N	10.0000	10.0000
172	0.0 N	0.0 N	2.5000L	20.0000	2.5000L	0.0 N	0.0 N	0.0 N	7.0000	0.0 N
173	0.5000L	0.0 N	10.0000	50.0000	20.0000	20.0000	0.0 N	0.0 N	20.0000	15.0000
174	0.0 N	0.0 N	15.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
175	0.0 N	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
176	0.0 N	0.0 N	10.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
177	0.5000L	0.0 N	10.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
178	0.5000L	0.0 N	10.0000	70.0000	20.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
179	0.0 N	0.0 N	10.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
180	0.5000L	0.0 N	10.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
181	0.0 N	0.0 N	10.0000	50.0000	0.0 N	20.0000	0.0 N	0.0 N	15.0000	0.0 N
182	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	10.0000L	0.0 N	0.0 N	5.0000	70.0000
183	0.0 N	5.0000L	7.0000	30.0000	30.0000	20.0000	2.5000L	0.0 N	15.0000	10.0000
184	0.5000L	10.0000	10.0000	0.0 N	100.0000	10.0000L	300.0000	0.0 N	5.0000	10.0000
185	0.5000L	0.0 N	15.0000	50.0000	50.0000	20.0000	0.0 N	0.0 N	15.0000	15.0000
186	0.0 N	5.0000L	10.0000	30.0000	700.0000	10.0000L	5.0000	0.0 N	10.0000	5.0000L
187	0.0 N	30.0000	2.5000L	0.0 N	2000.0000	10.0000L	0.0 N	0.0 N	5.0000	10000.0000
188	0.5000L	0.0 N	5.0000	20.0000	50.0000	10.0000L	30.0000	0.0 N	5.0000	0.0 N
189	0.5000L	0.0 N	5.0000	30.0000	100.0000	20.0000	2.5000L	0.0 N	7.0000	5.0000L
190	0.5000L	0.0 N	7.0000	50.0000	150.0000	20.0000	0.0 N	0.0 N	10.0000	20.0000
191	0.5000L	0.0 N	10.0000	20.0000	50.0000	10.0000L	0.0 N	0.0 N	10.0000	50.0000
192	0.5000L	0.0 N	7.0000	10.0000	20.0000	10.0000L	0.0 N	0.0 N	7.0000	10.0000
193	0.0 N	0.0 N	5.0000	70.0000	10.0000	10.0000L	0.0 N	0.0 N	5.0000	10.0000
194	0.0 N	0.0 N	10.0000	30.0000	30.0000	10.0000L	0.0 N	0.0 N	7.0000	5.0000L
195	0.0 N	0.0 N	15.0000	50.0000	30.0000	10.0000L	0.0 N	0.0 N	15.0000	5.0000L
196	0.0 N	0.0 N	7.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	10.0000	10.0000
197	0.0 N	0.0 N	10.0000	70.0000	20.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
198	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N
199	0.5000L	0.0 N	10.0000	0.0 N	20.0000	20.0000	0.0 N	0.0 N	5.0000	5.0000L
200	0.0 N	0.0 N	10.0000	70.0000	20.0000	10.0000L	0.0 N	0.0 N	20.0000	5.0000L

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
151	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	200.0000	100.0000
152	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
153	0.0 N	10.0000	0.0 N	300.0000	100.0000	0.0 N	20.0000	0.0 N	100.0000
154	0.0 N	7.0000	0.0600N	50.0000L	50.0000	0.0 N	10.0000	0.0 N	20.0000
155	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
156	0.0 N	15.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	300.0000
157	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	100.0000
158	0.0 N	30.0000	0.0 N	200.0000	500.0000	0.0 N	30.0000	0.0 N	300.0000
159	0.0 N	2.5000L	0.0 N	50.0000L	10.0000	25.0000L	5.0000L	0.0 N	0.0 N
160	0.0 N	10.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	100.0000L	150.0000
161	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
162	0.0 N	10.0000	0.0 N	1000.0000	70.0000	0.0 N	15.0000	0.0 N	20.0000
163	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
164	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
165	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
166	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
167	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
168	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
169	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	100.0000
170	0.0 N	10.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	50.0000
171	0.0 N	20.0000	5.0000L	500.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
172	0.0 N	7.0000	0.0 N	1000.0000	50.0000	0.0 N	10.0000	0.0 N	15.0000
173	0.0 N	15.0000	0.0 N	300.0000	100.0000	0.0 N	30.0000	0.0 N	150.0000
174	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
175	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
176	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	0.0 N	50.0000
177	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
178	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
179	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
180	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
181	0.0 N	15.0000	0.0 N	200.0000	100.0000	0.0 N	10.0000	0.0 N	70.0000
182	0.0 N	5.0000	0.0 N	1000.0000	20.0000	0.0 N	20.0000	0.0 N	10.0000
183	0.0 N	10.0000	0.0 N	150.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
184	0.0 N	7.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 N	20.0000
185	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
186	0.0 N	10.0000	0.0 N	100.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
187	0.0 N	5.0000	0.0 N	200.0000	15.0000	0.0 N	5.0000L	0.0 N	10.0000
188	0.0 N	10.0000	0.0 N	100.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
189	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	0.0 N	150.0000
190	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
191	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
192	0.0 N	10.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	50.0000
193	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	50.0000
194	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
195	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
196	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	0.0 N	50.0000
197	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
198	0.0 N	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
199	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
200	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	150.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
201	5.0000	1.5000	1.5000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
202	2.0000	0.3000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
203	5.0000	5.0000	10.0000	0.0100	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	20.0000
204	5.0000	2.0000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
205	5.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
206	3.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	300.0000
207	3.0000	3.0000	10.0000	0.1500	700.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
208	3.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
209	3.0000	1.0000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	200.0000
210	3.0000	2.0000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	150.0000
211	5.0000	0.5000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
212	5.0000	2.0000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
213	7.0000	7.0000	20.0000G	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	300.0000
214	5.0000	2.0000	7.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	100.0000
215	15.0000	5.0000	5.0000	1.0000	1000.0000	0.2500L	0.0 N	0.0 N	30.0000	1500.0000
216	15.0000	5.0000	10.0000	0.7000	1500.0000	0.2500L	0.0 N	0.0 N	30.0000	300.0000
217	10.0000	5.0000	7.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	700.0000
218	7.0000	7.0000	20.0000G	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	100.0000	500.0000
219	15.0000	3.0000	3.0000	0.7000	300.0000	0.5000	0.0 N	0.0 N	70.0000	1000.0000
220	3.0000	2.0000	15.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
221	7.0000	1.0000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	100.0000	500.0000
222	5.0000	1.5000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
223	3.0000	1.0000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
224	5.0000	2.0000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
225	3.0000	1.0000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
226	7.0000	1.0000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
227	7.0000	1.0000	10.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
228	5.0000	1.0000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	200.0000	700.0000
229	5.0000	1.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	1000.0000
230	5.0000	2.0000	10.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	70.0000	200.0000
231	5.0000	0.7000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	70.0000
232	3.0000	2.0000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	200.0000
233	7.0000	2.0000	1.5000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	500.0000
234	5.0000	3.0000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
235	7.0000	2.0000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
236	3.0000	2.0000	7.0000	0.1000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	1500.0000
237	10.0000	2.0000	7.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
238	15.0000	3.0000	3.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
239	2.0000	1.0000	20.0000	0.1500	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
240	1.0000	0.1500	1.5000	0.0700	300.0000	0.0 N	0.0 N	0.0 N	10.0000	70.0000
241	7.0000	1.5000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	1000.0000
242	3.0000	0.7000	1.5000	0.5000	200.0000	0.0 N	0.0 N	0.0 N	70.0000	1500.0000
243	2.0000	1.0000	10.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
244	1.5000	0.7000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	500.0000	150.0000
245	10.0000	2.0000	5.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
236	1.0000	0.3000	20.0000	0.0 N	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	70.0000
247	15.0000	1.5000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
248	3.0000	0.7000	3.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	200.0000	700.0000
249	5.0000	1.0000	3.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
250	5.0000	0.7000	0.7000	0.7000	200.0000	0.0 N	0.0 N	0.0 N	70.0000	2000.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
201	0.0 N	0.0 N	7.0000	100.0000	20.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
202	0.0 N	0.0 N	10.0000	50.0000	20.0000	10.0000L	0.0 N	0.0 N	20.0000	0.0 N
230	0.0 N	0.0 N	0.0 N	10.0000	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
204	0.0 N	0.0 N	20.0000	20.0000	100.0000	10.0000L	0.0 N	0.0 N	15.0000	5.0000L
205	0.0 N	0.0 N	15.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	20.0000	20.0000
206	0.5000L	0.0 N	10.0000	30.0000	20.0000	10.0000L	0.0 N	0.0 N	15.0000	5.0000L
207	0.0 N	0.0 N	10.0000	20.0000	7.0000	10.0000L	0.0 N	0.0 N	20.0000	10.0000
208	0.0 N	0.0 N	10.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	20.0000	5.0000L
209	0.0 N	0.0 N	10.0000	30.0000	20.0000	20.0000	0.0 N	0.0 N	15.0000	0.0 N
210	0.0 N	0.0 N	10.0000	50.0000	30.0000	10.0000L	0.0 N	0.0 N	20.0000	0.0 N
211	0.0 N	0.0 N	15.0000	100.0000	30.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
212	0.0 N	0.0 N	10.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
213	0.0 N	0.0 N	15.0000	200.0000	100.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
214	0.0 N	0.0 N	15.0000	100.0000	30.0000	10.0000L	0.0 N	0.0 N	30.0000	0.0 N
215	0.5000L	0.0 N	15.0000	300.0000	200.0000	20.0000	2.5000L	5.0000L	70.0000	5.0000L
216	0.0 N	0.0 N	15.0000	150.0000	150.0000	10.0000L	2.5000L	5.0000L	70.0000	10.0000
217	0.5000L	0.0 N	2.5000L	150.0000	100.0000	10.0000L	7.0000	10.0000	30.0000	5.0000L
218	0.0 N	0.0 N	15.0000	150.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
219	0.5000L	0.0 N	2.5000L	150.0000	300.0000	10.0000L	20.0000	10.0000	10.0000	10.0000
220	0.0 N	0.0 N	5.0000	50.0000	15.0000	20.0000	0.0 N	0.0 N	20.0000	0.0 N
221	0.0 N	0.0 N	15.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
222	0.5000L	0.0 N	15.0000	30.0000	200.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
223	0.5000L	0.0 N	15.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
224	0.5000L	0.0 N	15.0000	50.0000	50.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
225	0.5000L	0.0 N	7.0000	30.0000	50.0000	20.0000	0.0 N	0.0 N	10.0000	10.0000
226	0.0 N	0.0 N	15.0000	70.0000	70.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
227	0.0 N	0.0 N	10.0000	70.0000	15.0000	10.0000L	0.0 N	0.0 N	20.0000	5.0000L
228	0.5000L	0.0 N	15.0000	50.0000	100.0000	20.0000	0.0 N	0.0 N	20.0000	10.0000
229	0.0 N	0.0 N	15.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	20.0000	10.0000
230	0.0 N	0.0 N	10.0000	50.0000	30.0000	10.0000L	0.0 N	0.0 N	30.0000	15.0000
231	0.0 N	0.0 N	10.0000	100.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	0.0 N
232	0.0 N	0.0 N	10.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
233	0.0 N	0.0 N	10.0000	50.0000	30.0000	20.0000	0.0 N	0.0 N	7.0000	5.0000L
234	0.0 N	0.0 N	20.0000	700.0000	50.0000	10.0000L	0.0 N	0.0 N	200.0000	0.0 N
235	0.0 N	0.0 N	15.0000	100.0000	70.0000	20.0000	0.0 N	0.0 N	50.0000	0.0 N
236	0.0 N	0.0 N	7.0000	0.0 N	20.0000	10.0000L	0.0 N	0.0 N	10.0000	5.0000L
237	0.0 N	0.0 N	7.0000	10.0000	150.0000	50.0000	0.0 N	0.0 N	10.0000	15.0000
238	0.0 N	0.0 N	20.0000	200.0000	100.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
239	0.0 N	0.0 N	5.0000	0.0 N	10.0000	10.0000L	0.0 N	0.0 N	5.0000	0.0 N
240	0.0 N	0.0 N	10.0000	0.0 N	2.5000L	20.0000	0.0 N	0.0 N	10.0000	5.0000L
241	0.0 N	0.0 N	20.0000	200.0000	10.0000	30.0000	0.0 N	0.0 N	100.0000	5.0000L
242	0.5000L	0.0 N	0.0 N	30.0000	30.0000	30.0000	0.0 N	0.0 N	7.0000	0.0 N
243	0.0 N	0.0 N	10.0000	30.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
244	1.0000	0.0 N	5.0000	30.0000	2.5000L	10.0000L	0.0 N	0.0 N	10.0000	0.0 N
245	0.0 N	0.0 N	30.0000	200.0000	50.0000	20.0000	0.0 N	0.0 N	50.0000	0.0 N
246	0.0 N	0.0 N	15.0000	10.0000	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	0.0 N
247	0.5000L	0.0 N	2.5000L	100.0000	200.0000	20.0000	0.0 N	0.0 N	50.0000	5.0000L
248	1.5000	0.0 N	10.0000	70.0000	30.0000	10.0000L	0.0 N	0.0 N	15.0000	10.0000
249	0.5000L	0.0 N	20.0000	50.0000	30.0000	30.0000	0.0 N	0.0 N	30.0000	5.0000L
250	0.5000L	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L

ROCK SMPL ELEMENTS

SAMPLE	SB PPM		SC PPM		SN PPM		SR PPM	V PPM		W PPM		Y PPM		ZN PPM		ZR PPM	
201	0.0	N	30.0000		0.0	N	300.0000	200.0000		0.0	N	15.0000		0.0	N	100.0000	
202	0.0	N	10.0000		0.0	N	100.0000	150.0000		0.0	N	10.0000		0.0	N	70.0000	
203	0.0	N	7.0000		0.0	N	1000.0000	70.0000		0.0	N	10.0000		0.0	N	0.0	N
204	0.0	N	20.0000		0.0	N	300.0000	200.0000		0.0	N	20.0000		0.0	N	70.0000	
205	0.0	N	15.0000		0.0	N	700.0000	150.0000		0.0	N	15.0000		0.0	N	70.0000	
206	0.0	N	10.0000		0.0	N	300.0000	150.0000		0.0	N	15.0000		0.0	N	70.0000	
207	0.0	N	10.0000		0.0	N	500.0000	100.0000		0.0	N	20.0000		0.0	N	70.0000	
208	0.0	N	15.0000		0.0	N	300.0000	150.0000		0.0	N	15.0000		0.0	N	70.0000	
209	0.0	N	15.0000		0.0	N	200.0000	150.0000		0.0	N	15.0000		0.0	N	70.0000	
210	0.0	N	15.0000		0.0	N	300.0000	150.0000		0.0	N	20.0000		0.0	N	70.0000	
211	0.0	N	20.0000		0.0	N	200.0000	200.0000		0.0	N	15.0000		0.0	N	70.0000	
212	0.0	N	15.0000		0.0	N	500.0000	150.0000		0.0	N	10.0000		0.0	N	70.0000	
213	0.0	N	30.0000		0.0	N	700.0000	300.0000		0.0	N	30.0000		0.0	N	100.0000	
214	0.0	N	20.0000		0.0	N	300.0000	200.0000		0.0	N	15.0000		0.0	N	50.0000	
215	0.0	N	50.0000		0.0	N	200.0000	300.0000		0.0	N	30.0000		0.0	N	300.0000	
216	0.0	N	20.0000		0.0	N	700.0000	200.0000		0.0	N	15.0000		0.0	N	150.0000	
217	0.0	N	30.0000		0.0	N	300.0000	200.0000		0.0	N	15.0000		0.0	N	200.0000	
218	0.0	N	30.0000		0.0	N	1000.0000	300.0000		0.0	N	30.0000		0.0	N	150.0000	
219	0.0	N	30.0000		0.0	N	300.0000	200.0000		0.0	N	15.0000		0.0	N	200.0000	
220	0.0	N	15.0000		0.0	N	700.0000	150.0000		0.0	N	15.0000		0.0	N	50.0000	
221	0.0	N	20.0000		0.0	N	700.0000	200.0000		0.0	N	30.0000		0.0	N	100.0000	
222	0.0	N	30.0000		0.0	N	700.0000	300.0000		0.0	N	20.0000		0.0	N	100.0000	
223	0.0	N	20.0000		0.0	N	300.0000	200.0000		0.0	N	20.0000		0.0	N	100.0000	
224	0.0	N	20.0000		0.0	N	700.0000	200.0000		0.0	N	20.0000		0.0	N	100.0000	
225	0.0	N	15.0000		0.0	N	700.0000	200.0000		0.0	N	20.0000		0.0	N	100.0000	
226	0.0	N	20.0000		0.0	N	500.0000	300.0000		0.0	N	20.0000		0.0	N	70.0000	
227	0.0	N	15.0000		0.0	N	300.0000	150.0000		0.0	N	30.0000		0.0	N	50.0000	
228	0.0	N	20.0000		0.0	N	700.0000	200.0000		0.0	N	30.0000		0.0	N	100.0000	
229	0.0	N	20.0000		0.0	N	700.0000	200.0000		0.0	N	20.0000		0.0	N	100.0000	
230	0.0	N	15.0000		0.0	N	300.0000	150.0000		0.0	N	20.0000		0.0	N	50.0000	
231	0.0	N	20.0000		0.0	N	100.0000	200.0000		0.0	N	20.0000		0.0	N	70.0000	
232	0.0	N	15.0000		0.0	N	300.0000	200.0000		0.0	N	15.0000		0.0	N	70.0000	
233	0.0	N	30.0000		0.0	N	300.0000	500.0000		0.0	N	20.0000		0.0	N	70.0000	
234	0.0	N	20.0000		0.0	N	150.0000	150.0000		0.0	N	15.0000		0.0	N	20.0000	
235	0.0	N	20.0000		0.0	N	300.0000	200.0000		0.0	N	20.0000		0.0	N	100.0000	
236	0.0	N	7.0000		0.0	N	100.0000	50.0000		0.0	N	10.0000		0.0	N	30.0000	
237	0.0	N	20.0000		0.0	N	1000.0000	300.0000		0.0	N	30.0000		0.0	N	150.0000	
238	0.0	N	30.0000		0.0	N	1000.0000	500.0000		0.0	N	30.0000		0.0	N	150.0000	
239	0.0	N	7.0000		0.0	N	1500.0000	100.0000		0.0	N	10.0000		0.0	N	10.0000	
240	0.0	N	2.5000L		0.0	N	500.0000	20.0000		0.0	N	5.0000L		0.0	N	20.0000	
241	0.0	N	15.0000		0.0	N	700.0000	150.0000		0.0	N	20.0000		0.0	N	150.0000	
242	0.0	N	20.0000		0.0	N	700.0000	200.0000		0.0	N	50.0000		0.0	N	150.0000	
243	0.0	N	7.0000		0.0	N	500.0000	100.0000		0.0	N	10.0000		0.0	N	50.0000	
244	0.0	N	10.0000		0.0	N	150.0000	150.0000		0.0	N	5.0000L		0.0	N	70.0000	
245	0.0	N	30.0000		0.0	N	700.0000	300.0000		0.0	N	30.0000		0.0	N	100.0000	
246	0.0	N	5.0000		0.0	N	300.0000	50.0000		0.0	N	5.0000L		0.0	N	15.0000	
247	0.0	N	20.0000		0.0	N	300.0000	300.0000		0.0	N	30.0000		200.0000		150.0000	
248	0.0	N	20.0000		0.0	N	200.0000	200.0000		0.0	N	10.0000		0.0	N	50.0000	
249	0.0	N	20.0000		0.0	N	500.0000	200.0000		0.0	N	30.0000		0.0	N	150.0000	
250	0.0	N	30.0000		0.0	N	300.0000	200.0000		0.0	N	30.0000		0.0	N	150.0000	

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
251	7.0000	1.5000	0.7000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	70.0000	1500.0000
252	7.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
253	5.0000	2.0000	10.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
254	5.0000	7.0000	20.0000	0.1000	700.0000	0.5000	0.0 N	0.0 N	10.0000	150.0000
255	10.0000	3.0000	7.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
256	5.0000	1.5000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
257	2.0000	1.5000	20.0000	0.0700	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
258	3.0000	0.3000	1.0000	0.1000	150.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
259	2.0000	0.5000	5.0000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
260	2.0000	0.7000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	15.0000	700.0000
261	1.0000	0.3000	5.0000	0.0700	150.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
262	3.0000	1.0000	5.0000	0.2000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
263	2.0000	0.7000	20.0000G	0.2000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	70.0000
264	2.0000	0.5000	1.5000	0.2000	500.0000	5.0000	0.0 N	0.0 N	5.0000L	0.0 N
265	1.5000	0.2000	0.1000	0.0 N	70.0000	0.0 N	0.0 N	0.0 N	5.0000L	1000.0000
266	2.0000	0.3000	0.2000	0.3000	150.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
267	3.0000	1.0000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	5000.0000
268	3.0000	1.5000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	1000.0000
269	1.0000	0.1000	0.1500	0.1000	70.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
270	3.0000	1.5000	5.0000	0.1000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	1000.0000
271	2.0000	3.0000	15.0000	0.0300	1000.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
272	3.0000	7.0000	15.0000	0.0200	500.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
273	3.0000	5.0000	15.0000	0.0 N	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N
274	7.0000	2.0000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
275	3.0000	2.0000	10.0000	0.0700	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	20.0000
276	5.0000	1.5000	3.0000	1.0000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	70.0000
277	0.3000	0.2000	20.0000G	0.0300	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	50.0000
278	10.0000	5.0000	10.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	1500.0000
279	15.0000	5.0000	5.0000	1.0000G	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
280	10.0000	2.0000	3.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
281	15.0000	3.0000	5.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	1000.0000
282	15.0000	7.0000	10.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	1500.0000
283	7.0000	1.5000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
284	5.0000	1.5000	10.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
285	7.0000	2.0000	7.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
286	10.0000	2.0000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
287	3.0000	1.5000	3.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
288	7.0000	0.7000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
289	7.0000	1.5000	5.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	500.0000
290	5.0000	1.0000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
291	5.0000	2.0000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
292	3.0000	1.5000	3.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
293	5.0000	1.5000	7.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
294	7.0000	2.0000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	1000.0000
295	7.0000	1.5000	1.5000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
296	7.0000	1.5000	0.7000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
297	7.0000	1.0000	5.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
298	5.0000	1.0000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
299	7.0000	1.5000	1.5000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
300	7.0000	1.5000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	200.0000	500.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
251	0.5000L	0.0 N	5.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
252	0.0 N	0.0 N	15.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	10.0000
253	0.5000L	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	10.0000
254	0.5000L	0.0 N	5.0000	30.0000	10.0000	10.0000L	0.0 N	0.0 N	7.0000	0.0 N
255	0.0 N	0.0 N	30.0000	70.0000	200.0000	10.0000L	0.0 N	0.0 N	20.0000	5.0000L
256	0.0 N	0.0 N	10.0000	150.0000	100.0000	20.0000	10.0000	0.0 N	15.0000	10.0000
257	0.0 N	0.0 N	2.5000L	20.0000	50.0000	20.0000	0.0 N	0.0 N	5.0000	5.0000L
258	0.0 N	0.0 N	7.0000	10.0000	700.0000	20.0000	0.0 N	0.0 N	5.0000	5.0000L
259	0.5000L	0.0 N	7.0000	50.0000	300.0000	10.0000L	0.0 N	0.0 N	15.0000	5.0000L
260	0.5000L	0.0 N	5.0000	20.0000	15.0000	10.0000L	0.0 N	0.0 N	5.0000	5.0000L
261	0.5000L	0.0 N	2.5000L	0.0 N	150.0000	20.0000	0.0 N	0.0 N	7.0000	10.0000
262	0.0 N	0.0 N	7.0000	100.0000	20.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
263	0.0 N	0.0 N	5.0000	20.0000	5.0000	10.0000L	0.0 N	0.0 N	10.0000	0.0 N
264	0.0 N	0.0 N	10.0000	50.0000	3000.0000	0.0 N	0.0 N	0.0 N	20.0000	0.0 N
265	0.5000L	0.0 N	2.5000L	0.0 N	30.0000	10.0000L	0.0 N	0.0 N	10.0000	0.0 N
266	0.5000L	0.0 N	5.0000	50.0000	20.0000	20.0000	0.0 N	10.0000	30.0000	5.0000L
267	0.0 N	0.0 N	15.0000	150.0000	50.0000	10.0000L	0.0 N	0.0 N	50.0000	0.0 N
268	0.0 N	0.0 N	15.0000	200.0000	70.0000	20.0000	7.0000	0.0 N	50.0000	5.0000L
269	0.0 N	0.0 N	2.5000L	10.0000	5.0000	10.0000L	0.0 N	0.0 N	7.0000	0.0 N
270	0.5000L	0.0 N	5.0000	30.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
271	0.0 N	0.0 N	5.0000	0.0 N	2.5000L	10.0000L	0.0 N	0.0 N	5.0000	0.0 N
272	0.0 N	0.0 N	5.0000	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	10.0000	0.0 N
273	0.0 N	0.0 N	5.0000	0.0 N	2.5000L	10.0000L	0.0 N	0.0 N	7.0000	0.0 N
274	0.0 N	0.0 N	20.0000	150.0000	100.0000	10.0000L	0.0 N	0.0 N	50.0000	0.0 N
275	0.0 N	0.0 N	10.0000	10.0000	10.0000	10.0000L	0.0 N	0.0 N	15.0000	0.0 N
276	0.0 N	0.0 N	20.0000	150.0000	150.0000	10.0000L	0.0 N	0.0 N	30.0000	0.0 N
277	0.0 N	0.0 N	0.0 N	0.0 N	5.0000	10.0000L	0.0 N	0.0 N	0.0 N	0.0 N
278	0.0 N	0.0 N	10.0000	100.0000	70.0000	30.0000	0.0 N	0.0 N	30.0000	10.0000
279	0.0 N	0.0 N	30.0000	50.0000	30.0000	50.0000	0.0 N	0.0 N	20.0000	5.0000L
280	0.5000L	0.0 N	5.0000	100.0000	70.0000	50.0000	5.0000	0.0 N	30.0000	10.0000
281	0.0 N	0.0 N	30.0000	70.0000	200.0000	50.0000	0.0 N	0.0 N	30.0000	5.0000L
282	0.0 N	0.0 N	50.0000	500.0000	50.0000	50.0000	0.0 N	0.0 N	150.0000	20.0000
283	0.5000L	0.0 N	10.0000	50.0000	20.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
284	0.5000L	0.0 N	10.0000	70.0000	15.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
285	0.5000L	0.0 N	10.0000	70.0000	20.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
286	0.0 N	0.0 N	20.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	50.0000	5.0000L
287	0.5000L	0.0 N	7.0000	70.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
288	0.0 N	0.0 N	15.0000	70.0000	70.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
289	0.5000L	0.0 N	15.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
290	0.5000L	0.0 N	10.0000	70.0000	10.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
291	0.5000L	0.0 N	15.0000	70.0000	10.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
292	0.5000L	0.0 N	10.0000	70.0000	10.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
293	0.5000L	0.0 N	15.0000	100.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	0.0 N
294	0.5000L	0.0 N	20.0000	300.0000	100.0000	30.0000	0.0 N	0.0 N	50.0000	5.0000L
295	0.5000L	0.0 N	10.0000	50.0000	20.0000	30.0000	0.0 N	0.0 N	15.0000	5.0000L
296	0.5000L	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
297	0.5000L	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
298	0.5000L	0.0 N	7.0000	20.0000	30.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
299	0.5000L	0.0 N	10.0000	100.0000	50.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
300	0.5000L	0.0 N	15.0000	70.0000	30.0000	30.0000	0.0 N	0.0 N	30.0000	5.0000L

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
251	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	150.0000
252	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
253	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
254	0.0 N	15.0000	0.0 N	1000.0000	100.0000	0.0 N	30.0000	0.0 N	70.0000
255	0.0 N	50.0000	2.5000L	500.0000	500.0000	0.0 N	20.0000	0.0 N	20.0000
256	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	150.0000
257	0.0 N	10.0000	0.0 N	1000.0000	50.0000	0.0 N	20.0000	0.0 N	50.0000
258	0.0 N	5.0000	0.0 N	100.0000	50.0000	0.0 N	5.0000L	0.0 N	70.0000
259	0.0 N	10.0000	0.0 N	700.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
260	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
261	0.0 N	5.0000	0.0 N	700.0000	50.0000	0.0 N	10.0000	0.0 N	50.0000
262	0.0 N	20.0000	0.0 N	700.0000	150.0000	0.0 N	10.0000	0.0 N	20.0000
263	0.0 N	10.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	0.0 N	20.0000
264	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	10.0000	0.0 N	30.0000
265	0.0 N	5.0000	0.0 N	0.0 N	50.0000	0.0 N	10.0000	0.0 N	70.0000
266	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	150.0000
267	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
268	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
269	0.0 N	7.0000	0.0 N	50.0000L	50.0000	0.0 N	10.0000	0.0 N	70.0000
270	0.0 N	7.0000	0.0 N	150.0000	70.0000	0.0 N	20.0000	0.0 N	70.0000
271	0.0 N	5.0000	0.0 N	50.0000L	30.0000	0.0 N	5.0000L	0.0 N	0.0 N
272	0.0 N	2.5000L	0.0 N	50.0000L	20.0000	0.0 N	5.0000L	0.0 N	10.0000
273	0.0 N	5.0000	0.0 N	50.0000L	30.0000	0.0 N	5.0000L	0.0 N	10.0000
274	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
275	0.0 N	7.0000	0.0 N	50.0000L	50.0000	0.0 N	10.0000	0.0 N	10.0000
276	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
277	0.0 N	2.5000L	0.0 N	700.0000	20.0000	0.0 N	5.0000L	0.0 N	0.0 N
278	0.0 N	30.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
279	0.0 N	30.0000	0.0 N	500.0000	500.0000	0.0 N	30.0000	0.0 N	150.0000
280	0.0 N	30.0000	0.0 N	1000.0000	300.0000	0.0 N	50.0000	0.0 N	150.0000
281	0.0 N	30.0000	0.0 N	1000.0000	500.0000	0.0 N	50.0000	0.0 N	100.0000
282	0.0 N	30.0000	0.0 N	1000.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
283	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
284	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
285	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
286	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
287	0.0 N	15.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
288	0.0 N	20.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
289	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
290	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	150.0000
291	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	150.0000
292	0.0 N	15.0000	0.0 N	500.0000	100.0000	0.0 N	20.0000	0.0 N	70.0000
293	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
294	0.0 N	30.0000	0.0 N	700.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
295	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	150.0000
296	0.0 N	20.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	150.0000
297	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	0.0 N	150.0000
298	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	0.0 N	150.0000
299	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	150.0000
300	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 N	150.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
301	7.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	100.0000	1000.0000
302	7.0000	1.5000	7.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	500.0000
303	5.0000	1.5000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
304	7.0000	1.5000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
305	5.0000	1.0000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
306	5.0000	0.7000	2.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
307	5.0000	1.0000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
308	5.0000	1.0000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	300.0000
309	1.5000	0.3000	0.5000	0.1000	500.0000	0.0 N	0.0 N	0.0 N	520.0000L	1000.0000
310	3.0000	0.7000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	30.0000	1000.0000
311	3.0000	0.3000	1.5000	0.1000	500.0000	0.0 N	0.0 N	0.0 N	30.0000	2000.0000
312	2.0000	0.5000	1.5000	0.1000	500.0000	0.0 N	0.0 N	0.0 N	20.0000	2000.0000
313	10.0000	5.0000	10.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	1000.0000
314	7.0000	2.0000	15.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
315	7.0000	5.0000	10.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
316	5.0000	0.7000	5.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	100.0000	1500.0000
317	5.0000	1.5000	3.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	1000.0000
318	5.0000	2.0000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
319	2.0000	0.5000	20.0000G	0.0700	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
320	3.0000	1.5000	20.0000G	0.1000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
321	7.0000	2.0000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
322	3.0000	2.0000	20.0000G	0.0700	500.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
323	7.0000	1.5000	7.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	1000.0000
324	5.0000	1.5000	3.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	20.0000	1000.0000
325	7.0000	2.0000	7.0000	0.2000	700.0000	0.0 N	500.0000	0.0 N	10.0000	700.0000
326	3.0000	7.0000	1.5000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
327	3.0000	1.0000	20.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
328	7.0000	1.5000	5.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	1000.0000
329	3.0000	1.5000	10.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
330	3.0000	1.5000	20.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
331	3.0000	2.0000	10.0000	0.1000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
332	1.5000	0.2000	3.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
333	3.0000	0.7000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
334	15.0000	1.0000	2.0000	0.7000	2000.0000	1.5000	500.0000	0.0 N	5.0000L	300.0000
335	1.5000	1.5000	20.0000	0.0500	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
336	10.0000	1.0000	0.2000	0.3000	200.0000	0.0 N	0.0 N	0.0 N	30.0000L	30.0000
337	10.0000	2.0000	3.0000	1.0000	1500.0000	30.0000	500.0000	0.0 N	15.0000	70.0000
338	7.0000	2.0000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	200.0000
339	2.0000	0.7000	3.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
340	5.0000	3.0000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	50.0000
341	10.0000	3.0000	3.0000	1.0000G	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
342	7.0000	1.5000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
343	5.0000	1.0000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
344	5.0000	1.5000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000
345	5.0000	1.5000	1.5000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	100.0000	700.0000
346	10.0000	3.0000	7.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	10.0000L
347	7.0000	1.5000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
348	3.0000	1.0000	3.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
349	7.0000	1.5000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	20.0000
350	5.0000	0.7000	3.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	500.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CC PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
301	0.5000L	0.0 N	15.0000	300.0000	100.0000	30.0000	0.0 N	0.0 N	50.0000	5.0000L
302	0.5000L	0.0 N	15.0000	50.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
303	0.5000L	0.0 N	7.0000	50.0000	15.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
304	0.5000L	0.0 N	10.0000	70.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
305	0.5000L	0.0 N	10.0000	70.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	5.0000L
306	0.5000L	0.0 N	10.0000	50.0000	30.0000	30.0000	0.0 N	0.0 N	20.0000	5.0000L
307	0.5000L	0.0 N	5.0000	50.0000	30.0000	30.0000	5.0000	0.0 N	5.0000	10.0000
308	0.5000L	0.0 N	10.0000	50.0000	15.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
309	0.0 N	0.0 N	2.5000L	0.0 N	10.0000	20.0000	0.0 N	0.0 N	5.0000	50.0000
310	0.5000L	0.0 N	7.0000	30.0000	30.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
311	0.5000L	0.0 N	5.0000	0.0 N	15.0000	30.0000	0.0 N	0.0 N	5.0000	20.0000
312	2.0000	0.0 N	5.0000	0.0 N	2.5000L	30.0000	0.0 N	0.0 N	5.0000	20.0000
313	0.0 N	0.0 N	30.0000	70.0000	15.0000	0.0 N	0.0 N	0.0 N	30.0000	0.0 N
314	0.5000L	0.0 N	30.0000	300.0000	0.0 N	20.0000	0.0 N	0.0 N	50.0000	5.0000L
315	0.0 N	0.0 N	50.0000	100.0000	200.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
316	0.5000L	0.0 N	20.0000	10.0000	20.0000	30.0000	0.0 N	0.0 N	5.0000	5.0000L
317	0.5000L	0.0 N	15.0000	50.0000	150.0000	20.0000	2.5000L	0.0 N	15.0000	10.0000
318	0.5000L	0.0 N	10.0000	70.0000	70.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
319	0.0 N	0.0 N	5.0000	20.0000	5.0000	20.0000	0.0 N	0.0 N	15.0000	0.0 N
320	0.0 N	0.0 N	15.0000	150.0000	15.0000	20.0000	0.0 N	0.0 N	50.0000	0.0 N
321	0.0 N	0.0 N	20.0000	200.0000	100.0000	20.0000	0.0 N	0.0 N	50.0000	0.0 N
322	0.0 N	0.0 N	5.0000	100.0000	10.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
323	0.5000L	0.0 N	15.0000	30.0000	30.0000	30.0000	0.0 N	0.0 N	10.0000	5.0000L
324	0.0 N	0.0 N	10.0000	70.0000	50.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
325	0.0 N	0.0 N	50.0000	200.0000	200.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
326	0.5000L	0.0 N	10.0000	50.0000	5.0000	20.0000	0.0 N	0.0 N	10.0000	0.0 N
327	0.0 N	0.0 N	10.0000	70.0000	15.0000	20.0000	0.0 N	0.0 N	20.0000	0.0 N
328	0.0 N	0.0 N	10.0000	100.0000	100.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
329	0.0 N	0.0 N	10.0000	100.0000	30.0000	20.0000N	0.0 N	0.0 N	30.0000	0.0 N
330	0.0 N	0.0 N	10.0000	150.0000	20.0000	20.0000	0.0 N	0.0 N	30.0000	0.0 N
331	0.0 N	0.0 N	2.5000L	20.0000	15.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
332	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	50.0000	0.0 N	0.0 N	2.5000L	5.0000L
333	0.0 N	0.0 N	15.0000	70.0000	150.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
334	0.0 N	0.0 N	30.0000	200.0000	20000.0000	10.0000L	10.0000	0.0 N	50.0000	5.0000L
335	0.0 N	0.0 N	5.0000	10.0000	500.0000	10.0000L	0.0 N	0.0 N	30.0000	5.0000L
336	0.0 N	0.0 N	5.0000	30.0000	20000.0000	0.0 N	10.0000	0.0 N	10.0000	10.0000
337	0.0 N	0.0 N	30.0000	150.0000	20000.0000	10.0000L	7.0000	0.0 N	50.0000	200.0000
338	0.0 N	0.0 N	20.0000	150.0000	30.0000	10.0000L	0.0 N	0.0 N	50.0000	0.0 N
339	1.0000	0.0 N	5.0000	10.0000	10.0000	20.0000	0.0 N	0.0 N	7.0000	20.0000
340	0.0 N	0.0 N	30.0000	200.0000	150.0000	10.0000L	0.0 N	0.0 N	50.0000	0.0 N
341	0.0 N	0.0 N	50.0000	100.0000	200.0000	0.0 N	0.0 N	0.0 N	50.0000	0.0 N
342	0.5000L	0.0 N	15.0000	50.0000	20.0000	30.0000	0.0 N	0.0 N	15.0000	5.0000L
343	0.5000L	0.0 N	10.0000	50.0000	20.0000	30.0000	0.0 N	0.0 N	20.0000	10.0000
344	0.0 N	0.0 N	10.0000	50.0000	15.0000	30.0000	0.0 N	0.0 N	15.0000	10.0000
345	3.0000	0.0 N	5.0000	70.0000	20.0000	30.0000	0.0 N	0.0 N	15.0000	10.0000
346	0.0 N	0.0 N	30.0000	50.0000	50.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
347	0.0 N	0.0 N	20.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
348	0.0 N	0.0 N	7.0000	50.0000	20.0000	20.0000	0.0 N	0.0 N	10.0000	5.0000L
349	0.5000L	0.0 N	15.0000	100.0000	30.0000	30.0000	0.0 N	0.0 N	10.0000	10.0000
350	0.5000L	0.0 N	15.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
301	0.0 N	20.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
302	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
303	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
304	0.0 N	15.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
305	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
306	0.0 N	20.0000	0.0 N	1000.0000	200.0000	0.0 N	50.0000	0.0 N	150.0000
307	0.0 N	20.0000	0.0 N	1000.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
308	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	150.0000
309	0.0 N	2.5000L	0.0 N	1500.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
310	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
311	0.0 N	10.0000	0.0 N	1500.0000	150.0000	0.0 N	10.0000	0.0 N	15.0000
312	0.0 N	7.0000	0.0 N	1500.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
313	0.0 N	50.0000	0.0 N	300.0000	300.0000	0.0 N	5.0000L	0.0 N	10.0000
314	0.0 N	50.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	20.0000
315	0.0 N	100.0000	0.0 N	700.0000	300.0000	0.0 N	20.0000	0.0 N	20.0000
316	0.0 N	20.0000	0.0 N	500.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
317	0.0 N	15.0000	0.0 N	1500.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
318	0.0 N	20.0000	0.0 N	1000.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
319	0.0 N	7.0000	0.0 N	700.0000	50.0000	0.0 N	10.0000	0.0 N	20.0000
320	0.0 N	15.0000	0.0 N	2000.0000	150.0000	0.0 N	15.0000	0.0 N	20.0000
321	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
322	0.0 N	15.0000	0.0 N	1500.0000	100.0000	0.0 N	15.0000	0.0 N	10.0000
323	0.0 N	20.0000	0.0 N	1000.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
324	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
325	0.0 N	50.0000	0.0 N	500.0000	300.0000	0.0 N	15.0000	0.0 N	30.0000
326	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
327	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	50.0000
328	0.0 N	15.0000	0.0 N	700.0000	200.0000	0.0 N	30.0000	0.0 N	70.0000
329	0.0 N	20.0000	0.0 N	700.0000	150.0000	0.0 N	10.0000	0.0 N	20.0000
330	0.0 N	20.0000	0.0 N	1500.0000	150.0000	0.0 N	15.0000	0.0 N	20.0000
331	0.0 N	10.0000	0.0 N	700.0000	70.0000	0.0 N	20.0000	0.0 N	50.0000
332	0.0 N	7.0000	0.0 N	200.0000	20.0000	0.0 N	20.0000	0.0 N	150.0000
333	0.0 N	30.0000	0.0 N	50.0000L	200.0000	0.0 N	15.0000	0.0 N	50.0000
334	0.0 N	30.0000	0.0 N	0.0 N	200.0000	0.0 N	30.0000	0.0 N	100.0000
335	0.0 N	7.0000	0.0 N	100.0000	50.0000	0.0 N	20.0000	0.0 N	20.0000
336	0.0 N	10.0000	0.0 N	0.0 N	70.0000	0.0 N	10.0000	0.0 N	50.0000
337	0.0 N	50.0000	0.0 N	300.0000	500.0000	0.0 N	50.0000	300.0000	100.0000
338	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
339	0.0 N	15.0000	0.0 N	1000.0000	100.0000	0.0 N	30.0000	0.0 N	200.0000
340	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
341	0.0 N	50.0000	0.0 N	300.0000	700.0000	0.0 N	50.0000	0.0 N	150.0000
342	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 N	150.0000
343	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
344	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	150.0000
345	0.0 N	20.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
346	0.0 N	50.0000	0.0 N	3000.0000	500.0000	0.0 N	20.0000	0.0 N	50.0000
347	0.0 N	20.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
348	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
349	0.0 N	30.0000	0.0 N	3000.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
350	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
351	5.0000	1.5000	3.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	70.0000	700.0000
352	5.0000	1.0000	1.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	100.0000	1500.0000
353	10.0000	3.0000	2.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	1500.0000
354	7.0000	2.0000	3.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
355	5.0000	1.5000	3.0000	0.1500	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
356	15.0000	0.1500	1.0000	0.3000	150.0000	1.5000	0.0 N	0.0 N	50.0000	1500.0000
357	7.0000	0.3000	2.0000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	70.0000	1500.0000
358	7.0000	0.1500	0.0500	0.3000	150.0000	0.0 N	0.0 N	0.0 N	70.0000	1500.0000
359	5.0000	0.0700	1.0000	0.2000	1000.0000	0.0 N	3000.0000	0.0 N	30.0000	500.0000
360	0.3000	0.0100L	0.0300L	0.0150	150.0000	0.0 N	1500.0000	0.0 N	5.0000L	10.0000L
361	5.0000	2.0000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
362	1.5000	1.0000	7.0000	0.1500	1000.0000	0.0 N	0.0 N	0.0 N	0.0 N	100.0000
363	5.0000	3.0000	2.0000	0.5000	1000.0000	15.0000	0.0 N	0.0 N	15.0000	500.0000
364	3.0000	3.0000	2.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	10.0000L
365	15.0000	5.0000	3.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	100.0000
366	3.0000	1.5000	15.0000	0.1500	700.0000	0.0 N	0.0 N	0.0 N	20.0000	100.0000
367	10.0000	1.5000	2.0000	0.5000	1000.0000	0.0 N	200.0000	0.0 N	20.0000	10.0000L
368	3.0000	1.0000	7.0000	0.3000	300.0000	1.5000	0.0 N	0.0 N	20.0000	10.0000L
369	15.0000	1.5000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	70.0000	10.0000L
370	20.0000	3.0000	5.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	10.0000L
371	15.0000	3.0000	10.0000	0.7000	700.0000	1.5000	0.0 N	0.0 N	20.0000	10.0000L
372	10.0000	3.0000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	10.0000L
373	10.0000	5.0000	10.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	10.0000L
374	10.0000	2.0000	10.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
375	15.0000	3.0000	10.0000	0.7000	1500.0000	2.0000	0.0 N	0.0 N	10.0000	10.0000L
376	10.0000	3.0000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
377	15.0000	3.0000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
378	3.0000	0.5000	1.5000	0.5000	150.0000	0.0 N	0.0 N	0.0 N	5.0000N	10.0000L
379	15.0000	2.0000	3.0000	0.2000	1000.0000	30.0000	0.0 N	0.0 N	15.0000	10.0000L
380	15.0000	3.0000	3.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	100.0000
381	15.0000	0.7000	1.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	10.0000L
382	10.0000	0.2000	7.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
383	10.0000	3.0000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	100.0000	10.0000L
384	15.0000	1.5000	15.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	10.0000L
385	15.0000	2.0000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	10.0000L
386	15.0000	5.0000	3.0000	0.7000	1500.0000	3.0000	0.0 N	0.0 N	10.0000	10.0000L
387	5.0000	1.5000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
388	7.0000	3.0000	2.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
389	1.5000	0.1500	3.0000	0.1000	150.0000	0.0 N	0.0 N	0.0 N	0.0 N	10.0000L
390	5.0000	1.5000	0.7000	0.3000	1000.0000	0.2500L	0.0 N	0.0 N	10.0000	10.0000L
391	7.0000	1.0000	2.0000	0.5000	500.0000	10.0000	0.0 N	0.0 N	15.0000	10.0000L
392	15.0000	3.0000	3.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	10.0000L
393	10.0000	3.0000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	10.0000L
394	15.0000	5.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	10.0000L
395	15.0000	7.0000	2.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
396	15.0000	3.0000	5.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	10.0000L
397	15.0000	3.0000	3.0000	0.7000	1000.0000	10.0000	0.0 N	0.0 N	10.0000	10.0000L
398	15.0000	3.0000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
399	5.0000	2.0000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
400	5.0000	3.0000	1.5000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	10.0000L

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
351	0.5000L	0.0 N	10.0000	70.0000	30.0000	20.0000	0.0 N	0.0 N	20.0000	5.0000L
352	0.5000L	0.0 N	20.0000	30.0000	50.0000	0.0 N	2.5000L	10.0000	30.0000	10.0000
353	1.0000	0.0 N	30.0000	20.0000	150.0000	10.0000L	2.5000L	10.0000	15.0000	5.0000L
354	1.0000	0.0 N	30.0000	100.0000	100.0000	0.0 N	0.0 N	10.0000	30.0000	0.0 N
355	0.5000L	0.0 N	30.0000	70.0000	70.0000	0.0 N	0.0 N	10.0000	70.0000	0.0 N
356	0.5000L	0.0 N	15.0000	70.0000	200.0000	0.0 N	50.0000	10.0000	70.0000	15.0000
357	1.0000	0.0 N	30.0000	15.0000	70.0000	10.0000L	5.0000	10.0000	70.0000	0.0 N
358	1.5000	0.0 N	20.0000	15.0000	70.0000	10.0000L	5.0000	10.0000	30.0000	5.0000L
359	0.0 N	0.0 N	30.0000	10.0000	100.0000	0.0 N	2.5000L	5.0000L	50.0000	0.0 N
360	0.0 N	0.0 N	7.0000	2.5000L	15.0000	0.0 N	0.0 N	5.0000L	2.5000L	0.0 N
361	0.0 N	0.0 N	30.0000	70.0000	70.0000	0.0 N	2.5000L	10.0000	30.0000	0.0 N
362	0.0 N	0.0 N	5.0000	30.0000	70.0000	0.0 N	0.0 N	5.0000L	10.0000	5.0000L
363	0.0 N	0.0 N	30.0000	100.0000	20000.0000G	0.0 N	2.5000L	10.0000	30.0000	5.0000L
364	0.0 N	0.0 N	30.0000	150.0000	300.0000	0.0 N	2.5000L	10.0000	30.0000	0.0 N
365	0.0 N	0.0 N	50.0000	150.0000	100.0000	0.0 N	2.5000L	5.0000L	100.0000	5.0000L
366	0.0 N	0.0 N	5.0000	10.0000	70.0000	0.0 N	0.0 N	5.0000L	15.0000	0.0 N
367	0.5000L	0.0 N	30.0000	30.0000	100.0000	0.0 N	2.5000L	15.0000	70.0000	0.0 N
368	0.0 N	0.0 N	2.5000L	150.0000	500.0000	0.0 N	0.0 N	10.0000	15.0000	0.0 N
369	0.0 N	0.0 N	70.0000	150.0000	100.0000	0.0 N	2.5000L	10.0000	150.0000	5.0000L
370	0.0 N	0.0 N	70.0000	150.0000	100.0000	0.0 N	2.5000L	10.0000	150.0000	0.0 N
371	0.0 N	0.0 N	70.0000	700.0000	15000.0000	0.0 N	2.5000L	10.0000	150.0000	5.0000L
372	0.0 N	0.0 N	50.0000	100.0000	70.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
373	0.0 N	0.0 N	30.0000	70.0000	70.0000	0.0 N	0.0 N	10.0000	50.0000	0.0 N
374	0.5000L	0.0 N	30.0000	150.0000	70.0000	0.0 N	0.0 N	10.0000	70.0000	0.0 N
375	0.0 N	0.0 N	50.0000	150.0000	15000.0000	0.0 N	0.0 N	10.0000	100.0000	5.0000L
376	0.0 N	0.0 N	20.0000	70.0000	70.0000	0.0 N	0.0 N	10.0000	50.0000	5.0000L
377	0.0 N	0.0 N	30.0000	150.0000	150.0000	0.0 N	0.0 N	10.0000	70.0000	5.0000L
378	0.0 N	0.0 N	0.0 N	15.0000	2.5000L	0.0 N	0.0 N	5.0000L	15.0000	0.0 N
379	0.0 N	0.0 N	30.0000	150.0000	20000.0000G	0.0 N	2.5000L	10.0000	70.0000	30.0000
380	0.0 N	0.0 N	30.0000	150.0000	150.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
381	0.0 N	0.0 N	70.0000	150.0000	150.0000	0.0 N	2.5000L	10.0000	150.0000	5.0000L
382	0.0 N	0.0 N	30.0000	200.0000	7.0000	0.0 N	0.0 N	5.0000L	70.0000	0.0 N
383	0.0 N	0.0 N	30.0000	150.0000	150.0000	0.0 N	0.0 N	10.0000	70.0000	0.0 N
384	0.0 N	0.0 N	10.0000	150.0000	5.0000	0.0 N	2.5000L	10.0000	50.0000	0.0 N
385	0.0 N	0.0 N	70.0000	200.0000	70.0000	0.0 N	2.5000L	10.0000	100.0000	0.0 N
386	0.0 N	0.0 N	50.0000	150.0000	10000.0000	0.0 N	2.5000L	10.0000	100.0000	0.0 N
387	0.5000L	0.0 N	30.0000	100.0000	150.0000	0.0 N	2.5000L	10.0000	70.0000	0.0 N
388	0.0 N	0.0 N	30.0000	150.0000	200.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
389	0.0 N	0.0 N	2.5000L	10.0000	700.0000	0.0 N	0.0 N	5.0000L	10.0000	0.0 N
390	0.0 N	0.0 N	30.0000	30.0000	500.0000	0.0 N	2.5000L	10.0000	30.0000	0.0 N
391	0.0 N	0.0 N	20.0000	70.0000	20000.0000G	0.0 N	2.5000L	10.0000	30.0000	5.0000L
392	0.0 N	0.0 N	50.0000	150.0000	70.0000	0.0 N	2.5000L	10.0000	100.0000	5.0000L
393	0.0 N	0.0 N	30.0000	150.0000	30.0000	0.0 N	2.5000L	10.0000	70.0000	0.0 N
394	0.0 N	0.0 N	50.0000	150.0000	200.0000	0.0 N	2.5000L	10.0000	100.0000	0.0 N
395	0.0 N	0.0 N	50.0000	300.0000	70.0000	0.0 N	2.5000L	10.0000	100.0000	5.0000L
396	0.0 N	0.0 N	50.0000	300.0000	70.0000	0.0 N	2.5000L	10.0000	100.0000	5.0000L
397	0.0 N	0.0 N	30.0000	150.0000	20000.0000G	0.0 N	2.5000L	10.0000	70.0000	5.0000L
398	0.0 N	0.0 N	30.0000	150.0000	300.0000	0.0 N	2.5000L	10.0000	70.0000	0.0 N
399	0.0 N	0.0 N	20.0000	150.0000	1500.0000	0.0 N	2.5000L	10.0000	30.0000	0.0 N
400	0.0 N	0.0 N	30.0000	70.0000	100.0000	0.0 N	0.0 N	10.0000	50.0000	0.0 N

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
351	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
352	0.0 N	20.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	100.0000L	100.0000
353	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	15.0000	100.0000L	70.0000
354	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
355	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	100.0000L	20.0000
356	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	20.0000	300.0000	70.0000
357	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	300.0000	70.0000
358	0.0 N	30.0000	0.0 N	200.0000	100.0000	0.0 N	20.0000	200.0000	100.0000
359	0.0 N	20.0000	0.0 N	150.0000	50.0000	0.0 N	50.0000	200.0000	70.0000
360	0.0 N	0.0 N	0.0 N	50.0000L	10.0000	0.0 N	5.0000L	0.0 N	5.0000L
361	0.0 N	20.0000	0.0 N	100.0000	150.0000	0.0 N	15.0000	100.0000L	50.0000
362	0.0 N	7.0000	0.0 N	50.0000L	30.0000	0.0 N	5.0000L	0.0 N	20.0000
363	0.0 N	20.0000	0.0 N	50.0000L	150.0000	0.0 N	15.0000	100.0000L	70.0000
364	0.0 N	20.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
365	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	30.0000	100.0000L	70.0000
366	0.0 N	2.5000L	0.0 N	100.0000	50.0000	0.0 N	10.0000	0.0 N	5.0000L
367	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	100.0000L	70.0000
368	0.0 N	10.0000	0.0 N	50.0000L	150.0000	0.0 N	10.0000	0.0 N	20.0000
369	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
370	0.0 N	50.0000	0.0 N	100.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
371	0.0 N	50.0000	0.0 N	50.0000L	300.0000	0.0 N	20.0000	0.0 N	70.0000
372	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
373	0.0 N	15.0000	0.0 N	100.0000	100.0000	0.0 N	15.0000	0.0 N	50.0000
374	0.0 N	30.0000	0.0 N	1000.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
375	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
376	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
377	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
378	0.0 N	2.5000L	0.0 N	300.0000	150.0000	0.0 N	5.0000L	0.0 N	20.0000
379	0.0 N	30.0000	0.0 N	50.0000L	200.0000	0.0 N	10.0000	100.0000L	30.0000
380	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
381	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	15.0000	0.0 N	50.0000
382	0.0 N	30.0000	0.0 N	1500.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
383	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
384	0.0 N	30.0000	0.0 N	1500.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
385	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
386	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
387	0.0 N	20.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
388	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
389	0.0 N	0.0 N	0.0 N	50.0000L	70.0000	0.0 N	5.0000L	0.0 N	20.0000
390	0.0 N	20.0000	0.0 N	100.0000	200.0000	0.0 N	15.0000	5.0000L	30.0000
391	0.0 N	20.0000	0.0 N	500.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
392	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
393	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
394	0.0 N	30.0000	0.0 N	50.0000L	200.0000	0.0 N	20.0000	100.0000L	70.0000
395	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
396	0.0 N	30.0000	0.0 N	700.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
397	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
398	0.0 N	30.0000	0.0 N	50.0000L	300.0000	0.0 N	15.0000	0.0 N	70.0000
399	0.0 N	20.0000	0.0 N	100.0000	300.0000	0.0 N	10.0000	0.0 N	70.0000
400	0.0 N	20.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
401	7.0000	1.0000	1.5000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	150.0000
402	5.0000	1.5000	1.5000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
403	5.0000	3.0000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	10.0000L
404	5.0000	2.0000	7.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	10.0000L
405	3.0000	1.0000	5.0000	0.1500	700.0000	30.0000	0.0 N	0.0 N	20.0000	10.0000L
406	7.0000	1.5000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	10.0000L
407	5.0000	1.5000	7.0000	0.5000	700.0000	0.0 N	300.0000	0.0 N	2000.0000G	10.0000L
408	15.0000	1.5000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	10.0000L
409	10.0000	1.5000	7.0000	0.7000	700.0000	20.0000	0.0 N	0.0 N	10.0000	10.0000L
410	10.0000	2.0000	5.0000	0.7000	700.0000	3.0000	0.0 N	0.0 N	10.0000	10.0000L
411	3.0000	1.0000	7.0000	0.3000	200.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
412	5.0000	2.0000	3.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
413	5.0000	1.0000	3.0000	0.2000	500.0000	70.0000	0.0 N	0.0 N	20.0000	100.0000
414	15.0000	1.5000	5.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
415	10.0000	3.0000	5.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
416	15.0000	2.0000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	10.0000L
417	5.0000	1.5000	0.1500	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
418	5.0000	1.0000	0.0500	0.3000	300.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
419	7.0000	2.0000	0.0300L	0.5000	700.0000	0.2500L	0.0 N	0.0 N	30.0000	300.0000
420	15.0000	3.0000	5.0000	0.7000	1500.0000	0.2500L	0.0 N	0.0 N	15.0000	10.0000L
421	0.3000	0.0300	20.0000	0.0150	500.0000	0.0 N	0.0 N	0.0 N	0.0 N	10.0000L
422	15.0000	5.0000	7.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
423	15.0000	3.0000	7.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
424	7.0000	2.0000	1.5000	0.7000	700.0000	1.0000	0.0 N	0.0 N	10.0000	300.0000
425	5.0000	3.0000	1.5000	0.2000	200.0000	15.0000	0.0 N	0.0 N	5.0000L	10.0000L
426	15.0000	3.0000	5.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
427	15.0000	3.0000	7.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	100.0000
428	20.0000	7.0000	15.0000	1.0000G	3000.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
429	10.0000	1.5000	3.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
430	1.0000	0.0200	0.0300L	0.0100	70.0000	0.2500L	0.0 N	0.0 N	5.0000L	20.0000
431	3.0000	0.5000	0.7000	0.1500	700.0000	1.0000	0.0 N	0.0 N	15.0000	300.0000
432	1.5000	0.2000	0.1000	0.0700	100.0000	0.5000	0.0 N	0.0 N	5.0000L	100.0000
433	0.1000	0.0100L	0.0300L	0.0100	150.0000	0.0 N	0.0 N	0.0 N	5.0000L	10.0000L
434	1.5000	0.1000	3.0000	0.0300	700.0000	1.0000	0.0 N	0.0 N	5.0000L	50.0000
435	1.5000	0.3000	2.0000	0.1500	500.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
436	20.0000	1.5000	2.0000	0.5000	1500.0000	5.0000	3000.0000	5.0000L	70.0000	1000.0000
437	5.0000	0.7000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
438	7.0000	2.0000	5.0000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	5.0000L	300.0000
439	5.0000	0.5000	0.0500	1.0000	200.0000	0.2500L	700.0000	0.0 N	5.0000L	300.0000
440	3.0000	1.5000	2.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
441	3.0000	0.5000	0.7000	0.2000	300.0000	0.2500L	200.0000	0.0 N	100.0000	150.0000
442	15.0000	0.7000	0.7000	0.2000	700.0000	15.0000	100.0000L	5.0000L	70.0000	300.0000
443	3.0000	0.5000	1.0000	0.2000	300.0000	1.5000	0.0 N	0.0 N	5.0000L	150.0000
444	5.0000	0.5000	0.7000	0.3000	500.0000	15.0000	100.0000L	0.0 N	100.0000	200.0000
445	3.0000	1.0000	2.0000	0.2000	1000.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
446	7.0000	3.0000	3.0000	0.5000	1000.0000	0.2500L	0.0 N	0.0 N	10.0000	500.0000
447	10.0000	0.7000	0.0700	0.2000	200.0000	2.0000	700.0000	0.0 N	10.0000	700.0000
448	5.0000	0.2000	0.1000	0.0700	150.0000	0.2500L	100.0000L	0.0 N	5.0000L	150.0000
449	5.0000	0.7000	0.3000	0.3000	300.0000	1.5000	700.0000	0.0 N	10.0000	700.0000
450	2.0000	0.2000	1.0000	0.1500	300.0000	1.0000	0.0 N	0.0 N	0.0 N	300.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
401	0.0 N	0.0 N	30.0000	70.0000	200.0000	0.0 N	2.5000L	10.0000	70.0000	0.0 N
402	0.0 N	0.0 N	30.0000	150.0000	200.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
403	0.0 N	0.0 N	30.0000	200.0000	20.0000	0.0 N	2.5000L	10.0000	70.0000	0.0 N
404	0.0 N	0.0 N	30.0000	150.0000	50.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
405	0.0 N	0.0 N	20.0000	50.0000	20000.0000	0.0 N	2.5000L	10.0000	30.0000	5.0000L
406	0.0 N	0.0 N	30.0000	150.0000	70.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
407	0.0 N	0.0 N	20.0000	150.0000	50.0000	0.0 N	0.0 N	10.0000	70.0000	0.0 N
408	0.0 N	0.0 N	50.0000	150.0000	100.0000	0.0 N	2.5000L	10.0000	100.0000	0.0 N
409	0.0 N	0.0 N	30.0000	150.0000	20000.0000G	0.0 N	2.5000L	10.0000	70.0000	5.0000L
410	0.0 N	0.0 N	30.0000	100.0000	15000.0000	0.0 N	2.5000L	10.0000	70.0000	0.0 N
411	0.0 N	0.0 N	7.0000	70.0000	150.0000	0.0 N	0.0 N	5.0000L	30.0000	0.0 N
412	0.0 N	0.0 N	30.0000	150.0000	150.0000	0.0 N	2.5000L	10.0000	50.0000	5.0000L
413	0.0 N	0.0 N	30.0000	70.0000	20000.0000G	0.0 N	2.5000L	10.0000	30.0000	5.0000L
414	0.5000L	0.0 N	50.0000	150.0000	300.0000	0.0 N	2.5000L	10.0000	100.0000	0.0 N
415	0.0 N	0.0 N	30.0000	200.0000	100.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
416	0.0 N	0.0 N	50.0000	70.0000	150.0000	0.0 N	2.5000L	10.0000	50.0000	5.0000L
417	1.5000	0.0 N	10.0000	30.0000	50.0000	0.0 N	2.5000L	10.0000	50.0000	0.0 N
418	0.0 N	0.0 N	2.5000L	2.5000L	30.0000	0.0 N	2.5000L	10.0000	5.0000	5.0000L
419	0.0 N	0.0 N	2.5000L	15.0000	15.0000	0.0 N	2.5000L	10.0000	10.0000	0.0 N
420	0.0 N	0.0 N	70.0000	150.0000	150.0000	0.0 N	2.5000L	10.0000	100.0000	20.0000
421	0.0 N	0.0 N	0.0 N	0.0 N	50.0000	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N
422	0.0 N	0.0 N	30.0000	700.0000	100.0000	0.0 N	2.5000L	10.0000	150.0000	10.0000
423	0.0 N	0.0 N	20.0000	500.0000	70.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
424	0.5000L	0.0 N	20.0000	2.5000L	70.0000	0.0 N	2.5000L	10.0000	20.0000	0.0 N
425	0.0 N	0.0 N	30.0000	2.5000L	10000.0000	0.0 N	2.5000L	10.0000	20.0000	0.0 N
426	0.5000L	0.0 N	70.0000	15.0000	30.0000	0.0 N	2.5000L	10.0000	20.0000	5.0000L
427	0.5000L	0.0 N	70.0000	150.0000	200.0000	0.0 N	2.5000L	10.0000	100.0000	5.0000L
428	0.0 N	0.0 N	50.0000	150.0000	150.0000	20.0000	0.0 N	0.0 N	150.0000	5.0000L
429	0.5000L	0.0 N	30.0000	2.5000L	50.0000	0.0 N	2.5000L	10.0000	15.0000	0.0 N
430	0.0 N	0.0 N	5.0000	0.0 N	15.0000	0.0 N	20.0000	0.0 N	2.5000L	0.0 N
431	0.5000L	0.0 N	10.0000	0.0 N	30.0000	10.0000L	50.0000	0.0 N	5.0000	5.0000L
432	0.5000L	0.0 N	2.5000L	0.0 N	5.0000	10.0000L	5.0000	5.0000L	2.5000L	0.0 N
433	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N
434	0.5000N	0.0 N	7.0000	0.0 N	70.0000	10.0000L	30.0000	0.0 N	5.0000	0.0 N
435	0.5000L	0.0 N	5.0000	0.0 N	5.0000	20.0000	30.0000	10.0000	2.5000L	5.0000L
436	1.5000	20.0000	70.0000	15.0000	300.0000	0.0 N	150.0000	15.0000	15.0000	15.0000
437	0.0 N	0.0 N	7.0000	70.0000	100.0000	10.0000L	30.0000	0.0 N	30.0000	5.0000L
438	0.0 N	0.0 N	15.0000	10.0000	70.0000	10.0000L	2.5000L	5.0000L	7.0000	5.0000L
439	0.0 N	0.0 N	20.0000	10.0000	100.0000	0.0 N	2.5000L	5.0000L	7.0000	0.0 N
440	0.0 N	0.0 N	10.0000	100.0000	50.0000	20.0000	0.0 N	0.0 N	30.0000	5.0000L
441	0.0 N	0.0 N	7.0000	2.5000L	50.0000	0.0 N	2.5000L	10.0000	10.0000	0.0 N
442	0.5000L	0.0 N	15.0000	15.0000	300.0000	0.0 N	15.0000	15.0000	5.0000	10.0000
443	0.0 N	5.0000L	7.0000	30.0000	30.0000	20.0000	2.5000L	0.0 N	15.0000	10.0000
444	0.5000L	0.0 N	30.0000	10.0000	150.0000	0.0 N	20.0000	10.0000	10.0000	0.0 N
445	0.5000L	0.0 N	10.0000	0.0 N	30.0000	10.0000L	2.5000L	0.0 N	7.0000	0.0 N
446	0.5000L	0.0 N	7.0000	70.0000	150.0000	0.0 N	50.0000	10.0000	7.0000	5.0000L
447	0.5000L	0.0 N	7.0000	10.0000	150.0000	0.0 N	150.0000	10.0000	5.0000	5.0000L
448	0.0 N	0.0 N	5.0000	15.0000	70.0000	0.0 N	150.0000	10.0000	15.0000	0.0 N
449	0.5000L	0.0 N	10.0000	10.0000	150.0000	0.0 N	70.0000	15.0000	5.0000	0.0 N
450	0.5000L	0.0 N	5.0000	2.5000L	30.0000	0.0 N	15.0000	10.0000	5.0000	0.0 N

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
401	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
402	0.0 N	20.0000	0.0 N	100.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
403	0.0 N	15.0000	0.0 N	100.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
404	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
405	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	10.0000	100.0000L	20.0000
406	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
407	0.0 N	15.0000	0.0 N	700.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
408	0.0 N	30.0000	0.0 N	50.0000L	300.0000	0.0 N	15.0000	0.0 N	50.0000
409	0.0 N	20.0000	0.0 N	2000.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
410	0.0 N	30.0000	0.0 N	700.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
411	0.0 N	15.0000	0.0 N	50.0000L	200.0000	0.0 N	10.0000	0.0 N	50.0000
412	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
413	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	10.0000	100.0000L	30.0000
414	0.0 N	30.0000	0.0 N	1000.0000	300.0000	0.0 N	30.0000	100.0000L	70.0000
415	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	100.0000L	20.0000
416	0.0 N	30.0000	0.0 N	50.0000L	300.0000	0.0 N	20.0000	100.0000L	70.0000
417	0.0 N	15.0000	0.0 N	50.0000L	200.0000	0.0 N	20.0000	100.0000L	150.0000
418	0.0 N	15.0000	0.0 N	50.0000L	20.0000	0.0 N	20.0000	100.0000L	70.0000
419	0.0 N	20.0000	0.0 N	50.0000L	200.0000	0.0 N	15.0000	100.0000L	70.0000
420	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	200.0000	70.0000
421	0.0 N	2.5000L	0.0 N	150.0000	15.0000	0.0 N	10.0000	0.0 N	5.0000L
422	0.0 N	30.0000	0.0 N	50.0000L	300.0000	0.0 N	15.0000	0.0 N	30.0000
423	0.0 N	30.0000	0.0 N	50.0000L	150.0000	0.0 N	15.0000	0.0 N	30.0000
424	0.0 N	20.0000	0.0 N	50.0000L	200.0000	0.0 N	15.0000	300.0000	70.0000
425	0.0 N	2.5000L	0.0 N	50.0000L	70.0000	0.0 N	5.0000L	0.0 N	20.0000
426	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	30.0000	100.0000L	150.0000
427	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	100.0000L	70.0000
428	0.0 N	70.0000	0.0 N	300.0000	1000.0000	0.0 N	50.0000	0.0 N	100.0000
429	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
430	0.0 N	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	0.0 N	0.0 N	0.0 N
431	0.0 N	7.0000	0.0 N	100.0000	100.0000	0.0 N	10.0000	0.0 N	10.0000
432	0.0 N	2.5000L	0.0 N	0.0 N	20.0000	0.0 N	0.0 N	0.0 N	50.0000
433	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N	0.0 N
434	0.0 N	2.5000L	0.0 N	200.0000	15.0000	0.0 N	5.0000L	0.0 N	10.0000
435	0.0 N	5.0000	0.0 N	200.0000	50.0000	0.0 N	15.0000	0.0 N	100.0000
436	0.0 N	15.0000	0.0 N	200.0000	300.0000	0.0 N	15.0000	100.0000L	100.0000
437	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	10.0000	0.0 N	50.0000
438	0.0 N	20.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	100.0000L	30.0000
439	0.0 N	2.5000L	0.0 N	0.0 N	100.0000	0.0 N	0.0 N	0.0 N	5.0000L
440	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
441	0.0 N	5.0000	0.0 N	150.0000	50.0000	0.0 N	5.0000L	0.0 N	70.0000
442	0.0 N	7.0000	0.0 N	300.0000	70.0000	0.0 N	15.0000	0.0 N	70.0000
443	0.0 N	10.0000	0.0 N	150.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
444	0.0 N	10.0000	0.0 N	200.0000	70.0000	0.0 N	10.0000	0.0 N	50.0000
445	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	10.0000	0.0 N	50.0000
446	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	200.0000	70.0000
447	0.0 N	15.0000	0.0 N	0.0 N	150.0000	150.0000	10.0000	0.0 N	5.0000L
448	0.0 N	5.0000	0.0 N	0.0 N	150.0000	0.0 N	5.0000L	0.0 N	20.0000
449	0.0 N	10.0000	0.0 N	0.0 N	150.0000	0.0 N	15.0000	0.0 N	70.0000
450	0.0 N	5.0000	0.0 N	100.0000	30.0000	0.0 N	10.0000	0.0 N	10.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
451	5.0000	1.5000	1.5000	0.3000	700.0000	0.2500L	0.0 N	0.0 N	0.0 N	150.0000
452	3.0000	0.2000	5.0000	0.1500	700.0000	1.5000	0.0 N	0.0 N	50.0000	700.0000
453	5.0000	3.0000	3.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
454	7.0000	1.5000	0.3000	0.3000	1500.0000	5.0000	0.0 N	5.0000L	15.0000	300.0000
455	15.0000	0.5000	1.5000	0.1500	700.0000	1.5000	0.0 N	0.0 N	5.0000L	50.0000
456	3.0000	0.7000	3.0000	0.0700	500.0000	0.0 N	0.0 N	0.0 N	0.0 N	100.0000
457	3.0000	1.0000	1.5000	0.1500	300.0000	0.2500L	0.0 N	0.0 N	0.0 N	300.0000
458	3.0000	0.7000	0.1500	0.1500	200.0000	1.5000	0.0 N	0.0 N	15.0000	150.0000
459	5.0000	1.0000	1.5000	0.3000	300.0000	0.2500L	0.0 N	0.0 N	150.0000	500.0000
460	3.0000	0.3000	0.7000	0.2000	300.0000	1.5000	0.0 N	0.0 N	30.0000	300.0000
461	10.0000	1.5000	1.5000	0.5000	300.0000	0.7000	200.0000	0.0 N	15.0000	300.0000
462	15.0000	2.0000	3.0000	0.7000	700.0000	0.2500L	200.0000	0.0 N	15.0000	700.0000
463	5.0000	2.0000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	700.0000
464	7.0000	2.0000	3.0000	0.5000	1000.0000	0.2500L	0.0 N	0.0 N	15.0000	500.0000
465	1.0000	0.1000	2.0000	0.0500	200.0000	30.0000	700.0000	0.0 N	5.0000L	100.0000
466	0.3000	0.0700	20.0000	0.0200	1500.0000	30.0000	100.0000L	5.0000L	0.0 N	10.0000L
467	0.2000	0.0300	1.0000	0.0500	70.0000	10.0000	0.0 N	0.0 N	0.0 N	10.0000L
468	3.0000	0.5000	0.5000	0.2000	150.0000	0.7000	100.0000L	0.0 N	10.0000	300.0000
469	5.0000	0.7000	1.5000	0.3000	500.0000	0.5000	0.0 N	0.0 N	10.0000	700.0000
470	5.0000	0.7000	1.5000	0.2000	500.0000	30.0000	200.0000	0.0 N	5.0000L	500.0000
471	3.0000	1.0000	0.7000	0.2000	1000.0000	1.5000	100.0000L	0.0 N	10.0000	300.0000
472	5.0000	1.0000	0.3000	0.3000	1500.0000	7.0000	300.0000	0.0 N	20.0000	300.0000
473	7.0000	3.0000	2.0000	0.5000	1000.0000	0.2500L	100.0000L	0.0 N	10.0000	300.0000
474	5.0000	1.5000	1.5000	0.5000	1000.0000	1.0000	0.0 N	0.0 N	10.0000	700.0000
475	7.0000	1.5000	0.3000	0.3000	1000.0000	0.5000	0.0 N	0.0 N	10.0000	1000.0000
476	10.0000	1.5000	1.5000	0.7000	1500.0000	0.2500L	100.0000L	0.0 N	10.0000	300.0000
477	10.0000	1.5000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
478	15.0000	3.0000	5.0000	0.7000	1500.0000	0.2500L	0.0 N	0.0 N	15.0000	500.0000
479	20.0000G	0.5000	0.0700	0.3000	1500.0000	20.0000	0.0 N	15.0000	30.0000	300.0000
480	15.0000	2.0000	1.0000	0.7000	1500.0000	5.0000	700.0000	0.0 N	30.0000	700.0000
481	15.0000	3.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
482	15.0000	1.0000	3.0000	0.7000	1500.0000	15.0000	100.0000L	70.0000	100.0000	500.0000
483	10.0000	1.5000	1.5000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	300.0000
484	15.0000	2.0000	1.5000	0.7000	1500.0000	0.2500L	100.0000L	0.0 N	15.0000	500.0000
485	15.0000	2.0000	1.0000	0.7000	2000.0000	0.2500L	0.0 N	0.0 N	50.0000	500.0000
486	15.0000	1.5000	5.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	200.0000	500.0000
487	10.0000	1.5000	1.0000	0.5000	1500.0000	1.5000	0.0 N	0.0 N	10.0000	300.0000
488	10.0000	3.0000	2.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
489	10.0000	3.0000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
490	10.0000	3.0000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
491	10.0000	3.0000	3.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
492	10.0000	3.0000	3.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
493	5.0000	1.5000	1.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	1500.0000
494	10.0000	3.0000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
495	10.0000	3.0000	5.0000	0.7000	1500.0000	0.2500L	0.0 N	0.0 N	15.0000	700.0000
496	7.0000	3.0000	3.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
497	5.0000	2.0000	2.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	700.0000
498	5.0000	2.0000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	1500.0000
499	15.0000	3.0000	3.0000	0.7000	1500.0000	1.5000	0.0 N	0.0 N	15.0000	500.0000
500	10.0000	3.0000	3.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
451	0.0 N	0.0 N	15.0000	10.0000	20.0000	0.0 N	2.5000L	10.0000	2.5000L	0.0 N
452	0.5000L	10.0000	10.0000	0.0 N	100.0000	10.0000L	300.0000	0.0 N	5.0000	10.0000
453	0.0 N	0.0 N	20.0000	150.0000	5.0000	0.0 N	0.0 N	0.0 N	30.0000	0.0 N
454	1.0000	0.0 N	20.0000	2.5000L	70.0000	0.0 N	15.0000	10.0000	7.0000	5.0000L
455	0.0 N	5.0000L	10.0000	30.0000	700.0000	10.0000L	5.0000	0.0 N	10.0000	5.0000L
456	0.0 N	0.0 N	7.0000	15.0000	2.5000L	0.0 N	0.0 N	5.0000L	15.0000	0.0 N
457	0.0 N	0.0 N	0.0 N	10.0000	50.0000	0.0 N	15.0000	5.0000L	0.0 N	0.0 N
458	0.0 N	0.0 N	10.0000	10.0000	150.0000	0.0 N	150.0000	0.0 N	20.0000	0.0 N
459	0.0 N	0.0 N	10.0000	30.0000	50.0000	0.0 N	2.5000L	10.0000	20.0000	5.0000L
460	1.0000	0.0 N	15.0000	15.0000	50.0000	10.0000L	15.0000	10.0000	15.0000	10.0000
461	0.5000L	0.0 N	20.0000	70.0000	150.0000	10.0000L	7.0000	0.0 N	30.0000	10.0000
462	0.5000L	0.0 N	20.0000	150.0000	150.0000	0.0 N	5.0000	0.0 N	30.0000	10.0000
463	1.0000	0.0 N	15.0000	70.0000	100.0000	0.0 N	2.5000L	0.0 N	30.0000	5.0000L
464	0.5000L	0.0 N	15.0000	100.0000	150.0000	10.0000L	2.5000L	0.0 N	30.0000	5.0000L
465	0.0 N	30.0000	2.5000L	0.0 N	2000.0000	10.0000L	0.0 N	0.0 N	5.0000	10000.0000
466	0.0 N	50.0000	0.0 N	2.5000L	500.0000	0.0 N	0.0 N	0.0 N	0.0 N	7000.0000
467	0.0 N	10.0000	2.5000L	2.5000L	500.0000	0.0 N	0.0 N	0.0 N	5.0000	700.0000
468	0.5000L	0.0 N	5.0000	20.0000	50.0000	10.0000L	30.0000	0.0 N	5.0000	0.0 N
469	0.5000L	0.0 N	5.0000	30.0000	100.0000	20.0000	2.5000L	0.0 N	7.0000	5.0000L
470	0.5000L	0.0 N	7.0000	50.0000	150.0000	20.0000	0.0 N	0.0 N	10.0000	20.0000
471	1.5000	0.0 N	20.0000	20.0000	50.0000	0.0 N	20.0000	15.0000	20.0000	30.0000
472	1.5000	0.0 N	15.0000	15.0000	100.0000	0.0 N	70.0000	15.0000	30.0000	100.0000
473	1.5000	0.0 N	30.0000	150.0000	70.0000	0.0 N	5.0000	10.0000	70.0000	5.0000L
474	2.0000	0.0 N	20.0000	10.0000	70.0000	0.0 N	7.0000	15.0000	15.0000	5.0000L
475	1.5000	0.0 N	30.0000	10.0000	70.0000	0.0 N	7.0000	15.0000	15.0000	5.0000L
476	1.5000	0.0 N	30.0000	10.0000	30.0000	0.0 N	5.0000	15.0000	15.0000	5.0000L
477	1.0000	0.0 N	30.0000	10.0000	30.0000	10.0000L	7.0000	10.0000	15.0000	5.0000L
478	1.5000	0.0 N	30.0000	10.0000	70.0000	10.0000L	200.0000	10.0000	15.0000	10.0000
479	0.5000L	0.0 N	20.0000	10.0000	500.0000	0.0 N	300.0000	20.0000	15.0000	200.0000
480	1.5000	0.0 N	30.0000	10.0000	150.0000	0.0 N	150.0000	15.0000	15.0000	15.0000
481	1.0000	0.0 N	30.0000	70.0000	50.0000	0.0 N	2.5000L	10.0000	15.0000	0.0 N
482	1.5000	0.0 N	30.0000	10.0000	70.0000	0.0 N	30.0000	15.0000	10.0000	30.0000
483	1.0000	0.0 N	30.0000	2.5000L	50.0000	0.0 N	2.5000L	10.0000	10.0000	5.0000L
484	1.0000	0.0 N	30.0000	2.5000L	50.0000	0.0 N	5.0000	15.0000	10.0000	0.0 N
485	1.0000	0.0 N	50.0000	10.0000	100.0000	0.0 N	10.0000	15.0000	15.0000	5.0000L
486	1.5000	0.0 N	30.0000	10.0000	70.0000	0.0 N	70.0000	15.0000	15.0000	5.0000L
487	1.0000	0.0 N	30.0000	10.0000	70.0000	0.0 N	15.0000	10.0000	10.0000	0.0 N
488	1.0000	0.0 N	30.0000	30.0000	70.0000	10.0000L	15.0000	0.0 N	30.0000	10.0000
489	0.5000L	0.0 N	30.0000	150.0000	50.0000	0.0 N	7.0000	0.0 N	50.0000	15.0000
490	1.0000	0.0 N	30.0000	150.0000	70.0000	10.0000L	2.5000L	0.0 N	70.0000	5.0000L
491	1.0000	0.0 N	30.0000	100.0000	70.0000	0.0 N	2.5000L	0.0 N	70.0000	5.0000L
492	1.0000	0.0 N	30.0000	150.0000	70.0000	10.0000L	2.5000L	0.0 N	100.0000	10.0000
493	1.5000	0.0 N	30.0000	2.5000L	100.0000	0.0 N	2.5000L	0.0 N	7.0000	5.0000L
494	1.0000	0.0 N	30.0000	150.0000	30.0000	0.0 N	2.5000L	0.0 N	100.0000	10.0000
495	1.0000	0.0 N	50.0000	150.0000	100.0000	10.0000L	2.5000L	0.0 N	100.0000	5.0000L
496	1.0000	0.0 N	30.0000	70.0000	70.0000	10.0000L	2.5000L	0.0 N	50.0000	10.0000
497	1.5000	0.0 N	30.0000	70.0000	70.0000	10.0000L	5.0000	0.0 N	50.0000	5.0000L
498	1.5000	0.0 N	30.0000	70.0000	50.0000	0.0 N	2.5000L	0.0 N	30.0000	5.0000L
499	1.0000	0.0 N	70.0000	150.0000	200.0000	10.0000L	7.0000	0.0 N	70.0000	5.0000L
500	1.0000	0.0 N	30.0000	150.0000	70.0000	10.0000L	2.5000L	0.0 N	70.0000	5.0000L

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
451	0.0 N	15.0000	0.0 N	300.0000	100.0000	0.0 N	15.0000	0.0 N	20.0000
452	0.0 N	7.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 N	20.0000
453	0.0 N	20.0000	0.0 N	700.0000	100.0000	0.0 N	15.0000	0.0 N	70.0000
454	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	15.0000	100.0000L	70.0000
455	0.0 N	10.0000	0.0 N	100.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
456	0.0 N	5.0000	0.0 N	0.0 N	700.0000	0.0 N	0.0 N	0.0 N	5.0000L
457	0.0 N	10.0000	0.0 N	300.0000	100.0000	0.0 N	10.0000	0.0 N	30.0000
458	0.0 N	7.0000	0.0 N	0.0 N	70.0000	0.0 N	5.0000L	0.0 N	50.0000
459	0.0 N	20.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
460	0.0 N	2.5000L	0.0 N	100.0000	50.0000	0.0 N	10.0000	0.0 N	100.0000
461	0.0 N	20.0000	0.0 N	200.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
462	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	100.0000L	100.0000
463	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
464	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
465	0.0 N	5.0000	0.0 N	200.0000	15.0000	0.0 N	5.0000L	0.0 N	10.0000
466	0.0 N	15.0000	0.0 N	700.0000	15.0000	0.0 N	15.0000	0.0 N	0.0 N
467	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	0.0 N
468	0.0 N	10.0000	0.0 N	100.0000	100.0000	0.0 N	10.0000	0.0 N	100.0000
469	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	0.0 N	150.0000
470	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
471	0.0 N	7.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	300.0000	150.0000
472	0.0 N	2.5000L	0.0 N	150.0000	150.0000	0.0 N	10.0000	500.0000	100.0000
473	0.0 N	20.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	100.0000L	70.0000
474	0.0 N	10.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	100.0000L	100.0000
475	0.0 N	7.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	200.0000	150.0000
476	0.0 N	15.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
477	0.0 N	15.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	100.0000L	50.0000
478	0.0 N	15.0000	0.0 N	700.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
479	0.0 N	10.0000	0.0 N	50.0000L	200.0000	0.0 N	10.0000	100.0000L	50.0000
480	0.0 N	15.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
481	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	100.0000L	70.0000
482	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
483	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	100.0000L	70.0000
484	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	100.0000L	70.0000
485	0.0 N	15.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	100.0000L	70.0000
486	0.0 N	15.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	100.0000L	70.0000
487	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	100.0000L	70.0000
488	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	100.0000L	70.0000
489	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
490	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	100.0000L	100.0000
491	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	100.0000L	150.0000
492	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	100.0000L	100.0000
493	0.0 N	10.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	100.0000L	70.0000
494	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	200.0000	100.0000
495	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	30.0000	100.0000L	100.0000
496	0.0 N	15.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	100.0000L	70.0000
497	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	100.0000L	100.0000
498	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	100.0000L	100.0000
499	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	100.0000L	100.0000
500	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	100.0000L	100.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
501	5.0000	1.5000	7.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
502	3.0000	3.0000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
503	3.0000	1.5000	3.0000	0.5000	700.0000	1.5000	0.0 N	0.0 N	30.0000	500.0000
504	10.0000	3.0000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	1500.0000
505	10.0000	3.0000	2.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
506	7.0000	1.5000	2.0000	0.3000	700.0000	1.0000	3000.0000	0.0 N	15.0000	500.0000
507	10.0000	5.0000	1.0000	1.0000	1500.0000	0.2500L	0.0 N	0.0 N	5.0000L	1000.0000
508	5.0000	2.0000	0.7000	0.3000	1500.0000	1.0000	0.0 N	0.0 N	150.0000	700.0000
509	10.0000	3.0000	5.0000	0.7000	1500.0000	0.2500L	0.0 N	0.0 N	50.0000	1000.0000
510	5.0000	1.5000	0.1500	0.3000	700.0000	1.0000	0.0 N	0.0 N	70.0000	300.0000
511	3.0000	0.1500	0.1500	0.0700	300.0000	0.2500L	0.0 N	0.0 N	70.0000	150.0000
512	5.0000	1.5000	0.3000	0.5000	700.0000	1.5000	0.0 N	0.0 N	70.0000	700.0000
513	3.0000	1.0000	0.1500	0.3000	500.0000	2.0000	0.0 N	0.0 N	70.0000	300.0000
514	5.0000	1.5000	0.2000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	150.0000	1500.0000
515	15.0000	3.0000	7.0000	0.3000	3000.0000	0.2500L	0.0 N	0.0 N	5.0000L	150.0000
516	3.0000	0.7000	2.0000	0.1000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	150.0000
517	7.0000	0.1500	0.0300L	0.2000	500.0000	2.0000	0.0 N	0.0 N	10.0000	150.0000
518	15.0000	3.0000	0.7000	0.7000	700.0000	0.2500L	0.0 N	0.0 N	5.0000L	1500.0000
519	3.0000	0.1500	0.0300L	0.0150	150.0000	0.7000	0.0 N	0.0 N	0.0 N	100.0000
520	15.0000	1.5000	1.0000	0.5000	1000.0000	2.0000	0.0 N	0.0 N	10.0000	1000.0000
521	1.5000	0.3000	0.0300L	0.0150	200.0000	0.0 N	0.0 N	0.0 N	700.0000	10.0000L
522	15.0000	3.0000	1.5000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	30.0000	300.0000
523	5.0000	0.7000	0.1500	0.3000	1000.0000	0.2500L	0.0 N	0.0 N	15.0000	500.0000
524	3.0000	0.7000	15.0000	0.0700	5000.0000G	0.0 N	0.0 N	0.0 N	5.0000L	150.0000
525	0.7000	0.2000	0.0500	0.0200	70.0000	0.0 N	0.0 N	0.0 N	70.0000	150.0000
526	3.0000	0.3000	0.0700	0.0300	200.0000	0.7000	0.0 N	0.0 N	50.0000	300.0000
527	2.0000	0.3000	0.7000	0.3000	500.0000	0.2500L	0.0 N	0.0 N	15.0000	700.0000
528	0.1500	0.0100L	0.5000	0.0010L	150.0000	0.0 N	0.0 N	0.0 N	10.0000	10.0000L
529	3.0000	0.1500	0.0300L	0.0500	150.0000	1.5000	0.0 N	0.0 N	10.0000	300.0000
530	1.0000	0.0200	0.0300L	0.0200	150.0000	0.0 N	0.0 N	0.0 N	0.0 N	100.0000
531	2.0000	0.1500	0.0300L	0.1000	300.0000	5.0000	0.0 N	0.0 N	5.0000L	300.0000
532	3.0000	0.3000	0.0300L	0.1500	150.0000	0.2500L	0.0 N	0.0 N	10.0000	500.0000
533	5.0000	1.0000	0.0300L	0.2000	1500.0000	0.5000	0.0 N	0.0 N	30.0000	1500.0000
534	3.0000	0.7000	1.0000	0.2000	200.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
535	0.3000	0.0200	0.0300L	0.0300	100.0000	0.7000	0.0 N	0.0 N	0.0 N	10.0000L
536	3.0000	0.1500	0.0300L	0.1000	200.0000	3.0000	0.0 N	5.0000L	5.0000L	300.0000
537	5.0000	1.0000	2.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	700.0000
538	1.5000	0.1000	0.1500	0.0500	150.0000	0.2500L	0.0 N	0.0 N	150.0000	150.0000
539	3.0000	0.1500	0.0700	0.0300	200.0000	0.2500L	100.0000L	0.0 N	5.0000L	200.0000
540	0.7000	0.0700	0.0500	0.0300	70.0000	0.0 N	0.0 N	0.0 N	0.0 N	150.0000
541	0.7000	0.1000	0.1500	0.0500	150.0000	0.0 N	0.0 N	0.0 N	0.0 N	150.0000
542	2.0000	0.2000	0.0300L	0.0700	70.0000	0.0 N	0.0 N	0.0 N	0.0 N	200.0000
543	5.0000	0.7000	0.2000	0.5000	1000.0000	0.2500L	0.0 N	0.0 N	30.0000	1500.0000
544	2.0000	0.1000	0.0700	0.0300	300.0000	0.0 N	100.0000L	0.0 N	0.0 N	150.0000
545	3.0000	1.0000	0.1500	0.3000	300.0000	0.0 N	0.0 N	0.0 N	20.0000	2000.0000
546	3.0000	0.7000	0.3000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
547	0.7000	0.0200	0.0700	0.0500	300.0000	0.0 N	100.0000L	0.0 N	0.0 N	70.0000
548	2.0000	0.1000	0.0300L	0.0500	200.0000	0.2500L	100.0000L	0.0 N	0.0 N	150.0000
549	1.0000	0.3000	0.1000	0.1500	70.0000	0.2500L	100.0000L	0.0 N	300.0000	100.0000
550	0.5000	0.0700	0.3000	0.0300	100.0000	0.0 N	0.0 N	0.0 N	5.0000L	150.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
501	1.0000	0.0 N	30.0000	150.0000	70.0000	10.0000L	2.5000L	0.0 N	70.0000	10.0000
502	1.0000	0.0 N	20.0000	100.0000	50.0000	10.0000L	0.0 N	0.0 N	50.0000	15.0000
503	1.0000	0.0 N	15.0000	70.0000	50.0000	0.0 N	2.5000L	0.0 N	30.0000	5.0000L
504	0.5000L	0.0 N	50.0000	150.0000	70.0000	0.0 N	2.5000L	0.0 N	70.0000	5.0000L
505	1.0000	0.0 N	30.0000	150.0000	70.0000	0.0 N	2.5000L	0.0 N	70.0000	10.0000
506	0.5000L	0.0 N	30.0000	20.0000	200.0000	0.0 N	7.0000	0.0 N	30.0000	10.0000
507	1.0000	0.0 N	20.0000	150.0000	70.0000	10.0000L	50.0000	15.0000	50.0000	10.0000
508	1.0000	0.0 N	15.0000	10.0000	50.0000	0.0 N	20.0000	15.0000	15.0000	0.0 N
509	0.5000L	0.0 N	10.0000	10.0000	2.5000L	0.0 N	7.0000	10.0000	0.0 N	5.0000L
510	0.5000L	0.0 N	10.0000	10.0000	30.0000	0.0 N	70.0000	10.0000	5.0000	0.0 N
511	0.0 N	0.0 N	7.0000	10.0000	50.0000	0.0 N	15.0000	10.0000	10.0000	0.0 N
512	0.5000L	0.0 N	20.0000	2.5000L	50.0000	0.0 N	50.0000	10.0000	5.0000	0.0 N
513	0.5000L	0.0 N	10.0000	10.0000	50.0000	0.0 N	50.0000	10.0000	5.0000	0.0 N
514	0.5000L	0.0 N	30.0000	10.0000	150.0000	0.0 N	2.5000L	10.0000	15.0000	0.0 N
515	0.0 N	0.0 N	30.0000	10.0000	50.0000	0.0 N	2.5000L	10.0000	20.0000	20.0000
516	0.0 N	0.0 N	7.0000	2.5000L	15.0000	0.0 N	2.5000L	5.0000L	5.0000	0.0 N
517	0.0 N	0.0 N	15.0000	10.0000	70.0000	0.0 N	50.0000	15.0000	5.0000	0.0 N
518	0.5000L	0.0 N	15.0000	10.0000	200.0000	0.0 N	7.0000	15.0000	2.5000L	0.0 N
519	0.0 N	0.0 N	10.0000	2.5000L	30.0000	0.0 N	30.0000	5.0000L	10.0000	0.0 N
520	0.5000L	0.0 N	70.0000	10.0000	300.0000	0.0 N	70.0000	15.0000	5.0000	5.0000L
521	0.0 N	0.0 N	2.5000L	2.5000L	20.0000	0.0 N	0.0 N	5.0000L	5.0000	0.0 N
522	0.0 N	0.0 N	20.0000	15.0000	100.0000	0.0 N	5.0000	15.0000	15.0000	15.0000
523	0.0 N	0.0 N	20.0000	2.5000L	70.0000	0.0 N	15.0000	10.0000	10.0000	0.0 N
524	0.0 N	0.0 N	0.0 N	10.0000	2.5000L	0.0 N	2.5000L	5.0000L	0.0 N	30.0000
525	0.0 N	0.0 N	2.5000L	2.5000L	5.0000	0.0 N	2.5000L	5.0000L	5.0000	0.0 N
526	0.0 N	0.0 N	2.5000L	2.5000L	50.0000	0.0 N	70.0000	10.0000	2.5000L	0.0 N
527	1.5000	0.0 N	2.5000L	2.5000L	30.0000	0.0 N	7.0000	20.0000	5.0000	0.0 N
528	0.0 N	0.0 N	2.5000L	2.5000L	0.0 N	0.0 N	0.0 N	5.0000L	7.0000	0.0 N
529	0.5000L	0.0 N	2.5000L	10.0000	15.0000	0.0 N	15.0000	5.0000L	5.0000	0.0 N
530	0.0 N	0.0 N	2.5000L	10.0000	2.5000L	0.0 N	2.5000L	5.0000L	7.0000	0.0 N
531	0.5000L	0.0 N	15.0000	10.0000	30.0000	0.0 N	7.0000	10.0000	10.0000	5.0000L
532	1.0000	0.0 N	5.0000	10.0000	30.0000	0.0 N	7.0000	10.0000	15.0000	0.0 N
533	1.5000	0.0 N	20.0000	10.0000	70.0000	30.0000	10.0000	15.0000	10.0000	5.0000L
534	0.5000L	0.0 N	5.0000	20.0000	5.0000	20.0000	0.0 N	0.0 N	2.5000L	5.0000L
535	0.0 N	0.5000L	0.0 N	2.5000L	15.0000	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N
536	0.5000L	10.0000	10.0000	10.0000	70.0000	10.0000L	15.0000	10.0000	15.0000	5.0000L
537	1.0000	0.0 N	10.0000	10.0000	2.5000L	30.0000	2.5000L	15.0000	10.0000	5.0000L
538	0.5000L	0.0 N	5.0000	10.0000	7.0000	0.0 N	5.0000	5.0000L	10.0000	0.0 N
539	0.5000L	0.0 N	10.0000	10.0000	100.0000	0.0 N	15.0000	10.0000	5.0000	0.0 N
540	0.5000L	0.0 N	0.0 N	10.0000	2.5000L	0.0 N	2.5000L	5.0000L	0.0 N	0.0 N
541	0.5000L	0.0 N	0.0 N	10.0000	2.5000L	0.0 N	2.5000L	5.0000L	2.5000L	0.0 N
542	0.5000L	0.0 N	0.0 N	2.5000L	5.0000	0.0 N	2.5000L	10.0000	2.5000L	0.0 N
543	1.5000	0.0 N	7.0000	15.0000	30.0000	30.0000	7.0000	30.0000	5.0000	0.0 N
544	0.5000L	0.0 N	5.0000	10.0000	20.0000	0.0 N	5.0000	10.0000	10.0000	0.0 N
545	1.0000	0.0 N	0.0 N	15.0000	5.0000	10.0000L	2.5000L	15.0000	2.5000L	0.0 N
546	1.5000	0.0 N	5.0000	10.0000	10.0000	10.0000L	2.5000L	20.0000	5.0000	0.0 N
547	0.0 N	0.0 N	0.0 N	10.0000	10.0000	0.0 N	2.5000L	5.0000L	2.5000L	0.0 N
548	0.0 N	0.0 N	2.5000L	10.0000	15.0000	0.0 N	2.5000L	10.0000	2.5000L	0.0 N
549	0.0 N	0.0 N	2.5000L	10.0000	20.0000	0.0 N	0.0 N	5.0000L	15.0000	0.0 N
550	0.0 N	0.0 N	0.0 N	10.0000	2.5000L	0.0 N	0.0 N	5.0000L	2.5000L	0.0 N

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
501	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	100.0000L	100.0000
502	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	100.0000L	100.0000
503	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
504	0.0 N	30.0000	0.0 N	700.0000	300.0000	0.0 N	20.0000	100.0000L	100.0000
505	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	100.0000L	100.0000
506	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	100.0000L	70.0000
507	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	200.0000	70.0000
508	0.0 N	15.0000	0.0 N	100.0000	200.0000	0.0 N	20.0000	100.0000L	70.0000
509	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	100.0000L	30.0000
510	0.0 N	15.0000	0.0 N	50.0000L	150.0000	0.0 N	15.0000	0.0 N	30.0000
511	0.0 N	0.0 N	0.0 N	50.0000L	30.0000	0.0 N	0.0 N	0.0 N	10.0000
512	0.0 N	15.0000	0.0 N	100.0000	200.0000	0.0 N	15.0000	100.0000L	70.0000
513	0.0 N	10.0000	0.0 N	50.0000L	150.0000	0.0 N	15.0000	100.0000L	30.0000
514	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	15.0000	0.0 N	50.0000
515	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	300.0000	0.0 N
516	0.0 N	2.5000L	0.0 N	100.0000	100.0000	0.0 N	5.0000L	100.0000L	0.0 N
517	0.0 N	2.5000L	0.0 N	50.0000L	50.0000	0.0 N	15.0000	0.0 N	5.0000L
518	0.0 N	20.0000	0.0 N	300.0000	500.0000	0.0 N	20.0000	100.0000L	30.0000
519	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	0.0 N	100.0000L	5.0000L
520	0.0 N	20.0000	0.0 N	100.0000	300.0000	0.0 N	15.0000	0.0 N	20.0000
521	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	0.0 N	0.0 N	0.0 N
522	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	100.0000L	30.0000
523	0.0 N	10.0000	0.0 N	50.0000L	150.0000	0.0 N	10.0000	0.0 N	50.0000
524	0.0 N	15.0000	0.0 N	700.0000	50.0000	0.0 N	15.0000	0.0 N	5.0000L
525	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	0.0 N	0.0 N	5.0000L
526	0.0 N	5.0000	0.0 N	50.0000L	50.0000	0.0 N	5.0000L	0.0 N	20.0000
527	0.0 N	5.0000	0.0 N	100.0000	70.0000	0.0 N	10.0000	0.0 N	70.0000
528	0.0 N	0.0 N	0.0 N	0.0 N	20.0000	0.0 N	0.0 N	0.0 N	0.0 N
529	0.0 N	0.0 N	0.0 N	50.0000L	30.0000	0.0 N	0.0 N	0.0 N	30.0000
530	0.0 N	0.0 N	0.0 N	50.0000L	30.0000	0.0 N	0.0 N	0.0 N	0.0 N
531	0.0 N	0.0 N	0.0 N	50.0000L	70.0000	0.0 N	10.0000	0.0 N	50.0000
532	0.0 N	5.0000	0.0 N	50.0000L	70.0000	0.0 N	0.0 N	0.0 N	70.0000
533	0.0 N	10.0000	0.0 N	0.0 N	200.0000	0.0 N	15.0000	0.0 N	70.0000
534	0.0 N	15.0000	0.0 N	1000.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
535	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	0.0 N
536	0.0 N	0.0 N	0.0 N	50.0000L	30.0000	0.0 N	10.0000	0.0 N	70.0000
537	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
538	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	0.0 N	0.0 N	70.0000
539	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	5.0000L	0.0 N	30.0000
540	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	30.0000
541	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	5.0000L	0.0 N	50.0000
542	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	5.0000L	0.0 N	70.0000
543	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	20.0000	0.0 N	300.0000
544	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	20.0000
545	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	15.0000	0.0 N	150.0000
546	0.0 N	15.0000	0.0 N	300.0000	70.0000	0.0 N	15.0000	0.0 N	150.0000
547	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	20.0000
548	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	10.0000
549	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	0.0 N	0.0 N	30.0000
550	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	5.0000L	0.0 N	5.0000L

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
551	1.0000	0.1000	0.0500	0.0500	70.0000	0.2500L	0.0 N	0.0 N	0.0 N	150.0000
552	0.7000	0.3000	0.1500	0.0700	70.0000	0.0 N	100.0000L	0.0 N	0.0 N	100.0000
553	2.0000	1.0000	5.0000	0.0700	1500.0000	0.7000	0.0 N	0.0 N	200.0000	150.0000
554	5.0000	1.5000	0.1000	0.3000	500.0000	7.0000	100.0000L	5.0000L	10.0000	300.0000
555	3.0000	2.0000	0.7000	0.5000	300.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
556	5.0000	2.0000	0.1500	0.5000	300.0000	0.2500L	0.0 N	0.0 N	50.0000	700.0000
557	3.0000	1.5000	1.0000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	30.0000	500.0000
558	5.0000	0.7000	0.0700	0.5000	500.0000	15.0000	300.0000	15.0000	300.0000	500.0000
559	1.5000	0.1500	0.1500	0.1000	500.0000	0.0 N	0.0 N	0.0 N	0.0 N	200.0000
560	3.0000	0.7000	0.2000	0.3000	200.0000	0.7000	3000.0000	0.0 N	30.0000	500.0000
561	7.0000	1.5000	0.3000	0.5000	300.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
562	5.0000	1.0000	1.5000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
563	1.5000	0.0300	0.0300L	0.0300	150.0000	0.5000	0.0 N	0.0 N	0.0 N	150.0000N
564	0.3000	0.0100L	0.0500L	0.0010L	70.0000	0.0 N	0.0 N	0.0 N	0.0 N	10.0000L
565	3.0000	0.3000	0.7000	0.0700	300.0000	30.0000	0.0 N	15.0000	70.0000	150.0000
566	7.0000	1.5000	7.0000	0.2000	1500.0000	0.0 N	0.0 N	0.0 N	150.0000	300.0000
567	3.0000	1.0000	1.5000	0.3000	700.0000	0.2500L	0.0 N	0.0 N	5.0000L	1000.0000
568	3.0000	1.5000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
569	0.7000	3.0000	0.0700	0.0070	150.0000	0.0 N	0.0 N	0.0 N	0.0 N	70.0000
570	7.0000	1.5000	1.5000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	30.0000	1500.0000
571	7.0000	1.5000	2.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
572	3.0000	1.5000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	70.0000
573	10.0000	3.0000	7.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
574	10.0000	2.0000	7.0000	0.2000	3000.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
575	10.0000	2.0000	3.0000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
576	3.0000	1.0000	1.5000	0.3000	500.0000	0.2500L	0.0 N	0.0 N	0.0 N	300.0000
577	5.0000	1.5000	3.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	700.0000
578	3.0000	0.7000	0.7000	0.1500	500.0000	0.0 N	0.0 N	0.0 N	0.0 N	200.0000
579	3.0000	0.7000	0.7000	0.3000	2000.0000	0.0 N	0.0 N	0.0 N	5.0000L	500.0000
580	1.5000	0.3000	3.0000	0.1500	1000.0000	0.7000	0.0 N	0.0 N	5.0000L	300.0000
581	3.0000	0.7000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	150.0000
582	7.0000	1.5000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
583	7.0000	1.0000	5.0000	0.3000	1500.0000	1.0000	0.0 N	0.0 N	15.0000	700.0000
584	0.5000	0.0300	1.5000	0.1000	300.0000	0.0 N	0.0 N	0.0 N	30.0000	150.0000
585	3.0000	0.7000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
586	0.5000	0.0700	0.7000	0.0300	150.0000	0.0 N	0.0 N	0.0 N	0.0 N	150.0000
587	5.0000	1.5000	2.0000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	0.0 N	300.0000
588	3.0000	0.7000	2.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	500.0000
589	0.7000	0.1500	5.0000	0.0500	700.0000	3.0000	0.0 N	0.0 N	5.0000L	200.0000
590	3.0000	0.3000	5.0000	0.1500	1000.0000	1.5000	0.0 N	0.0 N	5.0000L	300.0000
591	1.5000	0.5000	0.7000	0.3000	300.0000	0.2500L	0.0 N	0.0 N	50.0000	300.0000
592	2.0000	0.3000	5.0000	0.1500	1000.0000	0.5000	0.0 N	0.0 N	5.0000L	300.0000
593	1.5000	0.3000	5.0000	0.1000	1000.0000	0.0 N	0.0 N	0.0 N	5.0000L	300.0000
594	3.0000	0.7000	2.0000	0.3000	500.0000	1.5000	0.0 N	0.0 N	15.0000	700.0000
595	2.0000	0.5000	5.0000	0.1500	1000.0000	0.7000	0.0 N	0.0 N	50.0000	300.0000
596	3.0000	1.0000	1.5000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
597	3.0000	0.7000	1.0000	0.3000	300.0000	0.2500L	0.0 N	0.0 N	0.0 N	300.0000
598	3.0000	0.7000	1.5000	0.2000	500.0000	0.0 N	0.0 N	0.0 N	5.0000L	200.0000
599	3.0000	0.7000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
600	2.0000	0.7000	15.0000	0.0300	3000.0000	0.0 N	0.0 N	0.0 N	0.0 N	200.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CC PPM	CR PPM	CU PPM	LA PPM	MC PPM	NB PPM	NI PPM	PB PPM
551	0.5000L	0.0 N	5.0000	2.5000L	7.0000	0.0 N	2.5000L	5.0000L	7.0000	0.0 N
552	0.0 N	0.0 N	2.5000L	10.0000	2.5000L	0.0 N	0.0 N	5.0000L	15.0000	0.0 N
553	0.0 N	0.0 N	5.0000	15.0000	15.0000	10.0000L	2.5000L	5.0000L	20.0000	50.0000
554	0.5000L	0.0 N	10.0000	70.0000	70.0000	0.0 N	70.0000	10.0000	30.0000	1500.0000
555	0.0 N	0.0 N	15.0000	70.0000	30.0000	0.0 N	2.5000L	10.0000	30.0000	0.0 N
556	0.5000L	0.0 N	15.0000	70.0000	30.0000	0.0 N	0.0 N	10.0000	50.0000	5.0000L
557	0.5000L	0.0 N	0.0 N	30.0000	10.0000	10.0000L	2.5000L	5.0000L	10.0000	0.0 N
558	0.5000L	0.0 N	15.0000	70.0000	200.0000	0.0 N	2.5000L	10.0000	30.0000	1500.0000
559	0.5000L	0.0 N	5.0000	10.0000	2.5000L	0.0 N	10.0000	15.0000	5.0000	0.0 N
560	0.5000L	0.0 N	10.0000	15.0000	50.0000	0.0 N	2.5000L	10.0000	10.0000	0.0 N
561	0.0 N	0.0 N	15.0000	70.0000	50.0000	0.0 N	2.5000L	15.0000	30.0000	0.0 N
562	0.5000L	0.0 N	10.0000	50.0000	15.0000	20.0000	0.0 N	0.0 N	15.0000	10.0000
563	0.0 N	0.0 N	0.0 N	10.0000	30.0000	0.0 N	2.5000L	10.0000	2.5000L	0.0 N
564	0.0 N	0.0 N	0.0 N	10.0000	15.0000	0.0 N	0.0 N	5.0000L	2.5000L	0.0 N
565	0.0 N	0.0 N	15.0000	10.0000	70.0000	0.0 N	7.0000	10.0000	10.0000	5.0000L
566	0.0 N	0.0 N	15.0000	10.0000	20.0000	0.0 N	2.5000L	10.0000	5.0000	15.0000
567	0.5000L	0.0 N	7.0000	15.0000	70.0000	0.0 N	5.0000	10.0000	5.0000	5.0000L
568	0.0 N	0.0 N	10.0000	70.0000	5.0000	0.0 N	2.5000L	10.0000	30.0000	5.0000L
569	0.0 N	0.0 N	2.5000L	2.5000L	2.5000L	0.0 N	0.0 N	5.0000L	5.0000	0.0 N
570	0.5000L	0.0 N	20.0000	70.0000	70.0000	0.0 N	15.0000	10.0000	30.0000	5.0000L
571	0.0 N	0.0 N	15.0000	2.5000L	5.0000	0.0 N	2.5000L	15.0000	5.0000	5.0000L
572	0.0 N	0.0 N	15.0000	150.0000	30.0000	0.0 N	7.0000	10.0000	30.0000	0.0 N
573	0.0 N	0.0 N	30.0000	150.0000	50.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
574	0.5000L	0.0 N	20.0000	15.0000	30.0000	0.0 N	10.0000	15.0000	2.5000L	5.0000L
575	0.5000L	0.0 N	20.0000	15.0000	15.0000	10.0000L	20.0000	15.0000	5.0000	10.0000
576	0.5000L	0.0 N	7.0000	2.5000L	2.5000L	0.0 N	2.5000L	10.0000	2.5000L	10.0000
577	1.0000	0.0 N	7.0000	10.0000	15.0000	0.0 N	2.5000L	15.0000	2.5000L	15.0000
578	0.0 N	0.0 N	10.0000	2.5000L	50.0000	0.0 N	7.0000	5.0000L	5.0000	0.0 N
579	0.5000L	0.0 N	2.5000L	2.5000L	15.0000	0.0 N	2.5000L	10.0000	2.5000L	5.0000L
580	0.5000L	0.0 N	2.5000L	10.0000	15.0000	0.0 N	150.0000	10.0000	5.0000	0.0 N
581	0.0 N	0.0 N	10.0000	2.5000L	7.0000	0.0 N	2.5000L	10.0000	2.5000L	10.0000
582	0.5000L	0.0 N	15.0000	2.5000L	2.5000L	0.0 N	2.5000L	10.0000	2.5000L	15.0000
583	0.5000L	0.0 N	7.0000	2.5000L	15.0000	0.0 N	200.0000	10.0000	5.0000	5.0000L
584	0.0 N	0.0 N	0.0 N	10.0000	0.0 N	0.0 N	0.0 N	10.0000	7.0000	0.0 N
585	0.5000L	0.0 N	7.0000	2.5000L	2.5000L	20.0000	2.5000L	15.0000	7.0000	10.0000
586	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	5.0000L	7.0000	0.0 N
587	1.0000	0.0 N	15.0000	15.0000	15.0000	10.0000L	15.0000	15.0000	10.0000	15.0000
588	1.0000	0.0 N	5.0000	2.5000L	10.0000	2.5000L	0.0 N	10.0000	7.0000	5.0000L
589	0.5000L	0.0 N	2.5000L	2.5000L	20.0000	0.0 N	300.0000	5.0000L	5.0000	0.0 N
590	0.5000L	0.0 N	5.0000	2.5000L	30.0000	0.0 N	300.0000	10.0000	5.0000	5.0000L
591	1.5000	0.0 N	0.0 N	10.0000	2.5000L	2.5000L	2.5000L	10.0000	2.5000L	15.0000
592	1.0000	0.0 N	5.0000	2.5000L	15.0000	0.0 N	2.5000L	10.0000	5.0000	20.0000
593	1.0000	0.0 N	7.0000	2.5000L	5.0000	0.0 N	0.0 N	10.0000	7.0000	0.0 N
594	1.5000	0.0 N	10.0000	2.5000L	15.0000	20.0000	200.0000	15.0000	5.0000	30.0000
595	1.5000	0.0 N	5.0000	10.0000	5.0000	0.0 N	15.0000	15.0000	5.0000	5.0000L
596	1.5000	0.0 N	5.0000	2.5000L	10.0000	20.0000	2.5000L	20.0000	2.5000L	10.0000
597	1.0000	0.0 N	5.0000	2.5000L	7.0000	10.0000L	2.5000L	15.0000	5.0000	0.0 N
598	0.5000L	0.0 N	2.5000L	2.5000L	2.5000L	10.0000L	0.0 N	15.0000	2.5000L	0.0 N
599	1.0000	0.0 N	2.5000L	2.5000L	0.0 N	20.0000	0.0 N	15.0000	5.0000	5.0000L
600	0.0 N	0.0 N	0.0 N	2.5000L	0.0 N	0.0 N	0.0 N	5.0000L	0.0 N	30.0000

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
551	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	0.0 N	0.0 N	30.0000
552	0.0 N	0.0 N	0.0 N	0.0 N	20.0000	0.0 N	5.0000L	0.0 N	5.0000L
553	0.0 N	10.0000	0.0 N	700.0000	70.0000	0.0 N	20.0000	100.0000L	30.0000
554	0.0 N	15.0000	0.0 N	0.0 L	200.0000	0.0 N	10.0000	700.0000	70.0000
555	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
556	0.0 N	20.0000	0.0 N	200.0000	300.0000	0.0 N	15.0000	100.0000L	100.0000
557	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	100.0000L	100.0000
558	0.0 N	20.0000	0.0 N	100.0000	200.0000	0.0 N	15.0000	700.0000	100.0000
559	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	0.0 N	5.0000L	0.0 N	70.0000
560	0.0 N	10.0000	0.0 N	200.0000	100.0000	0.0 N	10.0000	0.0 N	70.0000
561	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	100.0000L	100.0000
562	0.0 N	15.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
563	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	0.0 L
564	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	0.0 L
565	0.0 N	0.0 N	0.0 N	50.0000L	30.0000	0.0 N	5.0000L	0.0 N	70.0000
566	0.0 N	5.0000	0.0 N	300.0000	70.0000	0.0 N	10.0000	100.0000L	50.0000
567	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
568	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
569	0.0 N	0.0 N	0.0 N	0.0 N	20.0000	0.0 N	0.0 N	0.0 N	5.0000L
570	0.0 N	20.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
571	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	100.0000L	50.0000
572	0.0 N	20.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	100.0000L	70.0000
573	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
574	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	100.0000L	5.0000L
575	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	100.0000L	50.0000
576	0.0 N	10.0000	0.0 N	300.0000	100.0000	0.0 N	15.0000	100.0000L	5.0000L
577	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	100.0000L	70.0000
578	0.0 N	2.5000L	0.0 N	50.0000N	70.0000	0.0 N	10.0000	0.0 N	5.0000L
579	0.0 N	7.0000	0.0 N	300.0000	70.0000	0.0 N	15.0000	0.0 N	10.0000
580	0.0 N	2.5000L	0.0 N	300.0000	30.0000	0.0 N	10.0000	0.0 N	5.0000L
581	0.0 N	7.0000	0.0 N	300.0000	100.0000	0.0 N	15.0000	100.0000L	70.0000
582	0.0 N	10.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	100.0000L	30.0000
583	0.0 N	7.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
584	0.0 N	0.0 N	0.0 N	50.0000L	15.0000	0.0 N	0.0 N	0.0 N	5.0000L
585	0.0 N	7.0000	0.0 N	300.0000	70.0000	0.0 N	15.0000	0.0 N	100.0000
586	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	0.0 N	0.0 N	0.0 N	5.0000L
587	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	100.0000L	5.0000L
588	0.0 N	7.0000	0.0 N	700.0000	100.0000	0.0 N	15.0000	100.0000L	70.0000
589	0.0 N	0.0 N	0.0 N	300.0000	30.0000	0.0 N	0.0 N	0.0 N	50.0000
590	0.0 N	5.0000	0.0 N	300.0000	70.0000	0.0 N	10.0000	0.0 N	70.0000
591	0.0 N	5.0000	0.0 N	150.0000	70.0000	0.0 N	10.0000	0.0 N	100.0000
592	0.0 N	2.5000L	0.0 N	500.0000	30.0000	0.0 N	5.0000L	0.0 N	70.0000
593	0.0 N	2.5000L	0.0 N	300.0000	30.0000	0.0 N	10.0000	0.0 N	70.0000
594	0.0 N	7.0000	0.0 N	300.0000	100.0000	0.0 N	15.0000	0.0 N	150.0000
595	0.0 N	2.5000L	0.0 N	300.0000	50.0000	0.0 N	15.0000	0.0 N	100.0000
596	0.0 N	7.0000	0.0 N	700.0000	70.0000	0.0 N	15.0000	0.0 N	150.0000
597	0.0 N	5.0000	0.0 N	300.0000	70.0000	0.0 N	15.0000	0.0 N	100.0000
598	0.0 N	5.0000	0.0 N	300.0000	50.0000	0.0 N	10.0000	0.0 N	200.0000
599	0.0 N	7.0000	0.0 N	500.0000	70.0000	0.0 N	15.0000	0.0 N	100.0000
600	0.0 N	5.0000	0.0 N	1000.0000	30.0000	0.0 N	20.0000	0.0 N	20.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
601	3.0000	0.5000	7.0000	0.1500	2000.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
602	3.0000	0.3000	3.0000	0.1500	700.0000	0.5000	0.0 N	0.0 N	0.0 N	200.0000
603	1.5000	0.1500	10.0000	0.0300	3000.0000	0.7000	0.0 N	0.0 N	0.0 N	70.0000
604	3.0000	0.7000	1.5000	0.0300	5000.0000G	0.0 N	0.0 N	0.0 N	0.0 N	700.0000
605	20.0000G	0.0700	1.5000	0.0010L	5000.0000G	0.2500N	700.0000	0.0 N	30.0000	700.0000
606	5.0000	0.7000	7.0000	0.1500	1000.0000	1.5000	0.0 N	0.0 N	0.0 N	500.0000
607	15.0000	3.0000	2.0000	0.7000	1000.0000	0.2500L	0.0 N	0.0 N	20.0000	1500.0000
608	1.5000	0.0700	0.7000	0.0200	1000.0000	15.0000	100.0000L	0.0 N	0.0 N	10.0000L
609	0.3000	0.0200	0.0300L	0.0010L	30.0000	0.0 N	100.0000L	0.0 N	0.0 N	30.0000
610	5.0000	0.2000	0.1500	0.5000	100.0000	1.5000	200.0000	20.0000	5.0000L	300.0000
611	5.0000	1.5000	2.0000	0.5000	1500.0000	0.2500L	0.0 N	0.0 N	5.0000L	1500.0000
612	7.0000	1.5000	1.5000	0.7000	1000.0000	0.2500L	0.0 N	0.0 N	15.0000	700.0000
613	10.0000	1.5000	1.5000	0.5000	100.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
614	15.0000	3.0000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
615	15.0000	3.0000	3.0000	0.7000	300.0000	0.5000	0.0 N	0.0 N	70.0000	1000.0000
616	10.0000	1.5000	1.5000	0.7000	100.0000	0.2500L	0.0 N	0.0 N	20.0000	300.0000
617	20.0000	3.0000	2.0000	0.7000	200.0000	0.2500L	0.0 N	0.0 N	20.0000	500.0000
618	10.0000	5.0000	7.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	700.0000
619	15.0000	7.0000	7.0000	1.0000	700.0000	0.2500L	0.0 N	0.0 N	20.0000	700.0000
620	7.0000	5.0000	7.0000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
621	5.0000	1.0000	1.0000	0.5000	2000.0000	0.7000	0.0 N	0.0 N	20.0000	700.0000
622	10.0000	2.0000	5.0000	0.5000	1000.0000	0.2500L	0.0 N	0.0 N	30.0000	3000.0000
623	10.0000	3.0000	1.5000	0.5000	700.0000	0.7000	0.0 N	0.0 N	20.0000	1000.0000
624	7.0000	3.0000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
625	3.0000	0.7000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
626	3.0000	0.7000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
627	5.0000	1.5000	1.0000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
628	15.0000	3.0000	1.5000	0.7000	1000.0000	0.7000	0.0 N	0.0 N	20.0000	700.0000
629	7.0000	1.0000	1.0000	0.5000	1500.0000	0.7000	0.0 N	0.0 N	15.0000	1500.0000
630	10.0000	1.5000	0.5000	0.3000	2000.0000	0.5000	0.0 N	0.0 N	20.0000	2000.0000
631	7.0000	3.0000	5.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
632	10.0000	3.0000	1.5000	0.7000	700.0000	0.2500L	200.0000	0.0 N	20.0000	700.0000
633	15.0000	3.0000	1.5000	0.7000	500.0000	0.2500L	100.0000L	0.0 N	20.0000	500.0000
634	10.0000	2.0000	1.5000	0.7000	300.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
635	0.7000	0.0700	0.0700	0.0300	1500.0000	0.0 N	100.0000L	0.0 N	0.0 N	100.0000
636	10.0000	3.0000	3.0000	0.7000	70.0000	0.2500L	0.0 N	0.0 N	50.0000	700.0000
637	15.0000	5.0000	5.0000	1.0000	1000.0000	0.2500L	0.0 N	0.0 N	30.0000	1000.0000
638	3.0000	1.0000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
639	5.0000	1.0000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
640	3.0000	1.0000	1.5000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
641	15.0000	5.0000	2.0000	0.7000	500.0000	0.2500L	0.0 N	0.0 N	20.0000	300.0000
642	10.0000	7.0000	7.0000	1.0000	700.0000	0.2500L	0.0 N	0.0 N	20.0000	700.0000
643	10.0000	5.0000	5.0000	0.7000	500.0000	0.2500L	0.0 N	0.0 N	20.0000	700.0000
644	10.0000	5.0000	5.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	700.0000
645	10.0000	3.0000	3.0000	0.7000	700.0000	20.0000	0.0 N	50.0000	20.0000	700.0000
646	15.0000	5.0000	5.0000	1.0000	1000.0000	0.2500L	0.0 N	0.0 N	30.0000	1500.0000
647	20.0000	3.0000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	1500.0000
648	2.0000	0.5000	0.3000	0.3000	100.0000	1.5000	100.0000L	0.0 N	20.0000	300.0000
649	15.0000	2.0000	1.5000	0.7000	500.0000	0.2500L	0.0 N	0.0 N	15.0000	300.0000
650	3.0000	1.0000	1.5000	0.3000	150.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
601	0.5000L	0.0 N	30.0000	2.5000L	70.0000	10.0000L	15.0000	10.0000	10.0000	5.0000L
602	0.5000L	0.0 N	20.0000	2.5000L	30.0000	0.0 N	70.0000	15.0000	15.0000	0.0 N
603	0.0 N	0.0 N	2.5000L	2.5000L	5.0000	0.0 N	70.0000	5.0000L	5.0000	0.0 N
604	1.5000	0.0 N	20.0000	2.5000L	7.0000	0.0 N	150.0000	10.0000	15.0000	0.0 N
605	5.0000	0.0 N	0.0 N	10.0000	0.0 N	30.0000	300.0000	10.0000	30.0000	5.0000L
606	1.5000	0.0 N	5.0000	2.5000L	5.0000	20.0000	200.0000	10.0000	2.5000L	0.0 N
607	1.5000	0.0 N	30.0000	150.0000	150.0000	0.0 N	2.5000L	10.0000	50.0000	20.0000
608	0.0 N	10.0000	15.0000	2.5000L	30.0000	0.0 N	2.5000L	5.0000L	30.0000	1500.0000
609	0.0 N	0.0 N	10.0000	7.0000	15.0000	10.0000L	0.0 N	5.0000L	0.0 N	20.0000
610	0.5000L	0.0 N	10.0000	10.0000	100.0000	0.0 N	2.5000L	15.0000	2.5000L	30.0000
611	0.5000L	0.0 N	15.0000	5.0000	15.0000	30.0000	0.0 N	10.0000	2.5000L	20.0000
612	0.0 L	0.0 N	20.0000	10.0000	30.0000	20.0000	0.0 N	10.0000	5.0000	5.0000L
613	0.5000L	0.0 N	10.0000	100.0000	70.0000	0.0 N	15.0000	10.0000	10.0000	0.0 N
614	1.0000	0.0 N	30.0000	150.0000	200.0000	0.0 N	2.5000L	10.0000	30.0000	5.0000L
615	0.5000L	0.0 N	2.5000L	150.0000	300.0000	10.0000L	20.0000	10.0000	10.0000	10.0000
616	1.0000	0.0 N	2.5000L	70.0000	150.0000	10.0000L	70.0000	10.0000	20.0000	0.0 N
617	0.5000L	0.0 N	30.0000	150.0000	100.0000	10.0000L	50.0000	10.0000	30.0000	5.0000L
618	0.5000L	0.0 N	2.5000L	150.0000	100.0000	10.0000L	7.0000	10.0000	30.0000	5.0000L
619	0.0 N	0.0 N	7.0000	300.0000	70.0000	10.0000L	10.0000	5.0000L	50.0000	5.0000L
620	0.5000L	0.0 N	7.0000	150.0000	70.0000	20.0000	2.5000L	5.0000L	30.0000	5.0000L
621	1.0000	0.0 N	50.0000	15.0000	150.0000	30.0000	0.0 N	30.0000	10.0000	20.0000
622	1.0000	0.0 N	10.0000	10.0000	150.0000	20.0000	2.5000L	15.0000	2.5000L	15.0000
623	0.5000L	0.0 N	15.0000	100.0000	1500.0000	20.0000	5.0000	10.0000	20.0000	15.0000
624	0.5000L	0.0 N	7.0000	150.0000	150.0000	20.0000	5.0000	10.0000	20.0000	5.0000L
625	0.5000L	0.0 N	7.0000	0.0 N	20.0000	20.0000	0.0 N	10.0000	2.5000L	0.0 N
626	0.5000L	0.0 N	5.0000	10.0000	30.0000	20.0000	0.0 N	5.0000L	2.5000L	5.0000L
627	0.0 N	0.0 N	7.0000	50.0000	70.0000	20.0000	0.0 N	0.0 N	5.0000	10.0000
628	0.5000L	0.0 N	30.0000	70.0000	300.0000	0.0 N	2.5000L	10.0000	30.0000	15.0000
629	1.5000	0.0 N	20.0000	20.0000	100.0000	30.0000	0.0 N	20.0000	20.0000	20.0000
630	1.5000	0.0 N	30.0000	10.0000	150.0000	30.0000	0.0 N	5.0000L	7.0000	20.0000
631	1.0000	0.0 N	30.0000	70.0000	70.0000	0.0 N	2.5000L	10.0000	50.0000	15.0000
632	1.5000	0.0 N	20.0000	70.0000	150.0000	10.0000L	2.5000L	10.0000	30.0000	20.0000
633	0.0 L	0.0 N	30.0000	150.0000	150.0000	0.0 N	2.5000L	10.0000	70.0000	5.0000L
634	0.5000L	0.0 N	20.0000	150.0000	100.0000	0.0 N	2.5000L	10.0000	50.0000	0.0 N
635	0.0 N	0.0 N	2.5000L	2.5000L	7.0000	0.0 N	0.0 N	5.0000L	10.0000	0.0 N
636	1.0000	0.0 N	30.0000	150.0000	70.0000	0.0 N	2.5000L	10.0000	70.0000	20.0000
637	0.0 N	0.0 N	10.0000	200.0000	200.0000	20.0000	7.0000	5.0000L	70.0000	5.0000L
638	0.0 N	0.0 N	10.0000	70.0000	50.0000	10.0000L	0.0 N	0.0 N	20.0000	0.0 N
639	0.5000L	0.0 N	15.0000	100.0000	100.0000	20.0000	0.0 N	0.0 N	30.0000	0.0 N
640	0.5000L	0.0 N	10.0000	100.0000	20.0000	20.0000	0.0 N	5.0000L	20.0000	0.0 N
641	1.0000	0.0 N	20.0000	150.0000	150.0000	0.0 N	15.0000	10.0000	50.0000	0.0 N
642	0.5000L	0.0 N	10.0000	300.0000	200.0000	10.0000L	15.0000	5.0000L	30.0000	5.0000L
643	0.0 N	0.0 N	7.0000	200.0000	150.0000	10.0000L	15.0000	5.0000L	30.0000	5.0000L
644	0.5000L	0.0 N	10.0000	150.0000	150.0000	20.0000	5.0000	10.0000	30.0000	10.0000
645	0.5000L	0.0 N	15.0000	150.0000	200.0000	20.0000	2.5000L	5.0000L	30.0000	5.0000L
646	0.5000L	0.0 N	15.0000	300.0000	200.0000	20.0000	2.5000L	5.0000L	70.0000	5.0000L
647	1.5000	0.0 N	50.0000	150.0000	150.0000	0.0 N	5.0000	10.0000	70.0000	5.0000L
648	0.5000L	0.0 N	10.0000	2.5000L	300.0000	0.0 N	0.0 N	5.0000L	30.0000	0.0 N
649	0.5000L	0.0 N	20.0000	100.0000	150.0000	0.0 N	70.0000	10.0000	30.0000	5.0000L
650	0.0 N	0.0 N	5.0000	100.0000	50.0000	20.0000	15.0000	0.0 N	10.0000	0.0 N

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
601	0.0 N	2.5000L	0.0 N	300.0000	50.0000	0.0 N	15.0000	0.0 N	30.0000
602	0.0 N	2.5000L	0.0 N	200.0000	30.0000	0.0 N	5.0000L	0.0 N	100.0000
603	0.0 N	0.0 N	0.0 N	700.0000	20.0000	0.0 N	10.0000	0.0 N	10.0000
604	0.0 N	0.0 N	0.0 N	300.0000	30.0000	0.0 N	30.0000	0.0 N	5.0000L
605	0.0 N	5.0000	0.0 N	300.0000	30.0000	0.0 N	200.0000	100.0000L	5.0000L
606	0.0 N	5.0000	0.0 N	300.0000	70.0000	0.0 N	10.0000	0.0 N	70.0000
607	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	100.0000L	70.0000
608	0.0 N	0.0 N	0.0 N	100.0000	15.0000	0.0 N	5.0000L	0.0 N	5.0000L
609	0.0 N	2.5000L	0.0 N	50.0000L	10.0000	25.0000L	5.0000L	0.0 N	0.0 N
610	0.0 N	7.0000	0.0 N	100.0000	70.0000	0.0 N	10.0000	0.0 N	70.0000
611	0.0 N	10.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	100.0000L	150.0000
612	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	200.0000	100.0000
613	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
614	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
615	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	200.0000
616	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	15.0000	0.0 N	100.0000
617	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	10.0000	0.0 N	100.0000
618	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	200.0000
619	0.0 N	70.0000	0.0 N	500.0000	500.0000	0.0 N	30.0000	0.0 N	300.0000
620	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	30.0000	0.0 N	100.0000
621	0.0 N	20.0000	0.0 N	1000.0000	200.0000	0.0 N	30.0000	0.0 N	150.0000
622	0.0 N	15.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	0.0 N	300.0000
623	0.0 N	30.0000	0.0 N	700.0000	200.0000	0.0 N	30.0000	100.0000L	100.0000
624	0.0 N	30.0000	0.0 N	700.0000	200.0000	0.0 N	30.0000	100.0000L	100.0000
625	0.0 N	10.0000	0.0 N	700.0000	150.0000	0.0 N	15.0000	0.0 N	150.0000
626	0.0 N	10.0000	0.0 N	500.0000	150.0000	0.0 N	20.0000	0.0 N	150.0000
627	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
628	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
629	0.0 N	20.0000	0.0 N	700.0000	150.0000	0.0 N	30.0000	0.0 N	150.0000
630	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
631	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
632	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	100.0000
633	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
634	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
635	0.0 N	0.0 N	0.0 N	50.0000L	15.0000	0.0 N	10.0000	0.0 N	5.0000L
636	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
637	0.0 N	30.0000	0.0 N	200.0000	500.0000	0.0 N	30.0000	0.0 N	300.0000
638	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
639	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
640	0.0 N	20.0000	0.0 N	200.0000	150.0000	0.0 N	20.0000	0.0 N	150.0000
641	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
642	0.0 N	50.0000	0.0 N	700.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
643	0.0 N	50.0000	0.0 N	500.0000	300.0000	0.0 N	20.0000	0.0 N	150.0000
644	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
645	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	0.0 N	150.0000
646	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 N	300.0000
647	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	100.0000
648	0.0 N	5.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
649	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
650	0.0 N	20.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	50.0000

ROCK SMPL ELEMENTS

SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
651	15.0000	5.0000	7.0000	1.0000	700.0000	0.2500L	0.0 N	0.0 N	15.0000	1500.0000
652	3.0000	0.7000	15.0000	0.1500	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	100.0000
653	7.0000	5.0000	7.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	30.0000	1000.0000
654	3.0000	5.0000	10.0000	0.2000	1500.0000	0.0 N	0.0 N	0.0 N	50.0000	150.0000
655	15.0000	5.0000	10.0000	0.7000	1500.0000	0.2500L	0.0 N	0.0 N	30.0000	300.0000
656	15.0000	3.0000	7.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	70.0000	300.0000
657	7.0000	3.0000	7.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	1500.0000
658	15.0000	5.0000	15.0000	0.7000	2000.0000	0.2500L	0.0 N	0.0 N	70.0000	200.0000
659	10.0000	2.0000	1.5000	0.7000	150.0000	0.2500L	100.0000L	0.0 N	10.0000	700.0000
660	5.0000	0.5000	10.0000	0.3000	1500.0000	2.0000	700.0000	0.0 N	20.0000	300.0000
661	5.0000	0.5000	2.0000	0.5000	1000.0000	0.0 N	1000.0000	0.0 N	30.0000	1000.0000
662	3.0000	0.7000	0.5000	0.3000	300.0000	3.0000	100.0000L	0.0 N	15.0000	700.0000
663	15.0000	0.5000	0.7000	0.7000	1000.0000	20.0000	7000.0000	50.0000	20.0000	700.0000
664	7.0000	0.7000	1.0000	0.7000	1000.0000	0.7000	3000.0000	0.0 N	30.0000	1500.0000
665	20.0000	0.5000	0.7000	0.7000	1500.0000	15.0000	10000.0000G	30.0000	20.0000	700.0000
666	20.0000	0.7000	0.7000	0.7000	1500.0000	30.0000	10000.0000G	50.0000	30.0000	1000.0000
667	20.0000	0.7000	1.5000	0.5000	5000.0000	30.0000	10000.0000G	30.0000	50.0000	1500.0000
668	20.0000	0.7000	1.0000	0.5000	3000.0000	15.0000	10000.0000G	10.0000	15.0000	700.0000
669	10.0000	1.0000	2.0000	0.5000	1500.0000	2.0000	700.0000	0.0 N	20.0000	700.0000
670	5.0000	1.5000	3.0000	0.5000	1000.0000	0.2500L	200.0000	0.0 N	50.0000	300.0000
671	3.0000	1.5000	5.0000	0.3000	1000.0000	0.0 N	100.0000L	0.0 N	30.0000	300.0000
672	5.0000	1.0000	2.0000	0.5000	500.0000	1.0000	300.0000	0.0 N	50.0000	300.0000
673	5.0000	1.5000	3.0000	0.5000	1000.0000	0.2500L	100.0000L	0.0 N	70.0000	300.0000
674	2.0000	0.5000	0.7000	0.1500	150.0000	0.0 N	100.0000L	0.0 N	30.0000	150.0000
675	3.0000	1.5000	2.0000	0.5000	700.0000	0.0 N	100.0000L	0.0 N	70.0000	700.0000

ROCK SMPL ELEMENTS

SAMPLE	BE PPM	BI PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM	PB PPM
651	0.0 N	0.0 N	10.0000	500.0000	200.0000	10.0000L	15.0000	5.0000L	50.0000	5.0000L
652	0.0 N	0.0 N	10.0000	15.0000	30.0000	0.0 N	0.0 N	5.0000L	30.0000	0.0 N
653	0.5000L	0.0 N	20.0000	100.0000	70.0000	0.0 N	2.5000L	10.0000	50.0000	5.0000L
654	0.0 N	0.0 N	10.0000	70.0000	100.0000	0.0 N	0.0 N	5.0000L	30.0000	0.0 N
655	0.0 N	0.0 N	15.0000	150.0000	150.0000	10.0000L	2.5000L	5.0000L	70.0000	10.0000
656	1.0000	0.0 N	50.0000	150.0000	100.0000	0.0 N	2.5000L	5.0000L	70.0000	10.0000
657	0.5000L	0.0 N	15.0000	100.0000	150.0000	20.0000	2.5000L	5.0000L	50.0000	30.0000
658	0.0 N	0.0 N	15.0000	150.0000	150.0000	10.0000L	2.5000L	5.0000L	50.0000	10.0000
659	0.5000L	0.0 N	10.0000	150.0000	150.0000	0.0 N	15.0000	10.0000	15.0000	5.0000L
660	0.0 N	0.0 N	30.0000	50.0000	70.0000	0.0 N	2.5000L	10.0000	30.0000	200.0000
661	1.5000	0.0 N	5.0000	2.5000L	30.0000	10.0000L	0.0 N	10.0000	15.0000	10.0000
662	0.5000L	0.0 N	5.0000	2.5000L	50.0000	0.0 N	0.0 N	5.0000L	10.0000	200.0000
663	1.0000	20.0000	50.0000	10.0000	100.0000	10.0000L	2.5000L	10.0000	30.0000	1500.0000
664	1.5000	0.0 N	10.0000	2.5000L	50.0000	10.0000L	2.5000L	10.0000	15.0000	50.0000
665	1.5000	30.0000	70.0000	10.0000	150.0000	10.0000L	5.0000	10.0000	15.0000	1000.0000
666	1.5000	5.0000L	100.0000	2.5000L	100.0000	10.0000L	5.0000	15.0000	15.0000	100.0000
667	2.0000	5.0000L	70.0000	10.0000	200.0000	10.0000L	7.0000	15.0000	15.0000	150.0000
668	1.5000	15.0000	70.0000	10.0000	300.0000	10.0000L	7.0000	15.0000	30.0000	1500.0000
669	1.5000	0.0 N	30.0000	30.0000	150.0000	0.0 N	5.0000	15.0000	50.0000	200.0000
670	1.0000	0.0 N	70.0000	70.0000	70.0000	10.0000L	2.5000L	10.0000	70.0000	15.0000
671	0.5000L	0.0 N	15.0000	30.0000	50.0000	0.0 N	2.5000L	10.0000	30.0000	0.0 N
672	0.5000L	0.0 N	30.0000	70.0000	30.0000	10.0000L	2.5000L	10.0000	50.0000	30.0000
673	1.0000	0.0 N	30.0000	70.0000	70.0000	10.0000L	2.5000L	10.0000	50.0000	10.0000
674	0.5000L	0.0 N	20.0000	30.0000	10.0000	0.0 N	0.0 N	5.0000L	30.0000	0.0 N
675	1.5000	0.0 N	30.0000	100.0000	30.0000	10.0000L	2.5000L	10.0000	70.0000	0.0 N

ROCK SMPL ELEMENTS

SAMPLE	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
651	0.0 N	70.0000	0.0 N	700.0000	300.0000	0.0 N	15.0000	0.0 N	200.0000
652	0.0 N	5.0000	0.0 N	300.0000	30.0000	0.0 N	15.0000	0.0 N	20.0000
653	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	50.0000
654	0.0 N	15.0000	0.0 N	300.0000	70.0000	0.0 N	15.0000	0.0 N	20.0000
655	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	15.0000	0.0 N	150.0000
656	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
657	0.0 N	20.0000	0.0 N	700.0000	150.0000	0.0 N	20.0000	0.0 N	100.0000
658	0.0 N	20.0000	0.0 N	700.0000	200.0000	0.0 N	30.0000	0.0 N	70.0000
659	0.0 N	20.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	0.0 N	70.0000
660	0.0 N	10.0000	0.0 N	700.0000	100.0000	0.0 N	20.0000	100.0000L	70.0000
661	0.0 N	10.0000	0.0 N	300.0000	150.0000	25.0000L	15.0000	200.0000	100.0000
662	0.0 N	7.0000	0.0 N	100.0000	100.0000	25.0000L	10.0000	100.0000L	70.0000
663	0.0 N	10.0000	0.0 N	150.0000	150.0000	50.0000	15.0000	700.0000	70.0000
664	0.0 N	7.0000	0.0 N	200.0000	150.0000	25.0000L	15.0000	700.0000	150.0000
665	0.0 N	10.0000	0.0 N	300.0000	150.0000	25.0000L	30.0000	7000.0000	200.0000
666	0.0 N	10.0000	0.0 N	300.0000	150.0000	25.0000L	50.0000	3000.0000	200.0000
667	0.0 N	10.0000	0.0 N	300.0000	150.0000	25.0000L	30.0000	7000.0000	300.0000
668	50.0000L	10.0000	0.0 N	300.0000	150.0000	0.0 N	30.0000	3000.0000	100.0000
669	50.0000L	10.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	1500.0000	70.0000
670	0.0 N	15.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	700.0000	70.0000
671	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	10.0000	0.0 N	50.0000
672	0.0 N	10.0000	0.0 N	150.0000	150.0000	25.0000L	10.0000	0.0 N	70.0000
673	0.0 N	15.0000	0.0 N	200.0000	150.0000	25.0000L	15.0000	0.0 N	70.0000
674	0.0 N	5.0000	0.0 N	50.0000L	30.0000	0.0 N	5.0000L	0.0 N	50.0000
675	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000

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

FREQUENCY TABLE FOR COLUMN 1 (FE PCT)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	2	2	0.31	0.31
5.6E-02 -	8.3E-02	1	3	0.16	0.47
8.3E-02 -	1.2E-01	6	9	0.93	1.40
1.2E-01 -	1.8E-01	7	16	1.09	2.49
1.8E-01 -	2.6E-01	5	21	0.78	3.27
2.6E-01 -	3.8E-01	10	31	1.56	4.82
3.8E-01 -	5.6E-01	8	39	1.24	6.07
5.6E-01 -	8.3E-01	9	48	1.40	7.47
8.3E-01 -	1.2E 00	13	61	2.02	9.49
1.2E 00 -	1.8E 00	29	90	4.51	14.00
1.8E 00 -	2.6E 00	41	131	6.38	20.37
2.6E 00 -	3.8E 00	140	271	21.77	42.15
3.8E 00 -	5.6E 00	152	423	23.64	65.79
5.6E 00 -	8.3E 00	75	498	11.66	77.45
8.3E 00 -	1.2E 01	64	562	9.95	87.40
1.2E 01 -	1.8E 01	70	632	10.89	98.29
1.8E 01 -	2.6E 01	9	641	1.40	99.69

HISTOGRAM FOR COLUMN 1 (FE PCT)

```
      1.0E-01 X
      1.5E-01 X
      2.0E-01 X
      3.0E-01 XX
      5.0E-01 X
      7.0E-01 X
      1.0E 00 XX
      1.5E 00 XXXXX
      2.0E 00 XXXXXX
      3.0E 00 XXXXXXXXXXXXXXXXXXXXX
      5.0E 00 XXXXXXXXXXXXXXXXXXXXXXXX
      7.0E 00 XXXXXXXXXXXX
      1.0E 01 XXXXXXXXXX
      1.5E 01 XXXXXXXXXX
      2.0E 01 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	2	641
0.0	0.0			0.0	0.31	

MAXIMUM = 2.00000E 01

MINIMUM = 5.00000E-02

GEOMETRIC MEAN = 3.97010E 00

GEOMETRIC DEVIATION = 2.84653E 00

FREQUENCY TABLE FOR COLUMN 2 (MG PCT)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E-02 -	2.6E-02	15	15	2.33	2.33
2.6E-02 -	3.8E-02	5	20	0.78	3.11
3.8E-02 -	5.6E-02	2	22	0.31	3.42
5.6E-02 -	8.3E-02	11	33	1.71	5.13
8.3E-02 -	1.2E-01	11	44	1.71	6.84
1.2E-01 -	1.8E-01	18	62	2.80	9.64
1.8E-01 -	2.6E-01	16	78	2.49	12.13
2.6E-01 -	3.8E-01	34	112	5.29	17.42
3.8E-01 -	5.6E-01	31	143	4.82	22.24
5.6E-01 -	8.3E-01	68	211	10.58	32.81
8.3E-01 -	1.2E 00	95	306	14.77	47.59
1.2E 00 -	1.8E 00	139	445	21.62	69.21
1.8E 00 -	2.6E 00	72	517	11.20	80.40
2.6E 00 -	3.8E 00	80	597	12.44	92.85
3.8E 00 -	5.6E 00	27	624	4.20	97.05
5.6E 00 -	8.3E 00	11	635	1.71	98.76

HISTOGRAM FOR COLUMN 2 (MG PCT)

```
2.0E-02 XX
3.0E-02 X
5.0E-02
7.0E-02 XX
1.0E-01 XX
1.5E-01 XXX
2.0E-01 XX
3.0E-01 XXXXX
5.0E-01 XXXXX
7.0E-01 XXXXXXXXXXX
1.0E 00 XXXXXXXXXXXXXXX
1.5E 00 XXXXXXXXXXXXXXXXXXXXXXX
2.0E 00 XXXXXXXXXXX
3.0E 00 XXXXXXXXXXXX
5.0E 00 XXXX
7.0E 00 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	B	0	0	0	0	635
0.0	1.24			0.0	0.0	

MAXIMUM = 7.00000E 00

MINIMUM = 2.00000E-02

GEOMETRIC MEAN = 9.62392E-01

GEOMETRIC DEVIATION = 3.26745E 00

FREQUENCY TABLE FOR COLUMN 3 (CA PCT)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-02 -	5.6E-02	10	10	1.56	1.56
5.6E-02 -	8.3E-02	11	21	1.71	3.27
8.3E-02 -	1.2E-01	9	30	1.40	4.67
1.2E-01 -	1.8E-01	16	46	2.49	7.15
1.8E-01 -	2.6E-01	10	56	1.56	8.71
2.6E-01 -	3.8E-01	14	70	2.18	10.89
3.8E-01 -	5.6E-01	8	78	1.24	12.13
5.6E-01 -	8.3E-01	34	112	5.29	17.42
8.3E-01 -	1.2E 00	34	146	5.29	22.71
1.2E 00 -	1.8E 00	84	230	13.06	35.77
1.8E 00 -	2.6E 00	75	305	11.66	47.43
2.6E 00 -	3.8E 00	109	414	16.95	64.39
3.8E 00 -	5.6E 00	90	504	14.00	78.38
5.6E 00 -	8.3E 00	49	553	7.62	86.00
8.3E 00 -	1.2E 01	32	585	4.98	90.98
1.2E 01 -	1.8E 01	13	598	2.02	93.00
1.8E 01 -	2.6E 01	12	610	1.87	94.87

HISTOGRAM FOR COLUMN 3 (CA PCT)

```
      5.0E-02 XX
      7.0E-02 XX
      1.0E-01 X
      1.5E-01 XX
      2.0E-01 XX
      3.0E-01 XX
      5.0E-01 X
      7.0E-01 XXXXX
      1.0E 00 XXXXX
      1.5E 00 XXXXXXXXXXXX
      2.0E 00 XXXXXXXXXXX
      3.0E 00 XXXXXXXXXXXXXXXX
      5.0E 00 XXXXXXXXXXXXX
      7.0E 00 XXXXXXXX
      1.0E 01 XXXXX
      1.5E 01 XX
      2.0E 01 XX
```

0	26	0	0	0	7	610
0.0	4.04			0.0	1.09	

MAXIMUM = 2.00000E 01

MINIMUM = 5.00000E-02

GEOMETRIC MEAN = 2.02339E 00

GEOMETRIC DEVIATION = 3.59470E 00

FREQUENCY TABLE FOR COLUMN 4 (TI PCT)

LIMITS LOWER	LIMITS UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E-03 -	2.6E-03	3	3	0.47	0.47
2.6E-03 -	3.8E-03	1	4	0.16	0.62
3.8E-03 -	5.6E-03	5	9	0.78	1.40
5.6E-03 -	8.3E-03	3	12	0.47	1.87
8.3E-03 -	1.2E-02	10	22	1.56	3.42
1.2E-02 -	1.8E-02	6	28	0.93	4.35
1.8E-02 -	2.6E-02	8	36	1.24	5.60
2.6E-02 -	3.8E-02	21	57	3.27	8.86
3.8E-02 -	5.6E-02	13	70	2.02	10.89
5.6E-02 -	8.3E-02	24	94	3.73	14.62
8.3E-02 -	1.2E-01	19	113	2.95	17.57
1.2E-01 -	1.8E-01	29	142	4.51	22.08
1.8E-01 -	2.6E-01	53	195	8.24	30.33
2.6E-01 -	3.8E-01	181	376	28.15	58.48
3.8E-01 -	5.6E-01	133	509	20.68	79.16
5.6E-01 -	8.3E-01	97	606	15.09	94.25
8.3E-01 -	1.2E 00	24	630	3.73	97.98

HISTOGRAM FOR COLUMN 4 (TI PCT)

```
5.0E-03 X
7.0E-03
1.0E-02 XX
1.5E-02 X
2.0E-02 X
3.0E-02 XXX
5.0E-02 XX
7.0E-02 XXXX
1.0E-01 XXX
1.5E-01 XXXXX
2.0E-01 XXXXXXXX
3.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E-01 XXXXXXXXXXXXXXXXXXX
7.0E-01 XXXXXXXXXXXXXX
1.0E 00 XXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
4	4	0	0	0	5	630
0.62	0.62			0.0	0.78	

MAXIMUM = 1.00000E 00

MINIMUM = 2.00000E-03

GEOMETRIC MEAN = 2.49954E-01

GEOMETRIC DEVIATION = 3.12918E 00

FREQUENCY TABLE FOR COLUMN 5 (MN PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	2	2	0.31	0.31
1.2E 01 -	1.8E 01	0	2	0.0	0.31
1.8E 01 -	2.6E 01	3	5	0.47	0.78
2.6E 01 -	3.8E 01	4	9	0.62	1.40
3.8E 01 -	5.6E 01	8	17	1.24	2.64
5.6E 01 -	8.3E 01	18	35	2.80	5.44
8.3E 01 -	1.2E 02	15	50	2.33	7.78
1.2E 02 -	1.8E 02	31	81	4.82	12.60
1.8E 02 -	2.6E 02	26	107	4.04	16.64
2.6E 02 -	3.8E 02	39	146	6.07	22.71
3.8E 02 -	5.6E 02	78	224	12.13	34.84
5.6E 02 -	8.3E 02	185	409	28.77	63.61
8.3E 02 -	1.2E 03	124	533	19.28	82.89
1.2E 03 -	1.8E 03	89	622	13.84	96.73
1.8E 03 -	2.6E 03	11	633	1.71	98.44
2.6E 03 -	3.8E 03	6	639	0.93	99.38
3.8E 03 -	5.6E 03	1	640	0.16	99.53

HISTOGRAM FOR COLUMN 5 (MN PPM)

```
3.0E 01 X
5.0E 01 X
7.0E 01 XXX
1.0E 02 XX
1.5E 02 XXXXX
2.0E 02 XXXX
3.0E 02 XXXXXX
5.0E 02 XXXXXXXXXXXX
7.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.0E 03 XXXXXXXXXXXXXXXXXX
1.5E 03 XXXXXXXXXXXXXX
2.0E 03 XX
3.0E 03 X
5.0E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	3	640
0.0	0.0			0.0	0.47	

MAXIMUM = 5.00000E 03

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 5.72274E 02

GEOMETRIC DEVIATION = 2.51548E 00

FREQUENCY TABLE FOR COLUMN 6 (AG PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E-01 -	5.6E-01	20	20	3.11	3.11
5.6E-01 -	8.3E-01	18	38	2.80	5.91
8.3E-01 -	1.2E 00	12	50	1.87	7.78
1.2E 00 -	1.8E 00	23	73	3.58	11.35
1.8E 00 -	2.6E 00	8	81	1.24	12.60
2.6E 00 -	3.8E 00	5	86	0.78	13.37
3.8E 00 -	5.6E 00	5	91	0.78	14.15
5.6E 00 -	8.3E 00	5	96	0.78	14.93
8.3E 00 -	1.2E 01	3	99	0.47	15.40
1.2E 01 -	1.8E 01	9	108	1.40	16.80
1.8E 01 -	2.6E 01	4	112	0.62	17.42
2.6E 01 -	3.8E 01	9	121	1.40	18.82
3.8E 01 -	5.6E 01	0	121	0.0	18.82
5.6E 01 -	8.3E 01	1	122	0.16	18.97

HISTOGRAM FOR COLUMN 6 (AG PPM)

```
       5.0E-01 XXX
       7.0E-01 XXX
       1.0E 00 XX
       1.5E 00 XXXX
       2.0E 00 X
       3.0E 00 X
       5.0E 00 X
       7.0E 00 X
       1.0E 01
       1.5E 01 X
       2.0E 01 X
       3.0E 01 X
       5.0E 01
       7.0E 01
```

N	L	H	B	T	G	ANALYTICAL VALUES
443	78	0	0	0	0	122
68.90	12.13			0.0	0.0	

MAXIMUM = 7.00000E 01

MINIMUM = 5.00000E-01

GEOMETRIC MEAN = 2.19617E 00

GEOMETRIC DEVIATION = 3.87368E 00

FREQUENCY TABLE FOR COLUMN 7 (AS PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 02 -	2.6E 02	9	9	1.40	1.40
2.6E 02 -	3.8E 02	4	13	0.62	2.02
3.8E 02 -	5.6E 02	4	17	0.62	2.64
5.6E 02 -	8.3E 02	9	26	1.40	4.04
8.3E 02 -	1.2E 03	2	28	0.31	4.35
1.2E 03 -	1.8E 03	1	29	0.16	4.51
1.8E 03 -	2.6E 03	0	29	0.0	4.51
2.6E 03 -	3.8E 03	5	34	0.78	5.29
3.8E 03 -	5.6E 03	0	34	0.0	5.29
5.6E 03 -	8.3E 03	1	35	0.16	5.44

HISTOGRAM FOR COLUMN 7 (AS PPM)

```
       2.0E 02 X

       3.0E 02 X

       5.0E 02 X

       7.0E 02 X

       1.0E 03

       1.5E 03

       2.0E 03

       3.0E 03 X

       5.0E 03

       7.0E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
576	28	0	0	0	4	35
89.58	4.35			0.0	0.62	

MAXIMUM = 7.00000E 03

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 6.07578E 02

GEOMETRIC DEVIATION = 2.69740E 00

FREQUENCY TABLE FOR COLUMN 8 (AU PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	1	1	0.16	0.16
1.2E 01 -	1.8E 01	3	4	0.47	0.62
1.8E 01 -	2.6E 01	1	5	0.16	0.78
2.6E 01 -	3.8E 01	2	7	0.31	1.09
3.8E 01 -	5.6E 01	3	10	0.47	1.56
5.6E 01 -	8.3E 01	1	11	0.16	1.71

HISTOGRAM FOR COLUMN 8 (AU PPM)

N	L	H	B	T	G	ANALYTICAL VALUES
626	6	0	0	0	0	11
97.36	0.93			0.0	0.0	

MAXIMUM = 7.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.68902E 01

GEOMETRIC DEVIATION = 1.90913E 00

FREQUENCY TABLE FOR COLUMN 9 (B PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	99	99	15.40	15.40
1.2E 01 -	1.8E 01	68	167	10.58	25.97
1.8E 01 -	2.6E 01	82	249	12.75	38.72
2.6E 01 -	3.8E 01	84	333	13.06	51.79
3.8E 01 -	5.6E 01	43	376	6.69	58.48
5.6E 01 -	8.3E 01	36	412	5.60	64.07
8.3E 01 -	1.2E 02	16	428	2.49	66.56
1.2E 02 -	1.8E 02	8	436	1.24	67.81
1.8E 02 -	2.6E 02	7	443	1.09	68.90
2.6E 02 -	3.8E 02	4	447	0.62	69.52
3.8E 02 -	5.6E 02	1	448	0.16	69.67
5.6E 02 -	8.3E 02	2	450	0.31	69.98
8.3E 02 -	1.2E 03	0	450	0.0	69.98
1.2E 03 -	1.8E 03	1	451	0.16	70.14

HISTOGRAM FOR COLUMN 9 (B PPM)

```
      1.0E 01 XXXXXXXXXXXXXX

      1.5E 01 XXXXXXXXXX

      2.0E 01 XXXXXXXXXXXX

      3.0E 01 XXXXXXXXXXXX

      5.0E 01 XXXXXXX

      7.0E 01 XXXXXX

      1.0E 02 XX

      1.5E 02 X

      2.0E 02 X

      3.0E 02 X

      5.0E 02

      7.0E 02

      1.0E 03

      1.5E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
58	132	0	0	0	2	451
9.02	20.53			0.0	0.31	

MAXIMUM = 1.50000E 03

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.57384E 01

GEOMETRIC DEVIATION = 2.34179E 00

FREQUENCY TABLE FOR COLUMN 10 (BA PPM)

LIMITS LOWER	LIMITS UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 01 -	2.6E 01	11	11	1.71	1.71
2.6E 01 -	3.8E 01	5	16	0.78	2.49
3.8E 01 -	5.6E 01	7	23	1.09	3.58
5.6E 01 -	8.3E 01	14	37	2.18	5.75
8.3E 01 -	1.2E 02	27	64	4.20	9.95
1.2E 02 -	1.8E 02	43	107	6.69	16.64
1.8E 02 -	2.6E 02	43	150	6.69	23.33
2.6E 02 -	3.8E 02	108	258	16.80	40.12
3.8E 02 -	5.6E 02	99	357	15.40	55.52
5.6E 02 -	8.3E 02	112	469	17.42	72.94
8.3E 02 -	1.2E 03	46	515	7.15	80.09
1.2E 03 -	1.8E 03	35	550	5.44	85.54
1.8E 03 -	2.6E 03	8	558	1.24	86.78
2.6E 03 -	3.8E 03	1	559	0.16	86.94
3.8E 03 -	5.6E 03	2	561	0.31	87.25

HISTOGRAM FOR COLUMN 10 (BA PPM)

```
2.0E 01 XX
3.0E 01 X
5.0E 01 X
7.0E 01 XX
1.0E 02 XXXX
1.5E 02 XXXXXXX
2.0E 02 XXXXXXX
3.0E 02 XXXXXXXXXXXXXXXX
5.0E 02 XXXXXXXXXXXXXX
7.0E 02 XXXXXXXXXXXXXXXX
1.0E 03 XXXXXXX
1.5E 03 XXXXX
2.0E 03 X
3.0E 03
5.0E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
15	67	0	0	0	0	561
2.33	10.42			0.0	0.0	

MAXIMUM = 5.00000E 03

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 3.77600E 02

GEOMETRIC DEVIATION = 2.58339E 00

FREQUENCY TABLE FOR COLUMN 11 (BE PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E-01 -	1.2E 00	54	54	8.40	8.40
1.2E 00 -	1.8E 00	39	93	6.07	14.46
1.8E 00 -	2.6E 00	3	96	0.47	14.93
2.6E 00 -	3.8E 00	1	97	0.16	15.09
3.8E 00 -	5.6E 00	1	98	0.16	15.24

HISTOGRAM FOR COLUMN 11 (BE PPM)

```
       1.0E 00 XXXXXXXX

       1.5E 00 XXXXXX

       2.0E 00

       3.0E 00

       5.0E 00
```

N	L	H	B	T	G	ANALYTICAL VALUES
319	226	0	0	0	0	98
49.61	35.15			0.0	0.0	

MAXIMUM = 5.00000E 00

MINIMUM = 1.00000E 00

GEOMETRIC MEAN = 1.23394E 00

GEOMETRIC DEVIATION = 1.31614E 00

FREQUENCY TABLE FOR COLUMN 12 (8I PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	4	4	0.62	0.62
1.2E 01 -	1.8E 01	1	5	0.16	0.78
1.8E 01 -	2.6E 01	2	7	0.31	1.09
2.6E 01 -	3.8E 01	2	9	0.31	1.40
3.8E 01 -	5.6E 01	1	10	0.16	1.56

HISTOGRAM FOR COLUMN 12 (8I PPM)

1.0E 01 X

1.5E 01

2.0E 01

3.0E 01

5.0E 01

N	L	H	B	T	G	ANALYTICAL VALUES
627	6	0	0	0	0	10
97.51	0.93			0.0	0.0	

MAXIMUM = 5.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.75039E 01

GEOMETRIC DEVIATION = 1.78049E 00

FREQUENCY TABLE FOR COLUMN 13 (CO PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	65	65	10.11	10.11
5.6E 00 -	8.3E 00	52	117	8.09	18.20
8.3E 00 -	1.2E 01	138	255	21.46	39.66
1.2E 01 -	1.8E 01	88	343	13.69	53.34
1.8E 01 -	2.6E 01	57	400	8.86	62.21
2.6E 01 -	3.8E 01	94	494	14.62	76.83
3.8E 01 -	5.6E 01	25	519	3.89	80.72
5.6E 01 -	8.3E 01	15	534	2.33	83.05
8.3E 01 -	1.2E 02	3	537	0.47	83.51
1.2E 02 -	1.8E 02	2	539	0.31	83.83

HISTOGRAM FOR COLUMN 13 (CO PPM)

```
       5.0E 00 XXXXXXXXXX

       7.0E 00 XXXXXXXX

       1.0E 01 XXXXXXXXXXXXXXXXXXXXX

       1.5E 01 XXXXXXXXXXXXXX

       2.0E 01 XXXXXXXXX

       3.0E 01 XXXXXXXXXXXXXXX

       5.0E 01 XXXX

       7.0E 01 XX

       1.0E 02

       1.5E 02
```

N	L	H	B	T	G	ANALYTICAL VALUES
58	46	0	0	0	0	539
9.02	7.15			0.0	0.0	

MAXIMUM = 1.50000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.43993E 01

GEOMETRIC DEVIATION = 2.04112E 00

FREQUENCY TABLE FOR COLUMN 14 (CR PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 - 5.6E 00	1	1	0.16	0.16
5.6E 00 - 8.3E 00	1	2	0.16	0.31
8.3E 00 - 1.2E 01	92	94	14.31	14.62
1.2E 01 - 1.8E 01	22	116	3.42	18.04
1.8E 01 - 2.6E 01	21	137	3.27	21.31
2.6E 01 - 3.8E 01	34	171	5.29	26.59
3.8E 01 - 5.6E 01	46	217	7.15	33.75
5.6E 01 - 8.3E 01	110	327	17.11	50.86
8.3E 01 - 1.2E 02	58	385	9.02	59.88
1.2E 02 - 1.8E 02	88	473	13.69	73.56
1.8E 02 - 2.6E 02	18	491	2.80	76.36
2.6E 02 - 3.8E 02	13	504	2.02	78.38
3.8E 02 - 5.6E 02	4	508	0.62	79.00
5.6E 02 - 8.3E 02	3	511	0.47	79.47
8.3E 02 - 1.2E 03	1	512	0.16	79.63

HISTOGRAM FOR COLUMN 14 (CR PPM)

```
       1.0E 01 XXXXXXXXXXXXX
       1.5E 01 XXX
       2.0E 01 XXX
       3.0E 01 XXXXX
       5.0E 01 XXXXXXX
       7.0E 01 XXXXXXXXXXXXXXXX
       1.0E 02 XXXXXXXXX
       1.5E 02 XXXXXXXXXXXXX
       2.0E 02 XXX
       3.0E 02 XX
       5.0E 02 X
       7.0E 02
       1.0E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
69	62	0	0	0	0	512
10.73	9.64			0.0	0.0	

MAXIMUM = 1.00000E 03

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 5.26791E 01

GEOMETRIC DEVIATION = 2.89926E 00

FREQUENCY TABLE FOR COLUMN 15 (CU PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	31	31	4.82	4.82
5.6E 00 -	8.3E 00	11	42	1.71	6.53
8.3E 00 -	1.2E 01	23	65	3.58	10.11
1.2E 01 -	1.8E 01	52	117	8.09	18.20
1.8E 01 -	2.6E 01	43	160	6.69	24.88
2.6E 01 -	3.8E 01	107	267	16.64	41.52
3.8E 01 -	5.6E 01	69	336	10.73	52.26
5.6E 01 -	8.3E 01	73	409	11.35	63.61
8.3E 01 -	1.2E 02	44	453	6.84	70.45
1.2E 02 -	1.8E 02	50	503	7.78	78.23
1.8E 02 -	2.6E 02	28	531	4.35	82.58
2.6E 02 -	3.8E 02	13	544	2.02	84.60
3.8E 02 -	5.6E 02	6	550	0.93	85.54
5.6E 02 -	8.3E 02	4	554	0.62	86.16
8.3E 02 -	1.2E 03	0	554	0.0	86.16
1.2E 03 -	1.8E 03	2	556	0.31	86.47
1.8E 03 -	2.6E 03	2	558	0.31	86.78
2.6E 03 -	3.8E 03	1	559	0.16	86.94
3.8E 03 -	5.6E 03	0	559	0.0	86.94
5.6E 03 -	8.3E 03	0	559	0.0	86.94
8.3E 03 -	1.2E 04	2	561	0.31	87.25
1.2E 04 -	1.8E 04	3	564	0.47	87.71
1.8E 04 -	2.6E 04	4	568	0.62	88.34

HISTOGRAM FOR COLUMN 15 (CU PPM)

```
5.0E 00 XXXXX

7.0E 00 XX

1.0E 01 XXXX

1.5E 01 XXXXXXXX

2.0E 01 XXXXXXX

3.0E 01 XXXXXXXXXXXXXXXXX

5.0E 01 XXXXXXXXXXX

7.0E 01 XXXXXXXXXXX

1.0E 02 XXXXXXX

1.5E 02 XXXXXXXX

2.0E 02 XXXX

3.0E 02 XX

5.0E 02 X

7.0E 02 X

1.0E 03
```

1.5E 03

2.0E 03

3.0E 03

5.0E 03

7.0E 03

1.0E 04

1.5E 04

2.0E 04 X

N	L	H	B	T	G	ANALYTICAL VALUES
26	43	0	0	0	6	568
4.04	6.69			0.0	0.93	

MAXIMUM = 2.00010E 04

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 4.82388E 01

GEOMETRIC DEVIATION = 3.81169E 00

FREQUENCY TABLE FOR COLUMN 16 (LA PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 01 -	2.6E 01	187	187	29.08	29.08
2.6E 01 -	3.8E 01	30	217	4.67	33.75
3.8E 01 -	5.6E 01	7	224	1.09	34.84
5.6E 01 -	8.3E 01	2	226	0.31	35.15
8.3E 01 -	1.2E 02	1	227	0.16	35.30

HISTOGRAM FOR COLUMN 16 (LA PPM)

2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 01 XXXXX

5.0E 01 X

7.0E 01

1.0E 02

N	L	H	B	T	G	ANALYTICAL VALUES
265	151	0	0	0	0	227
41.21	23.48			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 2.21020E 01

GEOMETRIC DEVIATION = 1.28591E 00

FREQUENCY TABLE FOR COLUMN 17 (MO PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 - 5.6E 00	23	23	3.58	3.58
5.6E 00 - 8.3E 00	24	47	3.73	7.31
8.3E 00 - 1.2E 01	10	57	1.56	8.86
1.2E 01 - 1.8E 01	24	81	3.73	12.60
1.8E 01 - 2.6E 01	8	89	1.24	13.84
2.6E 01 - 3.8E 01	6	95	0.93	14.77
3.8E 01 - 5.6E 01	8	103	1.24	16.02
5.6E 01 - 8.3E 01	11	114	1.71	17.73
8.3E 01 - 1.2E 02	0	114	0.0	17.73
1.2E 02 - 1.8E 02	7	121	1.09	18.82
1.8E 02 - 2.6E 02	4	125	0.62	19.44
2.6E 02 - 3.8E 02	5	130	0.78	20.22

HISTOGRAM FOR COLUMN 17 (MO PPM)

```
       5.0E 00 XXXX

       7.0E 00 XXXX

       1.0E 01 XX

       1.5E 01 XXXX

       2.0E 01 X

       3.0E 01 X

       5.0E 01 X

       7.0E 01 XX

       1.0E 02

       1.5E 02 X

       2.0E 02 X

       3.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
357	156	0	0	0	0	130
55.52	24.26			0.0	0.0	

MAXIMUM = 3.00000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.84453E 01

GEOMETRIC DEVIATION = 3.34265E 00

FREQUENCY TABLE FOR COLUMN 18 (NB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	180	180	27.99	27.99
1.2E 01 -	1.8E 01	44	224	6.84	34.84
1.8E 01 -	2.6E 01	6	230	0.93	35.77
2.6E 01 -	3.8E 01	3	233	0.47	36.24

HISTOGRAM FOR COLUMN 18 (NB PPM)

1.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXX

1.5E 01 XXXXXXX

2.0E 01 X

3.0E 01

N	L	H	B	T	G	ANALYTICAL VALUES
339	71	0	0	0	0	233
52.72	11.04			0.0	0.0	

MAXIMUM = 3.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.11464E 01

GEOMETRIC DEVIATION = 1.24332E 00

FREQUENCY TABLE FOR COLUMN 19 (NI PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	73	73	11.35	11.35
5.6E 00 -	8.3E 00	35	108	5.44	16.80
8.3E 00 -	1.2E 01	63	171	9.80	26.59
1.2E 01 -	1.8E 01	83	254	12.91	39.50
1.8E 01 -	2.6E 01	61	315	9.49	48.99
2.6E 01 -	3.8E 01	130	445	20.22	69.21
3.8E 01 -	5.6E 01	52	497	8.09	77.29
5.6E 01 -	8.3E 01	46	543	7.15	84.45
8.3E 01 -	1.2E 02	19	562	2.95	87.40
1.2E 02 -	1.8E 02	8	570	1.24	88.65
1.8E 02 -	2.6E 02	1	571	0.16	88.80

HISTOGRAM FOR COLUMN 19 (NI PPM)

```
       5.0E 00 XXXXXXXXXXX

       7.0E 00 XXXXX

       1.0E 01 XXXXXXXXXX

       1.5E 01 XXXXXXXXXXXXX

       2.0E 01 XXXXXXXXX

       3.0E 01 XXXXXXXXXXXXXXXXXXXX

       5.0E 01 XXXXXXXX

       7.0E 01 XXXXXXX

       1.0E 02 XXX

       1.5E 02 X

       2.0E 02
```

N	L	H	B	T	G	ANALYTICAL VALUES
21	51	0	0	0	0	571
3.27	7.93			0.0	0.0	

MAXIMUM = 2.00000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 2.00486E 01

GEOMETRIC DEVIATION = 2.40924E 00

FREQUENCY TABLE FOR COLUMN 20 (PB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	82	82	12.75	12.75
1.2E 01 -	1.8E 01	23	105	3.58	16.33
1.8E 01 -	2.6E 01	22	127	3.42	19.75
2.6E 01 -	3.8E 01	16	143	2.49	22.24
3.8E 01 -	5.6E 01	6	149	0.93	23.17
5.6E 01 -	8.3E 01	3	152	0.47	23.64
8.3E 01 -	1.2E 02	4	156	0.62	24.26
1.2E 02 -	1.8E 02	1	157	0.16	24.42
1.8E 02 -	2.6E 02	5	162	0.78	25.19
2.6E 02 -	3.8E 02	0	162	0.0	25.19
3.8E 02 -	5.6E 02	0	162	0.0	25.19
5.6E 02 -	8.3E 02	1	163	0.16	25.35
8.3E 02 -	1.2E 03	1	164	0.16	25.51
1.2E 03 -	1.8E 03	5	169	0.78	26.28
1.8E 03 -	2.6E 03	0	169	0.0	26.28
2.6E 03 -	3.8E 03	0	169	0.0	26.28
3.8E 03 -	5.6E 03	0	169	0.0	26.28
5.6E 03 -	8.3E 03	1	170	0.16	26.44
8.3E 03 -	1.2E 04	1	171	0.16	26.59

HISTOGRAM FOR COLUMN 20 (PB PPM)

```
1.0E 01 XXXXXXXXXXXXX
1.5E 01 XXXX
2.0E 01 XXX
3.0E 01 XX
5.0E 01 X
7.0E 01
1.0E 02 X
1.5E 02
2.0E 02 X
3.0E 02
5.0E 02
7.0E 02
1.0E 03
1.5E 03 X
2.0E 03
3.0E 03
5.0E 03
```

7.0E 03

1.0E 04

N	L	H	B	T	G	ANALYTICAL VALUES
224	248	0	0	0	0	171
34.84	38.57			0.0	0.0	

MAXIMUM = 1.00010E 04

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.16275E 01

GEOMETRIC DEVIATION = 3.67206E 00

FREQUENCY TABLE FOR COLUMN 21 (SB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
641	2	0	0	0	0	0
99.69	0.31			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 22 (SC PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	36	36	5.60	5.60
5.6E 00 -	8.3E 00	40	76	6.22	11.82
8.3E 00 -	1.2E 01	60	136	9.33	21.15
1.2E 01 -	1.8E 01	151	287	23.48	44.63
1.8E 01 -	2.6E 01	139	426	21.62	66.25
2.6E 01 -	3.8E 01	102	528	15.86	82.12
3.8E 01 -	5.6E 01	14	542	2.18	84.29
5.6E 01 -	8.3E 01	3	545	0.47	84.76
8.3E 01 -	1.2E 02	1	546	0.16	84.91

HISTOGRAM FOR COLUMN 22 (SC PPM)

```
       5.0E 00 XXXXXX

       7.0E 00 XXXXXX

       1.0E 01 XXXXXXXXX

       1.5E 01 XXXXXXXXXXXXXXXXXXXXXX

       2.0E 01 XXXXXXXXXXXXXXXXXXXX

       3.0E 01 XXXXXXXXXXXXXXX

       5.0E 01 XX

       7.0E 01

       1.0E 02
```

N	L	H	B	T	G	ANALYTICAL VALUES
64	33	0	0	0	0	546
9.95	5.13			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.61289E 01

GEOMETRIC DEVIATION = 1.73491E 00

FREQUENCY TABLE FOR COLUMN 23 (SN PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	1	1	0.16	0.16
1.2E 01 -	1.8E 01	0	1	0.0	0.16
1.8E 01 -	2.6E 01	1	2	0.16	0.31
2.6E 01 -	3.8E 01	1	3	0.16	0.47
3.8E 01 -	5.6E 01	0	3	0.0	0.47
5.6E 01 -	8.3E 01	0	3	0.0	0.47
8.3E 01 -	1.2E 02	1	4	0.16	0.62

HISTOGRAM FOR COLUMN 23 (SN PPM)

N	L	H	B	T	G	ANALYTICAL VALUES
637	2	0	0	0	0	4
99.07	0.31			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.78315E 01

GEOMETRIC DEVIATION = 2.62692E 00

FREQUENCY TABLE FOR COLUMN 24 (SR PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 01 -	1.2E 02	42	42	6.53	6.53
1.2E 02 -	1.8E 02	51	93	7.93	14.46
1.8E 02 -	2.6E 02	66	159	10.26	24.73
2.6E 02 -	3.8E 02	187	346	29.08	53.81
3.8E 02 -	5.6E 02	71	417	11.04	64.85
5.6E 02 -	8.3E 02	78	495	12.13	76.98
8.3E 02 -	1.2E 03	27	522	4.20	81.18
1.2E 03 -	1.8E 03	9	531	1.40	82.58
1.8E 03 -	2.6E 03	3	534	0.47	83.05
2.6E 03 -	3.8E 03	2	536	0.31	83.36

HISTOGRAM FOR COLUMN 24 (SR PPM)

```
       1.0E 02 XXXXXXX

       1.5E 02 XXXXXXXX

       2.0E 02 XXXXXXXXXX

       3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX

       5.0E 02 XXXXXXXXXXX

       7.0E 02 XXXXXXXXXXX

       1.0E 03 XXXX

       1.5E 03 X

       2.0E 03

       3.0E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
60	47	0	0	0	0	536
9.33	7.31			0.0	0.0	

MAXIMUM = 3.00000E 03

MINIMUM = 1.00000E 02

GEOMETRIC MEAN = 3.30138E 02

GEOMETRIC DEVIATION = 1.95442E 00

FREQUENCY TABLE FOR COLUMN 25 (V PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 - 1.2E 01	6	6	0.93	0.93
1.2E 01 - 1.8E 01	19	25	2.95	3.89
1.8E 01 - 2.6E 01	14	39	2.18	6.07
2.6E 01 - 3.8E 01	33	72	5.13	11.20
3.8E 01 - 5.6E 01	26	98	4.04	15.24
5.6E 01 - 8.3E 01	35	133	5.44	20.68
8.3E 01 - 1.2E 02	42	175	6.53	27.22
1.2E 02 - 1.8E 02	159	334	24.73	51.94
1.8E 02 - 2.6E 02	161	495	25.04	76.98
2.6E 02 - 3.8E 02	106	601	16.49	93.47
3.8E 02 - 5.6E 02	13	614	2.02	95.49
5.6E 02 - 8.3E 02	2	616	0.31	95.80
8.3E 02 - 1.2E 03	2	618	0.31	96.11

HISTOGRAM FOR COLUMN 25 (V PPM)

```
1.0E 01 X
1.5E 01 XXX
2.0E 01 XX
3.0E 01 XXXXX
5.0E 01 XXXX
7.0E 01 XXXXX
1.0E 02 XXXXXXX
1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXX
2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXX
3.0E 02 XXXXXXXXXXXXXXXX
5.0E 02 XX
7.0E 02
1.0E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
15	10	0	0	0	0	618
2.33	1.56			0.0	0.0	

MAXIMUM = 1.00000E 03

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.33646E 02

GEOMETRIC DEVIATION = 2.31113E 00

FREQUENCY TABLE FOR COLUMN 26 (W PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 01 -	5.6E 01	1	1	0.16	0.16
5.6E 01 -	8.3E 01	0	1	0.0	0.16
8.3E 01 -	1.2E 02	0	1	0.0	0.16
1.2E 02 -	1.8E 02	1	2	0.16	0.31

HISTOGRAM FOR COLUMN 26 (W PPM)

N	L	H	B	T	G	ANALYTICAL VALUES
632	9	0	0	0	0	2
98.29	1.40			0.0	0.0	

MAXIMUM = 1.50000E 02

MINIMUM = 5.00000E 01

GEOMETRIC MEAN = 8.66024E 01

GEOMETRIC DEVIATION = 2.17458E 00

FREQUENCY TABLE FOR COLUMN 27 (Y PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	87	87	13.53	13.53
1.2E 01 -	1.8E 01	190	277	29.55	43.08
1.8E 01 -	2.6E 01	189	466	29.39	72.47
2.6E 01 -	3.8E 01	66	532	10.26	82.74
3.8E 01 -	5.6E 01	11	543	1.71	84.45
5.6E 01 -	8.3E 01	1	544	0.16	84.60
8.3E 01 -	1.2E 02	0	544	0.0	84.60
1.2E 02 -	1.8E 02	0	544	0.0	84.60
1.8E 02 -	2.6E 02	1	545	0.16	84.76

HISTOGRAM FOR COLUMN 27 (Y PPM)

```
       1.0E 01 XXXXXXXXXXXXX
       1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
       2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
       3.0E 01 XXXXXXXXXX
       5.0E 01 XX
       7.0E 01
       1.0E 02
       1.5E 02
       2.0E 02
```

N	L	H	B	T	G	ANALYTICAL VALUES
59	39	0	0	0	0	545
9.18	6.07			0.0	0.0	

MAXIMUM = 2.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.74402E 01

GEOMETRIC DEVIATION = 1.44763E 00

FREQUENCY TABLE FOR COLUMN 28 (ZN PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 02 -	2.6E 02	14	14	2.18	2.18
2.6E 02 -	3.8E 02	6	20	0.93	3.11
3.8E 02 -	5.6E 02	1	21	0.16	3.27
5.6E 02 -	8.3E 02	5	26	0.78	4.04
8.3E 02 -	1.2E 03	0	26	0.0	4.04
1.2E 03 -	1.8E 03	1	27	0.16	4.20
1.8E 03 -	2.6E 03	0	27	0.0	4.20
2.6E 03 -	3.8E 03	2	29	0.31	4.51
3.8E 03 -	5.6E 03	0	29	0.0	4.51
5.6E 03 -	8.3E 03	2	31	0.31	4.82

HISTOGRAM FOR COLUMN 28 (ZN PPM)

```
       2.0E 02 XX

       3.0E 02 X

       5.0E 02

       7.0E 02 X

       1.0E 03

       1.5E 03

       2.0E 03

       3.0E 03

       5.0E 03

       7.0E 03
```

N	L	H	B	T	G	ANALYTICAL VALUES
512	100	0	0	0	0	31
79.63	15.55			0.0	0.0	

MAXIMUM = 7.00000E 03

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 4.35930E 02

GEOMETRIC DEVIATION = 2.93888E 00

FREQUENCY TABLE FOR COLUMN 29 (ZR PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	21	21	3.27	3.27
1.2E 01 -	1.8E 01	4	25	0.62	3.89
1.8E 01 -	2.6E 01	37	62	5.75	9.64
2.6E 01 -	3.8E 01	23	85	3.58	13.22
3.8E 01 -	5.6E 01	63	148	9.80	23.02
5.6E 01 -	8.3E 01	197	345	30.64	53.65
8.3E 01 -	1.2E 02	140	485	21.77	75.43
1.2E 02 -	1.8E 02	66	551	10.26	85.69
1.8E 02 -	2.6E 02	11	562	1.71	87.40
2.6E 02 -	3.8E 02	8	570	1.24	88.65
3.8E 02 -	5.6E 02	1	571	0.16	88.80

HISTOGRAM FOR COLUMN 29 (ZR PPM)

```
       1.0E 01 XXX

       1.5E 01 X

       2.0E 01 XXXXXX

       3.0E 01 XXXX

       5.0E 01 XXXXXXXXXX

       7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       1.0E 02 XXXXXXXXXXXXXXXXXXXXX

       1.5E 02 XXXXXXXXXX

       2.0E 02 XX

       3.0E 02 X

       5.0E 02
```

N	L	H	B	T	G	ANALYTICAL VALUES
44	28	0	0	0	0	571
6.84	4.35			0.0	0.0	

MAXIMUM = 5.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 6.89332E 01

GEOMETRIC DEVIATION = 1.96565E 00

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

A470 STATISTICAL SUMMARY DATE 3/ 5/70

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
FE PCT	0	0	0	0	0	2	641
MG PCT	0	8	0	0	0	0	635
CA PCT	0	26	0	0	0	7	610
TI PCT	4	4	0	0	0	5	630
MN PPM	0	0	0	0	0	3	640
AG PPM	443	78	0	0	0	0	122
AS PPM	576	28	0	0	0	4	35
AU PPM	626	6	0	0	0	0	11
B PPM	58	132	0	0	0	2	451
BA PPM	15	67	0	0	0	0	561
BE PPM	319	226	0	0	0	0	98
BI PPM	627	6	0	0	0	0	10
CO PPM	58	46	0	0	0	0	539
CR PPM	69	62	0	0	0	0	512
CU PPM	26	43	0	0	0	6	568
LA PPM	265	151	0	0	0	0	227
MO PPM	357	156	0	0	0	0	130
NB PPM	339	71	0	0	0	0	233
NI PPM	21	51	0	0	0	0	571
PB PPM	224	248	0	0	0	0	171
SB PPM	641	2	0	0	0	0	0
SC PPM	64	33	0	0	0	0	546
SN PPM	637	2	0	0	0	0	4
SR PPM	60	47	0	0	0	0	536
V PPM	15	10	0	0	0	0	618
W PPM	632	9	0	0	0	0	2
Y PPM	59	39	0	0	0	0	545
ZN PPM	512	100	0	0	0	0	31
ZR PPM	44	28	0	0	0	0	571

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
FE PCT	********	******	2 GREATER THAN VALUES. NO COMPUTATIONS.
MG PCT	0.911729	3.57	8 NOT DETECTED, LESS THAN, OR TRACE VALUES. 635 REPORTED VALUES.
CA PCT	********	******	7 GREATER THAN VALUES. NO COMPUTATIONS.
TI PCT	********	******	5 GREATER THAN VALUES. NO COMPUTATIONS.
MN PPM	********	******	3 GREATER THAN VALUES. NO COMPUTATIONS.
AG PPM	0.024086	22.57	521 NOT DETECTED, LESS THAN, OR TRACE VALUES. 122 REPORTED VALUES.
AS PPM	********	******	4 GREATER THAN VALUES. NO COMPUTATIONS.
AU PPM	********	******	632 NOT DETECTED, LESS THAN, OR TRACE VALUES. 11 REPORTED VALUES. NO COMPUTATIONS.
B PPM	********	******	2 GREATER THAN VALUES. NO COMPUTATIONS.
BA PPM	235.535934	4.62	82 NOT DETECTED, LESS THAN, OR TRACE VALUES. 561 REPORTED VALUES.
BE PPM	0.376278	2.10	545 NOT DETECTED, LESS THAN, OR TRACE VALUES. 98 REPORTED VALUES.
BI PPM	********	******	633 NOT DETECTED, LESS THAN, OR TRACE VALUES. 10 REPORTED VALUES. NO COMPUTATIONS.
CO PPM	10.747252	2.58	104 NOT DETECTED, LESS THAN, OR TRACE VALUES. 539 REPORTED VALUES.
CR PPM	25.824997	5.65	131 NOT DETECTED, LESS THAN, OR TRACE VALUES. 512 REPORTED VALUES.
CU PPM	********	******	6 GREATER THAN VALUES. NO COMPUTATIONS.
LA PPM	********	******	416 NOT DETECTED, LESS THAN, OR TRACE VALUES. 227 REPORTED VALUES. NO COMPUTATIONS.
MO PPM	0.394736	15.46	513 NOT DETECTED, LESS THAN, OR TRACE VALUES. 130 REPORTED VALUES.
NB PPM	7.134110	1.53	410 NOT DETECTED, LESS THAN, OR TRACE VALUES. 233 REPORTED VALUES.
NI PPM	15.721972	2.96	72 NOT DETECTED, LESS THAN, OR TRACE VALUES. 571 REPORTED VALUES.
PB PPM	********	******	472 NOT DETECTED, LESS THAN, OR TRACE VALUES. 171 REPORTED VALUES. NO COMPUTATIONS.
SB PPM	********	******	643 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
SC PPM	12.259965	2.31	97 NOT DETECTED, LESS THAN, OR TRACE VALUES. 546 REPORTED VALUES.
SN PPM	********	******	639 NOT DETECTED, LESS THAN, OR TRACE VALUES. 4 REPORTED VALUES. NO COMPUTATIONS.

SR	PPM	242.418472	2.55	107	NOT DETECTED, LESS THAN, OR TRACE VALUES.	536	REPORTED VALUES.
V	PPM	118.456604	2.77	25	NOT DETECTED, LESS THAN, OR TRACE VALUES.	618	REPORTED VALUES.
W	PPM	********	******	641	NOT DETECTED, LESS THAN, OR TRACE VALUES.	2	REPORTED VALUES. NO COMPUTATIONS.
Y	PPM	14.990598	1.65	98	NOT DETECTED, LESS THAN, OR TRACE VALUES.	545	REPORTED VALUES.
ZN	PPM	********	******	612	NOT DETECTED, LESS THAN, OR TRACE VALUES.	31	REPORTED VALUES. NO COMPUTATIONS.
ZR	PPM	51.854691	2.80	72	NOT DETECTED, LESS THAN, OR TRACE VALUES.	571	REPORTED VALUES.

APPENDIX IV

Sample Descriptions and Analyses of Bedrock Geochemical Samples by Methods Other Than Spectrographic

Explanation of Appendix IV

All analyses listed on the following pages are of bedrock geochemical samples, and were done by methods other than spectrographic. Analyses for gold, silver, copper, tellurium, lead, and zinc were done by atomic absorption. Tungsten and arsenic determinations are by colorimetric methods and mercury by an instrumental technique.

Appropriate limits of detection for the various elements are:

Au PPM	Ag PPM	As PPM	Hg PPM	Te PPM	Cu PPM	Pb PPM
0.02	0.2	10.0	0.01	0.2	10.0	25.0

Zn PPM	W PPM
25.0	20.0

Brief sample descriptions follow the analyses for each sample. Most samples are selected grab or chip samples averaging 1/2 to 1 pound. Samples from the Black Creek and Timberline Creek areas are of similar media but averaged about 5 pounds in weight.

Abbreviations Used in Following Sample Descriptions

lim ----- limonite, limonitic

qtz ----- quartz

dior ---- diorite

py ------ pyrite, pyritic

dk ------ dike

rk ------ rock

intr ---- intrusive rock

alt ----- altered

sh ------ shear, sheared

carb ---- carbonate

sch ----- schist

vn ------ vein

vnlt ---- veinlet

silic --- silic

chl ----- chlorite, chloritic

arg ----- argillite

po ------ pyrrhotite

cgl ----- conglomerate

mgrw ---- metagraywacke

nr ------ near

frac ---- fracture, fractured

Ls ------ Limestone

grst ---- greenstone

mvolc --- metavolcanic

hem ----- hematite, hematitic

biot ---- biotite, biotitic

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
1	L(.02)	--	--	--	--	--	--	--	--	banded, lim gneiss
2	L(.02)	--	--	--	--	--	--	--	--	lim gneiss
3	L(.02)	--	--	--	--	--	--	--	--	fine-gr gneiss
4	L(.02)	--	--	--	--	--	--	--	--	co-gr gneiss
5	L(.02)	--	--	--	--	--	--	--	--	lim qtz dior
6	L(.02)	--	--	--	--	--	--	--	--	gneiss
7	L(.02)	--	--	--	--	--	--	--	--	qtz dior
8	L(.05)	--	L 10	0.60	L(.2)	--	--	--	N(20)	silic, lim sch
9	L(.05)	--	L 10	0.35	0.2	--	--	--	N(20)	dk rk w/py
10	L(.05)	--	L 10	0.28	L(.2)	--	--	--	N(20)	lim intr rk
11	L(.02)	--	--	--	--	--	--	--	--	foliated dk rk
12	L(.02)	--	--	--	--	--	--	--	--	qtz dior
13	L(.02)	--	--	--	--	--	--	--	--	alt sch
14	L(.05)	--	L 10	0.24	L(.2)	--	--	--	N(20)	lim dk rk w/py
15	L(.02)	--	--	--	--	--	--	--	--	gneiss
16	L(.02)	--	--	--	--	--	--	--	--	foliated qtz dior
17	L(.05)	--	L 10	0.35	0.4	--	--	--	N(20)	lim, sh qtz dior

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
18	L(.05)	--	L 10	0.70	L(.2)	100	--	--	L(20)	lim qtz in fault
19	L(.05)	--	L 10	0.20	L(.2)	--	--	--	N(20)	dk rk w/py
20	L(.05)	--	L 10	0.20	L(.2)	--	--	--	N(20)	lim qtz in sch
21	L(.05)	--	L 10	0.26	L(.2)	--	--	--	N(20)	lim qtz
22	L(.05)	--	L 10	0.40	L(.2)	--	--	--	N(20)	-----
23	L(.05)	--	L 10	0.20	0.2	--	--	--	N(20)	lim sch
24	L(.05)	--	L 10	0.20	L(.2)	--	--	--	N(20)	lim qtz in sch
25	L(.05)	--	L 10	0.30	L(.2)	--	--	--	N(20)	dk rk w/py
26	L(.02)	--	--	--	--	--	--	--	--	gneiss at contact
27	L(.02)	--	--	--	--	--	--	--	--	qtz dior
28	L(.05)	--	L 10	0.28	L(.2)	--	--	--	N(20)	lim, sh qtz dior
29	L(.05)	--	L 10	0.08	L(.2)	--	--	--	N(20)	qtz carb vn
30	L(.05)	--	L 10	0.16	L(.2)	--	--	--	N(20)	sh, lim qtz dior
31	L(.05)	--	15	0.12	L(.2)	--	--	--	N(20)	lim qtz dior
32	L(.05)	--	10	0.25	L(.2)	--	--	--	N(20)	lim, silic sch
33	L(.05)	--	L 10	0.30	L(.2)	--	--	--	N(20)	lim qtz
34	L(.05)	--	L 10	0.60	L(.2)	--	--	--	N(20)	lim qtz in sch

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
35	0.07	--	L 10	0.28	L(.2)	--	--	--	N(20)	qtz vn in sch
36	0.07	--	L 10	0.26	0.2	--	--	--	N(20)	bleached sch
37	L(.05)	--	L10	0.35	L(.2)	--	--	--	N(20)	qtz vn in qtz dior
38	L(.05)	--	L 10	0.22	0.2	--	--	--	N(20)	qtz vn in sch
39	L(.05)	--	L 10	0.60	L(.2)	--	--	--	N(20)	lim qtz in phyllite
40	L(.05)	--	L 10	0.24	0.4	--	--	--	N(20)	lim sch
41	L(.05)	--	L 10	0.40	L(.2)	--	--	--	N(20)	lim qtz
42	L(.05)	--	L 10	0.35	L(.2)	--	--	--	N(20)	lim qtz in qtz dior
43	L(.05)	--	L 10	0.22	L(.2)	--	--	--	N(20)	lim qtz w/chl
44	L(.05)	--	L 10	0.20	L(.2)	--	--	--	N(20)	lim qtz vn
45	L(.05)	--	L 10	0.26	L(.2)	--	--	--	N(20)	qtz vn in sch
46	L(.05)	--	500	2.20	L(.2)	300	--	--	N(20)	lim qtz vn
47	L(.05)	--	45	0.70	L(.2)	250	--	--	N(20)	lim qtz vn
48	L(.05)	--	125	0.70	L(.2)	--	--	--	N(20)	lim, silic sch
49	L(.05)	--	25	0.50	L(.2)	--	--	--	N(20)	lim qtz dior w/qtz
50	L(.05)	--	25	0.08	L(.2)	--	--	--	N(20)	lim, silic qtz dior
51	L(.05)	--	15	0.35	0.4	--	--	--	N(20)	lim sch w/qtz

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
52	L(.05)	--	35	0.45	0.4	--	--	--	N(20)	lim arg
53	L(.05)	--	35	0.40	0.4	--	--	--	N(20)	lim arg w/qtz vnlts
54	L(.05)	--	45	0.40	0.4	--	--	--	N(20)	lim arg & dk rk
55	L(.05)	--	40	0.18	L(.2)	--	--	--	N(20)	lim, silic arg
56	L(.05)	--	35	0.33	L(.2)	--	--	--	N(20)	alt porphyry
57	0.1	--	2000	0.45	1.2	--	--	--	N(20)	alt porphyry w/qtz & po
58	L(.05)	--	L 10	0.30	2.2	--	--	--	N(20)	lim arg w/py & po
59	L(.05)	--	L 10	0.35	L(.2)	--	--	--	N(20)	lim phyllite w/po
60	L(.05)	--	L 10	0.28	L(.2)	--	--	--	N(20)	alt porphyry w/py
61	L(.05)	--	15	0.40	2.0	--	--	--	N(20)	qtz vn in porphyry
62	L(.05)	--	10	0.28	L(.2)	--	--	--	N(20)	qtz vn in sch w/py
63	0.3	--	1750	0.26	L(.2)	--	--	--	N(20)	lim arg gouge
64	L(.05)	--	20	0.35	0.4	--	--	--	N(20)	bleached hornfels w/py
65	L(.05)	--	L 10	2.80	L(.2)	--	--	--	N(20)	lim qtz carb vn
66	L(.02)	0.6	15	0.06	--	L(16)	L(25)	L(25)	--	lim qtz carb vn
67	1.4	1.8	20	0.04	--	750	35	70	--	lim qtz carb vn w/py
68	L(.05)	--	L 10	0.14	0.2	--	--	--	N(20)	lim qtz vn

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
69	L(.05)	--	125	0.28	L(.2)	--	--	--	N(20)	lim qtz vn
70	L(.05)	--	10	0.13	0.3	--	--	--	N(20)	lim qtz
71	L(.05)	--	L 10	0.12	L(.2)	--	--	--	N(20)	lim qtz vn
72	L(.05)	--	50	0.24	L(.2)	--	--	--	N(20)	bleached lim sch w/qtz
73	0.08	L(.2)	20	0.03	--	55	L(25)	L(25)	--	lim qtz vn & dk rk
74	0.4	L(.2)	20	0.12	--	70	L(25)	L(25)	--	lim dk rk
75	0.08	--	10	0.05	--	45	L(25)	L(25)	--	lim dk rk w/sulfides
76	L(.05)	--	50	0.90	L(.2)	--	--	--	N(20)	lim cgl
77	L(.05)	--	35	0.50	L(.2)	--	--	--	N(20)	lim sch & qtz vn
78	L(.05)	--	20	0.34	L(.2)	--	--	--	N(20)	lim qtz
79	L(.05)	--	35	0.18	L(.2)	--	--	--	N(20)	lim qtz
80	L(.05)	--	L 10	0.20	L(.2)	--	--	--	N(20)	lim sch & dk rk
81	L(.05)	--	L 10	0.12	0.3	--	--	--	N(20)	lim qtz
82	L(.05)	--	L 10	0.20	0.3	--	--	--	N(20)	lim qtz vn
83	L(.05)	--	L 10	0.28	L(.2)	--	--	--	N(20)	lim, silic sch
84	L(.05)	--	L 10	0.14	L(.2)	--	--	--	N(20)	lim qtz in sch
85	0.2	--	30	0.24	L(.2)	--	--	--	N(20)	lim intr rk

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
86	L(.05)	--	20	0.26	L(.2)	--	--	--	N(20)	lim sch & qtz
87	L(.05)	--	L 10	0.35	L(.2)	--	--	--	N(20)	lim arg w/py
88	L(.05)	--	L 10	1.8	L(.2)	--	--	--	N(20)	lim arg
89	L(.05)	--	L 10	0.22	0.4	--	--	--	N(20)	lim arg & intr w/py
90	L(.05)	--	L 10	0.24	0.3	--	--	--	N(20)	lim intr w/py
91	L(.05)	--	15	0.24	L(.2)	--	--	--	N(20)	lim dior w/py
92	L(.05)	--	L 10	0.15	0.4	--	--	--	N(20)	lim grw breccia w/qtz carb vnlts
93	L(.05)	--	L 10	0.15	0.4	--	--	--	N(20)	arg breccia w/qtz carb vnlts
94	L(.05)	--	30	0.12	L(.2)	--	--	--	N(20)	lim qtz vn
95	L(.05)	--	30	0.12	L(.2)	--	--	--	N(20)	lim qtz vn
96	L(.05)	--	L 10	0.12	L(.2)	--	--	--	N(20)	lim qtz vn
97	L(.05)	--	L 10	0.13	L(.2)	--	--	--	N(20)	lim qtz w/py
98	L(.05)	--	15	0.26	L(.2)	--	--	--	N(20)	silic, arg breccia
99	L(.05)	--	90	0.15	L(.2)	--	--	--	N(20)	lim arg w/qtz vnlts
100	L(.05)	--	10	0.26	L(.2)	--	--	--	N(20)	lim qtz vn
101	L(.05)	--	L 10	1.0	L(.2)	--	--	--	N(20)	lim, silic arg
102	L(.05)	--	50	0.20	0.4	--	--	--	N(20)	lim arg w/qtz

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
103	0.1	--	15	7.5	L(.2)	--	--	--	N(20)	alt ls & arg in fault
104	L(.05)	--	50	0.24	L(.2)	130	--	--	N(20)	sh, lim arg w/py
105	L(.05)	--	300	0.24	L(.2)	--	--	--	L(20)	lim arg w/qtz vnlts
106	L(.05)	--	35	0.70	L(.2)	--	--	--	N(20)	lim arg
107	L(.05)	--	10	0.20	L(.2)	480	00	00	N(20)	lim, silic dk rk
108	L(.05)	--	25	0.28	L(.2)	--	--	--	N(20)	lim arg breccia w/qtz
109	L(.05)	--	L 10	0.20	L(.2)	--	--	--	N(20)	lim qtz in arg breccia
110	L(.05)	--	10	0.12	L(.2)	--	--	--	N(20)	lim arg & dk w/qtz vnlts
111	L(.05)	--	25	1.60	L(.2)	--	--	--	N(20)	lim arg breccia
112	L(.05)	--	125	0.20	0.3	--	--	--	N(20)	alt arg & dk w/qtz
113	L(.05)	--	25	0.50	L(.2)	--	--	--	N(20)	lim, silic arg breccia
114	L(.05)	--	L 10	0.35	0.4	--	--	--	N(20)	lim qtz in mgrw
115	L(.05)	--	L 10	0.40	0.2	--	--	--	N(20)	lim mgrw nr vn
116	L(.05)	--	L 10	0.20	0.2	--	--	--	N(20)	alt mgrw
117	L(.05)	--	L 10	0.24	L(.2)	--	--	--	N(20)	alt mgrw
118	L(.05)	--	L 10	0.35	0.4	--	--	--	N(20)	lim mgrw
119	L(.05)	--	L 10	0.30	0.2	--	--	--	N(20)	lim mgrw

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
120	L(.05)	--	L 10	0.28	L(.2)	--	--	--	N(20)	alt mgrw
121	L(.05)	--	20	0.28	L(.2)	--	--	--	N(20)	alt intr & phyllite
122	L(.05)	--	L 10	0.40	L(.2)	--	--	--	N(20)	lim dk rk
123	L(.05)	--	25	0.45	0.3	--	--	--	N(20)	lim arg w/py & po
124	L(.05)	--	75	0.35	L(.2)	--	--	--	N(20)	qtz vn in grw
125	L(.05)	--	L 10	0.60	L(.2)	--	--	--	N(20)	lim qtz in qtz dior
126	0.4	--	10	0.45	0.5	--	--	--	L(20)	alt dior w/qtz vnlts
127	0.1	--	L 10	0.55	0.5	--	--	--	N(20)	intr rk w/py
128	L(.05)	--	30	0.4	0.2	--	--	--	N(20)	intr & arg w/py
129	L(.05)	--	L 10	0.35	2.8	--	--	--	N(20)	lim qtz in dior
130	4.0	--	25	0.25	L(.2)	--	--	--	N(20)	lim qtz carb vn
131	0.5	--	L 10	0.7	L(.2)	--	--	--	N(20)	qtz vn in qtz dior
132	0.1	--	L 10	0.28	L(.2)	--	--	--	N(20)	sh qtz dior w/po & py
133	10.4	2.0	1000	0.08	--	270	L(25)	30	--	sh dior w/lim fracs
134	0.5	0.8	400	0.01	--	190	L(25)	--	--	qtz carb chl vn
135	L(.05)	--	10	0.30	0.2	--	--	--	N(20)	alt intr w/qtz
136	0.02	1.2	L 10	L(.01)	--	170	25	--	--	qtz dior nr vn

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
137	L(.05)	--	L 10	0.24	L(.2)	--	--	--	N(20)	lim arg in fault
138	L(.05)	--	L 10	0.26	L(.2)	--	--	--	N(20)	alt dior w/qtz vn
139	1.80	5.0	400	0.16	--	110	80	210	00	lim vn in sh dior
140	0.12	1.6	100	0.04	--	120	25	50	--	lim ls breccia w/py
141	L(.05)	--	125	6.0	0.2	--	--	--	N(20)	lim, silic intr in fault
142	L(.05)	--	100	0.6	0.4	--	--	--	N(20)	lim, silic arg
143	0.7	--	L 10	1.0	L(.2)	390	--	--	N(20)	lim arg w/qtz
144	L(.05)	--	L 10	1.8	L(.2)	--	--	--	N(20)	lim qtz vn
145	3.5	--	L 10	0.9	L(.2)	--	--	--	N(20)	qtz vn in sch
146	0.1	--	25	2.8	L(.2)	--	--	--	N(20)	intr rk w/py
147	L(.05)	--	20	0.9	0.2	--	--	--	N(20)	mgrw w/py
148	L(.05)	--	L 10	0.9	L(.2)	--	--	--	N(20)	lim, silic arg breccia
149	L(.05)	--	175	G(10)	L(.2)	--	--	--	N(20)	lim dk rk
150	L(.05)	--	L 10	2.5	L(.2)	--	--	--	N(20)	dk rk w/py
151	1.5	--	35	0.26	L(.2)	3600	--	--	N(20)	dk rk w/cu-carb
152	L(.05)	--	300	0.22	L(.2)	--	--	--	N(20)	dk rk w/sulfides
153	0.1	--	35	0.24	L(.2)	390	--	--	N(20)	lim dk rk w/py

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
154	1.2	--	1750	0.28	L(.2)	--	--	--	N(20)	lim qtz vn w/py
155	L(.05)	--	40	0.20	0.5	--	--	--	N(20)	lim qtz vn
156	0.04	0.4	100	0.02	.0.2	68	--	--	N(20)	lim dk in sh zone
157	0.2	--	60	0.24	L(.2)	--	--	--	N(20)	sh intr w/qtz vnlts
158	0.2	1.2	10	0.16	L(.2)	90	--	--	L(20)	lim arg
159	0.6	L(.2)	10	0.06	L(.2)	18	--	--	L(20)	lim qtz in grw
160	0.6	1.6	500	0.03	L(.2)	150	--	--	20	lim, silic dk rk
161	0.08	1.2	10	0.03	0.4	95	--	--	N(20)	lim arg & dk rk
162	L(.05)	--	L 10	0.15	L(.2)	--	--	--	N(20)	alt arg breccia w/qtz vnlts
163	L(.05)	--	L 10	0.14	L(.2)	--	--	--	N(20)	lim, silic arg in fault
164	L(.05)	--	20	0.15	L(.2)	--	--	--	N(20)	lim intr w/qtz
165	L(.05)	--	200	0.12	L(.2)	--	--	--	N(20)	lim intr rk
166	L(.05)	--	15	0.22	L(.2)	--	--	--	N(20)	lim intr w/py
167	L(.05)	--	15	0.16	L(.2)	--	--	--	N(20)	lim arg
168	L(.05)	--	L 10	0.60	0.3	--	--	--	N(20)	lim arg
169	L(.05)	--	40	0.26	L(.2)	--	--	--	N(20)	lim grw & arg w/py
170	L(.05)	--	30	0.15	L(.2)	--	--	--	N(20)	lim intr & arg w/py

Location No	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
171	L(.05)	--	L 10	0.16	0.3	--	--	--	N(20)	lim qtz dior w/py
172	L(.05)	--	35	0.15	0.4	--	--	--	N(20)	lim arg
173	L(.05)	--	10	1.0	L(.02)	--	--	--	N(20)	lim arg
174	L(.05)	--	10	1.0	L(.2)	--	--	--	N(20)	lim arg & mgrw
175	L(.05)	--	15	0.22	L(.2)	45	--	--	L(20)	lim arg w/qtz vnlts
176	L(.05)	--	50	0.40	L(.2)	--	--	--	L(20)	lim arg breccia
177	L(.05)	--	60	0.65	L(.2)	--	--	--	L(20)	lim arg w/qtz carb vnlts
178	L(.05)	--	40	0.45	L(.2)	--	--	--	L(20)	lim arg & dk rk
179	L(.05)	--	15	0.50	L(.2)	60	--	--	N(20)	lim, silic arg
180	L(.05)	--	15	0.30	L(.2)	--	--	--	N(20)	lim phyllite
181	L(.05)	--	10	0.24	0.2	--	--	--	N(20)	qtz carb vn w/chl
182	L(.05)	--	L 10	0.24	L(.2)	--	--	--	N(20)	qtz carb vnlts in arg
183	2.0	--	45	0.35	0.3	--	--	--	N(20)	ch, lim dior w/qtz vnlts
184	0.1	--	L 10	0.70	L(.2)	--	--	--	N(20)	alt dior w/qtz
185	L(.05)	--	L 10	0.50	L(.2)	--	--	--	N(20)	lim arg in fault
186	2.2	--	200	0.50	0.4	670	--	--	N(20)	lim arg breccia
187	0.2	--	2000	0.45	0.3	2800	--	--	N(20)	lim qtz w/sulfides

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
188	0.3	--	400	0.60	L(.2)	--	--	--	N(20)	alt grw & arg w/qtz
189	L(.05)	--	35	0.35	L(.2)	--	--	--	N(20)	lim grw w/qtz
190	L(.05)	--	250	0.24	L(.2)	--	--	--	N(20)	lim arg
191	L(.05)	--	10	0.50	L(.2)	--	--	--	N(20)	dk rl w/py
192	L(.05)	--	L 10	0.45	0.4	--	--	--	N(20)	lim, silic arg
193	L(.05)	--	L 10	0.70	L(.2)	--	--	--	N(20)	lim, silic dk rk w/py
194	L(.05)	--	L 10	2.2	L(.2)	--	--	--	N(20)	alt tuff
195	L(.05)	--	L 10	2.6	L(.2)	--	--	--	N(20)	sh, lim grst
196	L(.05)	--	10	2.8	0.8	--	--	--	N(20)	lim mvolc rk
197	L(.05)	--	25	0.9	L(.2)	--	--	--	N(20)	lim qtz vn in arg
198	L(.05)	--	125	0.9	4.6	--	--	--	N(20)	lim dk rk w/py
199	L(.05)	--	18	0.75	0.2	--	--	--	N(20)	lim dk rk
200	L(.05)	--	L 10	1.8	0.3	--	--	--	N(20)	dk rk
201	L(.05)	--	125	0.9	4.6	--	--	--	N(20)	lim dk rk w/py
202	L(.05)	--	L 10	2.4	0.9	--	--	--	N(20)	lim, silic mgrw in fault
203	L(.05)	--	L 10	1.3	L(.2)	--	--	--	N(20)	lim, silic breccia
204	L(.05)	--	L 10	5.2	L(.2)	--	--	--	N(20)	mafic dike

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
205	L(.05)	--	10	7.0	L(.2)	--	--	--	N(20)	lim, silic arg & grw
206	L(.05)	--	L 10	5.5	7.6	--	--	--	N(20)	lim, silic arg & dk rk
207	L(.05)	--	L 10	G(10)	L(.2)	--	--	--	N(20)	lim arg in fault
208	L(.05)	--	L 10	G(10)	0.2	--	--	--	N(20)	lim arg
209	L(.05)	--	L 10	5.5	0.3	--	--	--	N(20)	lim, silic arg
210	L(.05)	--	L 10	7.0	L(.2)	--	--	--	N(20)	lim, silic arg
211	L(.05)	--	L 10	6.0	0.2	--	--	--	N(20)	lim arg & dk rk
212	L(.05)	--	L 10	7.1	L(.2)	--	--	--	N(20)	lim arg breccia
213	L(.05)	--	L 10	2.20	0.2	--	--	--	N(20)	lim arg & qtz
214	L(.05)	--	L 10	0.30	L(.2)	--	--	--	N(20)	alt arg breccia
215	0.1	1.0	80	0.06	L(.2)	110	--	--	L(20)	lim arg & dk rk
216	L(.02)	1.6	L 10	0.16	L(.2)	62	--	--	L(20)	lim arg & grw breccia
217	L(.02)	0.6	10	0.02	0.2	41	--	--	N(20)	lim arg
218	L(.05)	--	L 10	0.24	0.3	--	--	--	N(20)	lim, silic arg
219	0.5	0.4	L 10	0.02	0.2	90	--	--	L(20)	lim mgrw
220	L(.05)	--	L 10	0.20	L(.2)	--	--	--	L(20)	alt arg & mgrw w/qtz
221	L(.05)	--	10	0.24	L(.2)	--	--	--	N(20)	bleached arg breccia w/qtz

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
222	L(.05)	--	L 10	0.90	L(.2)	--	--	--	N(20)	lim qtz in arg
223	L(.05)	--	L 10	0.35	L(.2)	--	--	--	N(20)	lim arg
224	L(.05)	--	L 10	0.45	0.3	--	--	--	N(20)	lim arg
225	L(.05)	--	L 10	0.24	L(.2)	--	--	--	N(20)	lim arg
226	L(.05)	--	L 10	0.78	L(.2)	--	--	--	N(20)	lim arg w/py
227	L(.05)	--	L 10	0.30	L(.2)	--	--	--	N(20)	lim, silic mvolc
228	L(.05)	--	L 10	0.35	L(.2)	--	--	--	N(20)	lim arg
229	L(.05)	--	L 10	0.28	L(.2)	--	--	--	N(20)	lim arg
230	L(.05)	--	10	0.35	L(.2)	--	--	--	N(20)	lim arg w/qtz vnlts
231	L(.05)	--	L 10	0.55	L(.2)	--	--	--	N(20)	lim, silic arg & grw
232	L(.05)	--	L 10	0.30	L(.2)	--	--	--	N(20)	lim arg & grw
233	L(.05)	--	30	0.28	L(.2)	--	--	--	N(20)	lim intr w/py
234	L(.05)	--	15	0.15	L(.2)	--	--	--	L(20)	lim grst in fault
235	L(.05)	--	L 10	0.22	0.3	--	--	--	N(20)	hematic grst
236	L(.05)	--	160	0.16	L(.2)	--	--	--	N(20)	alt Ls float
237	L(.05)	--	10	0.45	L(.2)	--	--	--	N(20)	dk rk w/py & qtz
238	L(.05)	--	10	0.30	L(.2)	--	--	--	N(20)	silic dk in arg

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
239	L(.05)	--	L 10	0.26	L(.2)	--	--	--	N(20)	qtz vn in dk
240	L(.05)	--	L 10	0.11	L(.2)	--	--	--	N(20)	qtz vn in arg
241	L(.05)	--	L 10	0.15	L(.2)	--	--	--	N(20)	bleached arg & ngrw
242	L(.05)	--	L 10	0.16	L(.2)	--	--	--	N(20)	sh slate w/qtz vnlts
243	L(.05)	--	L 10	0.13	L(.2)	--	--	--	N(20)	qtz vn
244	L(.05)	--	L 10	0.14	L(.2)	--	--	--	N(20)	lim qtz vn
245	L(.05)	--	L 10	0.14	L(.2)	--	--	--	N(20)	mafic dk
246	L(.05)	--	L 10	0.08	L(.2)	--	--	--	N(20)	qtz carb vnlts
247	L(.05)	--	10	0.16	L(.2)	160	00	00	N(20)	lim arg & mgrw
248	L(.05)	--	L 10	0.75	L(.2)	--	--	--	N(20)	intr rk w/py & po
249	L(.05)	--	10	0.12	L(.2)	--	--	--	N(20)	lim arg & mgrw
250	L(.05)	--	L 10	0.11	L(.2)	--	--	--	N(20)	lim arg
251	L(.05)	--	L 10	0.12	L(.2)	--	--	--	N(20)	lim arg
252	L(.05)	--	20	0.55	L(.2)	--	--	--	N(20)	lim arg
253	L(.05)	--	10	0.14	L(.2)	--	--	--	N(20)	bleached, lim arg breccia
254	L(.05)	--	L 10	0.45	L(.2)	--	--	--	N(20)	silic breccia in arg
255	L(.05)	--	L 10	0.22	L(.2)	180	--	--	N(20)	mafic intr w/py

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
256	L(.05)	--	L 10	0.18	L(.2)	--	--	--	N(20)	lim arg & mgrw
257	L(.05)	--	25	0.30	L(.2)	--	--	--	N(20)	lim arg & Ls w/qtz
258	L(.05)	--	15	0.45	L(.2)	650	--	--	N(20)	lim phyllite w/qtz vnlts
259	L(.05)	--	35	0.38	L(.02)	150	--	--	N(20)	silic Ls
260	L(.05)	--	25	0.35	L(.2)	--	--	--	L(20)	lim intr & grw
261	L(.05)	--	50	0.35	0.4	360	--	--	L(20)	silic Ls
262	L(.05)	--	20	0.25	L(.2)	--	--	--	N(20)	lim arg
263	L(.05)	--	10	0.16	L(.2)	--	--	--	N(20)	lim, silic Ls
264	L(.05)	--	300	G(10)	0.3	11000	--	--	L(20)	sh grst w/Cu-carb
265	L(.05)	--	10	0.45	L(.2)	--	--	--	N(20)	lim grst
266	L(.05)	--	75	0.25	L(.2)	--	--	--	N(20)	bleached tuff
267	L(.05)	--	25	0.22	L(.2)	--	--	--	N(20)	lim tuff
268	L(.05)	--	35	0.18	L(.2)	--	--	--	L(20)	lim mvolc
269	L(.05)	--	30	0.20	L(.2)	--	--	--	N(20)	lim, silic tuff
270	L(.05)	--	40	0.13	L(.2)	--	--	--	N(20)	lim breccia w/qtz vnlts
271	L(.05)	--	L 10	0.20	L(.2)	--	--	--	N(20)	alt grst breccia
272	L(.05)	--	L 10	0.10	L(.2)	--	--	--	N(20)	lim Ls breccia

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
273	L(.05)	--	75	0.12	0.4	--	--	--	N(20)	silic Ls
274	L(.05)	--	L 10	0.22	0.4	--	--	--	N(20)	lim mvolc
275	L(.05)	--	35	0.16	0.4	--	--	--	N(20)	lim mvolc
276	L(.05)	--	L 10	0.35	0.4	110	--	--	N(20)	mvolc w/py & cp
277	L(.05)	--	20	0.18	L(.2)	--	--	--	N(20)	alt Ls w/carb vnlts
278	L(.05)	--	15	0.35	L(.2)	--	--	--	N(20)	porph dk rk
279	L(.05)	--	35	0.35	L(.2)	--	--	--	N(20)	mgrw w/py
280	L(.05)	--	L 10	0.40	L(.2)	--	--	--	N(20)	lim arg
281	L(.05)	--	30	0.40	L(.2)	--	--	--	N(20)	dk w/py
282	L(.05)	--	L 10	0.55	L(.2)	--	--	--	N(20)	alt dk rk w/py
283	L(.05)	--	L 10	0.10	L(.2)	--	--	--	N(20)	lim mgrw w/qtz vnlts
284	L(.05)	--	15	0.24	L(.2)	--	--	--	N(20)	bleached slate
285	L(.05)	--	15	0.15	L(.2)	--	--	--	N(20)	lim arg
286	L(.05)	--	15	0.18	L(.2)	--	--	--	N(20)	mgrw
287	L(.05)	--	L 10	0.18	L(.2)	--	--	--	N(20)	lim arg
288	L(.05)	--	10	0.20	L(.2)	--	--	--	N(20)	lim mgrw & arg
289	L(.05)	--	15	0.16	L(.2)	--	--	--	N(20)	lim arg & mgrw

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
290	L(.05)	--	40	0.40	L(.2)	--	--	--	N(20)	lim mgrw w/qtz
291	L(.05)	--	L 10	0.11	L(.2)	--	--	--	N(20)	mgrw
292	L(.05)	00	L 10	0.13	L(.2)	--	--	--	N(20)	mgrw w/qtz vnlts
293	L(.05)	--	L 10	0.14	L(.2)	--	--	--	N(20)	lim arg w/qtz-carb vnlts
294	L(.05)	--	L 10	0.15	L(.2)	120	--	--	N(20)	lim dk rk
295	L(.05)	--	L 10	0.45	L(.2)	--	--	--	N(20)	lim arg
296	L(.05)	--	10	0.20	0.4	--	--	--	N(20)	arg
297	L(.05)	--	10	0.24	L(.2)	--	--	--	N(20)	lim arg w/qtz vnlts
298	L(.05)	--	L 10	0.55	0.4H	--	--	--	N(20)	lim arg
299	L(.05)	--	10	0.24	L(.2)	--	--	--	N(20)	lim arg
300	L(.05)	--	L 10	0.12	L(.2)	--	--	--	N(20)	mgrw w/po
301	0.2	--	L 10	0.20	L(.2)	--	--	--	N(20)	dk rk
302	L(.05)	--	L 10	0.80	L(.2)	--	--	--	N(20)	lim arg
303	L(.05)	--	L 10	0.16	L(.2)	--	--	--	N(20)	alt mgrw
304	L(.05)	--	15	0.40	L(.2)	--	--	--	N(20)	lim mgrw & arg
305	L(.05)	--	50	0.26	L(.2)	--	--	--	N(20)	lim arg w/qtz vnlts
306	L(.05)	--	200	0.35	L(.2)	--	--	--	N(20)	silic mgrw w/py

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
307	L(.05)	--	L 10	0.35	L(.2)	--	--	--	N(20)	silic mgrw w/py
308	L(.05)	--	40	0.16	L(.2)	--	--	--	N(20)	alt mgrw
309	L(.05)	--	10	0.30	L(.2)	--	--	--	N(20)	silic dk
310	L(.05)	--	60	0.40	L(.2)	--	--	--	N(20)	lim dk & mgrw
311	L(.05)	--	L 10	0.20	0.3	--	--	--	N(20)	lim Hb dior
312	L(.05)	--	10	0.04	L(.2)	--	--	--	N(20)	lim Hb dior
313	L(.05)	--	L 10	0.16	L(.2)	--	--	--	N(20)	alt biot pyroxenite
314	L(.05)	--	50	0.60	L(.2)	--	--	--	N(20)	lim intr rk
315	L(.05)	--	L 10	0.20	L(.2)	360	--	--	N(20)	pyrox w/Cu-carb
316	L(.05)	--	35	0.70	L(.2)	--	--	--	N(20)	lim dior breccia w/qtz
317	L(.05)	--	10	0.35	0.3	110	--	--	N(20)	lim, sh gabbro
318	L(.05)	--	10	0.60	L(.2)	--	--	--	N(20)	lim dior & mgrw
319	L(.05)	--	40	0.20	L(.2)	--	--	--	N(20)	silic breccia w/carb
320	L(.05)	--	10	0.15	L(.2)	--	--	--	N(20)	Ls w/sulfides
321	L(.05)	--	L 10	0.18	L(/2)	--	--	--	N(20)	lim mgrw & qtz dior
322	L(.05)	--	15	0.14	L(.2)	--	--	--	N(20)	Ls w/qtz & py
323	L(.05)	--	60	0.45	0.3	--	--	--	N(20)	lim, silic arg

Location No	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
324	L(.05)	--	15	0.35	L(.2)	--	--	--	N(20)	lim, sh grw
325	0.1	--	950	0.20	0.9	330	--	--	N(20)	lim dk rk
326	L(.05)	--	150	0.15	L(.2)	--	--	--	N(20)	lim mgrw
327	L(.05)	--	30	0.20	0.4	--	--	--	N(20)	lim, silic Ls
328	L(.05)	--	L 10	0.16	L(.2)	--	--	--	N(20)	lim arg
329	L(.05)	--	75	0.18	L(.2)	--	--	--	N(20)	lim, silic mgrw
330	L(.05)	--	75	0.18	L(.2)	--	--	--	N(20)	lim arg w/qtz vn
331	L(.05)	--	15	0.16	L(.2)	--	--	--	N(20)	lim arg & grw
332	L(.05)	--	10	0.16	L(.2)	--	--	--	N(20)	lim dk rk
333	L(.05)	--	L 10	0.22	L(.2)	110	--	--	N(20)	lim grst & arg
334	L(.05)	--	850	1.0	L(.2)	82000	--	--	N(20)	lim grst & arg w/Cu-carb
335	L(.05)	--	10	0.35	L(.2)	480	--	--	N(20)	lim Ls & intr w/qtz
336	L(.05)	--	L 10	0.20	L(.2)	76000	--	--	L(20)	grst w/Cu-carb
337	L(.05)	--	750	G(10)	L(.2)	88200	--	--	N(20)	Grst w/Cu-ox
338	L(.05)	--	10	8.0	L(.2)	--	--	--	N(20)	lim, silic grst
339	L(.05)	--	L 10	0.16	L(.2)	--	--	--	N(20)	lim mvolc
340	L(.05)	--	L 10	0.16	L(.2)	120	--	--	N(20)	lim grst wqtz vnlts

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
341	L(.05)	--	L 10	0.16	L(.2)	--	--	--	N(20)	alt mafic dk
342	L(.05)	--	10	0.20	L(.2)	--	--	--	N(20)	lim arg w/qtz vnlts
343	L(.05)	--	10	0.25	L(.2)	--	--	--	N(20)	lim slate
344	L(.05)	--	L 10	0.35	L(.2)	25	--	--	N(20)	lim mgrw
345	L(.05)	--	10	0.40	L(.2)	--	--	--	N(20)	lim mgrw
346	L(.05)	--	L 10	0.26	L(.2)	--	--	--	N(20)	mgrw & arg
347	L(.05)	--	10	0.15	L(.2)	--	--	--	N(20)	mgrw & arg
348	L(.05)	--	20	0.12	L(.2)	--	--	--	N(20)	lim qtz vn
349	L(.05)	--	10	0.18	L(.2)	--	--	--	N(20)	mafic dk
350	L(.05)	--	10	0.28	0.4	--	--	--	N(20)	lim mgrw
351	L(.05)	--	125	0.15	L(.2)	--	--	--	N(20)	lim dk rk
352	L(.02)	--	N 10	0.22	--	--	--	--	--	lim arg w/py
353	L(.02)	--	40	0.12	--	--	--	--	--	lim arg w/qtz vnlts
354	L(.05)	--	N 10	0.22	--	--	--	--	--	dk w/qtz & Cu-ox
355	L(.02)	--	20	0.35	--	--	--	--	--	dk w/qtz & Cu-ox
356	L(.02)	--	20	0.35	--	--	--	--	--	sulf vnlt in phyllite
357	L(.02)	--	L 10	0.24	--	--	--	--	--	lim phyllite gouge

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
358	L(.02)	--	20	0.70	--	--	--	--	--	lim qtz & phyllite
359	0.04	--	800	0.30	--	--	--	--	--	lim, silic breccia
360	L(.02)	--	800	0.18	--	--	--	--	--	lim qtz vn
361	L(.02)	1.6	L 10	0.04	--	100	30	100	--	lim sh arg
362	L(.02)	2.0	10	L(.01)	--	90	28	L(25)	--	lim sh zone rk w/carb vns
363	L(.02)	2.2	160	2.2	--	77000	L(25)	76	--	sh zone rk w/Cu-ox
364	L(.02)	1.0	10	0.02	--	400	L(25)	40	--	mvolc rk
365	L(.02)	1.8	10	0.02	--	90	L(25)	56	--	hem mvolc
366	L(.02)	1.2	L 10	L(.01)	--	110	L(25)	L(25)	--	carb vn in mvolc
367	L(.02)	2.0	200	0.75	--	140	28	150	--	lim mvolc
368	L(.02)	2.0	10	0.40	--	880	L(25)	L(25)	--	qtz-carb vn
369	L(.02)	--	120	0.30	--	--	--	--	--	lim gossan
370	L(.02)	--	L 10	0.20	--	--	--	--	--	lim mvolc
371	L(.02)	--	L 10	0.26	--	--	--	--	--	alt grst w/Cu-ox
372	L(.02)	--	40	0.35	--	--	--	--	--	lim gossan
373	L(.02)	--	20	0.70	--	--	--	--	--	lim gossan
374	L(.02)	--	10	0.18	--	--	--	--	--	lim qtz vn

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
375	L(.02)	3.6	10	0.12	--	14000	L(25)	36	--	bleached grst w/Cu-ox
376	L(.02)	1.4	10	L(.01)	--	180	L(25)	L(25)	--	mvolc rk
377	L(.02)	1.2	L(10)	0.04	--	100	L(25)	L(25)	--	lim mvolc
378	L(.02)	L(.2)	N 10	L(.01)	--	10	L(25)	L(25)	--	qtz vn w/epidote
379	L(.02)	20	20	0.30	--	90000	50	72	--	grst w/Cu-ox
380	L(.02)	1.2	10	0.08	--	200	L(25)	44	--	sh grst w/qtz vnlts
381	L(.02)	2.0	60	0.07	--	250	25	100	--	lim gouge
382	L(.02)	0.8	40	L(.01)	--	10	L(25)	26	--	chloritic gouge
383	L(.02)	1.0	10	L(.01)	--	10	L(25)	L(25)	--	hematic gouge
384	L(.02)	1.0	20	L(.01)	--	L(10)	L(25)	L(25)	--	hematic gouge
385	L(.02)	1.6	80	0.05	--	120	L(25)	52	--	sh grst
386	L(.02)	3.6	L 10	L(.01)	--	12000	L(25)	55	--	hematic grst w/Cu-ox
387	0.06	1.2	L 10	0.70	--	280	30	50	--	grst rk floor in str
388	L(.02)	1.4	L 10	0.04	--	130	L(25)	25	--	mvolc sand
389	L(.02)	0.6	20	0.02	--	1400	L(25)	L(25)	--	qtz vn in mvolc w/Cu-ox
390	L(.02)	1.4	L 10	0.08	--	1900	25	44	--	grey mvolc
391	10.0	16	N 10	0.22	--	75000	L(25)	L(25)	--	alt grst w/Cu-ox

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
392	L(.02)	1.4	60	0.06	--	80	L(25)	72	--	lim mvolc
393	L(.02)	1.4	60	L(.01)	--	34	25	40	--	lim mvolc
394	L(.02)	1.4	10	0.02	--	250	25	48	--	sh, alt grst
395	L(.02)	1.6	10	0.60	--	100	28	55	--	sh, mvolc
396	L(.02)	1.2	L 10	L(.01)	==	100	28	50	--	alt, hematic mvolc
397	L(.02)	7.0	30	0.25	--	40000	L(25)	30	--	hematic grst w/Cu=ox
398	L(.02)	1.0	N 10	0.02	--	750	L(25)	30	--	hematic, sh grst
399	L(.02)	1.2	10	L(.01)	--	2900	L(25)	L(25)	--	lim arg
400	L(.02)	1.2	10	0.02	--	52	25	44	--	sh mvolc
401	L(.02)	0.8	80	0.40	--	450	L(25)	68	--	lim, silic grst in float
402	L(.02)	1.2	20	0.04	--	500	25	58	--	alt mvolc
403	L(.02)	1.0	20	0.07	--	18	25	L(25)	--	hematic seams in mvolc
404	L(.02)	1.4	20	0.18	--	70	30	40	--	lim seams in alt mvolc
405	L(.02)	30	L 10	0.12	--	47000	L(25)	L(25)	--	qtz vn in sh grst w/Cu-ox
406	L(.02)	1.2	40	0.15	--	110	L(25)	50	--	lim mvolc
407	L(.02)	0.6	160	0.45	--	110	L(25)	L(25)	--	sh grst & qtz vn
408	L(.02)	--	20	0.20	--	--	--	--	--	lim gossan

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
409	0.10	--	L 10	1.5	--	--	--	--	--	qtz epidote vn in grst
410	0.02	--	20	0.60	--	--	--	--	--	alt mvolc
411	L(.02)	1.4	N 10	L(.01)	--	300	L(25)	L(25)	--	qtz hematite vn
412	L(.02)	1.6	L 10	0.04	--	250	25	47	--	mvolc rk floor in str
413	L(.02)	80	20	0.24	--	180000	L(25)	L(25)	--	qtz vn w/Cu-ox
414	L(.02)	--	L 10	0.07	--	--	--	--	--	lim gouge
415	L(.02)	--	N 10	1.3	--	--	--	--	--	green arg w/py
416	L(.02)	--	40	2.0	--	--	--	--	--	lim gossan
417	L(.02)	--	20	0.10	--	--	--	--	--	lim arg
418	L(.02)	--	10	0.18	--	--	--	--	--	lim felsite dk w/py
419	L(.02)	--	20	0.45	--	--	--	--	--	lim felsite dk
420	L(.02)	--	10	0.20	--	--	--	--	--	pyritic tuff
421	L(.02)	--	L 10	0.10	--	--	--	--	--	qtz-carb vn
422	L(.02)	--	L 10	0.60	--	--	--	--	--	lim mvolc rk
423	L(.02)	--	L 10	0.26	--	--	--	--	--	lim mvolc rk
424	L(.02)	--	N 10	0.55	--	--	--	--	--	lim arg & mvolc
425	L(.02)	--	L 10	0.20	--	--	--	--	--	qtz vn w/lim, py, cp

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
426	L(.02)	--	20	0.08	--	--	--	--	--	chloritic gouge
427	L(.02)	--	10	0.11	--	--	--	--	--	lim mvolc rk
428	L(.05)	--	L 10	0.28	L(.2)	--	--	--	N(20)	intr rk w/py
429	L(.02)	--	L 10	0.18	--	--	--	--	--	sh, lim arg
430				(see loc 125)						
431				(see loc 126)						
432				(see loc 130)						
433				(see loc 129)						
434				(see loc 131)						
435				(see loc 132)						
436				(see loc 133)						
437				(see loc 135)						
438				(see loc 136)						
439				(see loc 134)						
440				(see loc 137)						
441	0.2	L(.2)	N 10	0.01	--	80	L(25)	--	--	lim qtz & sh dior
442	7.8	12.0	60	0.03	--	370	70	--	--	lim frac fillings

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
443				(see loc 183)						
444	2.6	10.0	10	0.04	--	240	L(25)	--	--	lim qtz vn in sh zone
445				(see loc 138)						
446	L(.02)	1.0	L 10	L(.01)	--	270	L(25)	--	--	lim, sh dior
447	1.4	2.0	400	L(.01)	--	240	25	--	--	lim gossan
448	0.08	0.6	20	L(.01)	--	120	L(25)	--	--	lim qtz
449	0.1	1.6	160	L(.01)	--	250	L(25)	--	--	lim, sh dior
450	0.5	1.2	10	0.03	--	75	L(25)	--	--	lim qtz-carb vn
451	0.06	0.8	10	L(.01)	--	45	L(25)	--	--	dior near fault
452				(see loc 184)						
453	0.04	1.6	N 10	0.02	--	25	25	--	--	lim, silic dior
454	6.6	5.6	80	0.06	--	130	25	--	--	lim gouge & breccia
455				(see loc 186)						
456	L(.02)	0.6	10	0.02	--	12	L(25)	--	--	carb-serp(?) rk
457	L(.02)	L(.2)	15	0.03	--	150	L(25)	--	--	lim dk rk
458	1.6	4.8	60	0.04	--	250	L(25)	--	--	lim qtz w/minor carb
459	L(.02)	0.4	10	L(.01)	--	40	L(25)	--	--	lim arg

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
460	1.9	1.0	400	0.30	--	180	26	40	--	lim grn arg
461	0.1	0.6	200	0.20	--	200	L(25)	25	--	lim grn arg
462	0.08	0.2	80	0.26	--	170	L(25)	25	--	lim grn arg w/qtz
463	0.06	0.4	60	0.24	--	170	L(25)	L(25)	--	lim grn arg
464	0.06	0.3	10	0.30	--	180	L(25)	L(25)	--	lim grn arg
465				(see loc 187)						
466	50.0	36.0	40	0.28	--	750	4000	--	--	qtz carb vn w/py & gl
467	L(.02)	18.0	60	0.06	--	750	3700	--	--	qtz vn w/py & gl
468				(see loc 188)						
469				(see loc 189)						
470				(see loc 190)						
471	0.29	1.0	80	0.05	--	30	L(25)	70	--	sh, lim qtz dior
472				(see loc 139)						
473	0.02	L(.2)	20	0.02	--	50	L(25)	30	--	sh, lim dior
474	0.56	0.6	20	0.03	--	78	L(25)	40	--	sh lim sior
475	1.6	L(.2)	L 10	0.03	--	68	25	110	--	sh dior w/qtz vnlts
476	0.04	L(.2)	120	0.03	--	38	L(25)	40	--	lim qtz dior

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
477	0.06	L(.2)	100	0.03	--	28	25	50	--	lim, sh dior
478	0.22	L(.2)	20	0.01	--	44	L(25)	40	--	lim, sh dior
479	21.6	11.0	10	0.16	--	370	180	55	--	lim qtz w/py & chl
480	6.2	2.0	800	0.14	--	120	30	60	--	lim vnlts & qtz
481	0.18	0.4	20	0.06	--	32	25	45	--	sh, alt dior
482	16.0	0.4	60	0.10	--	54	32	50	--	lim, sh dior
483	0.04	0.4	10	0.03	--	53	L(25)	55	--	alt dior w/lim seams
484	0.94	0.6	40	0.09	--	53	30	60	--	sh, alt dior w/qtz vnlts
485	0.14	1.0	20	0.06	--	85	L(25)	60	--	sh, lim dior
486	0.10	1.0	20	0.06	--	55	L(25)	50	--	sh, lim dior
487				(see loc 140)						
488	L(.02)	0.6	10	0.55	--	130	L(25)	60	--	dior float near contact
489	L(.02)	0.4	10	0.50	--	120	L(25)	25	--	lim, sh arg
490	L(.02)	0.8	20	0.40	--	70	L(25)	58	--	sh, lim gouge
491	L(.02)	0.8	20	0.35	--	100	L(25)	52	--	sh, lim gouge
492	L(.02)	0.8	20	0.35	--	110	L(25)	64	--	sh, alt arg
493	L(.02)	0.6	60	0.30	--	140	L(25)	40	--	sh, lim arg

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
494	L(.02)	0.7	10	0.24	--	40	L(25)	65	--	sh arg
495	L(.02)	0.6	20	0.30	--	120	L(25)	40	--	sh, lim arg
496	0.2	0.4	20	0.24	--	130	L(25)	38	--	sh, lim arg w/qtz vnlts
497	0.04	0.6	20	0.24	--	100	L(25)	52	--	sh, lim arg float
498	L(.02)	0.6	10	0.30	--	110	L(25)	60	--	lim arg float
499	0.3	1.2	80	0.22	--	300	L(25)	40	--	lim arg
500	L(.02)	0.5	10	0.26	--	50	L(25)	40	--	lim arg w/qtz vnlts
501	L(.02)	0.2	20	0.13	--	65	L(25)	45	--	sh alt arg
502	L(.02)	0.5	20	0.20	--	65	L(25)	40	--	lim, sh arg
503	0.14	0.5	60	0.14	--	110	L(25)	L(25)	--	lim arg & qtz
504	L(.02)	0.3	10	0.14	--	100	L(25)	L(25)	--	alt arg w/lim fracs
505	L(.02)	0.5	40	0.22	--	150	L(25)	50	--	sh arg
506	0.2	0.5	600	0.26	--	370	L(25)	L(25)	--	lim arg & dior
507	0.1	1.2	L 10	0.01	--	100	30	--	--	sh, chloritos diorite
508	0.5	1.6	N 10	0.02	--	90	L(25)	--	--	chloritos sch
509	0.1	1.0	N 10	L(.01)	--	10	25	--	--	qtz=chloritic vn
510	0.1	2.2	20	0.02	--	90	L(25)	--	--	lim, sh dior

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
511	0.4	L(.2)	L 10	0.01	--	140	L(25)	--	--	lim qtz in fault
512	0.5	1.2	40	0.04	--	75	25	--	--	chloritic sch
513	1.4	2.4	20	0.05	--	100	L(25)	--	--	lim sh zone rk
514	0.04	0.4	L 10	0.01	--	250	L(25)	--	--	chloritic sch
515	0.1	1.6	N 10	0.02	--	55	40	--	--	chlorite sch
516	0.04	0.8	L 10	L(.01)	--	45	L(25)	--	--	lim qtz in fault
517	2.2	5.2	30	0.01	--	130	L(25)	--	--	lim qtz
518	L(.02)	0.4	N 10	0.01	--	350	L(25)	--	--	chl w/qtz vn
519	0.08	L(.2)	N 10	0.01	--	70	L(25)	--	--	lim qtz vn
520	1.6	2.4	N 10	0.14	--	400	L(25)	--	--	lim sh zone rk
521	L(.02)	0.4	N 10	L(.01)	--	75	L(25)	--	--	qtz-chl vn
522	L(.02)	0.6	N 10	L(.01)	--	100	L(25)	--	--	alt dior w/qtz-carb vnlts
523	0.4	1.0	30	0.01	--	100	L(25)	--	--	qtz-carb vn
524	0.1	2.0	L 10	0.02	--	L 10	35	--	--	carb vn w/py
525	L(.02)	L(.2)	N 10	0.04	--	28	L(25)	--	--	lim qtz in fault
526	0.5	1.6	L 10	0.05	--	90	L(25)	--	--	lim qtz
527	6.0	L(.2)	N 10	0.01	--	43	L(25)	--	--	lim qtz in fault

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
528	L(.02)	L(.2)	N 10	L(.01)	--	L 10	L(25)	--	--	lim qtz in sh dior
529	4.2	5.6	L 10	L(.01)	--	85	L(25)	--	--	lim qtz in dior
530	0.1	L(.2)	N 10	0.01	--	28	L(25)	--	--	lim qtz vn in dior
531	6.0	2.0	10	0.01	--	120	L(25)	--	--	lim qtz in dior
532	0.06	0.2	N 10	0.01	--	45	L(25)	--	--	lim qtz in fault
533	0.1	0.8	L 10	L(.01)	--	140	L(25)	--	--	lim chl in fault
534				(see loc. 127)						
535	40.0	4.8	10	0.2	--	100	L(25)	--	--	lim qtz
536	14.0	2.0	40	0.03	--	100	L(25)	--	--	lim qtz
537	L(.02)	0.4	L 10	L(.01)	--	L 10	L(25)	--	--	alt dior
538	3.6	0.6	15	0.02	--	50	L(25)	--	--	lim qtz-carb vn
539	2.2	1.0	160	0.03	--	320	L(25)	--	--	lim qtz vn
540	20.0	L(.2)	L 10	0.04	--	13	L(25)	--	--	lim qtz in dior
541	L(.02)	L(.2)	N 10	0.06	--	23	L(25)	--	--	lim qtz in fault
542	0.06	L(.2)	N 10	0.01	--	15	L(25)	--	--	lim, sh dior
543	0.06	L(.2)	N 10	0.05	--	40	L(25)	--	--	lim, sh dior w/qtz
544	1.7	L(.2)	20	0.01	--	50	L(25)	--	--	lim qtz in dior

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
545	L(.02)	L(.2)	L 10	L(.01)	--	10	L(25)	--	--	sh dior
546	0.06	L(.2)	60	L(.01)	--	15	L(25)	--	--	sh, lim dior
547	L(.02)	L(.2)	L 10	L(.01)	--	26	L(25)	--	--	lim qtz in dior
548	1.5	2.4	10	0.03	--	70	L(25)	--	--	lim qtz
549	0.08	L(.2)	40	0.02	--	55	L(25)	--	--	lim qtz-chl vn
550	0.02	L(.2)	10	0.02	--	11	L(25)	--	--	lim qtz chl vn
551	0.06	L(.2)	L 10	L(.01)	--	45	L(25)	--	--	lim qtz
552	0.1	L(.2)	10	0.01	--	22	L(25)	--	--	lim qtz in fault
553	1.3	1.0	60	L(.01)	--	35	75	--	--	lim sh zone rk w/qtz-carb-chl vn
554	40.0	8.0	20	0.8	--	110	1500	--	--	lim sh zone rk
555	0.06	0.8	20	0.02	--	45	L(25)	--	--	alt arg near fault
556	0.1	1.6	40	L(.01)	--	55	25	--	--	sch in sh zone
557	L(.02)	L(.2)	15	L(.01)	--	22	L(25)	--	--	hornfelsed arg
558	32.0	8.0	160	1.5	--	300	1900	--	--	lim, sh dior w/qtz
559	1.0	L(.2)	60	0.01	--	18	L(25)	--	--	lim qtz in dior
560	0.7	0.4	800	0.01	--	130	L(25)	--	--	lim sch in sh zone
561	0.1	0.4	60	L(.01)	--	55	L(25)	--	--	sh, chl sch

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
562				(see loc. 128)						
563	0.04	L(.2)	60	0.03	--	65	L(25)	--	--	lim qtz in shear
564	0.06	L(.2)	L 10	0.01	--	95	L(25)	--	--	lim qtz vn
565	80.0	120.0	20	0.35	--	110	L(25)	--	--	qtz=cb vn w/py & po
566	0.1	0.8	L 10	0.14	--	20	L(25)	--	--	qtz-carb-chl vn
567	L(.02)	L(.2)	20	0.06	--	150	L(25)	--	--	clayey gouge
568	0.1	0.2	20	0.14	--	15	L(25)	--	--	clayey gouge
569	L(.02)	L(.2)	L 10	0.01	--	11	L(25)	--	--	lim qtz-carb vn
570	0.2	0.2	60	0.04	--	110	L(25)	--	--	chl, sh zone rk
571	L(.02)	0.4	L 10	0.02	--	14	L(25)	--	--	massive dior
572	L(.02)	L(.2)	L 10	0.1	--	60	L(25)	--	--	sh dior
573	L(.02)	L(.2)	N 10	0.09	--	68	L(25)	--	--	alt dior w/qtz-carb vnlts
574	0.3	1.6	L 10	0.35	--	43	L(25)	--	--	clayey gouge
575	L(.02)	1.2	L 10	0.14	--	24	L(25)	--	--	lim gouge
576	L(.02)	1.2	10	0.06	--	11	25	--	--	alt dior
577	L(.02)	0.4	N 10	0.02	--	10	L(25)	--	--	clayey gouge
578	0.06	0.6	L 10	0.06	--	85	L(25)	--	--	qtz w/carb & chl

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
579	0.1	1.6	20	0.09	--	45	25	--	--	qtz carb-chl vn
580	1.2	2.8	N 10	0.01	--	45	L(25)	--	--	chaley qtz carb vn
581	L(.02)	0.8	L 10	0.1	--	18	25	--	--	massive dior
582	L(.02)	L(.2)	10	0.04	--	L(10)	25	--	--	massive dior
583	0.1	1.6	N 10	0.08	--	25	L(25)	--	--	sh dior in fault
584	L(.02)	L(.2)	N 10	0.01	--	L(10)	L(25)	--	--	qtz carb vn
585	L(.02)	1.2	N 10	0.04	--	12	L(25)	--	--	alt dior near fault
586	L(.02)	L(.2)	N 10	L(.01)	--	L(10)	L(25)	--	--	qtz carb vn
587	0.08	1.0	10	0.08	--	25	25	--	--	massive dior
588	L(.02)	L(.2)	N 10	0.08	--	10	L(25)	--	--	massive dior
589	1.7	4.0	N 10	0.08	--	25	L(25)	--	--	qtz carb vn w/sulfide
590	1.2	2.6	N 10	L(.01)	--	55	L(25)	--	--	qtz vnlt w/py
591	0.2	0.6	L 10	0.01	--	13	25	--	--	sh zone rk
592	0.4	1.4	10	L(.01)	--	20	60	--	--	qtz vn
593	0.1	0.8	N 10	0.01	--	30	L(25)	--	--	qtz carb vn
594	1.0	2.0	L 10	0.02	--	20	25	--	--	sh dior w/ carb vnlt
595	1.0	2.0	N 10	0.01	--	17	65	--	--	clayey gouge

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
596	L(.02)	0.6	N 10	0.04	--	L(10)	L(25)	--	--	massive dior
597	0.3	0.8	N 10	0.05	--	15	L(25)	--	--	massive dior
598	0.02	0.6	N 10	0.05	--	L(10)	L(25)	--	--	massive dior
599	L(.02)	0.4	N 10	0.06	--	10	L(25)	--	--	dior w/qtz vnlts
600	0.02	1.0	L 10	0.08	--	L(10)	30	--	--	qtz carb vn in sh zone
601	0.08	1.0	N 10	0.01	--	100	25	--	--	qtz carb vn in sh dior
602	0.08	0.4	L 10	0.03	--	30	L(25)	--	--	clay w/qtz carb-chl
603	1.1	2.0	N 10	0.06	--	L(10)	25	--	--	qtz carb vn in fault
604	L(.02)	1.0	L 10	0.35	--	30	L(25)	--	--	dark limonite in frac
605	L(.02)	0.4	120	0.01	--	L(10)	25	--	--	lim seams
606	0.06	2.0	N 10	0.02	--	13	L(25)	--	--	qtz carb-chl vn
607	L(.02)	0.6	40	0.05	--	110	25	45	--	sh arg w/ qtz & lim
608	40	9.4	40	0.06	--	49	800	L(25)	--	qtz vn w/lim & py
609				(see loc 159)						
610	45	0.8	120	0.22	--	170	100	--	--	lim seams in qtz
611				(see loc 160)						
612	0.32	0.6	20	0.03	--	30	L(25)	180	--	sh dk rk

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
613	0.04	0.2	10	0.05	--	65	L(25)	L(25)	--	lim arg
614	0.12	0.4	20	0.02	--	190	L(25)	L(25)	--	frac arg w/py
615				(see loc 219)						
616	0.02	0.4	20	0.05	--	110	L(25)	L(25)	--	py dk rk of intrm comp
617	0.03	0.4	20	0.05	--	50	L(25)	L(25)	--	lim arg
618				(see loc 217)						
619	L(.02)	0.4	10	0.03	--	39	--	--	L(20)	lim, silic arg
620	0.04	0.2	L 10	L(.01)	--	37	--	--	L(20)	lim arg
621	0.60	1.2	100	0.26	H(.8)	300	--	--	N(20)	C-zone soil
622				(see loc 156)						
623	L(.02)	0.08	L 10	L(.01)	--	180	--	--	N(20)	sh, alt dk rk
624	0.04	0.6	20	0.04	--	78	--	--	N(20)	alt arg
625	0.1	--	35	0.40	0.2	--	--	--	N(20)	C-zone soil
626	0.1	--	45	0.40	L(.2)	--	--	--	N(20)	C-zone soil
627	0.05	--	25	0.60	L(.2)	--	--	--	N(20)	C-zone soil
628	0.08	1.2	20	0.05	--	220	25	25	--	qtz-carb vnlts
629	0.20	1.0	200	0.20	H(.6)	150	--	--	N(20)	C-zone soil

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
630	0.06	0.8	1000	0.08	H(1.2)	200	--	--	N(20)	C-zone soil
631	0.12	0.8	20	0.03	--	80	30	40	--	sil lim arg breccia
632	0.14	0.6	200	0.04	--	200	L(25)	25	--	lim arg q/qtz vnlts
633	0.14	0.6	20	0.03	--	220	L(25)	35	--	sh, bleached arg
634	0.48	1.0	10	0.12	--	180	25	L(25)	--	sh, lim arg
635	0.10	L(.2)	80	0.05	--	26	L(25)	L(25)	--	lim qtz in sh zone
636	L(.02)	1.0	20	0.05	--	62	36	45	--	sh. lim arg
637				(see loc 158)						
638	0.1	--	L 10	0.22	L(.2)	--	--	--	N(20)	C-zone soil
639	0.3	--	75	0.40	L(.2)	--	--	--	N(20)	C-zone soil
640	0.06	--	35	0.26	L(.2)	--	--	--	N(20)	C-zone soil
641	L(.02)	0.6	60	0.05	--	250	L(25)	L(25)	--	lim arg & dk breccia
642	L(.02)	0.4	L 10	0.05	--	70	--	--	L(20)	alt dk rk w/py
643	L(.02)	0.8	40	0.06	--	100	00	00	L(20)	alt arg & dk rk
644				(see loc 161)						
645	0.5	1.2	20	0.1	--	130	00	00	L(20)	lim arg
646				(see loc 215)						

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
647	0.10	0.8	40	0.04	--	120	L(25)	L(25)	--	frac arg w/lim-qtz vnlts
648	0.16	1.6	40	0.07	--	500	L(25)	L(25)	--	qtz-carb vn w/lim dk rk
649	0.03	L(.2)	20	0.07	--	130	L(25)	L(25)	--	lim dk rk & arg
650	L(.05)	--	L 10	0.35	L(.2)	--	--	--	N(20)	C-zone soil
651	0.04	0.8	30	0.02	--	95	--	--	L(20)	lim arg & dk rk
652	L(.02)	1.0	10	0.07	--	35	25	L(25)	--	qtz carb vn in sk arg
653	L(.02)	1.6	L 10	0.22	--	50	30	25	--	sil, lim arg breccia
654	L(.02)	1.8	20	0.10	--	53	30	25	--	lim arg
655				(see loc 216)						
656	L(.02)	0.8	20	0.12	--	94	25	50	--	sil, py arg
657	L(.02)	1.4	10	0.08	--	69	--	--	L(20)	lim arg w/py
658	0.02	1.8	L 10	0.14	--	45	--	--	N(20)	lim, silic arg breccia
659	L(.02)	L(.2)	L 10	0.08	--	120	L(25)	L(25)	--	frac dk rk w/py & lim
660	0.86	2.0	600	0.24	--	50	140	56	--	sh arg w/qtz, py, lim
661	0.14	L(.2)	600	0.06	--	22	L(25)	60	--	lim dk rk w/qtz vnlt & sh arg
662	10.8	1.0	400	0.16	--	65	230	120	--	sh intr rk & arg w/qtz & lim seams
663	36.0	12.0	G5000	0.55	--	120	1000	380	--	sh intr rk w/qtz vnlts

Location No.	Au	Ag	As	Hg	Te	Cu	Pb	Zn	W	Sample Description
664	4.8	1.2	1000	1.0	--	51	60	350	--	sh intr rk w/qtz vnlts lim seams
665	56.0	8.0	G5000	G(10)	--	160	700	3200	--	" "
666	86.0	2.8	G5000	G(10)	--	110	80	2800	--	" "
667	30.0	1.8	G5000	G(10)	--	170	84	1000	--	" "
668	16.8	7.0	G5000	10.0	--	500	900	2200	--	" "
669	0.28	1.0	400	2.8	--	270	150	500	--	" "
670	0.18	0.8	100	1.6	--	75	L(25)	70	--	" "
671	0.08	0.4	60	0.50	--	10	L(25)	L(25)	--	" "
672	3.0	1.2	200	3.5	--	34	60	28	--	" "
673	0.52	0.8	60	2.2	--	39	30	40	--	" "
674	0.40	0.4	30	0.35	--	21	L(25)	30	--	" "
675	0.16	0.8	80	0.75	--	30	30	90	--	" "

A D D E N D U M

On pages 2, 15, and 54, change Glavinovitch

to Glavinovich