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ANALYSES OF ROCK AND STREAM-SEDIMENT SAMPLES FROM THE SUMDUM B-4 QUADRANGLE, ALASKA

By

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and Raymond Wehr

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INTRODUCTION

Analytical data for 135 rock and 81 stream-sediment samples from the Sumdum B-4 , 1:63,360 scale quadrangle are presented in this report, together with a statistical treatment of the data. The samples were collected in 1969 as part of the Heavy Metals Program of the U.S. Geological Survey.

The most comprehensive discussion of the geology of the study area is a report by A. F. Buddington and Theodore Chapin (1929). Known metalliferous lodes of the area are described and additional references to specific areas are given by Berg and Cobb (1967). Additional data is given in reports by Herbert and Race (1964) and Alaska Department of Mines (1950). Supplemental publications are being prepared on the general geology and mineral occurrences of the study area.

Procedures and treatment of data

Standard procedures were followed in the collection and preparation of samples.

Rock samples are primarily grab samples from mineral occurrences and outcrops. They were chosen for analysis to provide data on background, because they were in the area of mineral occurrences or stream-sediment anomalies, because they were strongly iron stained, or contained visible sulfides.

Stream-sediment samples were generally collected from the active stream channel; where this was not possible, samples were collected from bank or terrace deposits adjacent to the channel.

Rock samples were crushed and pulverized and the minus 80 mesh fraction analyzed. Stream-sediment samples were dried, sieved, and the minus 80 mesh fraction analyzed. The minus 80 mesh fractions of the

samples were analyzed for 30 elements by the six-step semiquantitative spectrographic method and for gold by the atomic absorption method.[1/]

The spectrographic analyses were reported in percentage (pct) or parts per million (ppm) to the nearest number in the series 1.0, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, etc. The precision of a reported value is approximately plus 100 percent or minus 50 percent. Analyses for gold by the atomic absorption method are accurate to ± 100 percent. Minimum limits of determination for each element are given on page 7. Semiquantitative spectrographic analyses were done by K. J. Curry and atomic absorption analyses were done by R. L. Miller, R. B. Tripp, H. D. King, and A. L. Meier.

Locations of the rock and stream-sediment samples are shown on Plate 1. Rock sample descriptions are given in table 1 and rock sample analyses are tabulated in table 2 and stream-sediment analyses are tabulated in table 3.

The results of the analyses of the rock and stream-sediment analyses have been processed by means of a computer program known as GEOSUM and are presented in tables 2 and 3. The GEOSUM program is designed primarily for summarizing and tabulating geochemical data--especially data from semiquantitative spectrographic analyses (commonly referred to as six-step spectrographic analyses) by the laboratories of the U.S. Geological Survey.

The program output consists of: (a) a tabulation of the data, (b) histograms and cumulative frequency distributions for all elements except tungsten, and (c) a statistical summary which includes geometric means and geometric deviations.

[1/] Analyses for 29 elements by semiquantitative analyses and for gold by atomic absorption are given in the tables. Semiquantitative analyses for gold are omitted.

Table 1.--Description of rock, vein, and altered zone samples from the Sumdum B-4 quadrangle. (All samples are of representative material.) Sample localities are shown by sample number plotted on the accompanying map, Plate 1.

Sample No.	Lab. No.	Sample Description
1	AMG-751	Iron-stained biotite hornblende schist
1	-752	Iron-stained micaceous quartzite
1	-753	Iron-stained micaceous quartzite
2	-754	Iron-stained biotite hornblende schist
2	-755	Iron-stained biotite hornblende schist
2	-756	Iron-stained quartz vein
3	-757	Biotite hornblende schist
3	-758	Biotite hornblende schist
4	-601	Biotite schist
5	-602	Greenschist
6	-603	Greenschist
7	-604	Phyllite
8	-605	Greenschist
9	-606	Biotite quartzite
10	-607	Biotite quartz schist
11	-608	Biotite quartz schist
12	-609	Siliceous biotite schist
13	-612	Phyllite
14	-611	Phyllite
15	-610	Phyllite
16	-613	Biotite garnet kyanite schist
17	-614	Biotite garnet schist
18	-615	Biotite garnet schist
19	-616	Biotite schist
20	-721	Biotite garnet quartz schist
21	-720	Graphitic phyllite
22	AKD-340	Biotite feldspathic gneiss
23	-341	Pyritic biotite feldspathic quartz gneiss
24	-339	Pyritic biotite feldspathic quartz gneiss
25	AMG-633	Greenschist
26	-759	Iron-stained biotite feldspar quartz schist
26	-760	Quartz vein
26	-761	Quartz vein
26	-762	Iron-stained biotite feldspart quartz schist
27	-626	Epidotized greenschist
28	-624	Biotite quartzite
28	-625	Greenschist
29	-621	Quartz vein
29	-622	Micaceous quartzite
29	-623	Quartz vein

Table 1.--Description of rock, vein, and altered zone samples from the Sumdum B-4 quadrangle. (All samples are of representative material.) Sample localities are shown by sample number plotted on the accompanying map, Plate 1.--Continued

Sample No.	Lab. No.	Sample Description
30	AMG-619	Graphitic phyllite
30	-620	Quartz vein
31	-631	Biotite hornblende schist
32	-709	Biotite quartz schist
33	-618	Siliceous biotite schist
34	-617	Biotite schist
35	-717	Biotite garnet phyllite
36	-710	Quartz monzonite
36	-711	Aplite dike
36	-712	Phyllite
36	-713	Quartz vein with magnetite
36	-714	Quartz vein
36	-715	Biotite garnet phyllite
36	-716	Biotite garnet phyllite
37	-718	Biotite quartz gneiss
38	-719	Phyllite
39	AKD-342	Biotite quartzite
40	-388	Biotite quartzite
41	-344	Arsenopyrite quartz vein
41	-345	Arsenopyrite quartz vein
42	-337	Biotite garnet gneiss
43	-335	Biotite quartz gneiss
44	-336	Garnet hornblendite
45	-333	Pyrite biotite quartz gneiss
45	-334	Pyrite biotite quartz gneiss
46	AMG-632	Epidotized phyllite
47	-728	Greenschist with quartz epidote
48	-628	Pyritized micaceous quartzite
48	-629	Quartz vein with hematite
48	-630	Quartz vein with hematite
49	-726	Foliated greenschist
50	-708	Garnetiferous phyllite
51	-724	Biotite garnet quartz phyllite
52	-722	Biotite quartz gneiss
52	-723	Phyllite
53	-725	Garnet phyllite
54	AKD-346	Biotite feldspar quartz gneiss
55	-347	Biotite quartzite
56	-348	Biotite garnet gneiss
57	-349	Biotite garnet gneiss

Table 1.--Description of rock, vein, and altered zone samples from the Sumdum B-4 quadrangle. (All samples are of representative material.) Sample localities are shown by sample number plotted on the accompanying map, Plate 1.--Continued

Sample No.	Lab. No.	Sample Description
58	AKD-323	Biotite garnet hornblende schist
58	-324	Quartz vein
59	-325	Quartz vein
60	-326	Biotite schist
61	-327	Biotite garnet schist
62	-328	Quartz vein
63	-329	Hornblende diorite gneiss
64	-330	Granodiorite
65	-331	Quartz vein
66	-408	Biotite schist
67	-406	Pyritic biotite schist
68	-405	Amphibolite
69	-350	Garnet hornblende gneiss
70	-351	Hornblendite
71	-352	Hornblendite
72	-359	Biotite gneiss
73	-360	Biotite gneiss
74	AMG-729	Biotite feldspar quartz gneiss
75	-730	Quartz monzonite
75	-731	Quartz monzonite
76	AKD-362	Biotite schist
77	-361	Biotite gneiss
78	AMG-694	Pyrite Pyrrhotite biotite schist
79	-695	Pyritic biotite schist
80	-732	Quartz monzonite
81	AKD-363	Iron-stained hornblendite
82	-791	Biotite garnet hornblende gneiss
82	-792	Biotite garnet hornblende gneiss
82	-793	Biotite garnet hornblende gneiss
82	-794	Biotite garnet hornblende gneiss
82	-795	Biotite garnet hornblende gneiss
82	-796	Biotite garnet hornblende gneiss
83	-788	Biotite garnet hornblende gneiss
84	-787	Iron-stained hornblendite
84	-789	Quartz vein
85	AMG-634	Pyritic feldspathic quartz schist
85	-635	Feldspathic hornblende quartz schist
85	-636	Amphibole schist
86	-637	Pyrite pyrrhotite graphitic schist
86	-638	Pyrite pyrrhotite graphitic schist

Table 1.--Description of rock, vein, and altered zone samples from the Sumdum B-4 quadrangle. (All samples are of representative material.) Sample localities are shown by sample number plotted on the accompanying map, Plate 1.--Continued

Sample No.	Lab. No.	Sample Description
87	AMG-639	Biotite hornblende schist
88	-640	Pyritic biotite hornblende schist
88	-641	Pyritic biotite hornblende schist
88	-642	Pyritic biotite hornblende schist
88	-643	Pyritic biotite hornblende schist
88	-644	Pyritic biotite hornblende schist
89	-646	Biotite gneiss
90	-645	Pyrite rich slaty biotite schist
91	AKD-786	Pyritic biotite feldspar schist
92	-785	Pyritic biotite schist
93	-784	Iron-stained aplite
94	-366	Biotite schist
95	-365	Biotite schist
96	-770	Pyrite pyrrhotite hornblende schist
96	-771	Pyrite pyrrhotite hornblende schist

Explanation of Tables 2 and 3

Analytical results from rock and stream-sediment samples are given in Tables 2 and 3 as analytical values such as 7.0000 ppm, 10.0000 percent, etc., or as qualified values expressed as a letter. These letter codes are N = not detected, L = less than specified limit of detection, G = greater than value shown, B = no data, H = interference. The term T = trace, but does not occur in these data. Note that the right-most zero digits for each analytical value may or may not be significant. The specified limits of detection are as follows:

Specified limits of detection

FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM
0.05000	0.02000	0.05000	0.00200	20.00000	0.10000
AS PPM	AU PPM	B PPM	BA PPM	BE PPM	BI PPM
0.20000	0.02000	10.00000	20.00000	1.00000	10.00000
CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM
5.00000	5.00000	2.00000	20.00000	2.00000	10.00000
NI PPM	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM
2.00000	10.00000	0.50000	5.00000	10.00000	50.00000
V PPM	W PPM	Y PPM	ZN PPM	ZR PPM	
5.00000	50.00000	5.00000	25.00000	10.00000	

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 backets having the boundaries 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:

Reported value (ppm)	Limits	
1.0	.83	1.2
1.5	1.2	1.8
2.0	1.8	2.6
3.0	2.6	3.8
5.0	3.8	5.6
7.0	5.6	8.3
10 0	8.3	12.0

On the histograms decimal numbers are shown as powers of 10, for example:

7.0E-01 means 7.0×10^{-1} or 0.7

7.0E 00 means 7.0×10^{0} or 7.0

7.0E 01 means 7.0×10^{1} or 70.0

7.0E 02 means 7.0×10^{2} or 700.0

7.0E 03 means 7.0×10^{3} or 7,000.0

The histograms are constructed of X's, each of which represents 1 percent of the total number (309) of samples.

The histograms and the statistics given below them are derived only from data values within the ranges of analytical determination ("analytical values"). The histograms are, therefore, incomplete, and the statistics are biased if data values qualified with N, L, C, T, or H codes are present. (See the histogram and statistics below it for tin, which are calculated from only one sample.) Statistical estimates that are unbiased in this regard are given at the end of Table 1. The geometric means is the antilogarithm of the arithmetic mean of the logs of the analyses and 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. The geometric deviation is the antilogarithm of the standard deviation of the logs of the analyses. See USGS Professional Paper 574-B for further discussion and USGS Bulletin 1147E, p. 20-23, for further discussion and explanation of geometric deviation.

In the computations performed to produce the statistical summary at the end of Tables 2 and 3, 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 of 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.

Selected References

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Berg, H. C., and Cobb, E. H., 1967, Metalliferous lode deposits of Alaska: U.S. Geol. Survey Bull. 1246, p. 164-184.

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Herbert, C. F., and Race, W. H., 1964, Geochemical investigations of selected areas in southeastern Alaska, 1964: Alaska Div. Mines and Minerals Geochem. Rept. 1, 27 p.

Miesch, A. T., 1963, Distribution of elements in Colorado Plateau uranium deposits--A preliminary report: U.S. Geol. Survey Bull. 1147-E, 57 p.

_____1967, Methods of computation for estimating geochemical abundance: U.S. Geol. Survey Prof. Paper 574-B, 15 p.

TABLE 2. SUMDUM B-4 ROCK SAMPLES

MAP NUMBER	SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
1	AMG751	7.0000	2.0000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	0.0 L	700.0000
1	AMG752	3.0000	0.3000	0.7000	0.1500	300.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
1	AMG753	10.0000	0.3000	0.7000	0.2000	150.0000	1.0000	0.0 N	0.0 N	10.0000	700.0000
2	AMG754	3.0000	0.7000	0.5000	0.3000	200.0000	0.0 L	0.0 N	0.0 N	15.0000	300.0000
2	AMG755	5.0000	0.7000	1.5000	0.5000	300.0000	0.0 L	0.0 N	0.0 N	0.0 L	1500.0000
2	AMG756	7.0000	3.0000	2.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	700.0000
3	AMG757	5.0000	2.0000	3.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
3	AMG758	10.0000	1.5000	1.0000	0.3000	200.0000	0.0 L	0.0 N	0.0 N	0.0 L	500.0000
4	AMG601	3.0000	1.0000	0.5000	0.7000	100.0000	0.7000	0.0 N	0.0 N	30.0000	2000.0000
5	AMG602	15.0000	3.0000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
6	AMG603	20.0000	5.0000	1.5000	1.0000G	1500.0000	0.0 L	0.0 N	0.0 N	0.0 L	0.0 L
7	AMG604	10.0000	3.0000	3.0000	0.3000	700.0000	0.5000	0.0 N	0.0 N	10.0000	500.0000
8	AMG605	3.0000	0.3000	0.3000	0.2000	100.0000	0.0 L	0.0 N	0.0 N	0.0 N	3000.0000
9	AMG606	0.3000	0.2000	0.0 L	0.0300	30.0000	0.0 N	0.0 N	0.0 N	0.0 N	100.0000
10	AMG607	0.3000	0.2000	0.0 L	0.1500	30.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
11	AMG608	3.0000	1.0000	0.2000	0.7000	150.0000	0.0 N	0.0 N	0.0 N	50.0000	300.0000
12	AMG609	1.0000	0.3000	0.1000	0.0300	100.0000	0.0 N	0.0 N	0.0 N	20.0000	150.0000
13	AMG612	3.0000	1.0000	0.1500	0.3000	100.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
14	AMG611	3.0000	1.0000	0.3000	0.5000	300.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
15	AMG610	5.0000	1.5000	0.3000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	50.0000	300.0000
16	AMG613	3.0000	0.7000	0.0700	0.3000	150.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
17	AMG614	3.0000	0.5000	0.1500	0.3000	150.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
18	AMG615	3.0000	0.7000	0.7000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
19	AMG616	15.0000	5.0000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
20	AMG721	3.0000	1.0000	0.1500	0.5000	300.0000	0.0 L	0.0 N	0.0 N	50.0000	300.0000
21	AMG720	3.0000	1.0000	0.0500	0.5000	70.0000	0.0 L	0.0 N	0.0 N	70.0000	1000.0000
22	AKD340	10.0000	1.5000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
23	AKD341	5.0000	1.0000	1.5000	0.3000	300.0000	1.0000	0.0 N	0.0 N	0.0 N	300.0000
24	AKD339	10.0000	5.0000	5.0000	0.3000	1500.0000	1.0000	0.0 N	0.0 N	0.0 L	700.0000
25	AMG633	15.0000	3.0000	7.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
26	AMG759	10.0000	3.0000	2.0000	0.5000	700.0000	0.7000	0.0 N	0.0 N	15.0000	5000.0000
26	AMG760	5.0000	3.0000	2.0000	0.3000	700.0000	0.7000	0.0 N	0.0 N	10.0000	1500.0000
26	AMG761	5.0000	0.3000	0.7000	0.3000	100.0000	0.5000	0.0 N	0.0 N	10.0000	1500.0000
26	AMG762	3.0000	0.5000	0.7000	0.3000	150.0000	0.7000	0.0 N	0.0 N	50.0000	3000.0000
27	AMG626	3.0000	0.7000	0.7000	0.7000	150.0000	0.5000	0.0 N	0.0 N	0.0 L	3000.0000
28	AMG624	15.0000	5.0000	0.5000	0.5000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
28	AMG625	10.0000	5.0000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
29	AMG621	0.1500	0.0 L	0.0 L	0.0 L	20.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
29	AMG622	0.5000	0.1000	0.0500	0.0500	50.0000	0.0 N	0.0 N	0.0 N	0.0 N	1500.0000
29	AMG623	0.0 L	0.0 L	0.0 L	0.0 L	0.0 L	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
30	AMG619	2.0000	0.3000	0.1000	0.3000	100.0000	0.0 N	0.0 N	0.0 N	50.0000	3000.0000
30	AMG620	0.1500	0.0200	0.0 L	0.0010	50.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
31	AMG631	5.0000	1.5000	0.7000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
32	AMG709	7.0000	3.0000	1.5000	0.7000	500.0000	0.0 N	0.0 N	0.0 N	50.0000	700.0000
33	AMG618	15.0000	5.0000	3.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
34	AMG617	2.0000	0.7000	0.5000	0.2000	100.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
35	AMG717	2.0000	0.7000	0.2000	0.2000	150.0000	0.0 L	0.0 N	0.0 N	30.0000	150.0000
36	AMG710	0.7000	0.2000	1.5000	0.1000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	1500.0000
36	AMG711	0.3000	0.0700	0.7000	0.0150	150.0000	0.0 N	0.0 N	0.0 N	0.0 N	1000.0000
36	AMG712	5.0000	1.5000	0.3000	0.7000	300.0000	0.0 L	0.0 N	0.0 N	70.0000	500.0000

SUMDUM B-4 ROCK SAMPLES

	SAMPLE	BE PPM	BI PPM	CD PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM
1	AMG751	0.0 N	0.0 N	0.0 N	20.0000	30.0000	70.0000	0.0 N	5.0000	10.0000	20.0000
1	AMG752	0.0 N	0.0 N	0.0 N	0.0 L	10.0000	7.0000	0.0 N	5.0000	0.0 L	5.0000
1	AMG753	0.0 N	0.0 N	0.0 N	0.0 N	30.0000	70.0000	0.0 N	15.0000	10.0000	30.0000
2	AMG754	0.0 L	0.0 N	0.0 N	10.0000	50.0000	70.0000	0.0 N	15.0000	10.0000	70.0000
2	AMG755	0.0 N	0.0 N	0.0 N	0.0 L	150.0000	50.0000	0.0 L	7.0000	10.0000	10.0000
2	AMG756	0.0 L	0.0 N	0.0 N	30.0000	30.0000	0.0 L	0.0 N	0.0 L	10.0000	30.0000
3	AMG757	0.0 L	0.0 N	0.0 N	15.0000	15.0000	10.0000	0.0 N	0.0 L	10.0000	30.0000
3	AMG758	0.0 L	0.0 N	0.0 N	0.0 N	100.0000	50.0000	0.0 N	15.0000	10.0000	5.0000
4	AMG601	1.0000	0.0 N	0.0 N	0.0 L	70.0000	10.0000	0.0 N	20.0000	10.0000	15.0000
5	AMG602	0.0 N	0.0 N	0.0 N	30.0000	150.0000	30.0000	0.0 N	0.0 L	10.0000	30.0000
6	AMG603	0.0 N	0.0 N	0.0 N	70.0000	150.0000	700.0000	0.0 N	0.0 L	10.0000	70.0000
7	AMG604	0.0 N	0.0 N	0.0 N	30.0000	150.0000	70.0000	0.0 N	0.0 N	0.0 L	30.0000
8	AMG605	1.5000	0.0 N	0.0 N	0.0 N	10.0000	10.0000	0.0 N	5.0000	0.0 L	5.0000
9	AMG606	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	0.0 N	0.0 N	0.0 L	7.0000
10	AMG607	0.0 N	0.0 N	0.0 N	0.0 N	20.0000	10.0000	0.0 N	0.0 N	0.0 L	5.0000
11	AMG608	1.0000	0.0 N	0.0 N	15.0000	150.0000	50.0000	0.0 L	0.0 N	10.0000	70.0000
12	AMG609	0.0 N	0.0 N	0.0 N	0.0 L	10.0000	0.0 L	0.0 N	0.0 N	0.0 L	20.0000
13	AMG612	0.0 L	0.0 N	0.0 N	5.0000	100.0000	15.0000	0.0 N	0.0 L	10.0000	30.0000
14	AMG611	0.0 L	0.0 N	0.0 N	15.0000	150.0000	50.0000	0.0 L	0.0 N	10.0000	70.0000
15	AMG610	1.5000	0.0 N	0.0 N	10.0000	150.0000	10.0000	0.0 L	0.0 N	10.0000	30.0000
16	AMG613	0.0 L	0.0 N	0.0 N	15.0000	70.0000	15.0000	0.0 L	0.0 N	10.0000	20.0000
17	AMG614	1.0000	0.0 N	0.0 N	5.0000	150.0000	7.0000	20.0000	0.0 N	10.0000	20.0000
18	AMG615	0.0 N	0.0 N	0.0 N	7.0000	70.0000	0.0 L	0.0 N	0.0 N	0.0 L	30.0000
19	AMG616	0.0 N	0.0 N	0.0 N	70.0000	200.0000	15.0000	0.0 N	0.0 N	10.0000	100.0000
20	AMG721	1.0000	0.0 N	0.0 N	15.0000	100.0000	30.0000	0.0 N	0.0 L	10.0000	50.0000
21	AMG720	1.5000	0.0 N	0.0 N	5.0000	100.0000	30.0000	0.0 L	0.0 L	10.0000	30.0000
22	AKD340	0.0 L	0.0 N	0.0 N	10.0000	70.0000	0.0 L	0.0 L	0.0 L	10.0000	20.0000
23	AKD341	0.0 L	0.0 N	0.0 N	10.0000	70.0000	150.0000	0.0 N	5.0000	10.0000	50.0000
24	AKD339	0.0 N	0.0 N	0.0 N	20.0000	300.0000	30.0000	0.0 L	5.0000	10.0000	100.0000
25	AMG633	0.0 N	0.0 N	0.0 N	50.0000	150.0000	50.0000	0.0 N	0.0 L	10.0000	30.0000
26	AMG759	0.0 L	0.0 N	0.0 N	50.0000	150.0000	70.0000	0.0 N	7.0000	10.0000	150.0000
26	AMG760	0.0 L	0.0 N	0.0 N	30.0000	150.0000	100.0000	0.0 N	0.0 L	10.0000	70.0000
26	AMG761	2.0000	0.0 N	50.0000	20.0000	20.0000	150.0000	0.0 N	30.0000	10.0000	150.0000
26	AMG762	0.0 L	0.0 N	20.0000	15.0000	20.0000	70.0000	0.0 L	70.0000	10.0000	150.0000
27	AMG626	2.0000	0.0 N	0.0 N	5.0000	70.0000	20.0000	0.0 L	0.0 N	15.0000	20.0000
28	AMG624	0.0 N	0.0 N	0.0 N	70.0000	300.0000	150.0000	0.0 N	0.0 L	10.0000	150.0000
29	AMG625	0.0 N	0.0 N	0.0 N	50.0000	300.0000	70.0000	0.0 N	0.0 L	10.0000	100.0000
29	AMG621	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	5.0000
29	AMG622	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	5.0000	0.0 N	0.0 N	0.0 L	5.0000
29	AMG623	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	5.0000
30	AMG619	0.0 L	0.0 N	0.0 N	0.0 N	50.0000	5.0000	0.0 N	70.0000	0.0 L	10.0000
30	AMG620	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	5.0000
31	AMG631	0.0 N	0.0 N	0.0 N	20.0000	15.0000	50.0000	0.0 N	0.0 L	10.0000	20.0000
32	AMG709	1.5000	0.0 N	0.0 N	30.0000	300.0000	0.0 L	20.0000	0.0 L	10.0000	150.0000
33	AMG618	0.0 L	0.0 N	0.0 N	50.0000	300.0000	70.0000	0.0 L	0.0 L	10.0000	100.0000
34	AMG617	1.0000	0.0 N	0.0 N	10.0000	70.0000	15.0000	0.0 N	0.0 N	0.0 L	30.0000
35	AMG717	0.0 L	0.0 N	0.0 N	0.0 N	30.0000	10.0000	0.0 N	0.0 N	0.0 L	15.0000
36	AMG710	1.0000	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	0.0 N	0.0 N	0.0 L	5.0000
36	AMG711	1.5000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	0.0 L
36	AMG712	2.0000	0.0 N	0.0 N	20.0000	100.0000	70.0000	0.0 L	0.0 L	10.0000	70.0000

SUMDUM B-4 ROCK SAMPLES

	SAMPLE	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
1	AMG751	0.0 N	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
1	AMG752	10.0000	0.0 N	10.0000	0.0 N	100.0000	15.0000	0.0 N	20.0000	0.0 N	200.0000
1	AMG753	20.0000	0.0 N	7.0000	0.0 N	0.0 L	300.0000	0.0 N	20.0000	200.0000	70.0000
2	AMG754	15.0000	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 L	70.0000
2	AMG755	0.0 L	0.0 N	15.0000	0.0 N	150.0000	1000.0000	0.0 N	50.0000	200.0000	70.0000
2	AMG756	0.0 L	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 L	50.0000
3	AMG757	0.0 N	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 N	70.0000
3	AMG758	0.0 N	0.0 N	10.0000	0.0 N	100.0000	700.0000	0.0 N	30.0000	0.0 L	70.0000
4	AMG601	20.0000	0.0 N	15.0000	0.0 N	200.0000	700.0000	0.0 N	10.0000	0.0 N	70.0000
5	AMG602	0.0 N	0.0 N	50.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
6	AMG603	0.0 N	0.0 N	70.0000	0.0 N	0.0 L	700.0000	0.0 N	50.0000	0.0 L	70.0000
7	AMG604	0.0 N	0.0 N	30.0000	0.0 N	500.0000	200.0000	0.0 N	15.0000	0.0 L	70.0000
8	AMG605	0.0 L	0.0 N	7.0000	0.0 N	200.0000	150.0000	0.0 N	20.0000	0.0 N	200.0000
9	AMG606	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	20.0000	0.0 N	0.0 L	0.0 N	20.0000
10	AMG607	0.0 N	0.0 N	0.0 L	0.0 N	0.0 L	150.0000	0.0 N	10.0000	0.0 N	50.0000
11	AMG608	15.0000	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 L	70.0000
12	AMG609	0.0 N	0.0 N	0.0 L	0.0 N	0.0 L	70.0000	0.0 N	10.0000	0.0 N	50.0000
13	AMG612	15.0000	0.0 N	15.0000	0.0 N	0.0 L	200.0000	0.0 N	15.0000	0.0 L	100.0000
14	AMG611	10.0000	0.0 N	15.0000	0.0 N	0.0 L	200.0000	0.0 N	20.0000	0.0 L	100.0000
15	AMG610	0.0 L	0.0 N	15.0000	0.0 N	100.0000	200.0000	0.0 N	20.0000	200.0000	100.0000
16	AMG613	0.0 N	0.0 N	10.0000	0.0 N	0.0 L	200.0000	0.0 N	15.0000	0.0 L	100.0000
17	AMG614	0.0 L	0.0 N	15.0000	0.0 N	0.0 L	150.0000	0.0 N	30.0000	0.0 L	100.0000
18	AMG615	0.0 N	0.0 N	5.0000	0.0 N	0.0 L	100.0000	0.0 N	10.0000	0.0 N	50.0000
19	AMG616	15.0000	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 L	20.0000
20	AMG721	10.0000	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	10.0000	0.0 L	100.0000
21	AMG720	30.0000	0.0 N	15.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	0.0 L	100.0000
22	AKD340	0.0 L	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 L	100.0000
23	AKD341	0.0 N	0.0 N	10.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 L	100.0000
24	AKD339	15.0000	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	10.0000	700.0000	50.0000
25	AMG633	0.0 N	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	30.0000	200.0000	70.0000
26	AMG759	15.0000	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	300.0000	70.0000
26	AMG760	10.0000	0.0 N	30.0000	0.0 N	300.0000	500.0000	0.0 N	20.0000	700.0000	50.0000
26	AMG761	15.0000	0.0 N	7.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	3000.0000	70.0000
26	AMG762	10.0000	0.0 N	15.0000	0.0 N	200.0000	700.0000	0.0 N	20.0000	1000.0000	70.0000
27	AMG626	0.0 L	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 N	300.0000
28	AMG624	0.0 N	0.0 N	30.0000	0.0 N	0.0 L	300.0000	0.0 N	10.0000	0.0 L	30.0000
28	AMG625	0.0 N	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	30.0000
29	AMG621	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	0.0 N	0.0 N	0.0 L
29	AMG622	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	30.0000	0.0 N	0.0 N	0.0 N	50.0000
29	AMG623	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	10.0000	0.0 N	0.0 N	0.0 N	0.0 L
30	AMG619	10.0000	0.0 N	10.0000	0.0 N	0.0 L	1000.0000	0.0 N	15.0000	0.0 N	70.0000
30	AMG620	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	0.0 N	0.0 N	0.0 L
31	AMG631	0.0 N	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
32	AMG709	15.0000	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	0.0 L	100.0000
33	AMG618	0.0 L	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	15.0000	0.0 L	70.0000
34	AMG617	0.0 N	0.0 N	10.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
35	AMG717	0.0 N	0.0 N	5.0000	0.0 N	0.0 L	100.0000	0.0 N	0.0 L	0.0 N	30.0000
36	AMG710	15.0000	0.0 N	0.0 L	0.0 N	1000.0000	30.0000	0.0 N	0.0 L	0.0 N	70.0000
36	AMG711	50.0000	0.0 N	0.0 N	0.0 L	700.0000	15.0000	0.0 N	0.0 L	0.0 L	30.0000
36	AMG712	15.0000	0.0 N	15.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	200.0000	100.0000

SUMDUM B-4 ROCK SAMPLES

	SAMPLE	AU PPM
1	AMG751	0.0200L
1	AMG752	0.0200L
1	AMG753	0.0200L
2	AMG754	0.0200L
2	AMG755	0.0200L
2	AMG756	0.0200L
3	AMG757	0.0200L
3	AMG758	0.0200L
4	AMG601	0.0200L
5	AMG602	0.0200L
6	AMG603	0.1000
7	AMG604	0.0200L
8	AMG605	0.0200L
9	AMG606	0.0200L
10	AMG607	0.0200L
11	AMG608	0.0200L
12	AMG609	0.0200L
13	AMG612	0.0200L
14	AMG611	0.0200L
15	AMG610	0.0200L
16	AMG613	0.0200L
17	AMG614	0.0200L
18	AMG615	0.0200L
19	AMG616	0.0200L
20	AMG721	0.0200L
21	AMG720	0.0200L
22	AKD340	0.0200L
23	AKD341	0.0200L
24	AKD339	0.0200L
25	AMG633	0.0200L
26	AMG759	0.0200L
26	AMG760	0.0200L
26	AMG761	0.0200L
26	AMG762	0.0200L
27	AMG626	0.0200L
28	AMG624	0.0200L
28	AMG625	0.0200L
29	AMG621	0.0200L
29	AMG622	0.0200L
29	AMG623	0.0200L
30	AMG619	0.0200L
38	AMG620	0.0200L
31	AMG631	0.0200L
32	AMG709	0.0200L
33	AMG618	0.0200L
34	AMG617	0.0200L
35	AMG717	0.0200L
36	AMG710	0.0200L
36	AMG711	0.0200L
36	AMG712	0.0200L

SUMDUM B-4 ROCK SAMPLES

MAP NUMBER	SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
3L	AMG713	0.7000	0.3000	0.1500	0.0070	70.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
3L	AMG714	0.7000	0.2000	0.0 L	0.0300	30.0000	0.0 N	0.0 N	0.0 N	0.0 N	100.0000
3L	AMG715	0.0 L	0.0 L	0.0 L	0.0 L	50.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
3L	AMG716	3.0000	1.0000	0.0700	0.2000	200.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
37	AMG718	0.5000	0.2000	0.1000	0.1000	50.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
38	AMG719	5.0000	1.5000	0.1500	0.5000	150.0000	0.0 L	0.0 N	0.0 N	70.0000	700.0000
39	AKD342	0.3000	0.0150	0.7000	0.0300	70.0000	0.0 N	0.0 N	0.0 N	0.0 N	700.0000
40	AKD388	5.0000	1.0000	0.7000	1.0000	300.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
41	AKD344	5.0000	1.0000	3.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	150.0000
41	AKD345	3.0000	1.5000	3.0000	0.2000	1000.0000	0.0 N	3000.0000	0.0 N	10.0000	300.0000
42	AKD337	10.0000	0.3000	0.5000	0.2000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
43	AKD335	10.0000	1.0000	0.1500	0.1500	200.0000	0.0 N	0.0 N	0.0 N	0.0 L	700.0000
44	AKD336	15.0000	5.0000	2.0000	0.2000	5000.0000	0.0 N	0.0 N	0.0 N	0.0 L	200.0000
45	AKD333	5.0000	0.0700	0.0 L	0.1500	50.0000	0.0 L	0.0 N	0.0 N	0.0 N	1500.0000
45	AKD334	15.0000	0.3000	0.0500	0.1500	150.0000	0.0 L	0.0 N	0.0 N	10.0000	150.0000
46	AMG632	10.0000	5.0000	7.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
47	AMG728	15.0000	5.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
48	AMG628	0.0700	0.0200	0.0 L	0.0050	100.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
48	AMG629	0.0700	0.0200	0.0 L	0.0030	30.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
48	AMG630	0.0 L	0.0 L	0.0 L	0.0 L	0.0 L	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
49	AMG726	5.0000	5.0000	7.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
50	AMG708	3.0000	1.5000	0.5000	0.5000	150.0000	0.0 L	0.0 N	0.0 N	70.0000	700.0000
51	AMG724	5.0000	1.5000	0.1500	0.3000	300.0000	0.0 L	0.0 N	0.0 N	50.0000	300.0000
52	AMG722	3.0000	2.0000	0.5000	0.5000	300.0000	0.0 L	0.0 N	0.0 N	0.0 N	300.0000
52	AMG723	0.5000	0.2000	0.0 L	0.0300	70.0000	0.0 N	0.0 N	0.0 N	0.0 N	100.0000
53	AMG725	2.0000	0.3000	0.1500	0.3000	70.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
54	AKD346	10.0000	2.0000	2.0000	0.7000	100.0000	0.0 N	0.0 N	0.0 N	0.0 L	700.0000
55	AKD347	3.0000	1.0000	1.5000	0.3000	1500.0000	0.0 L	0.0 N	0.0 N	0.0 N	1500.0000
56	AKD348	3.0000	1.5000	0.3000	0.3000	150.0000	0.0 L	0.0 N	0.0 N	0.0 N	500.0000
57	AKD349	15.0000	7.0000	5.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
57	AKD323	15.0000	7.0000	7.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	1500.0000
58	AKD324	0.3000	0.3000	5.0000	1.0000	70.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
59	AKD325	1.5000	0.5000	0.5000	0.0200	200.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
60	AKD326	3.0000	0.3000	0.7000	0.7000	100.0000	0.7000	0.0 N	0.0 N	0.0 N	100.0000
61	AKD327	3.0000	0.3000	0.2000	0.3000	70.0000	0.5000	0.0 N	0.0 N	20.0000	1500.0000
62	AKD328	0.1500	0.0 L	0.0 L	0.0 L	0.0 L	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
63	AKD329	7.0000	5.0000	5.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 N	100.0000
64	AKD330	7.0000	1.0000	3.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 N	700.0000
65	AKD331	0.3000	0.0300	0.0500	0.0010	70.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L
66	AKD408	7.0000	1.5000	0.2000	0.3000	200.0000	0.5000	0.0 N	0.0 N	70.0000	500.0000
67	AKD406	3.0000	1.0000	0.3000	0.7000	200.0000	0.5000	0.0 N	0.0 N	20.0000	1500.0000
68	AKD405	10.0000	2.0000	1.5000	0.5000	700.0000	0.5000	0.0 N	0.0 N	0.0 N	1500.0000
69	AKD350	1.5000	0.5000	0.2000	0.1500	70.0000	0.0 N	0.0 N	0.0 N	20.0000	150.0000
70	AKD351	3.0000	1.0000	0.5000	0.3000	300.0000	1.0000	0.0 N	0.0 N	0.0 L	3000.0000
71	AKD352	15.0000	7.0000	5.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
72	AKD359	3.0000	1.5000	1.0000	0.3000	300.0000	0.5000	0.0 N	0.0 N	20.0000	3000.0000
73	AKD360	5.0000	1.5000	0.5000	0.3000	300.0000	0.0 L	0.0 N	0.0 N	30.0000	200.0000
74	AMG729	15.0000	3.0000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
75	AMG730	1.5000	0.3000	1.0000	0.1000	200.0000	0.0 N	0.0 N	0.0 N	0.0 N	1000.0000
75	AMG731	1.5000	0.3000	1.0000	0.1000	200.0000	0.0 N	0.0 N	0.0 N	0.0 N	700.0000

SUMDUM B-4 ROCK SAMPLES

	SAMPLE	BE PPM	BI PPM	CD PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM
32	AMG713	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	0.0 N	0.0 N	0.0 L	10.0000
36	AMG714	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	0.0 N	0.0 N	0.0 L	5.0000
34	AMG715	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	0.0 L
36	AMG716	0.0 N	0.0 N	0.0 N	20.0000	30.0000	10.0000	0.0 N	0.0 N	10.0000	70.0000
37	AMG718	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	0.0 N	0.0 N	0.0 L	15.0000
38	AMG719	1.5000	0.0 N	0.0 N	0.0 L	150.0000	15.0000	20.0000	0.0 L	10.0000	30.0000
39	AKD342	0.0 L	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	0.0 N
40	AKD388	0.0 N	0.0 N	0.0 N	10.0000	100.0000	100.0000	0.0 N	0.0 L	0.0 L	30.0000
41	AKD344	0.0 N	0.0 N	0.0 N	15.0000	20.0000	20.0000	0.0 N	0.0 L	10.0000	30.0000
41	AKD345	0.0 L	0.0 N	0.0 N	7.0000	20.0000	50.0000	0.0 L	0.0 N	0.0 L	15.0000
42	AKD337	3.0000	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	200.0000	0.0 L	30.0000	0.0 L
43	AKD335	1.0000	0.0 N	0.0 N	50.0000	10.0000	70.0000	150.0000	0.0 L	30.0000	0.0 L
44	AKD336	1.0000	0.0 N	0.0 N	20.0000	15.0000	0.0 L	200.0000	0.0 L	30.0000	0.0 L
45	AKD333	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	30.0000	0.0 N	30.0000	0.0 L
45	AKD334	1.5000	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	100.0000	0.0 L	100.0000	0.0 L
46	AMG632	0.0 N	0.0 N	0.0 N	30.0000	200.0000	10.0000	0.0 N	0.0 L	10.0000	30.0000
47	AMG728	0.0 N	0.0 N	0.0 N	50.0000	300.0000	70.0000	0.0 N	0.0 L	10.0000	100.0000
48	AMG628	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	10.0000
48	AMG629	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	5.0000	0.0 N	0.0 N	0.0 L	5.0000
48	AMG630	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	7.0000
49	AMG726	0.0 N	0.0 N	0.0 N	30.0000	200.0000	30.0000	0.0 N	0.0 L	10.0000	70.0000
50	AMG708	1.5000	0.0 N	0.0 N	15.0000	150.0000	70.0000	20.0000	0.0 L	10.0000	70.0000
51	AMG724	1.0000	0.0 N	0.0 N	5.0000	150.0000	20.0000	0.0 L	0.0 L	10.0000	30.0000
52	AMG722	1.0000	0.0 N	0.0 N	15.0000	150.0000	20.0000	0.0 L	0.0 L	10.0000	50.0000
52	AMG723	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	5.0000	0.0 N	0.0 N	0.0 L	30.0000
53	AMG725	0.0 L	0.0 N	0.0 N	0.0 L	50.0000	10.0000	0.0 N	0.0 N	0.0 L	30.0000
54	AKD346	0.0 L	0.0 N	0.0 N	15.0000	70.0000	100.0000	0.0 L	0.0 L	10.0000	30.0000
55	AKD347	1.0000	0.0 N	0.0 N	10.0000	10.0000	70.0000	0.0 L	0.0 L	0.0 L	30.0000
56	AKD348	0.0 L	0.0 N	0.0 N	5.0000	150.0000	70.0000	20.0000	0.0 N	0.0 L	30.0000
57	AKD349	1.0000	0.0 N	0.0 N	70.0000	500.0000	15.0000	0.0 N	0.0 L	10.0000	150.0000
58	AKD323	0.0 N	0.0 N	0.0 N	70.0000	500.0000	100.0000	0.0 N	0.0 L	10.0000	150.0000
58	AKD324	0.0 N	0.0 N	0.0 N	0.0 N	15.0000	150.0000	0.0 N	0.0 N	0.0 L	10.0000
59	AKD325	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	30.0000	0.0 N	0.0 N	0.0 L	7.0000
60	AKD326	0.0 N	0.0 N	0.0 N	7.0000	20.0000	70.0000	0.0 N	15.0000	0.0 L	100.0000
61	AKD327	0.0 N	0.0 N	0.0 N	5.0000	20.0000	50.0000	0.0 N	50.0000	0.0 L	150.0000
62	AKD328	0.0 N	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	0.0 N	0.0 N	0.0 L	5.0000
63	AKD329	0.0 N	0.0 N	0.0 N	20.0000	15.0000	50.0000	0.0 N	0.0 N	0.0 L	30.0000
64	AKD330	0.0 N	0.0 N	0.0 N	0.0 N	50.0000	0.0 L	0.0 N	0.0 N	0.0 L	0.0 L
65	AKD331	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	15.0000	0.0 N	0.0 N	0.0 L	5.0000
66	AKD408	0.0 L	0.0 N	0.0 N	30.0000	150.0000	150.0000	20.0000	0.0 L	10.0000	150.0000
67	AKD406	1.5000	0.0 N	0.0 N	10.0000	70.0000	70.0000	0.0 L	0.0 L	10.0000	70.0000
68	AKD405	0.0 N	0.0 N	0.0 N	20.0000	50.0000	50.0000	0.0 N	0.0 L	0.0 L	15.0000
69	AKD350	0.0 L	0.0 N	0.0 N	5.0000	70.0000	10.0000	0.0 N	0.0 N	0.0 L	30.0000
70	AKD351	0.0 L	0.0 N	0.0 N	10.0000	30.0000	70.0000	0.0 N	0.0 N	0.0 L	50.0000
71	AKD352	0.0 N	0.0 N	0.0 N	50.0000	100.0000	30.0000	0.0 N	0.0 N	0.0 L	30.0000
72	AKD359	0.0 L	0.0 N	0.0 N	15.0000	50.0000	70.0000	0.0 N	15.0000	0.0 L	70.0000
73	AKD360	0.0 N	0.0 N	0.0 N	15.0000	150.0000	100.0000	0.0 N	0.0 N	0.0 L	100.0000
74	AMG729	0.0 N	0.0 N	0.0 N	50.0000	100.0000	50.0000	0.0 N	0.0 L	10.0000	50.0000
75	AMG730	1.0000	0.0 N	0.0 N	0.0 N	10.0000	0.0 L	0.0 N	0.0 N	0.0 L	0.0 N
75	AMG731	1.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	0.0 N

SUMDUM 8-4 ROCK SAMPLES

	SAMPLE	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
36	AMG713	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	20.0000	0.0 N	0.0 L	0.0 N	20.0000
36	AMG714	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	20.0000	0.0 N	0.0 L	0.0 N	20.0000
36	AMG715	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	10.0000	0.0 N	0.0 L	0.0 N	0.0 L
36	AMG716	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	50.0000	0.0 N	0.0 L	0.0 N	0.0 L
37	AMG718	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	20.0000	0.0 N	0.0 L	0.0 N	20.0000
38	AMG719	20.0000	0.0 N	20.0000	0.0 N	150.0000	300.0000	0.0 N	10.0000	0.0 N	100.0000
39	AKD342	30.0000	0.0 N	0.0 N	0.0 N	200.0000	15.0000	0.0 N	0.0 N	0.0 N	50.0000
40	AKD388	10.0000	0.0 N	15.0000	0.0 N	100.0000	200.0000	0.0 N	10.0000	0.0 L	70.0000
41	AKD344	0.0 N	0.0 N	10.0000	0.0 N	200.0000	150.0000	0.0 N	10.0000	0.0 N	50.0000
41	AKD345	10.0000	0.0 N	10.0000	0.0 N	300.0000	70.0000	0.0 N	10.0000	0.0 N	70.0000
42	AKD337	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	70.0000	200.0000	300.0000
43	AKD335	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	70.0000	0.0 N	700.0000
44	AKD336	0.0 N	0.0 N	0.0 L	0.0 N	0.0 L	30.0000	0.0 N	100.0000	0.0 L	1000.0000
45	AKD333	50.0000	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	70.0000	0.0 N	700.0000
45	AKD334	15.0000	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	150.0000	0.0 L	1000.0000
46	AMG632	0.0 N	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
47	AMG728	0.0 N	0.0 N	50.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 L	30.0000
48	AMG628	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	0.0 L	0.0 N	0.0 L
48	AMG629	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	0.0 L	0.0 N	0.0 L
48	AMG630	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	10.0000	0.0 N	0.0 L	0.0 N	0.0 L
49	AMG726	0.0 N	0.0 N	30.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 N	0.0 L
50	AMG708	15.0000	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
51	AMG724	15.0000	0.0 N	15.0000	0.0 N	100.0000	200.0000	0.0 N	15.0000	0.0 L	70.0000
52	AMG722	20.0000	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 L	100.0000
52	AMG723	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	20.0000	0.0 N	0.0 L	0.0 N	20.0000
53	AMG725	0.0 N	0.0 N	7.0000	0.0 N	100.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
54	AKD346	20.0000	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 L	150.0000
55	AKD347	15.0000	0.0 N	10.0000	0.0 N	500.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
56	AKD348	50.0000	0.0 N	10.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 L	70.0000
57	AKD349	0.0 L	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	300.0000	30.0000
58	AKD323	0.0 L	0.0 N	50.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 L	30.0000
58	AKD324	0.0 N	0.0 N	0.0 L	0.0 N	200.0000	15.0000	0.0 N	0.0 N	0.0 N	0.0 L
59	AKD325	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	0.0 N	0.0 N	0.0 L
60	AKD326	20.0000	0.0 N	10.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	200.0000	70.0000
61	AKD327	0.0 N	0.0 N	0.0 L	0.0 N	0.0 L	500.0000	0.0 N	10.0000	700.0000	50.0000
62	AKD328	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	15.0000	0.0 N	0.0 L	0.0 N	0.0 N
63	AKD329	15.0000	0.0 N	20.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 L	50.0000
64	AKD330	15.0000	0.0 N	15.0000	0.0 N	700.0000	70.0000	0.0 N	15.0000	0.0 N	150.0000
65	AKD331	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	10.0000	0.0 N	0.0 N	0.0 N	0.0 N
66	AKD408	20.0000	0.0 N	15.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	0.0 L	100.0000
67	AKD406	20.0000	0.0 N	15.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	300.0000	70.0000
68	AKD405	30.0000	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 L	100.0000
69	AKD350	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L	50.0000	0.0 N	0.0 L	0.0 N	50.0000
70	AKD351	20.0000	0.0 N	7.0000	0.0 N	150.0000	70.0000	0.0 N	10.0000	0.0 L	70.0000
71	AKD352	0.0 N	0.0 N	50.0000	0.0 N	0.0 L	300.0000	0.0 N	30.0000	0.0 L	50.0000
72	AKD359	0.0 L	0.0 N	15.0000	0.0 N	150.0000	500.0000	0.0 N	15.0000	1500.0000	70.0000
73	AKD360	0.0 L	0.0 N	10.0000	0.0 N	0.0 L	150.0000	0.0 N	15.0000	0.0 N	70.0000
74	AMG729	0.0 N	0.0 N	30.0000	0.0 N	0.0 L	200.0000	0.0 N	30.0000	0.0 L	30.0000
75	AMG730	20.0000	0.0 N	0.0 N	0.0 N	700.0000	30.0000	0.0 N	10.0000	0.0 L	70.0000
75	AMG731	30.0000	0.0 N	0.0 N	0.0 N	700.0000	30.0000	0.0 N	10.0000	0.0 L	70.0000

SUMDUM B-4 ROCK SAMPLES

	SAMPLE	AU PPM
31	AMG713	0.0200L
32	AMG714	0.0200L
33	AMG715	0.0200L
34	AMG716	0.0200L
37	AMG718	0.0200L
38	AMG719	0.0200L
39	AKD342	0.0200L
40	AKD388	0.0200L
41	AKD344	0.0200L
41	AKD345	0.0400
42	AKD337	0.0200L
43	AKD335	0.0200L
44	AKD336	0.0200L
45	AKD333	0.0200L
45	AKD334	0.0200L
46	AMG632	0.0200L
47	AMG728	0.0200L
48	AMG628	0.0200L
48	AMG629	0.0200L
48	AMG630	0.0200L
49	AMG726	0.0200L
50	AMG708	0.0200L
51	AMG724	0.0200L
52	AMG722	0.0200L
52	AMG723	0.0200L
53	AMG725	0.0200L
54	AKD346	0.0200L
55	AKD347	0.0200L
56	AKD348	0.0200L
57	AKD349	0.0200L
58	AKD323	0.0200L
58	AKD324	0.0200L
59	AKD325	0.0200L
60	AKD326	0.0200L
61	AKD327	0.0200L
62	AKD328	0.0200L
63	AKD329	0.0200L
64	AKD330	0.0200L
65	AKD331	0.0200L
66	AKD408	0.0200L
67	AKD406	0.0200L
68	AKD405	0.0200L
69	AKD350	0.0200L
70	AKD351	0.0200L
71	AKD352	0.0200L
72	AKD359	0.0200L
73	AKD360	0.0200L
74	AMG729	0.0200L
75	AMG730	0.0200L
75	AMG731	0.0200L

SUMDUM B-4 ROCK SAMPLES

MAP NUMBER	SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
76	AKD362	3.0000	1.0000	0.2000	0.3000	300.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
77	AKD361	3.0000	0.5000	0.7000	0.3000	300.0000	0.0 L	0.0 N	0.0 N	0.0 N	100.0000
78	AMG694	3.0000	1.5000	0.7000	0.7000	150.0000	0.5000	0.0 N	0.0 N	70.0000	1500.0000
79	AMG695	2.0000	0.7000	1.0000	0.2000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
80	AMG732	1.5000	0.3000	0.7000	0.1000	200.0000	0.0 N	0.0 N	0.0 N	0.0 N	700.0000
81	AKD363	7.0000	7.0000	5.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
82	AKD791	20.0000	5.0000	10.0000	1.0000G	3000.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
82	AKD792	15.0000	5.0000	10.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
82	AKD793	20.0000	3.0000	7.0000	0.7000	3000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
82	AKD794	15.0000	5.0000	10.0000	1.0000G	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
82	AKD795	20.0000	5.0000	10.0000	1.0000	5000.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
82	AKD796	15.0000	5.0000	7.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
83	AKD788	7.0000	1.5000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	1500.0000
84	AKD787	20.0000	5.0000	5.0000	1.0000	1000.0000	1.5000	0.0 N	0.0 N	10.0000	150.0000
84	AKD789	1.5000	0.3000	1.0000	0.0300	150.0000	0.0 N	0.0 N	0.0 N	0.0 N	500.0000
85	AMG634	0.7000	0.3000	0.3000	0.3000	70.0000	0.5000	0.0 N	0.0 N	20.0000	3000.0000
85	AMG635	10.0000	5.0000	2.0000	0.7000	1000.0000	1.5000	0.0 N	0.0 N	0.0 L	300.0000
85	AMG636	5.0000	1.5000	0.7000	0.5000	500.0000	0.0 L	0.0 N	0.0 N	50.0000	1500.0000
86	AMG637	2.0000	0.5000	0.5000	0.3000	70.0000	1.5000	0.0 N	0.0 N	15.0000	5000.0000G
86	AMG638	20.0000	0.3000	0.7000	0.1000	70.0000	2.0000	0.0 N	0.0 N	15.0000	2000.0000
87	AMG639	7.0000	3.0000	1.5000	0.7000	700.0000	1.5000	0.0 N	0.0 N	0.0 L	500.0000
88	AMG640	2.0000	0.7000	0.7000	0.5000	150.0000	0.0 L	0.0 N	0.0 N	15.0000	5000.0000G
88	AMG641	10.0000	5.0000	7.0000	0.7000	1500.0000	1.5000	0.0 N	0.0 N	10.0000	300.0000
88	AMG642	3.0000	1.5000	1.5000	0.5000	500.0000	1.0000	0.0 N	0.0 N	0.0 L	700.0000
88	AMG643	5.0000	1.5000	1.5000	0.7000	200.0000	0.0 L	0.0 N	0.0 N	0.0 N	700.0000
88	AMG644	15.0000	5.0000	5.0000	1.0000	1500.0000	0.7000	0.0 N	0.0 N	0.0 L	700.0000
89	AMG646	7.0000	3.0000	1.5000	0.7000	500.0000	1.0000	0.0 N	0.0 N	10.0000	3000.0000
90	AMG645	3.0000	1.5000	2.0000	0.2000	2000.0000	1.5000	0.0 N	0.0 N	20.0000	5000.0000
91	AKD786	5.0000	1.5000	0.5000	0.7000	150.0000	0.0 L	0.0 N	0.0 N	30.0000	1000.0000
92	AKD785	3.0000	1.5000	1.5000	0.7000	300.0000	1.0000	0.0 N	0.0 N	10.0000	1500.0000
93	AKD784	2.0000	1.0000	1.5000	0.5000	300.0000	0.0 L	0.0 N	0.0 N	0.0 N	700.0000
94	AKD366	5.0000	0.1500	0.3000	0.3000	300.0000	1.0000	0.0 N	0.0 N	0.0 L	3000.0000
95	AKD365	7.0000	1.0000	0.7000	0.3000	200.0000	0.7000	0.0 N	0.0 N	15.0000	3000.0000
96	AKD770	10.0000	3.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
96	AKD771	5.0000	1.5000	1.5000	0.5000	300.0000	0.0 L	0.0 N	0.0 N	0.0 L	1000.0000

SUMDUM B-4 ROCK SAMPLES

	SAMPLE	BE PPM	BI PPM	CD PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM
76	AKD362	0.0 L	0.0 N	0.0 N	7.0000	100.0000	30.0000	0.0 N	0.0 N	0.0 L	30.0000
77	AKD361	0.0 N	0.0 N	0.0 N	5.0000	10.0000	30.0000	0.0 N	0.0 L	10.0000	0.0 N
78	AMG694	1.5000	0.0 N	0.0 N	30.0000	150.0000	50.0000	30.0000	0.0 N	10.0000	150.0000
79	AMG695	1.0000	0.0 N	0.0 N	0.0 L	0.0 L	7.0000	0.0 N	0.0 N	0.0 L	0.0 L
80	AMG732	1.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	0.0 N	0.0 N	0.0 L	0.0 N
81	AKD363	0.0 N	0.0 N	0.0 N	50.0000	300.0000	30.0000	0.0 N	0.0 N	10.0000	30.0000
82	AKD791	0.0 N	0.0 N	0.0 N	50.0000	100.0000	150.0000	70.0000	5.0000	10.0000	50.0000
82	AKD792	0.0 L	0.0 N	0.0 N	20.0000	150.0000	100.0000	0.0 L	0.0 L	0.0 L	30.0000
82	AKD793	0.0 N	0.0 N	0.0 N	0.0 N	150.0000	50.0000	0.0 N	0.0 L	0.0 L	5.0000
82	AKD794	0.0 N	0.0 N	0.0 N	15.0000	70.0000	30.0000	70.0000	0.0 L	0.0 L	15.0000
82	AKD795	0.0 N	0.0 N	0.0 N	30.0000	150.0000	150.0000	0.0 L	5.0000	10.0000	50.0000
82	AKD796	0.0 L	0.0 N	0.0 N	30.0000	70.0000	70.0000	50.0000	5.0000	10.0000	20.0000
83	AKD788	1.0000	0.0 N	0.0 N	7.0000	30.0000	5.0000	0.0 N	0.0 L	10.0000	15.0000
84	AKD787	0.0 N	0.0 N	0.0 N	100.0000	150.0000	500.0000	0.0 N	0.0 L	0.0 L	150.0000
84	AKD789	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L	30.0000	0.0 N	0.0 N	0.0 L	10.0000
85	AMG634	1.0000	0.0 N	0.0 N	5.0000	70.0000	50.0000	0.0 N	30.0000	0.0 L	100.0000
85	AMG635	1.0000	0.0 N	0.0 N	50.0000	150.0000	70.0000	30.0000	0.0 L	10.0000	150.0000
85	AMG636	1.0000	0.0 N	0.0 N	10.0000	70.0000	70.0000	0.0 L	7.0000	10.0000	50.0000
86	AMG637	1.5000	0.0 N	70.0000	5.0000	150.0000	150.0000	0.0 N	70.0000	10.0000	70.0000
86	AMG638	0.0 L	0.0 N	0.0 N	0.0 N	70.0000	10.0000	0.0 L	10.0000	10.0000	150.0000
87	AMG639	1.5000	0.0 N	0.0 N	30.0000	150.0000	70.0000	30.0000	0.0 L	10.0000	100.0000
88	AMG640	1.5000	0.0 N	0.0 N	5.0000	70.0000	50.0000	0.0 L	5.0000	10.0000	50.0000
88	AMG641	0.0 L	0.0 N	0.0 N	20.0000	100.0000	200.0000	20.0000	70.0000	10.0000	100.0000
88	AMG642	0.0 L	0.0 N	0.0 N	7.0000	100.0000	100.0000	20.0000	70.0000	10.0000	30.0000
88	AMG643	0.0 N	0.0 N	0.0 N	10.0000	150.0000	50.0000	0.0 L	30.0000	10.0000	30.0000
88	AMG644	0.0 L	0.0 N	0.0 N	10.0000	200.0000	100.0000	70.0000	30.0000	15.0000	30.0000
89	AMG646	1.5000	0.0 N	0.0 N	30.0000	150.0000	70.0000	30.0000	0.0 L	10.0000	70.0000
90	AMG645	1.0000	0.0 N	50.0000	10.0000	30.0000	150.0000	0.0 L	15.0000	10.0000	150.0000
91	AKD786	0.0 L	0.0 N	0.0 N	30.0000	150.0000	100.0000	0.0 N	0.0 N	10.0000	100.0000
92	AKD785	0.0 L	0.0 N	0.0 N	15.0000	70.0000	150.0000	0.0 N	20.0000	10.0000	100.0000
93	AKD784	1.0000	0.0 N	0.0 N	0.0 L	20.0000	10.0000	0.0 N	0.0 N	10.0000	30.0000
94	AKD366	0.0 L	0.0 N	150.0000	70.0000	15.0000	300.0000	0.0 L	15.0000	0.0 L	50.0000
95	AKD365	1.0000	0.0 N	0.0 N	10.0000	70.0000	30.0000	0.0 N	10.0000	10.0000	70.0000
96	AKD770	0.0 L	0.0 N	0.0 N	30.0000	70.0000	15.0000	0.0 N	0.0 L	0.0 L	30.0000
96	AKD771	0.0 L	0.0 N	0.0 N	10.0000	30.0000	70.0000	0.0 L	0.0 N	0.0 L	20.0000

SUMDUM B-4 ROCK SAMPLES

	SAMPLE	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
76	AKD362	0.0 L	0.0 N	10.0000	0.0 N	100.0000	150.0000	0.0 N	10.0000	0.0 L	70.0000
77	AKD361	0.0 L	0.0 N	7.0000	0.0 N	150.0000	30.0000	0.0 N	15.0000	0.0 N	100.0000
78	AMG694	20.0000	0.0 N	15.0000	0.0 N	200.0000	500.0000	0.0 N	15.0000	700.0000	150.0000
79	AMG695	15.0000	0.0 N	0.0 N	0.0 N	700.0000	20.0000	0.0 N	0.0 L	0.0 L	100.0000
80	AMG732	30.0000	0.0 N	0.0 N	0.0 N	300.0000	30.0000	0.0 N	10.0000	0.0 L	70.0000
81	AKD363	0.0 N	0.0 N	30.0000	0.0 N	200.0000	500.0000	0.0 N	10.0000	0.0 L	0.0 L
82	AKD791	0.0 L	0.0 N	50.0000	0.0 N	150.0000	500.0000	0.0 N	100.0000	700.0000	100.0000
82	AKD792	0.0 L	0.0 N	30.0000	0.0 N	200.0000	500.0000	0.0 N	70.0000	700.0000	70.0000
82	AKD793	0.0 L	0.0 N	30.0000	0.0 N	200.0000	500.0000	0.0 N	100.0000	300.0000	50.0000
82	AKD794	0.0 L	0.0 N	30.0000	0.0 N	300.0000	500.0000	0.0 N	30.0000	300.0000	70.0000
82	AKD795	0.0 L	0.0 N	30.0000	0.0 N	150.0000	500.0000	0.0 N	50.0000	500.0000	50.0000
82	AKD796	0.0 L	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	500.0000	70.0000
83	AKD788	15.0000	0.0 L	15.0000	0.0 N	700.0000	200.0000	0.0 N	20.0000	300.0000	300.0000
84	AKD787	15.0000	0.0 L	30.0000	0.0 N	500.0000	700.0000	0.0 N	30.0000	200.0000	70.0000
84	AKD789	15.0000	0.0 N	0.0 N	0.0 N	1000.0000	30.0000	0.0 N	0.0 L	0.0 N	50.0000
85	AMG634	10.0000	0.0 N	10.0000	0.0 N	200.0000	1000.0000	0.0 N	10.0000	1500.0000	100.0000
85	AMG635	30.0000	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 L	150.0000
85	AMG636	20.0000	0.0 N	15.0000	0.0 N	150.0000	500.0000	0.0 N	30.0000	1000.0000	100.0000
86	AMG637	10.0000	0.0 N	15.0000	0.0 N	200.0000	1500.0000	0.0 N	20.0000	2000.0000	100.0000
86	AMG638	100.0000	0.0 N	7.0000	0.0 N	300.0000	500.0000	0.0 N	20.0000	300.0000	70.0000
87	AMG639	0.0 L	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	500.0000	100.0000
87	AMG640	0.0 N	0.0 N	15.0000	0.0 N	300.0000	500.0000	0.0 N	30.0000	300.0000	150.0000
88	AMG641	0.0 L	0.0 N	20.0000	0.0 N	700.0000	1000.0000	0.0 N	70.0000	700.0000	100.0000
89	AMG642	10.0000	0.0 N	15.0000	0.0 N	500.0000	700.0000	0.0 N	30.0000	200.0000	200.0000
90	AMG643	10.0000	0.0 N	15.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 L	150.0000
90	AMG644	20.0000	0.0 N	30.0000	0.0 N	500.0000	700.0000	0.0 N	50.0000	1500.0000	150.0000
89	AMG646	15.0000	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	500.0000	100.0000
90	AMG645	0.0 L	0.0 N	10.0000	0.0 N	200.0000	700.0000	0.0 N	30.0000	3000.0000	70.0000
91	AKD786	20.0000	150.0000	15.0000	0.0 N	100.0000	200.0000	0.0 N	15.0000	200.0000	100.0000
92	AKD785	70.0000	150.0000	15.0000	0.0 N	700.0000	700.0000	0.0 N	10.0000	1500.0000	70.0000
93	AKD784	70.0000	1500.0000	10.0000	0.0 N	2000.0000	300.0000	0.0 N	0.0 L	0.0 L	150.0000
94	AKD366	0.0 L	0.0 N	5.0000	0.0 N	200.0000	300.0000	0.0 N	15.0000	10001.0000G	70.0000
95	AKD365	10.0000	0.0 N	7.0000	0.0 N	200.0000	300.0000	0.0 N	10.0000	0.0 L	70.0000
96	AKD770	0.0 L	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000
96	AKD771	10.0000	0.0 N	15.0000	0.0 N	500.0000	200.0000	0.0 N	20.0000	0.0 N	100.0000

SUMDUM B-4 ROCK SAMPLES

	SAMPLE	AU PPM
76	AKD362	0.0200L
77	AKD361	0.0200L
78	AMG694	0.0200L
79	AMG695	0.0200L
80	AMG732	0.0200L
81	AKD363	0.0200L
82	AKD791	0.0200L
82	AKD792	0.0200L
82	AKD793	0.0200L
82	AKD794	0.0200L
82	AKD795	0.0200L
82	AKD796	0.0200L
83	AKD788	0.0200L
84	AKD787	0.0200L
84	AKD789	0.0200L
85	AMG634	0.0200L
86	AMG635	0.0200L
85	AMG636	0.0200L
86	AMG637	0.0200L
86	AMG638	0.0200L
87	AMG639	0.0200L
88	AMG640	0.0200L
88	AMG641	0.0200L
89	AMG642	0.0200L
89	AMG643	0.0200L
90	AMG644	0.0200L
89	AMG646	0.0200L
90	AMG645	0.0200L
91	AKD786	0.0200L
92	AKD785	0.0200L
93	AKD784	0.0200L
94	AKD366	0.0200L
95	AKD365	0.0200L
96	AKD770	0.0200L
96	AKD771	0.0200L

A470 GRAPHICAL ANALYSIS DATE 4/21/70

TITLE	INPUT ID	N	M
SUMDUM B-4 ROCK SAMPLES	-A.CLARKS-	135	31

COLUMN IDENTIFIERS

FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
BE PPM	BI PPM	CD PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM
PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
AU PPM									

FREQUENCY TABLE FOR COLUMN 1 (FE 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	2	2	1.48	1.48
8.3E-02 -	1.2E-01	0	2	0.0	1.48
1.2E-01 -	1.8E-01	3	5	2.22	3.70
1.8E-01 -	2.6E-01	0	5	0.0	3.70
2.6E-01 -	3.8E-01	6	11	4.44	8.15
3.8E-01 -	5.6E-01	3	14	2.22	10.37
5.6E-01 -	8.3E-01	4	18	2.96	13.33
8.3E-01 -	1.2E 00	1	19	0.74	14.07
1.2E 00 -	1.8E 00	6	25	4.44	18.52
1.8E 00 -	2.6E 00	8	33	5.93	24.44
2.6E 00 -	3.8E 00	31	64	22.96	47.41
3.8E 00 -	5.6E 00	20	84	14.81	62.22
5.6E 00 -	8.3E 00	11	95	8.15	70.37
8.3E 00 -	1.2E 01	15	110	11.11	81.48
1.2E 01 -	1.8E 01	16	126	11.85	93.33
1.8E 01 -	2.6E 01	6	132	4.44	97.78

HISTOGRAM FOR COLUMN 1 (FE PCT)

```
7.0E-02 X
1.0E-01
1.5E-01 XX
2.0E-01
3.0E-01 XXXX
5.0E-01 XX
7.0E-01 XXX
1.0E 00 X
1.5E 00 XXXX
2.0E 00 XXXXXX
3.0E 00 XXXXXXXXXXXXXXXXXXXXXX
5.0E 00 XXXXXXXXXXXXXX
7.0E 00 XXXXXXXX
1.0E 01 XXXXXXXXXX
1.5E 01 XXXXXXXXXXX
2.0E 01 XXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	3	0	0	0	0	132
0.0	2.22			0.0	0.0	

MAXIMUM = 2.00000E 01

MINIMUM = 7.00000E-02

GEOMETRIC MEAN = 3.61765E 00

GEOMETRIC DEVIATION = 3.48042E 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	3	3	2.22	2.22
2.6E-02 -	3.8E-02	1	4	0.74	2.96
3.8E-02 -	5.6E-02	0	4	0.0	2.96
5.6E-02 -	8.3E-02	2	6	1.48	4.44
8.3E-02 -	1.2E-01	1	7	0.74	5.19
1.2E-01 -	1.8E-01	1	8	0.74	5.93
1.8E-01 -	2.6E-01	6	14	4.44	10.37
2.6E-01 -	3.8E-01	19	33	14.07	24.44
3.8E-01 -	5.6E-01	6	39	4.44	28.89
5.6E-01 -	8.3E-01	9	48	6.67	35.56
8.3E-01 -	1.2E 00	18	66	13.33	48.89
1.2E 00 -	1.8E 00	22	88	16.30	65.19
1.8E 00 -	2.6E 00	5	93	3.70	68.89
2.6E 00 -	3.8E 00	12	105	8.89	77.78
3.8E 00 -	5.6E 00	20	125	14.81	92.59
5.6E 00 -	8.3E 00	4	129	2.96	95.56

HISTOGRAM FOR COLUMN 2 (MG PCT)

```
2.0E-02 XX
3.0E-02 X
5.0E-02
7.0E-02 X
1.0E-01 X
1.5E-01 X
2.0E-01 XXXX
3.0E-01 XXXXXXXXXXXXX
5.0E-01 XXXX
7.0E-01 XXXXXXX
1.0E 00 XXXXXXXXXXXX
1.5E 00 XXXXXXXXXXXXXXX
2.0E 00 XXXX
3.0E 00 XXXXXXXXX
5.0E 00 XXXXXXXXXXXXXX
7.0E 00 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	5	0	0	0	0	130
0.0	3.70			0.0	0.0	

MAXIMUM = 7.00000E 00

MINIMUM = 1.50000E-02

GEOMETRIC MEAN = 9.74786E-01

GEOMETRIC DEVIATION = 3.83822E 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	4	4	2.96	2.96
5.6E-02 -	8.3E-02	2	6	1.48	4.44
8.3E-02 -	1.2E-01	3	9	2.22	6.67
1.2E-01 -	1.8E-01	8	17	5.93	12.59
1.8E-01 -	2.6E-01	6	23	4.44	17.04
2.6E-01 -	3.8E-01	8	31	5.93	22.96
3.8E-01 -	5.6E-01	12	43	8.89	31.85
5.6E-01 -	8.3E-01	18	61	13.33	45.19
8.3E-01 -	1.2E 00	6	67	4.44	49.63
1.2E 00 -	1.8E 00	14	81	10.37	60.00
1.8E 00 -	2.6E 00	9	90	6.67	66.67
2.6E 00 -	3.8E 00	7	97	5.19	71.85
3.8E 00 -	5.6E 00	14	111	10.37	82.22
5.6E 00 -	8.3E 00	7	118	5.19	87.41
8.3E 00 -	1.2E 01	4	122	2.96	90.37

HISTOGRAM FOR COLUMN 3 (CA PCT)

```
5.0E-02 XXX
7.0E-02 X
1.0E-01 XX
1.5E-01 XXXXXX
2.0E-01 XXXX
3.0E-01 XXXXXX
5.0E-01 XXXXXXXXX
7.0E-01 XXXXXXXXXXXX
1.0E 00 XXXX
1.5E 00 XXXXXXXXXX
2.0E 00 XXXXXXX
3.0E 00 XXXXX
5.0E 00 XXXXXXXXX
7.0E 00 XXXXX
1.0E 01 XXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	13	0	0	0	0	122
0.0	9.63			0.0	0.0	

MAXIMUM = 1.00000E 01

MINIMUM = 5.00000E-02

GEOMETRIC MEAN = 9.33132E-01

GEOMETRIC DEVIATION = 3.95069E 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	1	1	0.74	0.74
3.8E-03 -	5.6E-03	1	2	0.74	1.48
5.6E-03 -	8.3E-03	1	3	0.74	2.22
8.3E-03 -	1.2E-02	0	3	0.0	2.22
1.2E-02 -	1.8E-02	1	4	0.74	2.96
1.8E-02 -	2.6E-02	1	5	0.74	3.70
2.6E-02 -	3.8E-02	6	11	4.44	8.15
3.8E-02 -	5.6E-02	1	12	0.74	8.89
5.6E-02 -	8.3E-02	0	12	0.0	8.89
8.3E-02 -	1.2E-01	6	18	4.44	13.33
1.2E-01 -	1.8E-01	6	24	4.44	17.78
1.8E-01 -	2.6E-01	10	34	7.41	25.19
2.6E-01 -	3.8E-01	37	71	27.41	52.59
3.8E-01 -	5.6E-01	21	92	15.56	68.15
5.6E-01 -	8.3E-01	26	118	19.26	87.41
8.3E-01 -	1.2E 00	7	125	5.19	92.59

HISTOGRAM FOR COLUMN 4 (TI PCT)

```
3.0E-03 X
5.0E-03 X
7.0E-03 X
1.0E-02
1.5E-02 X
2.0E-02 X
3.0E-02 XXXX
5.0E-02 X
7.0E-02
1.0E-01 XXXX
1.5E-01 XXXX
2.0E-01 XXXXXXX
3.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXX
5.0E-01 XXXXXXXXXXXXXXXX
7.0E-01 XXXXXXXXXXXXXXXXXX
1.0E 00 XXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	5	0	0	0	3	127
0.0	3.70			0.0	2.22	

MAXIMUM = 1.00000E 00

MINIMUM = 1.00000E-03

GEOMETRIC MEAN = 2.58732E-01

GEOMETRIC DEVIATION = 3.65617E 00

FREQUENCY TABLE FOR COLUMN 5 (MN PPM)

LIMITS LOWER	LIMITS 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	0.74	0.74
2.6E 01 -	3.8E 01	4	5	2.96	3.70
3.8E 01 -	5.6E 01	5	10	3.70	7.41
5.6E 01 -	8.3E 01	12	22	8.89	16.30
8.3E 01 -	1.2E 02	10	32	7.41	23.70
1.2E 02 -	1.8E 02	16	48	11.85	35.56
1.8E 02 -	2.6E 02	12	60	8.89	44.44
2.6E 02 -	3.8E 02	20	80	14.81	59.26
3.8E 02 -	5.6E 02	5	85	3.70	62.96
5.6E 02 -	8.3E 02	11	96	8.15	71.11
8.3E 02 -	1.2E 03	12	108	8.89	80.00
1.2E 03 -	1.8E 03	17	125	12.59	92.59
1.8E 03 -	2.6E 03	3	128	2.22	94.81
2.6E 03 -	3.8E 03	2	130	1.48	96.30
3.8E 03 -	5.6E 03	2	132	1.48	97.78

HISTOGRAM FOR COLUMN 5 (MN PPM)

```
2.0E 01 X
3.0E 01 XXX
5.0E 01 XXXX
7.0E 01 XXXXXXXXX
1.0E 02 XXXXXXX
1.5E 02 XXXXXXXXXXXX
2.0E 02 XXXXXXXXX
3.0E 02 XXXXXXXXXXXXXXX
5.0E 02 XXXX
7.0E 02 XXXXXXXX
1.0E 03 XXXXXXXXX
1.5E 03 XXXXXXXXXXXX
2.0E 03 XX
3.0E 03 X
5.0E 03 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	3	0	0	0	0	132
0.0	2.22			0.0	0.0	

MAXIMUM = 5.00000E 03

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 3.09971E 02

GEOMETRIC DEVIATION = 3.43516E 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	10	10	7.41	7.41
5.6E-01 -	8.3E-01	7	17	5.19	12.59
8.3E-01 -	1.2E 00	8	25	5.93	18.52
1.2E 00 -	1.8E 00	6	31	4.44	22.96
1.8E 00 -	2.6E 00	1	32	0.74	23.70

HISTOGRAM FOR COLUMN 6 (AG PPM)

```
5.0E-01 XXXXXXX

7.0E-01 XXXXX

1.0E 00 XXXXXX

1.5E 00 XXXX

2.0E 00 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
78	25	0	0	0	0	32
57.78	18.52			0.0	0.0	

MAXIMUM = 2.00000E 00

MINIMUM = 5.00000E-01

GEOMETRIC MEAN = 8.21236E-01

GEOMETRIC DEVIATION = 1.54809E 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	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 03	0	0	0.0	0.0
1.2E 03 -	1.8E 03	0	0	0.0	0.0
1.8E 03 -	2.6E 03	0	0	0.0	0.0
2.6E 03 -	3.8E 03	1	1	0.74	0.74

HISTOGRAM FOR COLUMN 7 (AS PPM)

3.0E 03 X

N	L	H	B	T	G	ANALYTICAL VALUES
134	0	0	0	0	0	1
99.26	0.0			0.0	0.0	

MAXIMUM = 3.00000E 03

MINIMUM = 3.00000E 03

GEOMETRIC MEAN = 2.99999E 03

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 8 (AU PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
135	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	23	23	17.04	17.04
1.2E 01 -	1.8E 01	7	30	5.19	22.22
1.8E 01 -	2.6E 01	9	39	6.67	28.89
2.6E 01 -	3.8E 01	8	47	5.93	34.81
3.8E 01 -	5.6E 01	8	55	5.93	40.74
5.6E 01 -	8.3E 01	6	61	4.44	45.19

HISTOGRAM FOR COLUMN 9 (B PPM)

```
       1.0E 01 XXXXXXXXXXXXXXXXX

       1.5E 01 XXXXX

       2.0E 01 XXXXXXXX

       3.0E 01 XXXXXX

       5.0E 01 XXXXXX

       7.0E 01 XXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
43	31	0	0	0	0	61
31.85	22.96			0.0	0.0	

MAXIMUM = 7.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.00437E 01

GEOMETRIC DEVIATION = 2.00611E 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	0	0	0.0	0.0
8.3E 01 -	1.2E 02	12	12	8.89	8.89
1.2E 02 -	1.8E 02	9	21	6.67	15.56
1.8E 02 -	2.6E 02	5	26	3.70	19.26
2.6E 02 -	3.8E 02	24	50	17.78	37.04
3.8E 02 -	5.6E 02	7	57	5.19	42.22
5.6E 02 -	8.3E 02	18	75	13.33	55.56
8.3E 02 -	1.2E 03	6	81	4.44	60.00
1.2E 03 -	1.8E 03	15	96	11.11	71.11
1.8E 03 -	2.6E 03	2	98	1.48	72.59
2.6E 03 -	3.8E 03	10	108	7.41	80.00
3.8E 03 -	5.6E 03	2	110	1.48	81.48

HISTOGRAM FOR COLUMN 10 (BA PPM)

```
      1.0E 02 XXXXXXXXX

      1.5E 02 XXXXXXX

      2.0E 02 XXXX

      3.0E 02 XXXXXXXXXXXXXXXXXX

      5.0E 02 XXXXX

      7.0E 02 XXXXXXXXXXXXX

      1.0E 03 XXXX

      1.5E 03 XXXXXXXXXXX

      2.0E 03 X

      3.0E 03 XXXXXXX

      5.0E 03 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	23	0	0	0	2	110
0.0	17.04			0.0	1.48	

MAXIMUM = 5.00000E 03

MINIMUM = 1.00000E 02

GEOMETRIC MEAN = 5.23226E 02

GEOMETRIC DEVIATION = 2.90505E 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	23	23	17.04	17.04
1.2E 00 -	1.8E 00	14	37	10.37	27.41
1.8E 00 -	2.6E 00	3	40	2.22	29.63
2.6E 00 -	3.8E 00	1	41	0.74	30.37

HISTOGRAM FOR COLUMN 11 (BE PPM)

```
1.0E 00 XXXXXXXXXXXXXXXXX

1.5E 00 XXXXXXXXXX

2.0E 00 XX

3.0E 00 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
58	36	0	0	0	0	41
42.96	26.67			0.0	0.0	

MAXIMUM = 3.00000E 00

MINIMUM = 1.00000E 00

GEOMETRIC MEAN = 1.24106E 00

GEOMETRIC DEVIATION = 1.31729E 00

FREQUENCY TABLE FOR COLUMN 12 (BI PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	8	T	G	ANALYTICAL VALUES
135	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 (CD PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 01 -	2.6E 01	1	1	0.74	0.74
2.6E 01 -	3.8E 01	0	1	0.0	0.74
3.8E 01 -	5.6E 01	2	3	1.48	2.22
5.6E 01 -	8.3E 01	1	4	0.74	2.96
8.3E 01 -	1.2E 02	0	4	0.0	2.96
1.2E 02 -	1.8E 02	1	5	0.74	3.70

HISTOGRAM FOR COLUMN 13 (CD PPM)

2.0E 01 X

3.0E 01

5.0E 01 X

7.0E 01 X

1.0E 02

1.5E 02 X

N	L	H	B	T	G	ANALYTICAL VALUES
130	0	0	0	0	0	5
96.30	0.0			0.0	0.0	

MAXIMUM = 1.50000E 02

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 5.54665E 01

GEOMETRIC DEVIATION = 2.06595E 00

FREQUENCY TABLE FOR COLUMN 14 (CO PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	12	12	8.89	8.89
5.6E 00 -	8.3E 00	6	18	4.44	13.33
8.3E 00 -	1.2E 01	15	33	11.11	24.44
1.2E 01 -	1.8E 01	14	47	10.37	34.81
1.8E 01 -	2.6E 01	11	58	8.15	42.96
2.6E 01 -	3.8E 01	15	73	11.11	54.07
3.8E 01 -	5.6E 01	11	84	8.15	62.22
5.6E 01 -	8.3E 01	6	90	4.44	66.67
8.3E 01 -	1.2E 02	1	91	0.74	67.41

HISTOGRAM FOR COLUMN 14 (CO PPM)

```
       5.0E 00 XXXXXXXXX

       7.0E 00 XXXX

       1.0E 01 XXXXXXXXXXX

       1.5E 01 XXXXXXXXXX

       2.0E 01 XXXXXXXX

       3.0E 01 XXXXXXXXXXX

       5.0E 01 XXXXXXXX

       7.0E 01 XXXX

       1.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
34	10	0	0	0	0	91
25.19	7.41			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.75149E 01

GEOMETRIC DEVIATION = 2.26490E 00

FREQUENCY TABLE FOR COLUMN 15 (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	17	17	12.59	12.59
1.2E 01 -	1.8E 01	7	24	5.19	17.78
1.8E 01 -	2.6E 01	8	32	5.93	23.70
2.6E 01 -	3.8E 01	9	41	6.67	30.37
3.8E 01 -	5.6E 01	6	47	4.44	34.81
5.6E 01 -	8.3E 01	19	66	14.07	48.89
8.3E 01 -	1.2E 02	12	78	8.89	57.78
1.2E 02 -	1.8E 02	29	107	21.48	79.26
1.8E 02 -	2.6E 02	4	111	2.96	82.22
2.6E 02 -	3.8E 02	7	118	5.19	87.41
3.8E 02 -	5.6E 02	2	120	1.48	88.89

HISTOGRAM FOR COLUMN 15 (CR PPM)

```
1.0E 01 XXXXXXXXXXXXX

1.5E 01 XXXXX

2.0E 01 XXXXXX

3.0E 01 XXXXXXX

5.0E 01 XXXX

7.0E 01 XXXXXXXXXXXXXX

1.0E 02 XXXXXXXXX

1.5E 02 XXXXXXXXXXXXXXXXXXXXX

2.0E 02 XXX

3.0E 02 XXXXX

5.0E 02 X
```

N	L	H	8	T	G	ANALYTICAL VALUES
0	15	0	0	0	0	120
0.0	11.11			0.0	0.0	

MAXIMUM = 5.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 5.98335E 01

GEOMETRIC DEVIATION = 2.99348E 00

FREQUENCY TABLE FOR COLUMN 16 (CU PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 - 5.6E 00	5	5	3.70	3.70
5.6E 00 - 8.3E 00	3	8	2.22	5.93
8.3E 00 - 1.2E 01	12	20	8.89	14.81
1.2E 01 - 1.8E 01	8	28	5.93	20.74
1.8E 01 - 2.6E 01	4	32	2.96	23.70
2.6E 01 - 3.8E 01	13	45	9.63	33.33
3.8E 01 - 5.6E 01	16	61	11.85	45.19
5.6E 01 - 8.3E 01	24	85	17.78	62.96
8.3E 01 - 1.2E 02	9	94	6.67	69.63
1.2E 02 - 1.8E 02	10	104	7.41	77.04
1.8E 02 - 2.6E 02	1	105	0.74	77.78
2.6E 02 - 3.8E 02	1	106	0.74	78.52
3.8E 02 - 5.6E 02	1	107	0.74	79.26
5.6E 02 - 8.3E 02	1	108	0.74	80.00

HISTOGRAM FOR COLUMN 16 (CU PPM)

```
5.0E 00 XXXX

7.0E 00 XX

1.0E 01 XXXXXXXXX

1.5E 01 XXXXXX

2.0E 01 XXX

3.0E 01 XXXXXXXXXX

5.0E 01 XXXXXXXXXXXX

7.0E 01 XXXXXXXXXXXXXXXXXX

1.0E 02 XXXXXXX

1.5E 02 XXXXXXX

2.0E 02 X

3.0E 02 X

5.0E 02 X

7.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	27	0	0	0	0	108
0.0	20.00			0.0	0.0	

MAXIMUM = 7.00000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 4.03179E 01

GEOMETRIC DEVIATION = 2.87139E 00

FREQUENCY TABLE FOR COLUMN 17 (LA PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 01 -	2.6E 01	8	8	5.93	5.93
2.6E 01 -	3.8E 01	5	13	3.70	9.63
3.8E 01 -	5.6E 01	1	14	0.74	10.37
5.6E 01 -	8.3E 01	3	17	2.22	12.59
8.3E 01 -	1.2E 02	1	18	0.74	13.33
1.2E 02 -	1.8E 02	1	19	0.74	14.07
1.8E 02 -	2.6E 02	2	21	1.48	15.56

HISTOGRAM FOR COLUMN 17 (LA PPM)

```
       2.0E 01 XXXXXX

       3.0E 01 XXXX

       5.0E 01 X

       7.0E 01 XX

       1.0E 02 X

       1.5E 02 X

       2.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
87	27	0	0	0	0	21
64.44	20.00			0.0	0.0	

MAXIMUM = 2.00000E 02

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 4.07209E 01

GEOMETRIC DEVIATION = 2.24001E 00

FREQUENCY TABLE FOR COLUMN 18 (MO PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 - 5.6E 00	9	9	6.67	6.67
5.6E 00 - 8.3E 00	3	12	2.22	8.89
8.3E 00 - 1.2E 01	2	14	1.48	10.37
1.2E 01 - 1.8E 01	7	21	5.19	15.56
1.8E 01 - 2.6E 01	2	23	1.48	17.04
2.6E 01 - 3.8E 01	4	27	2.96	20.00
3.8E 01 - 5.6E 01	1	28	0.74	20.74
5.6E 01 - 8.3E 01	5	33	3.70	24.44

HISTOGRAM FOR COLUMN 18 (MO PPM)

```
       5.0E 00 XXXXXXX

       7.0E 00 XX

       1.0E 01 X

       1.5E 01 XXXXX

       2.0E 01 X

       3.0E 01 XXX

       5.0E 01 X

       7.0E 01 XXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
55	47	0	0	0	0	33
40.74	34.81			0.0	0.0	

MAXIMUM = 7.00000E 01

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.46713E 01

GEOMETRIC DEVIATION = 2.56191E 00

FREQUENCY TABLE FOR COLUMN 19 (NB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	70	70	51.85	51.85
1.2E 01 -	1.8E 01	2	72	1.48	53.33
1.8E 01 -	2.6E 01	0	72	0.0	53.33
2.6E 01 -	3.8E 01	4	76	2.96	56.30
3.8E 01 -	5.6E 01	0	76	0.0	56.30
5.6E 01 -	8.3E 01	0	76	0.0	56.30
8.3E 01 -	1.2E 02	1	77	0.74	57.04

HISTOGRAM FOR COLUMN 19 (NB PPM)

```
1.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1.5E 01 X

2.0E 01

3.0E 01 XXX

5.0E 01

7.0E 01

1.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	58	0	0	0	0	77
0.0	42.96			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.10239E 01

GEOMETRIC DEVIATION = 1.43023E 00

FREQUENCY TABLE FOR COLUMN 20 (NI PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	14	14	10.37	10.37
5.6E 00 -	8.3E 00	3	17	2.22	12.59
8.3E 00 -	1.2E 01	6	23	4.44	17.04
1.2E 01 -	1.8E 01	7	30	5.19	22.22
1.8E 01 -	2.6E 01	9	39	6.67	28.89
2.6E 01 -	3.8E 01	32	71	23.70	52.59
3.8E 01 -	5.6E 01	10	81	7.41	60.00
5.6E 01 -	8.3E 01	14	95	10.37	70.37
8.3E 01 -	1.2E 02	12	107	8.89	79.26
1.2E 02 -	1.8E 02	14	121	10.37	89.63

HISTOGRAM FOR COLUMN 20 (NI PPM)

```
       5.0E 00 XXXXXXXXXX

       7.0E 00 XX

       1.0E 01 XXXX

       1.5E 01 XXXXX

       2.0E 01 XXXXXXX

       3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX

       5.0E 01 XXXXXXX

       7.0E 01 XXXXXXXXXX

       1.0E 02 XXXXXXXXX

       1.5E 02 XXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
5	9	0	0	0	0	121
3.70	6.67			0.0	0.0	

MAXIMUM = 1.50000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 3.24248E 01

GEOMETRIC DEVIATION = 2.81999E 00

FREQUENCY TABLE FOR COLUMN 21 (PB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	14	14	10.37	10.37
1.2E 01 -	1.8E 01	21	35	15.56	25.93
1.8E 01 -	2.6E 01	14	49	10.37	36.30
2.6E 01 -	3.8E 01	6	55	4.44	40.74
3.8E 01 -	5.6E 01	3	58	2.22	42.96
5.6E 01 -	8.3E 01	2	60	1.48	44.44
8.3E 01 -	1.2E 02	1	61	0.74	45.19

HISTOGRAM FOR COLUMN 21 (PB PPM)

```
1.0E 01 XXXXXXXXXX
1.5E 01 XXXXXXXXXXXXXXXX
2.0E 01 XXXXXXXXXX
3.0E 01 XXXX
5.0E 01 XX
7.0E 01 X
1.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
49	25	0	0	0	0	61
36.30	18.52			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.79933E 01

GEOMETRIC DEVIATION = 1.70334E 00

FREQUENCY TABLE FOR COLUMN 22 (SB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 01 -	1.2E 02	0	0	0.0	0.0
1.2E 02 -	1.8E 02	2	2	1.48	1.48
1.8E 02 -	2.6E 02	0	2	0.0	1.48
2.6E 02 -	3.8E 02	0	2	0.0	1.48
3.8E 02 -	5.6E 02	0	2	0.0	1.48
5.6E 02 -	8.3E 02	0	2	0.0	1.48
8.3E 02 -	1.2E 03	0	2	0.0	1.48
1.2E 03 -	1.8E 03	1	3	0.74	2.22

HISTOGRAM FOR COLUMN 22 (SB PPM)

1.5E 02 X

2.0E 02

3.0E 02

5.0E 02

7.0E 02

1.0E 03

1.5E 03 X

N	L	H	B	T	G	ANALYTICAL VALUES
130	2	0	0	0	0	3
96.30	1.48			0.0	0.0	

MAXIMUM = 1.50000E 03

MINIMUM = 1.50000E 02

GEOMETRIC MEAN = 3.23164E 02

GEOMETRIC DEVIATION = 3.77873E 00

FREQUENCY TABLE FOR COLUMN 23 (SC PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	3	3	2.22	2.22
5.6E 00 -	8.3E 00	8	11	5.93	8.15
8.3E 00 -	1.2E 01	16	27	11.85	20.00
1.2E 01 -	1.8E 01	33	60	24.44	44.44
1.8E 01 -	2.6E 01	10	70	7.41	51.85
2.6E 01 -	3.8E 01	23	93	17.04	68.89
3.8E 01 -	5.6E 01	6	99	4.44	73.33
5.6E 01 -	8.3E 01	1	100	0.74	74.07

HISTOGRAM FOR COLUMN 23 (SC PPM)

```
       5.0E 00 XX

       7.0E 00 XXXXXX

       1.0E 01 XXXXXXXXXXXX

       1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXX

       2.0E 01 XXXXXXX

       3.0E 01 XXXXXXXXXXXXXXXX

       5.0E 01 XXXX

       7.0E 01 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
29	6	0	0	0	0	100
21.48	4.44			0.0	0.0	

MAXIMUM = 7.00000E 01

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.68620E 01

GEOMETRIC DEVIATION = 1.77323E 00

FREQUENCY TABLE FOR COLUMN 24 (SN PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
134	1	0	0	0	0	0
99.26	0.74			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 25 (SR PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 01 -	1.2E 02	11	11	8.15	8.15
1.2E 02 -	1.8E 02	32	43	23.70	31.85
1.8E 02 -	2.6E 02	19	62	14.07	45.93
2.6E 02 -	3.8E 02	17	79	12.59	58.52
3.8E 02 -	5.6E 02	6	85	4.44	62.96
5.6E 02 -	8.3E 02	8	93	5.93	68.89
8.3E 02 -	1.2E 03	2	95	1.48	70.37
1.2E 03 -	1.8E 03	0	95	0.0	70.37
1.8E 03 -	2.6E 03	1	96	0.74	71.11

HISTOGRAM FOR COLUMN 25 (SR PPM)

```
       1.0E 02 XXXXXXXX

       1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXX

       2.0E 02 XXXXXXXXXXXXXX

       3.0E 02 XXXXXXXXXXXXX

       5.0E 02 XXXX

       7.0E 02 XXXXXX

       1.0E 03 X

       1.5E 03

       2.0E 03 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	39	0	0	0	0	96
0.0	28.89			0.0	0.0	

MAXIMUM = 2.00000E 03

MINIMUM = 1.00000E 02

GEOMETRIC MEAN = 2.24521E 02

GEOMETRIC DEVIATION = 1.87458E 00

FREQUENCY TABLE FOR COLUMN 26 (V PPM)

LIMITS LOWER	LIMITS UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	4	4	2.96	2.96
1.2E 01 -	1.8E 01	14	18	10.37	13.33
1.8E 01 -	2.6E 01	6	24	4.44	17.78
2.6E 01 -	3.8E 01	8	32	5.93	23.70
3.8E 01 -	5.6E 01	2	34	1.48	25.19
5.6E 01 -	8.3E 01	4	38	2.96	28.15
8.3E 01 -	1.2E 02	2	40	1.48	29.63
1.2E 02 -	1.8E 02	17	57	12.59	42.22
1.8E 02 -	2.6E 02	25	82	18.52	60.74
2.6E 02 -	3.8E 02	26	108	19.26	80.00
3.8E 02 -	5.6E 02	13	121	9.63	89.63
5.6E 02 -	8.3E 02	9	130	6.67	96.30
8.3E 02 -	1.2E 03	4	134	2.96	99.26
1.2E 03 -	1.8E 03	1	135	0.74	100.00

HISTOGRAM FOR COLUMN 26 (V PPM)

```
1.0E 01 XXX
1.5E 01 XXXXXXXXXX
2.0E 01 XXXX
3.0E 01 XXXXXX
5.0E 01 X
7.0E 01 XXX
1.0E 02 X
1.5E 02 XXXXXXXXXXXX
2.0E 02 XXXXXXXXXXXXXXXXXX
3.0E 02 XXXXXXXXXXXXXXXXXX
5.0E 02 XXXXXXXXXX
7.0E 02 XXXXXXX
1.0E 03 XXX
1.5E 03 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	135
0.0	0.0			0.0	0.0	

MAXIMUM = 1.50000E 03

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.39834E 02

GEOMETRIC DEVIATION = 3.68036E 00

FREQUENCY TABLE FOR COLUMN 27 (W PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
					ANALYTICAL
N	L	H	B	T	G	VALUES
135	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 28 (Y PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	24	24	17.78	17.78
1.2E 01 -	1.8E 01	28	52	20.74	38.52
1.8E 01 -	2.6E 01	27	79	20.00	58.52
2.6E 01 -	3.8E 01	17	96	12.59	71.11
3.8E 01 -	5.6E 01	4	100	2.96	74.07
5.6E 01 -	8.3E 01	5	105	3.70	77.78
8.3E 01 -	1.2E 02	3	108	2.22	80.00
1.2E 02 -	1.8E 02	1	109	0.74	80.74

HISTOGRAM FOR COLUMN 28 (Y PPM)

```
1.0E 01 XXXXXXXXXXXXXXXXXX

1.5E 01 XXXXXXXXXXXXXXXXXXXXX

2.0E 01 XXXXXXXXXXXXXXXXXXXX

3.0E 01 XXXXXXXXXXXXX

5.0E 01 XXX

7.0E 01 XXXX

1.0E 02 XX

1.5E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
8	18	0	0	0	0	109
5.93	13.33			0.0	0.0	

MAXIMUM = 1.50000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.98123E 01

GEOMETRIC DEVIATION = 1.83327E 00

FREQUENCY TABLE FOR COLUMN 29 (ZN PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 02 -	2.6E 02	10	10	7.41	7.41
2.6E 02 -	3.8E 02	8	18	5.93	13.33
3.8E 02 -	5.6E 02	4	22	2.96	16.30
5.6E 02 -	8.3E 02	7	29	5.19	21.48
8.3E 02 -	1.2E 03	2	31	1.48	22.96
1.2E 03 -	1.8E 03	4	35	2.96	25.93
1.8E 03 -	2.6E 03	1	36	0.74	26.67
2.6E 03 -	3.8E 03	2	38	1.48	28.15

HISTOGRAM FOR COLUMN 29 (ZN PPM)

```
       2.0E 02 XXXXXXX

       3.0E 02 XXXXXX

       5.0E 02 XXX

       7.0E 02 XXXXX

       1.0E 03 X

       1.5E 03 XXX

       2.0E 03 X

       3.0E 03 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
49	47	0	0	0	1	38
36.30	34.81			0.0	0.74	

MAXIMUM = 3.00000E 03

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 4.98105E 02

GEOMETRIC DEVIATION = 2.29034E 00

FREQUENCY TABLE FOR COLUMN 30 (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	6	6	4.44	4.44
2.6E 01 -	3.8E 01	8	14	5.93	10.37
3.8E 01 -	5.6E 01	16	30	11.85	22.22
5.6E 01 -	8.3E 01	45	75	33.33	55.56
8.3E 01 -	1.2E 02	28	103	20.74	76.30
1.2E 02 -	1.8E 02	8	111	5.93	82.22
1.8E 02 -	2.6E 02	3	114	2.22	84.44
2.6E 02 -	3.8E 02	3	117	2.22	86.67
3.8E 02 -	5.6E 02	0	117	0.0	86.67
5.6E 02 -	8.3E 02	2	119	1.48	88.15
8.3E 02 -	1.2E 03	2	121	1.48	89.63

HISTOGRAM FOR COLUMN 30 (ZR PPM)

```
       2.0E 01 XXXX

       3.0E 01 XXXXXX

       5.0E 01 XXXXXXXXXXXX

       7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       1.0E 02 XXXXXXXXXXXXXXXXXXXX

       1.5E 02 XXXXXX

       2.0E 02 XX

       3.0E 02 XX

       5.0E 02

       7.0E 02 X

       1.0E 03 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
2	12	0	0	0	0	121
1.48	8.89			0.0	0.0	

MAXIMUM = 1.00000E 03

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 7.84844E 01

GEOMETRIC DEVIATION = 2.00414E 00

FREQUENCY TABLE FOR COLUMN 31 (AU 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	0	0	0.0	0.0
3.8E-02 -	5.6E-02	1	1	0.74	0.74
5.6E-02 -	8.3E-02	0	1	0.0	0.74
8.3E-02 -	1.2E-01	1	2	0.74	1.48

HISTOGRAM FOR COLUMN 31 (AU PPM)

5.0E-02 X

7.0E-02

1.0E-01 X

N	L	H	B	T	G	ANALYTICAL VALUES
0	133	0	0	0	0	2
0.0	98.52			0.0	0.0	

MAXIMUM = 1.00000E-01

MINIMUM = 4.00000E-02

GEOMETRIC MEAN = 6.32457E-02

GEOMETRIC DEVIATION = 1.91155E 00

A470 STATISTICAL SUMMARY DATE 4/21/70

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
FE PCT	0	3	0	0	0	0	132
MG PCT	0	5	0	0	0	0	130
CA PCT	0	13	0	0	0	0	122
TI PCT	0	5	0	0	0	3	127
MN PPM	0	3	0	0	0	0	132
AG PPM	78	25	0	0	0	0	32
AS PPM	134	0	0	0	0	0	1
AU PPM	135	0	0	0	0	0	0
B PPM	43	31	0	0	0	0	61
BA PPM	0	23	0	0	0	2	110
BE PPM	58	36	0	0	0	0	41
BI PPM	135	0	0	0	0	0	0
CD PPM	130	0	0	0	0	0	5
CO PPM	34	10	0	0	0	0	91
CR PPM	0	15	0	0	0	0	120
CU PPM	0	27	0	0	0	0	108
LA PPM	87	27	0	0	0	0	21
MO PPM	55	47	0	0	0	0	33
NB PPM	0	58	0	0	0	0	77
NI PPM	5	9	0	0	0	0	121
PB PPM	49	25	0	0	0	0	61
SB PPM	130	2	0	0	0	0	3
SC PPM	29	6	0	0	0	0	100
SN PPM	134	1	0	0	0	0	0
SR PPM	0	39	0	0	0	0	96
V PPM	0	0	0	0	0	0	135
W PPM	135	0	0	0	0	0	0
Y PPM	8	18	0	0	0	0	109
ZN PPM	49	47	0	0	0	1	38
ZR PPM	2	12	0	0	0	0	121
AU PPM	0	133	0	0	0	0	2

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
FE PCT	3.241162	4.19	3 NOT DETECTED, LESS THAN, OR TRACE VALUES. 132 REPORTED VALUES.
MG PCT	********	******	1 VALUES LESS THAN SPECIFIED LIMIT OF DETECTION. NO COMPUTATIONS.
CA PCT	0.638515	5.81	13 NOT DETECTED, LESS THAN, OR TRACE VALUES. 122 REPORTED VALUES.
TI PCT	********	******	2 VALUES LESS THAN SPECIFIED LIMIT OF DETECTION. NO COMPUTATIONS.
MN PPM	283.264160	3.90	3 NOT DETECTED, LESS THAN, OR TRACE VALUES. 132 REPORTED VALUES.
AG PPM	0.164817	3.29	103 NOT DETECTED, LESS THAN, OR TRACE VALUES. 32 REPORTED VALUES.
AS PPM	********	******	134 NOT DETECTED, LESS THAN, OR TRACE VALUES. 1 REPORTED VALUES. NO COMPUTATIONS.
AU PPM	********	******	135 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
B PPM	7.116830	3.27	74 NOT DETECTED, LESS THAN, OR TRACE VALUES. 61 REPORTED VALUES.
BA PPM	********	******	2 GREATER THAN VALUES. NO COMPUTATIONS.
BE PPM	0.611445	1.83	94 NOT DETECTED, LESS THAN, OR TRACE VALUES. 41 REPORTED VALUES.
BI PPM	********	******	135 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
CD PPM	********	******	130 NOT DETECTED, LESS THAN, OR TRACE VALUES. 5 REPORTED VALUES. NO COMPUTATIONS.
CO PPM	8.069764	3.89	44 NOT DETECTED, LESS THAN, OR TRACE VALUES. 91 REPORTED VALUES.
CR PPM	41.023529	4.47	15 NOT DETECTED, LESS THAN, OR TRACE VALUES. 120 REPORTED VALUES.
CU PPM	21.334991	5.03	27 NOT DETECTED, LESS THAN, OR TRACE VALUES. 108 REPORTED VALUES.
LA PPM	3.026113	5.34	114 NOT DETECTED, LESS THAN, OR TRACE VALUES. 21 REPORTED VALUES.
MO PPM	0.842588	8.78	102 NOT DETECTED, LESS THAN, OR TRACE VALUES. 33 REPORTED VALUES.
NB PPM	********	******	58 NOT DETECTED, LESS THAN, OR TRACE VALUES. 77 REPORTED VALUES. NO COMPUTATIONS.
NI PPM	24.453568	3.65	14 NOT DETECTED, LESS THAN, OR TRACE VALUES. 121 REPORTED VALUES.
PB PPM	7.482390	2.67	74 NOT DETECTED, LESS THAN, OR TRACE VALUES. 61 REPORTED VALUES.

SB	PPM	********	******	132	NOT DETECTED,	LESS THAN, OR TRACE VALUES.	3	REPORTED VALUES. NO COMPUTATIONS.
SC	PPM	9.875427	2.88	35	NOT DETECTED,	LESS THAN, OR TRACE VALUES.	100	REPORTED VALUES.
SN	PPM	********	******	135	NOT DETECTED,	LESS THAN, OR TRACE VALUES.	0	REPORTED VALUES. NO COMPUTATIONS.
SR	PPM	142.617325	2.51	39	NOT DETECTED,	LESS THAN, OR TRACE VALUES.	96	REPORTED VALUES.
V	PPM	139.833786	3.68	135	SAMPLES AND	135 ANALYTICAL VALUES.		
W	PPM	********	******	135	NOT DETECTED,	LESS THAN, OR TRACE VALUES.	0	REPORTED VALUES. NO COMPUTATIONS.
Y	PPM	15.394007	2.15	26	NOT DETECTED,	LESS THAN, OR TRACE VALUES.	109	REPORTED VALUES.
ZN	PPM	********	******	1	GREATER THAN VALUES. NO COMPUTATIONS.			
ZR	PPM	59.544922	2.86	14	NOT DETECTED,	LESS THAN, OR TRACE VALUES.	121	REPORTED VALUES.
AU	PPM	********	******	133	NOT DETECTED,	LESS THAN, OR TRACE VALUES.	2	REPORTED VALUES. NO COMPUTATIONS.

TABLE 3. SUMDUM B-4 STREAM SEDIMENTS

MAP NUMBER	SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
97	AKD839	5.0000	2.0000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
98	AKD833	5.0000	1.5000	1.5000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	1500.0000
99	AKD838	10.0000	3.0000	3.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
100	AKD837	15.0000	3.0000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	700.0000
101	AKD835	10.0000	3.0000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 N	200.0000
102	AKD402	10.0000	3.0000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	700.0000
103	AKD401	7.0000	2.0000	2.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 N	700.0000
104	AKD403	15.0000	3.0000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
105	AKD400	15.0000	3.0000	3.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	200.0000
106	AKD399	10.0000	3.0000	2.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
107	AKD398	15.0000	3.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
108	AKD389	3.0000	0.7000	0.5000	0.5000	300.0000	0.0 N	0.0 N	0.0 N	20.0000	150.0000
109	AKD857	3.0000	0.7000	0.7000	0.3000	150.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
110	AKD859	3.0000	1.0000	0.7000	0.5000	300.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
111	AKD860	3.0000	1.5000	1.0000	0.7000	500.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
112	AKD858	3.0000	1.0000	0.7000	0.7000	300.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
113	AKD853	10.0000	2.0000	1.5000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	1000.0000
114	AKD862	10.0000	1.5000	1.5000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	700.0000
115	AKD386	7.0000	3.0000	3.0000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	500.0000
116	AKD387	5.0000	1.5000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	1500.0000
117	AKD861	15.0000	3.0000	2.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
118	AKD854	5.0000	1.0000	0.7000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
119	AKD312	10.0000	1.0000	1.0000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
120	AKD313	7.0000	1.5000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	20.0000	500.0000
121	AKD311	7.0000	1.5000	1.5000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
122	AKD310	10.0000	1.5000	2.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	1500.0000
123	AKD314	7.0000	1.5000	2.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
124	AKD855	10.0000	3.0000	2.0000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	500.0000
125	AKD856	5.0000	1.5000	1.5000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
126	AKD852	3.0000	1.5000	1.5000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	1500.0000
127	AKD851	5.0000	1.5000	0.7000	0.7000	500.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
128	AKD315	20.0000	5.0000	3.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
129	AKD316	15.0000	3.0000	2.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
130	AKD309	15.0000	3.0000	3.0000	0.5000	3000.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
131	AKD390	10.0000	3.0000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	700.0000
132	AKD391	15.0000	2.0000	1.5000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	50.0000	1500.0000
133	AKD392	3.0000	1.0000	1.5000	1.0000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	700.0000
134	AKD307	10.0000	3.0000	1.5000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	15.0000	1500.0000
135	AKD317	5.0000	1.5000	1.5000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
136	AKD318	7.0000	1.5000	2.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
137	AKD319	3.0000	1.0000	1.5000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
138	AKD321	15.0000	5.0000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
139	AKD291	10.0000	7.0000	5.0000	0.3000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
140	AKD292	15.0000	7.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
141	AKD293	15.0000	5.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	500.0000
142	AKD294	15.0000	7.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
143	AKD295	10.0000	5.0000	5.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	200.0000
144	AKD296	7.0000	3.0000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
145	AKD297	3.0000	1.0000	0.7000	0.5000	300.0000	0.0 N	0.0 N	0.0 N	30.0000	200.0000
146	AKD298	3.0000	1.0000	0.7000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	30.0000	150.0000

SUMDUM B-4 STREAM SEDIMENTS

	SAMPLE	BE PPM	BI PPM	CD PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM
97	AKD839	0.0 N	0.0 N	0.0 N	20.0000	100.0000	30.0000	0.0 L	0.0 L	10.0000	30.0000
98	AKD833	0.0 L	0.0 N	0.0 N	10.0000	70.0000	70.0000	0.0 L	0.0 L	10.0000	30.0000
99	AKD838	0.0 L	0.0 N	0.0 N	30.0000	150.0000	70.0000	0.0 N	0.0 L	10.0000	30.0000
100	AKD837	1.0000	0.0 N	0.0 N	30.0000	150.0000	30.0000	0.0 L	0.0 L	10.0000	50.0000
101	AKD835	0.0 N	0.0 N	0.0 N	20.0000	100.0000	30.0000	0.0 N	0.0 L	0.0 L	30.0000
102	AKD402	0.0 N	0.0 N	0.0 N	15.0000	30.0000	7.0000	20.0000	0.0 N	10.0000	10.0000
103	AKD401	0.0 N	0.0 N	0.0 N	10.0000	20.0000	7.0000	0.0 L	0.0 N	10.0000	0.0 L
104	AKD403	0.0 N	0.0 N	0.0 N	15.0000	70.0000	10.0000	0.0 L	0.0 N	10.0000	15.0000
105	AKD400	0.0 N	0.0 N	0.0 N	20.0000	150.0000	10.0000	0.0 N	0.0 N	10.0000	30.0000
106	AKD399	0.0 N	0.0 N	0.0 N	20.0000	150.0000	10.0000	0.0 N	0.0 N	10.0000	30.0000
107	AKD398	0.0 N	0.0 N	0.0 N	15.0000	150.0000	5.0000	70.0000	0.0 L	10.0000	30.0000
108	AKD389	0.0 N	0.0 N	0.0 N	5.0000	70.0000	30.0000	0.0 L	0.0 N	10.0000	30.0000
109	AKD857	0.0 L	0.0 N	0.0 N	7.0000	70.0000	15.0000	0.0 L	0.0 N	0.0 L	30.0000
110	AKD859	0.0 L	0.0 N	0.0 N	10.0000	100.0000	15.0000	0.0 L	0.0 N	10.0000	50.0000
111	AKD860	0.0 L	0.0 N	0.0 N	15.0000	150.0000	15.0000	0.0 L	0.0 N	10.0000	70.0000
112	AKD858	0.0 L	0.0 N	0.0 N	10.0000	70.0000	10.0000	0.0 N	0.0 N	10.0000	30.0000
113	AKD853	0.0 L	0.0 N	0.0 N	20.0000	100.0000	20.0000	0.0 L	0.0 L	10.0000	30.0000
114	AKD862	0.0 L	0.0 N	0.0 N	20.0000	100.0000	30.0000	0.0 L	0.0 L	10.0000	50.0000
115	AKD386	0.0 L	0.0 N	0.0 N	15.0000	100.0000	10.0000	0.0 L	0.0 L	0.0 L	30.0000
116	AKD387	0.0 N	0.0 N	0.0 N	15.0000	70.0000	10.0000	0.0 L	0.0 L	0.0 L	30.0000
117	AKD861	0.0 N	0.0 N	0.0 N	50.0000	200.0000	30.0000	0.0 N	0.0 L	10.0000	70.0000
118	AKD854	0.0 L	0.0 N	0.0 N	20.0000	100.0000	10.0000	0.0 N	0.0 L	10.0000	30.0000
119	AKD312	0.0 N	0.0 N	0.0 N	5.0000	50.0000	10.0000	0.0 N	0.0 L	10.0000	7.0000
120	AKD313	0.0 N	0.0 N	0.0 N	10.0000	70.0000	15.0000	0.0 N	0.0 L	10.0000	10.0000
121	AKD311	0.0 N	0.0 N	0.0 N	15.0000	150.0000	30.0000	0.0 L	0.0 L	10.0000	30.0000
122	AKD310	0.0 N	0.0 N	0.0 N	7.0000	100.0000	30.0000	0.0 N	0.0 L	10.0000	20.0000
123	AKD314	0.0 N	0.0 N	0.0 N	5.0000	70.0000	5.0000	0.0 N	0.0 L	10.0000	0.0 L
124	AKD855	0.0 N	0.0 N	0.0 N	30.0000	150.0000	30.0000	20.0000	0.0 L	10.0000	70.0000
125	AKD856	1.0000	0.0 N	0.0 N	20.0000	150.0000	15.0000	0.0 L	0.0 L	10.0000	70.0000
126	AKD852	0.0 L	0.0 N	0.0 N	10.0000	30.0000	15.0000	0.0 L	0.0 N	0.0 L	30.0000
127	AKD851	1.0000	0.0 N	0.0 N	20.0000	150.0000	30.0000	0.0 L	0.0 L	0.0 L	50.0000
128	AKD315	0.0 N	0.0 N	0.0 N	20.0000	150.0000	10.0000	0.0 N	0.0 L	10.0000	15.0000
129	AKD316	0.0 N	0.0 N	0.0 N	10.0000	70.0000	10.0000	50.0000	0.0 L	10.0000	20.0000
130	AKD309	0.0 N	0.0 N	0.0 N	100.0000	150.0000	30.0000	0.0 N	0.0 L	10.0000	70.0000
131	AKD390	0.0 L	0.0 N	0.0 N	20.0000	150.0000	100.0000	0.0 N	0.0 L	10.0000	30.0000
132	AKD391	0.0 N	0.0 N	0.0 N	15.0000	100.0000	30.0000	0.0 L	0.0 L	10.0000	30.0000
133	AKD392	0.0 L	0.0 N	0.0 N	0.0 L	70.0000	0.0 L	70.0000	0.0 N	10.0000	5.0000
134	AKD307	0.0 N	0.0 N	0.0 N	20.0000	100.0000	30.0000	0.0 L	5.0000	10.0000	30.0000
135	AKD317	0.0 N	0.0 N	0.0 N	0.0 L	20.0000	0.0 L	0.0 N	0.0 N	0.0 L	0.0 L
136	AKD318	0.0 L	0.0 N	0.0 N	7.0000	70.0000	15.0000	0.0 N	0.0 N	10.0000	15.0000
137	AKD319	0.0 N	0.0 N	0.0 N	0.0 L	20.0000	0.0 L	0.0 N	0.0 N	0.0 L	5.0000
138	AKD321	0.0 N	0.0 N	0.0 N	50.0000	150.0000	50.0000	0.0 N	0.0 L	0.0 L	50.0000
139	AKD291	0.0 N	0.0 N	0.0 N	50.0000	500.0000	70.0000	0.0 N	0.0 N	10.0000	100.0000
140	AKD292	0.0 N	0.0 N	0.0 N	70.0000	700.0000	150.0000	0.0 N	0.0 L	10.0000	150.0000
141	AKD293	0.0 N	0.0 N	0.0 N	30.0000	300.0000	70.0000	0.0 L	0.0 L	10.0000	100.0000
142	AKD294	0.0 N	0.0 N	0.0 N	70.0000	300.0000	70.0000	0.0 N	0.0 L	10.0000	100.0000
143	AKD295	0.0 N	0.0 N	0.0 N	30.0000	300.0000	70.0000	0.0 N	0.0 L	10.0000	150.0000
144	AKD296	0.0 N	0.0 N	0.0 N	15.0000	150.0000	70.0000	0.0 N	0.0 L	10.0000	70.0000
145	AKD297	0.0 N	0.0 N	0.0 N	20.0000	100.0000	0.0 L	0.0 L	0.0 N	10.0000	30.0000
146	AKD298	0.0 N	0.0 N	0.0 N	15.0000	150.0000	10.0000	0.0 N	0.0 N	10.0000	50.0000

SUMDUM 8-4 STREAM SEDIMENTS

	SAMPLE	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
97	AKD839	0.0 N	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 L	70.0000
98	AKD833	15.0000	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	200.0000	70.0000
99	AKD838	0.0 L	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 L	70.0000
100	AKD837	15.0000	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
101	AKD835	10.0000	0.0 N	20.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 L	70.0000
102	AKD402	20.0000	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	0.0 N	70.0000
103	AKD401	20.0000	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	200.0000
104	AKD403	10.0000	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 N	700.0000
105	AKD400	20.0000	0.0 N	30.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 L	70.0000
106	AKD399	15.0000	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 N	500.0000
107	AKD398	15.0000	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 N	700.0000
108	AKD389	0.0 N	0.0 N	7.0000	0.0 N	150.0000	70.0000	0.0 N	10.0000	0.0 N	70.0000
109	AKD857	0.0 L	0.0 N	10.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 N	150.0000
110	AKD859	0.0 L	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 L	70.0000
111	AKD860	10.0000	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 L	70.0000
112	AKD858	0.0 N	0.0 N	10.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 L	70.0000
113	AKD853	0.0 L	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 L	70.0000
114	AKD862	0.0 N	0.0 N	20.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
115	AKD386	30.0000	0.0 N	20.0000	0.0 N	200.0000	200.0000	0.0 N	20.0000	0.0 L	150.0000
116	AKD387	15.0000	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	200.0000	70.0000
117	AKD861	0.0 N	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
118	AKD854	15.0000	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 N	100.0000
119	AKD312	10.0000	0.0 N	10.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 N	100.0000
120	AKD313	15.0000	0.0 N	20.0000	0.0 N	300.0000	150.0000	0.0 N	20.0000	0.0 L	70.0000
121	AKD311	30.0000	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 L	70.0000
122	AKD310	50.0000	0.0 N	20.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
123	AKD314	15.0000	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	200.0000
124	AKD855	0.0 L	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
125	AKD856	15.0000	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	10.0000	0.0 L	100.0000
126	AKD852	0.0 N	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 L	70.0000
127	AKD851	0.0 N	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	10.0000	0.0 L	100.0000
128	AKD315	15.0000	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 N	1000.0000G
129	AKD316	10.0000	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 N	500.0000
130	AKD309	15.0000	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	200.0000	50.0000
131	AKD390	30.0000	0.0 N	20.0000	0.0 N	150.0000	200.0000	0.0 N	15.0000	0.0 L	100.0000
132	AKD391	30.0000	0.0 N	20.0000	0.0 N	150.0000	300.0000	0.0 N	150.0000	0.0 L	100.0000
133	AKD392	20.0000	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	30.0000	0.0 N	200.0000
134	AKD307	30.0000	0.0 N	20.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
135	AKD317	15.0000	0.0 N	10.0000	0.0 N	200.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
136	AKD318	15.0000	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
137	AKD319	10.0000	0.0 N	10.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
138	AKD321	0.0 L	0.0 N	30.0000	0.0 N	100.0000	300.0000	0.0 N	30.0000	0.0 N	70.0000
139	AKD291	15.0000	0.0 N	30.0000	0.0 N	0.0 L	200.0000	0.0 N	15.0000	0.0 L	0.0 L
140	AKD292	10.0000	0.0 N	50.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 L	30.0000
141	AKD293	20.0000	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	300.0000	50.0000
142	AKD294	10.0000	0.0 N	50.0000	0.0 N	100.0000	300.0000	0.0 N	20.0000	0.0 L	50.0000
143	AKD295	0.0 L	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 L	50.0000
144	AKD296	0.0 L	0.0 N	30.0000	0.0 N	100.0000	200.0000	0.0 N	15.0000	0.0 L	70.0000
145	AKD297	0.0 N	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
146	AKD298	0.0 L	0.0 N	15.0000	0.0 N	100.0000	150.0000	0.0 N	15.0000	0.0 L	70.0000

SUMDUM B-4 STREAM SEDIMENTS

	SAMPLE	AU PPM
97	AKD839	0.0200L
98	AKD833	0.0200L
99	AKD838	0.0200L
100	AKD837	0.0200L
101	AKD835	0.0200L
102	AKD402	0.0200L
103	AKD401	0.0200L
104	AKD403	0.0200L
105	AKD400	0.0200L
106	AKD399	0.0200L
107	AKD398	0.0200L
108	AKD389	0.0200L
109	AKD857	0.0200L
110	AKD859	0.0200L
111	AKD860	0.0200L
112	AKD858	0.0200L
113	AKD853	0.0200L
114	AKD862	0.0200L
115	AKD386	0.0200L
116	AKD387	0.0200L
117	AKD861	0.0200L
118	AKD854	0.0400L
119	AKD312	0.0200L
120	AKD313	0.0200L
121	AKD311	0.0200L
122	AKD310	0.0200L
123	AKD314	0.0200L
124	AKD855	0.0200L
125	AKD856	0.0400L
126	AKD852	0.0200L
127	AKD851	0.0400L
128	AKD315	0.0200L
129	AKD316	0.1000
130	AKD309	0.0200L
131	AKD390	0.0200L
132	AKD391	0.0200L
133	AKD392	0.0200L
134	AKD307	0.0200L
135	AKD317	0.0200L
136	AKD318	0.0200L
137	AKD319	0.0200L
138	AKD321	0.0200L
139	AKD291	0.0200L
140	AKD292	0.0200L
141	AKD293	0.5000
142	AKD294	0.0200L
143	AKD295	0.0200L
144	AKD296	0.0200L
145	AKD297	0.0200L
146	AKD298	0.0400L

SUMDUM B-4 STREAM SEDIMENTS

MAP NUMBER	SAMPLE	FE PCT	MG PCT	CA PCT	TI PCT	MN PPM	AG PPM	AS PPM	AU PPM	B PPM	BA PPM
147	AKD299	5.0000	2.0000	2.0000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
148	AKD372	5.0000	1.5000	0.7000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
149	AKD373	7.0000	1.5000	1.5000	0.7000	500.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
150	AKD374	7.0000	1.5000	0.7000	0.7000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	200.0000
151	AKD394	3.0000	1.0000	1.5000	0.3000	700.0000	0.0 N	0.0 N	0.0 N	0.0 N	300.0000
152	AKD393	10.0000	3.0000	2.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	700.0000
153	AKD397	15.0000	3.0000	5.0000	1.0000G	2000.0000	0.0 N	0.0 N	0.0 N	15.0000	1000.0000
154	AKD396	7.0000	2.0000	1.5000	0.5000	700.0000	0.0 N	0.0 N	0.0 N	10.0000	700.0000
155	AKD353	7.0000	1.5000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
156	AKD354	5.0000	1.0000	0.7000	0.5000	500.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
157	AKD355	3.0000	1.0000	1.5000	0.3000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
158	AKD356	3.0000	1.5000	1.5000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
159	AKD357	3.0000	1.0000	0.7000	0.5000	200.0000	0.0 N	0.0 N	0.0 N	30.0000	300.0000
160	AKD358	5.0000	3.0000	1.5000	0.7000	100.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
161	AKD367	3.0000	1.5000	1.5000	1.0000	700.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
162	AKD368	7.0000	1.5000	1.5000	1.0000	500.0000	0.0 N	0.0 N	0.0 N	20.0000	300.0000
163	AKD369	3.0000	1.0000	1.0000	1.0000	300.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
164	AKD395	3.0000	1.5000	2.0000	0.5000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 N	200.0000
165	AKD868	15.0000	1.5000	5.0000	0.7000	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
166	AKD866	3.0000	1.5000	1.5000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	10.0000	300.0000
167	SB44238D	3.0000	1.0000	1.0000	1.0000	300.0000	0.0 L	0.0 N	0.0 N	15.0000	1500.0000
168	SB44258D	7.0000	1.5000	1.5000	1.0000G	700.0000	0.0 N	0.0 N	0.0 N	50.0000	1000.0000
169	SB44268D	5.0000	1.0000	0.7000	0.5000	1000.0000	0.0 N	0.0 L	0.0 N	15.0000	1500.0000
170	SB44278D	5.0000	1.0000	1.0000	0.7000	700.0000	0.0 N	0.0 L	0.0 N	10.0000	1500.0000
171	SB44298D	3.0000	1.0000	1.0000	1.0000	500.0000	0.0 N	0.0 N	0.0 N	10.0000	1000.0000
172	SB44308D	3.0000	1.0000	0.7000	0.7000	300.0000	0.0 N	0.0 N	0.0 N	15.0000	1500.0000
173	AKD865	3.0000	1.0000	1.5000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
174	AKD863	5.0000	2.0000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	700.0000
175	AKD864	5.0000	1.5000	2.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
176	AKD370	10.0000	3.0000	2.0000	1.0000	10001.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
177	AKD371	5.0000	1.5000	1.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 N	700.0000

SUMDUM B-4 STREAM SEDIMENTS

	SAMPLE	BE PPM	BI PPM	CD PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM
147	AKD299	0.0 N	0.0 N	0.0 N	15.0000	150.0000	10.0000	0.0 L	0.0 L	10.0000	70.0000
148	AKD372	0.0 L	0.0 N	0.0 N	15.0000	150.0000	20.0000	0.0 L	0.0 L	10.0000	30.0000
149	AKD373	0.0 L	0.0 N	0.0 N	20.0000	150.0000	30.0000	0.0 N	0.0 N	10.0000	70.0000
150	AKD374	0.0 N	0.0 N	0.0 N	5.0000	70.0000	70.0000	0.0 N	0.0 N	10.0000	30.0000
151	AKD394	0.0 N	0.0 N	0.0 N	5.0000	30.0000	0.0 L	0.0 N	0.0 N	10.0000	15.0000
152	AKD393	0.0 N	0.0 N	0.0 N	20.0000	100.0000	30.0000	0.0 L	0.0 L	10.0000	30.0000
153	AKD397	0.0 L	0.0 N	0.0 N	20.0000	150.0000	50.0000	0.0 L	0.0 L	10.0000	70.0000
154	AKD396	0.0 L	0.0 N	0.0 N	15.0000	150.0000	30.0000	0.0 N	0.0 L	0.0 L	50.0000
155	AKD353	0.0 N	0.0 N	0.0 N	20.0000	150.0000	7.0000	0.0 N	0.0 L	10.0000	30.0000
156	AKD354	0.0 N	0.0 N	0.0 N	15.0000	150.0000	7.0000	0.0 N	0.0 N	10.0000	30.0000
157	AKD355	1.0000	0.0 N	0.0 N	5.0000	50.0000	5.0000	30.0000	0.0 N	10.0000	15.0000
158	AKD356	0.0 N	0.0 N	0.0 N	5.0000	70.0000	0.0 L	0.0 L	0.0 N	10.0000	15.0000
159	AKD357	1.0000	0.0 N	0.0 N	0.0 L	70.0000	10.0000	0.0 L	0.0 N	0.0 L	30.0000
160	AKD358	0.0 L	0.0 N	0.0 N	10.0000	150.0000	15.0000	0.0 N	0.0 L	10.0000	30.0000
161	AKD367	1.0000	0.0 N	0.0 N	15.0000	100.0000	10.0000	0.0 N	0.0 N	10.0000	30.0000
162	AKD368	0.0 L	0.0 N	0.0 N	15.0000	150.0000	15.0000	0.0 N	0.0 L	10.0000	50.0000
163	AKD369	0.0 L	0.0 N	0.0 N	5.0000	150.0000	20.0000	0.0 N	0.0 N	0.0 L	30.0000
164	AKD395	0.0 N	0.0 N	0.0 N	10.0000	30.0000	50.0000	0.0 N	0.0 N	10.0000	15.0000
165	AKD868	0.0 N	0.0 N	0.0 N	50.0000	150.0000	15.0000	0.0 L	0.0 L	10.0000	70.0000
166	AKD866	0.0 L	0.0 N	0.0 N	7.0000	100.0000	0.0 L	0.0 L	0.0 N	10.0000	20.0000
167	SB44238D	0.0 L	0.0 N	0.0 N	15.0000	100.0000	10.0000	0.0 L	5.0000	10.0000	20.0000
168	SB44258D	1.0000	0.0 N	0.0 N	20.0000	150.0000	7.0000	0.0 L	0.0 L	10.0000	30.0000
169	SB44268D	0.0 L	0.0 N	0.0 N	20.0000	100.0000	15.0000	0.0 N	0.0 L	10.0000	30.0000
170	SB44278D	1.0000	0.0 N	0.0 N	20.0000	100.0000	30.0000	20.0000	5.0000	15.0000	30.0000
171	SB44298D	1.0000	0.0 N	0.0 N	15.0000	70.0000	5.0000	20.0000	0.0 L	15.0000	20.0000
172	SB44308D	1.0000	0.0 N	0.0 N	10.0000	100.0000	5.0000	0.0 L	0.0 L	10.0000	30.0000
173	AKD865	0.0 L	0.0 N	0.0 N	5.0000	70.0000	0.0 L	0.0 N	0.0 N	0.0 L	15.0000
174	AKD863	0.0 L	0.0 N	0.0 N	15.0000	150.0000	5.0000	0.0 L	0.0 N	10.0000	30.0000
175	AKD864	1.0000	0.0 N	0.0 N	10.0000	70.0000	0.0 L	0.0 L	0.0 N	10.0000	20.0000
176	AKD370	0.0 L	0.0 N	0.0 N	15.0000	150.0000	20.0000	0.0 N	0.0 L	10.0000	30.0000
177	AKD371	0.0 L	0.0 N	0.0 N	10.0000	70.0000	7.0000	0.0 N	0.0 L	10.0000	15.0000

SUMDUM B-4 STREAM SEDIMENTS

	SAMPLE	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
147	AKD299	15.0000	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	10.0000	0.0 N	70.0000
148	AKD372	10.0000	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	10.0000	0.0 N	100.0000
149	AKD373	0.0 L	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	10.0000	0.0 L	70.0000
150	AKD374	0.0 L	0.0 N	15.0000	0.0 N	0.0 L	150.0000	0.0 N	15.0000	0.0 N	70.0000
151	AKD394	10.0000	0.0 N	10.0000	0.0 N	300.0000	100.0000	0.0 N	15.0000	0.0 N	70.0000
152	AKD393	20.0000	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 L	70.0000
153	AKD397	20.0000	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	200.0000	70.0000
154	AKD396	15.0000	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	10.0000	200.0000	70.0000
155	AKD353	0.0 L	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	10.0000	0.0 N	70.0000
156	AKD354	0.0 L	0.0 N	15.0000	0.0 N	0.0 L	200.0000	0.0 N	10.0000	0.0 N	70.0000
157	AKD355	10.0000	0.0 N	10.0000	0.0 N	300.0000	100.0000	0.0 N	10.0000	0.0 N	70.0000
158	AKD356	15.0000	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
159	AKD357	0.0 L	0.0 N	10.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 L	70.0000
160	AKD358	10.0000	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	15.0000	0.0 L	70.0000
161	AKD367	10.0000	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	15.0000	0.0 N	70.0000
162	AKD368	10.0000	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	15.0000	0.0 N	100.0000
163	AKD369	0.0 L	0.0 N	15.0000	0.0 N	150.0000	200.0000	0.0 N	10.0000	0.0 N	100.0000
164	AKD395	10.0000	0.0 N	15.0000	0.0 N	200.0000	150.0000	0.0 N	15.0000	0.0 L	200.0000
165	AKD868	0.0 L	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
166	AKD866	0.0 L	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000
167	SB4423BD	20.0000	0.0 N	15.0000	0.0 N	500.0000	500.0000	0.0 N	15.0000	0.0 L	300.0000
168	SB4425BD	10.0000	0.0 N	30.0000	0.0 N	500.0000	300.0000	0.0 N	30.0000	0.0 L	150.0000
169	SB4426BD	0.0 L	0.0 N	15.0000	0.0 N	200.0000	300.0000	0.0 N	15.0000	0.0 L	100.0000
170	SB4427BD	15.0000	0.0 N	15.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	200.0000	100.0000
171	SB4429BD	0.0 L	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	100.0000
172	SB4430BD	15.0000	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	100.0000
173	AKD865	10.0000	0.0 N	15.0000	0.0 N	300.0000	150.0000	0.0 N	15.0000	0.0 L	70.0000
174	AKD863	15.0000	0.0 N	20.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 L	300.0000
175	AKD864	10.0000	0.0 N	15.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 L	100.0000
176	AKD370	10.0000	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	20.0000	0.0 L	100.0000
177	AKD371	15.0000	0.0 N	15.0000	0.0 N	200.0000	200.0000	0.0 N	10.0000	0.0 N	70.0000

SUMDUM B-4 STREAM SEDIMENTS

	SAMPLE	AU PPM
147	AKD299	0.0200L
148	AKD372	0.0200L
149	AKD373	0.0200L
150	AKD374	0.2000L
151	AKD394	0.0200L
152	AKD393	0.0200L
153	AKD397	0.0200L
154	AKD396	0.0200L
155	AKD353	0.0400L
156	AKD354	0.0400L
157	AKD355	0.0200L
158	AKD356	0.0200L
159	AKD357	0.0200L
160	AKD358	0.0200L
161	AKD367	0.0200L
162	AKD368	0.0200L
163	AKD369	0.0200L
164	AKD395	0.0200L
165	AKD868	0.0200L
166	AKD866	0.0200L
167	SB4423BD	0.0200L
168	SB4425BD	0.0200L
169	SB4426BD	0.0200L
170	SB4427BD	0.0200L
171	SB4429BD	0.0200L
172	SB4430BD	0.0200L
173	AKD865	0.0200L
174	AKD863	0.0200L
175	AKD864	0.0200L
176	AKD370	0.0200L
177	AKD371	0.0200L

FREQUENCY TABLE FOR COLUMN 1 (FE 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	0	0	0.0	0.0
2.6E 00 -	3.8E 00	22	22	27.16	27.16
3.8E 00 -	5.6E 00	16	38	19.75	46.91
5.6E 00 -	8.3E 00	13	51	16.05	62.96
8.3E 00 -	1.2E 01	15	66	18.52	81.48
1.2E 01 -	1.8E 01	14	80	17.28	98.77
1.8E 01 -	2.6E 01	1	81	1.23	100.00

HISTOGRAM FOR COLUMN 1 (FE PCT)

```
      3.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXX

      5.0E 00 XXXXXXXXXXXXXXXXXXX

      7.0E 00 XXXXXXXXXXXXXXXX

      1.0E 01 XXXXXXXXXXXXXXXXXX

      1.5E 01 XXXXXXXXXXXXXXXX

      2.0E 01 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 2.00000E 01

MINIMUM = 3.00000E 00

GEOMETRIC MEAN = 6.42399E 00

GEOMETRIC DEVIATION = 1.80980E 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	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	2	2	2.47	2.47
8.3E-01 -	1.2E 00	19	21	23.46	25.93
1.2E 00 -	1.8E 00	26	47	32.10	58.02
1.8E 00 -	2.6E 00	7	54	8.64	66.67
2.6E 00 -	3.8E 00	20	74	24.69	91.36
3.8E 00 -	5.6E 00	4	78	4.94	96.30
5.6E 00 -	8.3E 00	3	81	3.70	100.00

HISTOGRAM FOR COLUMN 2 (MG PCT)

```
      7.0E-01 XX

      1.0E 00 XXXXXXXXXXXXXXXXXXXXXX

      1.5E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

      2.0E 00 XXXXXXXXX

      3.0E 00 XXXXXXXXXXXXXXXXXXXXXXXX

      5.0E 00 XXXXX

      7.0E 00 XXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 7.00000E 00

MINIMUM = 7.00000E-01

GEOMETRIC MEAN = 1.82952E 00

GEOMETRIC DEVIATION = 1.73319E 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	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	1	1	1.23	1.23
5.6E-01 -	8.3E-01	13	14	16.05	17.28
8.3E-01 -	1.2E 00	7	21	8.64	25.93
1.2E 00 -	1.8E 00	24	45	29.63	55.56
1.8E 00 -	2.6E 00	18	63	22.22	77.78
2.6E 00 -	3.8E 00	10	73	12.35	90.12
3.8E 00 -	5.6E 00	8	81	9.88	100.00

HISTOGRAM FOR COLUMN 3 (CA PCT)

```
       5.0E-01 X

       7.0E-01 XXXXXXXXXXXXXXX

       1.0E 00 XXXXXXXXX

       1.5E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       2.0E 00 XXXXXXXXXXXXXXXXXXXXX

       3.0E 00 XXXXXXXXXXXX

       5.0E 00 XXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 00

MINIMUM = 5.00000E-01

GEOMETRIC MEAN = 1.65360E 00

GEOMETRIC DEVIATION = 1.78830E 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	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	7	7	8.64	8.64
3.8E-01 -	5.6E-01	22	29	27.16	35.80
5.6E-01 -	8.3E-01	35	64	43.21	79.01
8.3E-01 -	1.2E 00	15	79	18.52	97.53

HISTOGRAM FOR COLUMN 4 (TI PCT)

```
3.0E-01 XXXXXXXXX

5.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXX

7.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1.0E 00 XXXXXXXXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	2	79
0.0	0.0			0.0	2.47	

MAXIMUM = 1.00000E 00

MINIMUM = 3.00000E-01

GEOMETRIC MEAN = 6.32719E-01

GEOMETRIC DEVIATION = 1.39429E 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	1	1	1.23	1.23
1.2E 02 -	1.8E 02	1	2	1.23	2.47
1.8E 02 -	2.6E 02	1	3	1.23	3.70
2.6E 02 -	3.8E 02	7	10	8.64	12.35
3.8E 02 -	5.6E 02	8	18	9.88	22.22
5.6E 02 -	8.3E 02	18	36	22.22	44.44
8.3E 02 -	1.2E 03	19	55	23.46	67.90
1.2E 03 -	1.8E 03	22	77	27.16	95.06
1.8E 03 -	2.6E 03	2	79	2.47	97.53
2.6E 03 -	3.8E 03	1	80	1.23	98.77
3.8E 03 -	5.6E 03	0	80	0.0	98.77
5.6E 03 -	8.3E 03	0	80	0.0	98.77
8.3E 03 -	1.2E 04	1	81	1.23	100.00

HISTOGRAM FOR COLUMN 5 (MN PPM)

```
1.0E 02 X
1.5E 02 X
2.0E 02 X
3.0E 02 XXXXXXXXX
5.0E 02 XXXXXXXXXX
7.0E 02 XXXXXXXXXXXXXXXXXXXXX
1.0E 03 XXXXXXXXXXXXXXXXXXXXXX
1.5E 03 XXXXXXXXXXXXXXXXXXXXXXXXXX
2.0E 03 XX
3.0E 03 X
5.0E 03
7.0E 03
1.0E 04 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 1.00010E 04

MINIMUM = 1.00000E 02

GEOMETRIC MEAN = 8.57043E 02

GEOMETRIC DEVIATION = 1.97262E 00

FREQUENCY TABLE FOR COLUMN 6 (AG PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
						ANALYTICAL VALUES
N	L	H	B	T	G	0
80	1	0	0	0	0	
98.77	1.23			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 7 (AS PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
79	2	0	0	0	0	0
97.53	2.47			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 8 (AU PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
81	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	21	21	25.93	25.93
1.2E 01 -	1.8E 01	21	42	25.93	51.85
1.8E 01 -	2.6E 01	12	54	14.81	66.67
2.6E 01 -	3.8E 01	5	59	6.17	72.84
3.8E 01 -	5.6E 01	2	61	2.47	75.31

HISTOGRAM FOR COLUMN 9 (B PPM)

```
1.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXX

1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 01 XXXXXXXXXXXXXXX

3.0E 01 ******

5.0E 01 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
7	13	0	0	0	0	61
8.64	16.05			0.0	0.0	

MAXIMUM = 5.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.52005E 01

GEOMETRIC DEVIATION = 1.49614E 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	0	0	0.0	0.0
8.3E 01 -	1.2E 02	2	2	2.47	2.47
1.2E 02 -	1.8E 02	7	9	8.64	11.11
1.8E 02 -	2.6E 02	9	18	11.11	22.22
2.6E 02 -	3.8E 02	29	47	35.80	58.02
3.8E 02 -	5.6E 02	6	53	7.41	65.43
5.6E 02 -	8.3E 02	13	66	16.05	81.48
8.3E 02 -	1.2E 03	5	71	6.17	87.65
1.2E 03 -	1.8E 03	10	81	12.35	100.00

HISTOGRAM FOR COLUMN 10 (BA PPM)

```
1.0E 02 XX
1.5E 02 XXXXXXXXX
2.0E 02 XXXXXXXXXXX
3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E 02 XXXXXXX
7.0E 02 XXXXXXXXXXXXXXXX
1.0E 03 XXXXXX
1.5E 03 XXXXXXXXXXXX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 1.50000E 03

MINIMUM = 1.00000E 02

GEOMETRIC MEAN = 4.10972E 02

GEOMETRIC DEVIATION = 2.08636E 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	11	11	13.58	13.58

HISTOGRAM FOR COLUMN 11 (BE PPM)

1.0E 00 XXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
42	28	0	0	0	0	11
51.85	34.57			0.0	0.0	

MAXIMUM = 1.00000E 00

MINIMUM = 1.00000E 00

GEOMETRIC MEAN = 1.00000E 00

GEOMETRIC DEVIATION = 1.00000E 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
81	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 (CD PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
81	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 14 (CO PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	9	9	11.11	11.11
5.6E 00 -	8.3E 00	4	13	4.94	16.05
8.3E 00 -	1.2E 01	12	25	14.81	30.86
1.2E 01 -	1.8E 01	20	45	24.69	55.56
1.8E 01 -	2.6E 01	20	65	24.69	80.25
2.6E 01 -	3.8E 01	5	70	6.17	86.42
3.8E 01 -	5.6E 01	4	74	4.94	91.36
5.6E 01 -	8.3E 01	2	76	2.47	93.83
8.3E 01 -	1.2E 02	1	77	1.23	95.06

HISTOGRAM FOR COLUMN 14 (CO PPM)

```
       5.0E 00 XXXXXXXXXXX

       7.0E 00 XXXXX

       1.0E 01 XXXXXXXXXXXXXXX

       1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXX

       2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXX

       3.0E 01 XXXXXX

       5.0E 01 XXXXX

       7.0E 01 XX

       1.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	4	0	0	0	0	77
0.0	4.94			0.0	0.0	

MAXIMUM = 1.00000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.52376E 01

GEOMETRIC DEVIATION = 1.93938E 00

FREQUENCY TABLE FOR COLUMN 15 (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	3	3	3.70	3.70
2.6E 01 - 3.8E 01	4	7	4.94	8.64
3.8E 01 - 5.6E 01	2	9	2.47	11.11
5.6E 01 - 8.3E 01	18	27	22.22	33.33
8.3E 01 - 1.2E 02	18	45	22.22	55.56
1.2E 02 - 1.8E 02	30	75	37.04	92.59
1.8E 02 - 2.6E 02	1	76	1.23	93.83
2.6E 02 - 3.8E 02	3	79	3.70	97.53
3.8E 02 - 5.6E 02	1	80	1.23	98.77
5.6E 02 - 8.3E 02	1	81	1.23	100.00

HISTOGRAM FOR COLUMN 15 (CR PPM)

```
       2.0E 01 XXXX

       3.0E 01 XXXXX

       5.0E 01 XX

       7.0E 01 XXXXXXXXXXXXXXXXXXXXX

       1.0E 02 XXXXXXXXXXXXXXXXXXXXX

       1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       2.0E 02 X

       3.0E 02 XXXX

       5.0E 02 X

       7.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 7.00000E 02

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 1.02825E 02

GEOMETRIC DEVIATION = 1.88535E 00

FREQUENCY TABLE FOR COLUMN 16 (CU PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	6	6	7.41	7.41
5.6E 00 -	8.3E 00	6	12	7.41	14.81
8.3E 00 -	1.2E 01	15	27	18.52	33.33
1.2E 01 -	1.8E 01	11	38	13.58	46.91
1.8E 01 -	2.6E 01	4	42	4.94	51.85
2.6E 01 -	3.8E 01	17	59	20.99	72.84
3.8E 01 -	5.6E 01	3	62	3.70	76.54
5.6E 01 -	8.3E 01	8	70	9.88	86.42
8.3E 01 -	1.2E 02	1	71	1.23	87.65
1.2E 02 -	1.8E 02	1	72	1.23	88.89

HISTOGRAM FOR COLUMN 16 (CU PPM)

```
       5.0E 00 XXXXXXX

       7.0E 00 XXXXXXX

       1.0E 01 XXXXXXXXXXXXXXXXXX

       1.5E 01 XXXXXXXXXXXXX

       2.0E 01 XXXXX

       3.0E 01 XXXXXXXXXXXXXXXXXXXX

       5.0E 01 XXXX

       7.0E 01 XXXXXXXXXX

       1.0E 02 X

       1.5E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	9	0	0	0	0	72
0.0	11.11			0.0	0.0	

MAXIMUM = 1.50000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.86864E 01

GEOMETRIC DEVIATION = 2.32324E 00

FREQUENCY TABLE FOR COLUMN 17 (LA PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 01 -	2.6E 01	4	4	4.94	4.94
2.6E 01 -	3.8E 01	1	5	1.23	6.17
3.8E 01 -	5.6E 01	1	6	1.23	7.41
5.6E 01 -	8.3E 01	2	8	2.47	9.88

HISTOGRAM FOR COLUMN 17 (LA PPM)

2.0E 01 XXXXX

3.0E 01 X

5.0E 01 X

7.0E 01 XX

N	L	H	B	T	G	ANALYTICAL VALUES
39	34	0	0	0	0	8
48.15	41.98			0.0	0.0	

MAXIMUM = 7.00000E 01

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 3.22700E 01

GEOMETRIC DEVIATION = 1.77654E 00

FREQUENCY TABLE FOR COLUMN 18 (MO PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	3	3	3.70	3.70

HISTOGRAM FOR COLUMN 18 (MO PPM)

5.0E 00 XXXX

N	L	H	B	T	G	ANALYTICAL VALUES
32	46	0	0	0	0	3
39.51	56.79			0.0	0.0	

MAXIMUM = 5.00000E 00

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 5.00000E 00

GEOMETRIC DEVIATION = 1.00159E 00

FREQUENCY TABLE FOR COLUMN 19 (NB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	66	66	81.48	81.48
1.2E 01 -	1.8E 01	2	68	2.47	83.95

HISTOGRAM FOR COLUMN 19 (NB PPM)

1.0E 01 XXXX

FREQUENCY TABLE FOR COLUMN 20 (NI PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	2	2	2.47	2.47
5.6E 00 -	8.3E 00	1	3	1.23	3.70
8.3E 00 -	1.2E 01	2	5	2.47	6.17
1.2E 01 -	1.8E 01	9	14	11.11	17.28
1.8E 01 -	2.6E 01	6	20	7.41	24.69
2.6E 01 -	3.8E 01	35	55	43.21	67.90
3.8E 01 -	5.6E 01	8	63	9.88	77.78
5.6E 01 -	8.3E 01	10	73	12.35	90.12
8.3E 01 -	1.2E 02	3	76	3.70	93.83
1.2E 02 -	1.8E 02	2	78	2.47	96.30

HISTOGRAM FOR COLUMN 20 (NI PPM)

```
5.0E 00 XX
7.0E 00 X
1.0E 01 XX
1.5E 01 XXXXXXXXXXX
2.0E 01 XXXXXXX
3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.0E 01 XXXXXXXXXX
7.0E 01 XXXXXXXXXXXX
1.0E 02 XXXX
1.5E 02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	3	0	0	0	0	78
0.0	3.70			0.0	0.0	

MAXIMUM = 1.50000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 3.13695E 01

GEOMETRIC DEVIATION = 1.96074E 00

FREQUENCY TABLE FOR COLUMN 21 (PB PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	19	19	23.46	23.46
1.2E 01 -	1.8E 01	21	40	25.93	49.38
1.8E 01 -	2.6E 01	8	48	9.88	59.26
2.6E 01 -	3.8E 01	5	53	6.17	65.43
3.8E 01 -	5.6E 01	1	54	1.23	66.67

HISTOGRAM FOR COLUMN 21 (PB PPM)

```
1.0E 01 XXXXXXXXXXXXXXXXXXXXXX

1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 01 XXXXXXXXXX

3.0E 01 XXXXXX

5.0E 01 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
8	19	0	0	0	0	54
9.88	23.46			0.0	0.0	

MAXIMUM = 5.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.47976E 01

GEOMETRIC DEVIATION = 1.46143E 00

FREQUENCY TABLE FOR COLUMN 22 (SB PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
81	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 23 (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	1	1	1.23	1.23
8.3E 00 -	1.2E 01	8	9	9.88	11.11
1.2E 01 -	1.8E 01	36	45	44.44	55.56
1.8E 01 -	2.6E 01	14	59	17.28	72.84
2.6E 01 -	3.8E 01	20	79	24.69	97.53
3.8E 01 -	5.6E 01	2	81	2.47	100.00

HISTOGRAM FOR COLUMN 23 (SC PPM)

```
7.0E 00 X
1.0E 01 XXXXXXXXXX
1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.0E 01 XXXXXXXXXXXXXXXXX
3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXX
5.0E 01 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 01

MINIMUM = 7.00000E 00

GEOMETRIC MEAN = 1.83417E 01

GEOMETRIC DEVIATION = 1.47983E 00

FREQUENCY TABLE FOR COLUMN 24 (SN PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	ANALYTICAL VALUES
N	L	H	B	T	G	
81	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 25 (SR PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 01 -	1.2E 02	7	7	8.64	8.64
1.2E 02 -	1.8E 02	24	31	29.63	38.27
1.8E 02 -	2.6E 02	24	55	29.63	67.90
2.6E 02 -	3.8E 02	21	76	25.93	93.83
3.8E 02 -	5.6E 02	2	78	2.47	96.30

HISTOGRAM FOR COLUMN 25 (SR PPM)

```
1.0E 02 XXXXXXXXX

1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXX

5.0E 02 XX
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	3	0	0	0	0	78
0.0	3.70			0.0	0.0	

MAXIMUM = 5.00000E 02

MINIMUM = 1.00000E 02

GEOMETRIC MEAN = 1.96416E 02

GEOMETRIC DEVIATION = 1.44546E 00

FREQUENCY TABLE FOR COLUMN 26 (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	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	1	1	1.23	1.23
8.3E 01 -	1.2E 02	2	3	2.47	3.70
1.2E 02 -	1.8E 02	22	25	27.16	30.86
1.8E 02 -	2.6E 02	31	56	38.27	69.14
2.6E 02 -	3.8E 02	24	80	29.63	98.77
3.8E 02 -	5.6E 02	1	81	1.23	100.00

HISTOGRAM FOR COLUMN 26 (V PPM)

```
       7.0E 01 X

       1.0E 02 XX

       1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXXX

       2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

       5.0E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 02

MINIMUM = 7.00000E 01

GEOMETRIC MEAN = 2.04699E 02

GEOMETRIC DEVIATION = 1.38863E 00

FREQUENCY TABLE FOR COLUMN 27 (W PPM)

LIMITS LOWER - UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	
N	L	H	B	T	G	ANALYTICAL VALUES
81	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 28 (Y PPM)

LIMITS LOWER	- UPPER	FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
8.3E 00 -	1.2E 01	18	18	22.22	22.22
1.2E 01 -	1.8E 01	31	49	38.27	60.49
1.8E 01 -	2.6E 01	22	71	27.16	87.65
2.6E 01 -	3.8E 01	9	80	11.11	98.77
3.8E 01 -	5.6E 01	0	80	0.0	98.77
5.6E 01 -	8.3E 01	0	80	0.0	98.77
8.3E 01 -	1.2E 02	0	80	0.0	98.77
1.2E 02 -	1.8E 02	1	81	1.23	100.00

HISTOGRAM FOR COLUMN 28 (Y PPM)

```
1.0E 01 XXXXXXXXXXXXXXXXXXXX
1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXX
3.0E 01 XXXXXXXXXXX
5.0E 01
7.0E 01
1.0E 02
1.5E 02 X
```

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	81
0.0	0.0			0.0	0.0	

MAXIMUM = 1.50000E 02

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.64695E 01

GEOMETRIC DEVIATION = 1.51262E 00

FREQUENCY TABLE FOR COLUMN 29 (ZN PPM)

LIMITS LOWER - UPPER		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
1.8E 02 -	2.6E 02	6	6	7.41	7.41
2.6E 02 -	3.8E 02	1	7	1.23	8.64

HISTOGRAM FOR COLUMN 29 (ZN PPM)

2.0E 02 XXXXXXX

3.0E 02 X

N	L	H	B	T	G	ANALYTICAL VALUES
34	40	0	0	0	0	7
41.98	49.38			0.0	0.0	

MAXIMUM = 3.00000E 02

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 2.11926E 02

GEOMETRIC DEVIATION = 1.16573E 00

FREQUENCY TABLE FOR COLUMN 30 (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	1	1	1.23	1.23
3.8E 01 -	5.6E 01	4	5	4.94	6.17
5.6E 01 -	8.3E 01	46	51	56.79	62.96
8.3E 01 -	1.2E 02	15	66	18.52	81.48
1.2E 02 -	1.8E 02	3	69	3.70	85.19
1.8E 02 -	2.6E 02	4	73	4.94	90.12
2.6E 02 -	3.8E 02	2	75	2.47	92.59
3.8E 02 -	5.6E 02	2	77	2.47	95.06
5.6E 02 -	8.3E 02	2	79	2.47	97.53

HISTOGRAM FOR COLUMN 30 (ZR PPM)

```
3.0E 01 X
5.0E 01 XXXXX
7.0E 01 XXXX
```

FREQUENCY TABLE FOR COLUMN 31 (AU 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	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	1.23	1.23
1.2E-01 -	1.8E-01	0	1	0.0	1.23
1.8E-01 -	2.6E-01	0	1	0.0	1.23
2.6E-01 -	3.8E-01	0	1	0.0	1.23
3.8E-01 -	5.6E-01	1	2	1.23	2.47

HISTOGRAM FOR COLUMN 31 (AU PPM)

1.0E-01 X

1.5E-01

2.0E-01

3.0E-01

5.0E-01 X

N	L	H	B	T	G	ANALYTICAL VALUES
0	79	0	0	0	0	2
0.0	97.53			0.0	0.0	

MAXIMUM = 5.00000E-01

MINIMUM = 1.00000E-01

GEOMETRIC MEAN = 2.23607E-01

GEOMETRIC DEVIATION = 3.12066E 00

A470 STATISTICAL SUMMARY DATE 4/16/70

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
FE PCT	0	0	0	0	0	0	81
MG PCT	0	0	0	0	0	0	81
CA PCT	0	0	0	0	0	0	81
TI PCT	0	0	0	0	0	2	79
MN PPM	0	0	0	0	0	0	81
AG PPM	80	1	0	0	0	0	0
AS PPM	79	2	0	0	0	0	0
AU PPM	81	0	0	0	0	0	0
B PPM	7	13	0	0	0	0	61
BA PPM	0	0	0	0	0	0	81
BE PPM	42	28	0	0	0	0	11
BI PPM	81	0	0	0	0	0	0
CD PPM	81	0	0	0	0	0	0
CO PPM	0	4	0	0	0	0	77
CR PPM	0	0	0	0	0	0	81
CU PPM	0	9	0	0	0	0	72
LA PPM	39	34	0	0	0	0	8
MO PPM	32	46	0	0	0	0	3
NB PPM	0	13	0	0	0	0	68
NI PPM	0	3	0	0	0	0	78
PB PPM	8	19	0	0	0	0	54
SB PPM	81	0	0	0	0	0	0
SC PPM	0	0	0	0	0	0	81
SN PPM	81	0	0	0	0	0	0
SR PPM	0	3	0	0	0	0	78
V PPM	0	0	0	0	0	0	81
W PPM	81	0	0	0	0	0	0
Y PPM	0	0	0	0	0	0	81
ZN PPM	34	40	0	0	0	0	7
ZR PPM	0	1	0	0	0	1	79
AU PPM	0	79	0	0	0	0	2

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
FE PCT	6.423973	1.81	81 SAMPLES AND 81 ANALYTICAL VALUES.
MG PCT	1.829516	1.73	81 SAMPLES AND 81 ANALYTICAL VALUES.
CA PCT	1.653600	1.79	81 SAMPLES AND 81 ANALYTICAL VALUES.
TI PCT	********	******	2 GREATER THAN VALUES. NO COMPUTATIONS.
MN PPM	857.041016	1.97	81 SAMPLES AND 81 ANALYTICAL VALUES.
AG PPM	********	******	81 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
AS PPM	********	******	81 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
AU PPM	********	******	81 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
B PPM	12.057662	1.74	20 NOT DETECTED, LESS THAN, OR TRACE VALUES. 61 REPORTED VALUES.
BA PPM	410.971680	2.09	81 SAMPLES AND 81 ANALYTICAL VALUES.
BE PPM	0.574704	1.39	70 NOT DETECTED, LESS THAN, OR TRACE VALUES. 11 REPORTED VALUES.
BI PPM	********	******	81 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
CD PPM	********	******	81 NOT DETECTED, LESS THAN, OR TRACE VALUES. 0 REPORTED VALUES. NO COMPUTATIONS.
CO PPM	14.023542	2.10	4 NOT DETECTED, LESS THAN, OR TRACE VALUES. 77 REPORTED VALUES.
CR PPM	102.824951	1.89	81 SAMPLES AND 81 ANALYTICAL VALUES.
CU PPM	14.834262	2.82	9 NOT DETECTED, LESS THAN, OR TRACE VALUES. 72 REPORTED VALUES.
LA PPM	********	******	73 NOT DETECTED, LESS THAN, OR TRACE VALUES. 8 REPORTED VALUES. NO COMPUTATIONS.
MO PPM	********	******	78 NOT DETECTED, LESS THAN, OR TRACE VALUES. 3 REPORTED VALUES. NO COMPUTATIONS.
NB PPM	9.712008	1.12	13 NOT DETECTED, LESS THAN, OR TRACE VALUES. 68 REPORTED VALUES.
NI PPM	28.744492	2.22	3 NOT DETECTED, LESS THAN, OR TRACE VALUES. 78 REPORTED VALUES.
PB PPM	10.743992	1.78	27 NOT DETECTED, LESS THAN, OR TRACE VALUES. 54 REPORTED VALUES.

SB PPM	********	******	81 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES.	NO COMPUTATIONS.
SC PPM	18.341660	1.48	81 SAMPLES AND 81 ANALYTICAL VALUES.		
SN PPM	********	******	81 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES.	NO COMPUTATIONS.
SR PPM	189.138275	1.51	3 NOT DETECTED, LESS THAN, OR TRACE VALUES.	78 REPORTED VALUES.	
V PPM	204.698456	1.39	81 SAMPLES AND 81 ANALYTICAL VALUES.		
W PPM	********	******	81 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES.	NO COMPUTATIONS.
Y PPM	16.469452	1.51	81 SAMPLES AND 81 ANALYTICAL VALUES.		
ZN PPM	********	******	74 NOT DETECTED, LESS THAN, OR TRACE VALUES.	7 REPORTED VALUES.	NO COMPUTATIONS.
ZR PPM	********	******	1 GREATER THAN VALUES. NO COMPUTATIONS.		
AU PPM	********	******	79 NOT DETECTED, LESS THAN, OR TRACE VALUES.	2 REPORTED VALUES.	NO COMPUTATIONS.