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ANALYSES OF ROCK AND STREAM-SEDIMENT SAMPLES FROM THE
CRAIG C-6 QUADRANGLE, ALASKA

By

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A. Thomas Ovenshine, and Raymond Wehr

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INTRODUCTION

Analytical data for 26 rock and 8 stream-sediment samples from the Craig C-6, 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 Condon (1961), Smith (1914), and Wright and Wright (1908). 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 $\pm$ 100 percent. Minimum limits of determination for each element are given on page 4. Semi-quantitative 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. (All samples are of representative material.) Sample localities are shown by sample number plotted on the accompanying map, Plate 1.

<u>Sample No.</u>	<u>Lab. No.</u>	<u>Sample Description</u>
1	ACL-498	Argillite
1	-499	Altered graywacke
2	-500	Iron-stained argillite
3	-551	Sheared greenstone
4	-552	Greenstone
5	-554	Altered greenstone
6	-555	Graywacke
7	-561	Greenstone
8	-560	Iron-stained greenstone
9	-559	Weathered granodiorite
10	-558	Greenstone
11	-557	Iron-stained greenstone
12	-488	Volcanic graywacke
13	-487	Greenstone
14	-604	Hornfelsed greenstone with pyrrhotite
14	-605	Hornfelsed greenstone with pyrrhotite
14	-606	Hornfelsed greenstone with pyrrhotite
15	-607	Hornfels
16	-608	Hornfelsed greenstone with pyrite and pyrrhotite
16	-609	Hornfelsed greenstone with pyrite and pyrrhotite
17	-610	Hornfelsed greenstone with pyrite and pyrrhotite
18	-615	Quartz veined hornfels with pyrrhotite
19	-616	Quartz veined hornfels with pyrrhotite
20	-612	Quartz vein with pyrite and pyrrhotite
20	-613	Quartz vein with pyrite and pyrrhotite
21	-611	Hornfelsed greenstone with pyrrhotite

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 buckets 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

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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Condon, W. H., 1961, Geology of the Craig quadrangle, Alaska: U.S. Geol. Survey Bull. 1108-B, 43 p.

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_____, 1967, Methods of computation for estimating geochemical abundance: U.S. Geol. Survey Prof. Paper 574-B, 15 p.

Smith, P. S., 1914, Lode mining in the Ketchikan region, Alaska
in Mineral resources of Alaska: U.S. Geol. Survey Bull. 592,
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TABLE 2. CRAIG C-6 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	ACL498	15.0000	5.0000	7.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	20.0000	0.0 L
1	ACL499	15.0000	5.0000	7.0000	1.0000G	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
2	ACL500	10.0000	3.0000	7.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
3	ACL551	15.0000	7.0000	7.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	0.0 L
4	ACL552	15.0000	5.0000	7.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	200.0000
5	ACL554	15.0000	7.0000	7.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	50.0000
6	ACL555	15.0000	7.0000	5.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
7	ACL561	15.0000	7.0000	5.0000	1.0000G	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
8	ACL560	15.0000	5.0000	3.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	300.0000
9	ACL559	20.0000	7.0000	5.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	150.0000
10	ACL558	3.0000	0.3000	0.5000	0.1500	200.0000	0.0 N	0.0 N	0.0 N	20.0000	150.0000
11	ACL557	10.0000	3.0000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	150.0000
12	ACL488	20.0000	5.0000	7.0000	1.0000G	1500.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000
13	ACL487	20.0000	7.0000	7.0000	1.0000G	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	150.0000
14	ACL604	15.0000	5.0000	7.0000	1.0000G	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
14	ACL605	15.0000	5.0000	7.0000	1.0000G	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	150.0000
14	ACL606	20.0000	5.0000	10.0000	1.0000G	3000.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
15	ACL607	15.0000	7.0000	10.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
16	ACL608	15.0000	3.0000	3.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	150.0000
16	ACL609	15.0000	3.0000	5.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
17	ACL610	15.0000	5.0000	5.0000	1.0000	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	150.0000
18	ACL615	15.0000	3.0000	5.0000	1.0000G	2000.0000	0.0 N	0.0 N	0.0 N	0.0 L	150.0000
19	ACL616	20.0000	5.0000	7.0000	1.0000G	5000.0000	0.0 N	0.0 N	0.0 N	0.0 L	100.0000
20	ACL612	10.0000	1.5000	2.0000	1.0000G	1000.0000	0.0 L	0.0 N	0.0 N	10.0000	70.0000
20	ACL613	3.0000	1.5000	3.0000	1.0000	1000.0000	0.0 N	0.0 N	0.0 N	0.0 N	70.0000
21	ACL611	15.0000	5.0000	7.0000	1.0000G	2000.0000	0.0 N	0.0 N	0.0 N	10.0000	100.0000

CRAIG C-6 ROCK SAMPLES

	SAMPLE	BE PPM	BI PPM	CD PPM	CO PPM	CR PPM	CU PPM	LA PPM	MO PPM	NB PPM	NI PPM
1	ACL498	0.0 N	0.0 N	0.0 N	30.0000	150.0000	20.0000	0.0 N	0.0 N	10.0000	30.0000
1	ACL499	0.0 L	0.0 N	0.0 N	50.0000	70.0000	70.0000	0.0 L	5.0000	15.0000	50.0000
2	ACL500	0.0 N	0.0 N	0.0 N	20.0000	70.0000	70.0000	0.0 L	0.0 L	15.0000	30.0000
3	ACL551	0.0 L	0.0 N	0.0 N	70.0000	150.0000	70.0000	0.0 L	0.0 L	15.0000	150.0000
4	ACL552	0.0 N	0.0 N	0.0 N	30.0000	100.0000	70.0000	0.0 N	0.0 L	10.0000	50.0000
5	ACL554	0.0 N	0.0 N	0.0 N	50.0000	150.0000	50.0000	0.0 N	0.0 N	10.0000	150.0000
6	ACL555	0.0 N	0.0 N	0.0 N	30.0000	300.0000	70.0000	0.0 N	0.0 N	10.0000	150.0000
7	ACL561	0.0 N	0.0 N	0.0 N	70.0000	150.0000	70.0000	0.0 N	0.0 L	10.0000	100.0000
8	ACL560	0.0 N	0.0 N	0.0 N	50.0000	150.0000	200.0000	0.0 N	0.0 L	10.0000	70.0000
9	ACL559	0.0 N	0.0 N	0.0 N	70.0000	200.0000	20.0000	0.0 N	0.0 L	10.0000	150.0000
10	ACL558	0.0 L	0.0 N	0.0 N	5.0000	0.0 L	0.0 N	0.0 N	0.0 N	10.0000	5.0000
11	ACL557	0.0 N	0.0 N	0.0 N	30.0000	100.0000	30.0000	0.0 L	0.0 L	10.0000	70.0000
12	ACL488	0.0 N	0.0 N	0.0 N	50.0000	150.0000	200.0000	0.0 N	0.0 L	15.0000	100.0000
13	ACL487	0.0 N	0.0 N	0.0 N	70.0000	200.0000	200.0000	0.0 N	5.0000	15.0000	100.0000
14	ACL604	0.0 N	0.0 N	0.0 N	30.0000	150.0000	70.0000	0.0 N	0.0 L	10.0000	150.0000
14	ACL605	0.0 N	0.0 N	0.0 N	30.0000	200.0000	200.0000	0.0 N	0.0 L	10.0000	100.0000
14	ACL606	0.0 N	0.0 N	0.0 N	150.0000	100.0000	200.0000	0.0 L	10.0000	15.0000	100.0000
15	ACL607	0.0 N	0.0 N	0.0 N	30.0000	300.0000	15.0000	0.0 N	0.0 L	10.0000	150.0000
16	ACL608	0.0 N	0.0 N	0.0 N	30.0000	70.0000	300.0000	0.0 N	10.0000	15.0000	70.0000
16	ACL609	0.0 N	0.0 N	0.0 N	30.0000	50.0000	300.0000	0.0 L	0.0 L	15.0000	50.0000
17	ACL610	0.0 N	0.0 N	0.0 N	30.0000	300.0000	150.0000	0.0 N	7.0000	15.0000	150.0000
18	ACL615	0.0 L	0.0 N	0.0 N	20.0000	30.0000	300.0000	0.0 L	15.0000	10.0000	30.0000
19	ACL616	0.0 L	0.0 N	0.0 N	70.0000	70.0000	500.0000	0.0 L	30.0000	10.0000	100.0000
20	ACL612	0.0 N	0.0 N	0.0 N	15.0000	15.0000	500.0000	0.0 L	700.0000	15.0000	30.0000
20	ACL613	0.0 L	0.0 N	0.0 N	15.0000	150.0000	300.0000	0.0 N	15.0000	15.0000	30.0000
21	ACL611	0.0 L	0.0 N	0.0 N	30.0000	150.0000	200.0000	0.0 L	0.0 N	15.0000	70.0000

CRAIG C-6 ROCK SAMPLES

	SAMPLE	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
1	ACL498	0.0 N	0.0 N	30.0000	0.0 N	200.0000	200.0000	0.0 N	15.0000	0.0 L	50.0000
1	ACL499	0.0 L	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	0.0 L	200.0000
2	ACL500	0.0 L	0.0 N	30.0000	0.0 N	100.0000	200.0000	0.0 N	30.0000	0.0 L	70.0000
3	ACL551	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
4	ACL552	0.0 L	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
5	ACL554	0.0 N	0.0 N	30.0000	0.0 N	200.0000	150.0000	0.0 N	20.0000	0.0 L	70.0000
6	ACL555	0.0 N	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 L	70.0000
7	ACL561	0.0 L	0.0 N	50.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
8	ACL560	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
9	ACL559	0.0 L	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	0.0 L	100.0000
10	ACL558	0.0 N	0.0 N	5.0000	0.0 N	0.0 N	70.0000	0.0 N	10.0000	0.0 N	70.0000
11	ACL557	0.0 N	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 L	70.0000
12	ACL488	0.0 L	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
13	ACL487	0.0 N	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 L	100.0000
14	ACL604	0.0 L	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
14	ACL605	0.0 N	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 N	70.0000
14	ACL606	0.0 L	0.0 N	50.0000	0.0 N	200.0000	500.0000	0.0 N	30.0000	0.0 L	300.0000
15	ACL607	0.0 L	0.0 N	50.0000	0.0 N	150.0000	300.0000	0.0 N	20.0000	0.0 L	70.0000
16	ACL608	0.0 N	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	15.0000	0.0 L	70.0000
16	ACL609	0.0 N	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 L	100.0000
17	ACL610	0.0 N	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	20.0000	0.0 N	70.0000
18	ACL615	0.0 N	0.0 N	30.0000	0.0 N	150.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
19	ACL616	0.0 L	0.0 N	50.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 N	100.0000
20	ACL612	0.0 L	0.0 N	30.0000	0.0 N	0.0 L	300.0000	0.0 N	20.0000	0.0 N	100.0000
20	ACL613	0.0 N	0.0 N	30.0000	0.0 N	150.0000	200.0000	0.0 N	20.0000	0.0 N	70.0000
21	ACL611	0.0 L	0.0 N	30.0000	0.0 N	200.0000	300.0000	0.0 N	30.0000	0.0 L	100.0000

CRAIG C-6 ROCK SAMPLES

	SAMPLE	AU PPM
1	ACL498	0.0200L
1	ACL499	0.0200L
2	ACL500	0.0200L
3	ACL551	0.0200L
4	ACL552	0.0200L
5	ACL554	0.0200L
6	ACL555	0.0200L
7	ACL561	0.0200L
8	ACL560	0.0200L
9	ACL559	0.0200L
10	ACL558	0.0200L
11	ACL557	0.0200L
12	ACL488	0.0200L
13	ACL487	0.0200L
14	ACL604	0.0200L
14	ACL605	0.0200L
14	ACL606	0.0200L
15	ACL607	0.0200L
16	ACL608	0.0200L
16	ACL609	0.0200L
17	ACL610	0.0200L
18	ACL615	0.0200L
19	ACL616	0.0200L
20	ACL612	0.0200L
20	ACL613	0.0200L
21	ACL611	0.0200L

FREQUENCY TABLE FOR COLUMN 1 (FE PCT)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	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	2	2	7.69	7.69
3.8E 00	5.6E 00	0	2	0.0	7.69
5.6E 00	8.3E 00	0	2	0.0	7.69
8.3E 00	1.2E 01	3	5	11.54	19.23
1.2E 01	1.8E 01	16	21	61.54	80.77
1.8E 01	2.6E 01	5	26	19.23	100.00

HISTOGRAM FOR COLUMN 1 (FE PCT)

3.0E 00 XXXXXXXXX

5.0E 00

7.0E 00

1.0E 01 XXXXXXXXXXXXX

1.5E 01 XXX

2.0E 01 XXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
26

MAXIMUM = 2.00000E 01

MINIMUM = 3.00000E 00

GEOMETRIC MEAN = 1.33668E 01

GEOMETRIC DEVIATION = 1.61489E 00

FREQUENCY TABLE FOR COLUMN 2 (MG PCT)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	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	1	1	3.85	3.85
3.8E-01	5.6E-01	0	1	0.0	3.85
5.6E-01	8.3E-01	0	1	0.0	3.85
8.3E-01	1.2E 00	0	1	0.0	3.85
1.2E 00	1.8E 00	2	3	7.69	11.54
1.8E 00	2.6E 00	0	3	0.0	11.54
2.6E 00	3.8E 00	5	8	19.23	30.77
3.8E 00	5.6E 00	11	19	42.31	73.08
5.6E 00	8.3E 00	7	26	26.92	100.00

HISTOGRAM FOR COLUMN 2 (MG PCT)

3.0E-01 XXXX
5.0E-01
7.0E-01
1.0E 00
1.5E 00 XXXXXXXX
2.0E 00
3.0E 00 XXXXXXXXXXXXXXXXXXXX
5.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
26

MAXIMUM = 7.00000E 00

MINIMUM = 3.00000E-01

GEOMETRIC MEAN = 4.05913E 00

GEOMETRIC DEVIATION = 1.98672E 00

FREQUENCY TABLE FOR COLUMN 3 (CA PCT)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER	UPPER				
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	3.85	3.85
5.6E-01	8.3E-01	0	1	0.0	3.85
8.3E-01	1.2E 00	0	1	0.0	3.85
1.2E 00	1.8E 00	0	1	0.0	3.85
1.8E 00	2.6E 00	1	2	3.85	7.69
2.6E 00	3.8E 00	4	6	15.38	23.08
3.8E 00	5.6E 00	6	12	23.08	46.15
5.6E 00	8.3E 00	12	24	46.15	92.31
8.3E 00	1.2E 01	2	26	7.69	100.00

HISTOGRAM FOR COLUMN 3 (CA PCT)

5.0E-01 XXXX
7.0E-01
1.0E 00
1.5E 00
2.0E 00 XXXX
3.0E 00 XXXXXXXXXXXXXXXX
5.0E 00 XXXXXXXXXXXXXXXXXXXX
7.0E 00 XX
1.0E 01 XXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
26

MAXIMUM = 1.00000E 01

MINIMUM = 5.00000E-01

GEOMETRIC MEAN = 5.03119E 00

GEOMETRIC DEVIATION = 1.85256E 00

FREQUENCY TABLE FOR COLUMN 4 (TI PCT)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER -	UPPER			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	1	1	3.85	3.85
1.8E-01 -	2.6E-01	0	1	0.0	3.85
2.6E-01 -	3.8E-01	0	1	0.0	3.85
3.8E-01 -	5.6E-01	0	1	0.0	3.85
5.6E-01 -	8.3E-01	4	5	15.38	19.23
8.3E-01 -	1.2E 00	10	15	38.46	57.69

HISTOGRAM FOR COLUMN 4 (TI PCT)

1.5E-01 XXXX

2.0E-01

3.0E-01

5.0E-01

7.0E-01 XXXXXXXXXXXXXXXX

1.0E 00 XX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	11	15
0.0	0.0			0.0	42.31	

MAXIMUM = 1.00000E 00

MINIMUM = 1.50000E-01

GEOMETRIC MEAN = 8.01246E-01

GEOMETRIC DEVIATION = 1.63351E 00

FREQUENCY TABLE FOR COLUMN 5 (MN PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER	UPPER				
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	0	0	0.0	0.0
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	0	0	0.0	0.0
3.8E 01	5.6E 01	0	0	0.0	0.0
5.6E 01	8.3E 01	0	0	0.0	0.0
8.3E 01	1.2E 02	0	0	0.0	0.0
1.2E 02	1.8E 02	0	0	0.0	0.0
1.8E 02	2.6E 02	1	1	3.85	3.85
2.6E 02	3.8E 02	0	1	0.0	3.85
3.8E 02	5.6E 02	0	1	0.0	3.85
5.6E 02	8.3E 02	0	1	0.0	3.85
8.3E 02	1.2E 03	2	3	7.69	11.54
1.2E 03	1.8E 03	12	15	46.15	57.69
1.8E 03	2.6E 03	9	24	34.62	92.31
2.6E 03	3.8E 03	1	25	3.85	96.15
3.8E 03	5.6E 03	1	26	3.85	100.00

HISTOGRAM FOR COLUMN 5 (MN PPM)

2.0E 02 XXXX
3.0E 02
5.0E 02
7.0E 02
1.0E 03 XXXXXXXX
1.5E 03 XX
2.0E 03 XX
3.0E 03 XXXX
5.0E 03 XXXX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	26
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 03

MINIMUM = 2.00000E 02

GEOMETRIC MEAN = 1.59890E 03

GEOMETRIC DEVIATION = 1.69484E 00

FREQUENCY TABLE FOR COLUMN 6 (AG PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT	ANALYTICAL VALUES
LOWER	UPPER		CUM	FREQ	FREQ CUM	
N	L	H	B	T	G	
25	1	0	0	0	0	0
96.15	3.85			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		FREQ	FREQ	PERCENT	PERCENT	ANALYTICAL VALUES
LOWER	UPPER		CUM	FREQ	FREQ CUM	
N	L	H	B	T	G	
26	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 8 (AU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
26	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 9 (B PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00	1.2E 01	4	4	15.38	15.38
1.2E 01	1.8E 01	0	4	0.0	15.38
1.8E 01	2.6E 01	2	6	7.69	23.08

HISTOGRAM FOR COLUMN 9 (B PPM)

1.0E 01 XXXXXXXXXXXXXXXX

1.5E 01

2.0E 01 XXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
1	19	0	0	0	0	6
3.85	73.08			0.0	0.0	

MAXIMUM = 2.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.25992E 01

GEOMETRIC DEVIATION = 1.43039E 00

FREQUENCY TABLE FOR COLUMN 10 (BA PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	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	1	1	3.85	3.85
5.6E 01	8.3E 01	2	3	7.69	11.54
8.3E 01	1.2E 02	10	13	38.46	50.00
1.2E 02	1.8E 02	8	21	30.77	80.77
1.8E 02	2.6E 02	1	22	3.85	84.62
2.6E 02	3.8E 02	1	23	3.85	88.46

HISTOGRAM FOR COLUMN 10 (BA PPM)

5.0E 01 XXXX

7.0E 01 XXXXXXXX

1.0E 02 XX

1.5E 02 XX

2.0E 02 XXXX

3.0E 02 XXXX

N	L	H	B	T	G	ANALYTICAL
0	3	0	0	0	0	VALUES
0.0	11.54			0.0	0.0	23

20

MAXIMUM = 3.00000E 02

MINIMUM = 5.00000E 01

GEOMETRIC MEAN = 1.17090E 02

GEOMETRIC DEVIATION = 1.46129E 00

FREQUENCY TABLE FOR COLUMN 11 (BE PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT	ANALYTICAL VALUES
LOWER	UPPER		CUM	FREQ	FREQ CUM	
N	L	H	B	T	G	
19	7	0	0	0	0	0
73.08	26.92			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 12 (BI PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM	ANALYTICAL VALUES
LOWER	UPPER					
N	L	H	B	T	G	
26	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		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
26	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 14 (CO PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	1	1	3.85	3.85
5.6E 00	8.3E 00	0	1	0.0	3.85
8.3E 00	1.2E 01	0	1	0.0	3.85
1.2E 01	1.8E 01	2	3	7.69	11.54
1.8E 01	2.6E 01	2	5	7.69	19.23
2.6E 01	3.8E 01	11	16	42.31	61.54
3.8E 01	5.6E 01	4	20	15.38	76.92
5.6E 01	8.3E 01	5	25	19.23	96.15
8.3E 01	1.2E 02	0	25	0.0	96.15
1.2E 02	1.8E 02	1	26	3.85	100.00

HISTOGRAM FOR COLUMN 14 (CO PPM)

5.0E 00 XXXX
7.0E 00
1.0E 01
1.5E 01 XXXXXXXX
2.0E 01 XXXXXXXX
3.0E 01 XX
5.0E 01 XXXXXXXXXXXXXXXX
7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX
1.0E 02
1.5E 02 XXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
26

MAXIMUM = 1.50000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 3.48549E 01

GEOMETRIC DEVIATION = 1.94942E 00

FREQUENCY TABLE FOR COLUMN 15 (CR PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	1	1	3.85	3.85
1.8E 01	2.6E 01	0	1	0.0	3.85
2.6E 01	3.8E 01	1	2	3.85	7.69
3.8E 01	5.6E 01	1	3	3.85	11.54
5.6E 01	8.3E 01	4	7	15.38	26.92
8.3E 01	1.2E 02	3	10	11.54	38.46
1.2E 02	1.8E 02	9	19	34.62	73.08
1.8E 02	2.6E 02	3	22	11.54	84.62
2.6E 02	3.8E 02	3	25	11.54	96.15

HISTOGRAM FOR COLUMN 15 (CR PPM)

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

N	L	H	B	T	G
0	1	0	0	0	0
0.0	3.85			0.0	0.0

ANALYTICAL
VALUES
25

MAXIMUM = 3.00000E 02

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 1.16431E 02

GEOMETRIC DEVIATION = 2.02827E 00

FREQUENCY TABLE FOR COLUMN 16 (CU PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER -	UPPER			FREQ	PERCENT FREQ CUM
3.8E 00 -	5.6E 00	0	0	0.0	0.0
5.6E 00 -	8.3E 00	0	0	0.0	0.0
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	1	1	3.85	3.85
1.8E 01 -	2.6E 01	2	3	7.69	11.54
2.6E 01 -	3.8E 01	1	4	3.85	15.38
3.8E 01 -	5.6E 01	1	5	3.85	19.23
5.6E 01 -	8.3E 01	7	12	26.92	46.15
8.3E 01 -	1.2E 02	0	12	0.0	46.15
1.2E 02 -	1.8E 02	1	13	3.85	50.00
1.8E 02 -	2.6E 02	6	19	23.08	73.08
2.6E 02 -	3.8E 02	4	23	15.38	88.46
3.8E 02 -	5.6E 02	2	25	7.69	96.15

HISTOGRAM FOR COLUMN 16 (CU PPM)

1.5E 01 XXXX
 2.0E 01 XXXXXXXX
 3.0E 01 XXXX
 5.0E 01 XXXX
 7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXX
 1.0E 02
 1.5E 02 XXXX
 2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXX
 3.0E 02 XXXXXXXXXXXXXXXXXX
 5.0E 02 XXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
1	0	0	0	0	0	25
3.85	0.0			0.0	0.0	

MAXIMUM = 5.00000E 02

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 1.11260E 02

GEOMETRIC DEVIATION = 2.73939E 00

FREQUENCY TABLE FOR COLUMN 17 (LA PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT	ANALYTICAL VALUES
LOWER	UPPER		CUM	FREQ	FREQ CUM	
N	L	H	B	T	G	
16	10	0	0	0	0	0
61.54	38.46			0.0	0.0	

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 18 (MO PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	FREQ CUM
3.8E 00	5.6E 00	2	2	7.69	7.69
5.6E 00	8.3E 00	1	3	3.85	11.54
8.3E 00	1.2E 01	2	5	7.69	19.23
1.2E 01	1.8E 01	2	7	7.69	26.92
1.8E 01	2.6E 01	0	7	0.0	26.92
2.6E 01	3.8E 01	1	8	3.85	30.77
3.8E 01	5.6E 01	0	8	0.0	30.77
5.6E 01	8.3E 01	0	8	0.0	30.77
8.3E 01	1.2E 02	0	8	0.0	30.77
1.2E 02	1.8E 02	0	8	0.0	30.77
1.8E 02	2.6E 02	0	8	0.0	30.77
2.6E 02	3.8E 02	0	8	0.0	30.77
3.8E 02	5.6E 02	0	8	0.0	30.77
5.6E 02	8.3E 02	1	9	3.85	34.62

HISTOGRAM FOR COLUMN 18 (MO PPM)

5.0E 00 XXXXXXXX

7.0E 00 XXXX

1.0E 01 XXXXXXXX

1.5E 01 XXXXXXXX

2.0E 01

3.0E 01 XXXX

5.0E 01

7.0E 01

1.0E 02

1.5E 02

2.0E 02

3.0E 02

5.0E 02

7.0E 02 XXXX

N	L	H	B	T	G
5	12	0	0	0	0
19.23	46.15			0.0	0.0

ANALYTICAL
VALUES
9

MAXIMUM = 7.00000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 1.63323E 01

GEOMETRIC DEVIATION = 4.57683E 00

FREQUENCY TABLE FOR COLUMN 19 (NB PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER - UPPER			CUM	FREQ	FREQ CUM
8.3E 00 -	1.2E 01	14	14	53.85	53.85
1.2E 01 -	1.8E 01	12	26	46.15	100.00

HISTOGRAM FOR COLUMN 19 (NB PPM)

1.0E 01 XX

1.5E 01 XX

N	L	H	B	T	G	ANALYTICAL
0	0	0	0	0	0	VALUES
0.0	0.0			0.0	0.0	26

MAXIMUM = 1.50000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.20578E 01

GEOMETRIC DEVIATION = 1.22895E 00

FREQUENCY TABLE FOR COLUMN 20 (NI PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	PERCENT FREQ CUM
3.8E 00	5.6E 00	1	1	3.85	3.85
5.6E 00	8.3E 00	0	1	0.0	3.85
8.3E 00	1.2E 01	0	1	0.0	3.85
1.2E 01	1.8E 01	0	1	0.0	3.85
1.8E 01	2.6E 01	0	1	0.0	3.85
2.6E 01	3.8E 01	5	6	19.23	23.08
3.8E 01	5.6E 01	3	9	11.54	34.62
5.6E 01	8.3E 01	4	13	15.38	50.00
8.3E 01	1.2E 02	6	19	23.08	73.08
1.2E 02	1.8E 02	7	26	26.92	100.00

HISTOGRAM FOR COLUMN 20 (NI PPM)

5.0E 00 XXXX
7.0E 00
1.0E 01
1.5E 01
2.0E 01
3.0E 01 XXXXXXXXXXXXXXXXXXXX
5.0E 01 XXXXXXXXXXXXX
7.0E 01 XXXXXXXXXXXXXXXX
1.0E 02 XXXXXXXXXXXXXXXXXXXXXXXX
1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
26

MAXIMUM = 1.50000E 02

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 6.89042E 01

GEOMETRIC DEVIATION = 2.20984E 00

FREQUENCY TABLE FOR COLUMN 21 (PB PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
14
53.85

L
12
46.15

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 22 (SB PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
26	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 23 (SC PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	FREQ CUM
3.8E 00	5.6E 00	1	1	3.85	3.85
5.6E 00	8.3E 00	0	1	0.0	3.85
8.3E 00	1.2E 01	0	1	0.0	3.85
1.2E 01	1.8E 01	0	1	0.0	3.85
1.8E 01	2.6E 01	0	1	0.0	3.85
2.6E 01	3.8E 01	17	18	65.38	69.23
3.8E 01	5.6E 01	8	26	30.77	100.00

HISTOGRAM FOR COLUMN 23 (SC PPM)

5.0E 00 XXXX

7.0E 00

1.0E 01

1.5E 01

2.0E 01

3.0E 01 XX

5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
26

MAXIMUM = 5.00000E 01

MINIMUM = 5.00000E 00

GEOMETRIC MEAN = 3.27678E 01

GEOMETRIC DEVIATION = 1.57073E 00

FREQUENCY TABLE FOR COLUMN 24 (SN PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
26

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 25 (SR PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	FREQ CUM
8.3E 01	1.2E 02	1	1	3.85	3.85
1.2E 02	1.8E 02	10	11	38.46	42.31
1.8E 02	2.6E 02	10	21	38.46	80.77
2.6E 02	3.8E 02	3	24	11.54	92.31

HISTOGRAM FOR COLUMN 25 (SR PPM)

1.0E 02 XXXX

1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 02 XXXXXXXXXXXX

N	L	H	B	T	G
1	1	0	0	0	0
3.85	3.85			0.0	0.0

ANALYTICAL
VALUES
24

MAXIMUM = 3.00000E 02

MINIMUM = 1.00000E 02

GEOMETRIC MEAN = 1.81316E 02

GEOMETRIC DEVIATION = 1.29881E 00

FREQUENCY TABLE FOR COLUMN 26 (V PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			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	3.85	3.85
8.3E 01	1.2E 02	0	1	0.0	3.85
1.2E 02	1.8E 02	1	2	3.85	7.69
1.8E 02	2.6E 02	6	8	23.08	30.77
2.6E 02	3.8E 02	17	25	65.38	96.15
3.8E 02	5.6E 02	1	26	3.85	100.00

HISTOGRAM FOR COLUMN 26 (V PPM)

7.0E 01 XXXX

1.0E 02

1.5E 02 XXXX

2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXX

3.0E 02 XX

5.0E 02 XXXX

37

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
26

MAXIMUM = 5.00000E 02

MINIMUM = 7.00000E 01

GEOMETRIC MEAN = 2.56521E 02

GEOMETRIC DEVIATION = 1.43112E 00

FREQUENCY TABLE FOR COLUMN 27 (W PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
26	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 28 (Y PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00 -	1.2E 01	1	1	3.85	3.85
1.2E 01 -	1.8E 01	2	3	7.69	11.54
1.8E 01 -	2.6E 01	8	11	30.77	42.31
2.6E 01 -	3.8E 01	15	26	57.69	100.00

HISTOGRAM FOR COLUMN 28 (Y PPM)

1.0E 01 XXXX

1.5E 01 XXXXXXXX

2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 01 XX

N	L	H	B	T	G	ANALYTICAL
0	0	0	0	0	0	VALUES
0.0	0.0			0.0	0.0	26

MAXIMUM = 3.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 2.40672E 01

GEOMETRIC DEVIATION = 1.34735E 00

FREQUENCY TABLE FOR COLUMN 29 (ZN PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N L
7 19
26.92 73.08

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 30 (ZR PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER -	UPPER			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	1	1	3.85	3.85
5.6E 01 -	8.3E 01	16	17	61.54	65.38
8.3E 01 -	1.2E 02	7	24	26.92	92.31
1.2E 02 -	1.8E 02	0	24	0.0	92.31
1.8E 02 -	2.6E 02	1	25	3.85	96.15
2.6E 02 -	3.8E 02	1	26	3.85	100.00

HISTOGRAM FOR COLUMN 30 (ZR PPM)

5.0E 01 XXXX

7.0E 01 XXX

1.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1.5E 02

2.0E 02 XXXX

3.0E 02 XXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
26

MAXIMUM = 3.00000E 02

MINIMUM = 5.00000E 01

GEOMETRIC MEAN = 8.37573E 01

GEOMETRIC DEVIATION = 1.44494E 00

FREQUENCY TABLE FOR COLUMN 31 (AU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
0	26	0	0	0	0
0.0	*****			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

A470 STATISTICAL SUMMARY

DATE 4/27/70

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
FE PCT	0	0	0	0	0	0	26
MG PCT	0	0	0	0	0	0	26
CA PCT	0	0	0	0	0	0	26
TI PCT	0	0	0	0	0	11	15
MN PPM	0	0	0	0	0	0	26
AG PPM	25	1	0	0	0	0	0
AS PPM	26	0	0	0	0	0	0
AU PPM	26	0	0	0	0	0	0
B PPM	1	19	0	0	0	0	6
BA PPM	0	3	0	0	0	0	23
BE PPM	19	7	0	0	0	0	0
BI PPM	26	0	0	0	0	0	0
CD PPM	26	0	0	0	0	0	0
CO PPM	0	0	0	0	0	0	26
CR PPM	0	1	0	0	0	0	25
CU PPM	1	0	0	0	0	0	25
LA PPM	16	10	0	0	0	0	0
MO PPM	5	12	0	0	0	0	9
NB PPM	0	0	0	0	0	0	26
NI PPM	0	0	0	0	0	0	26
PB PPM	14	12	0	0	0	0	0
SB PPM	26	0	0	0	0	0	0
SC PPM	0	0	0	0	0	0	26
SN PPM	26	0	0	0	0	0	0
SR PPM	1	1	0	0	0	0	24
V PPM	0	0	0	0	0	0	26
W PPM	26	0	0	0	0	0	0
Y PPM	0	0	0	0	0	0	26
ZN PPM	7	19	0	0	0	0	0
ZR PPM	0	0	0	0	0	0	26
AU PPM	0	26	0	0	0	0	0

43

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
FE PCT	13.366805	1.61	26 SAMPLES AND 26 ANALYTICAL VALUES.
MG PCT	4.059122	1.99	26 SAMPLES AND 26 ANALYTICAL VALUES.
CA PCT	5.031182	1.85	26 SAMPLES AND 26 ANALYTICAL VALUES.
TI PCT	*****	*****	11 GREATER THAN VALUES. NO COMPUTATIONS.
MN PPM	1598.895752	1.69	26 SAMPLES AND 26 ANALYTICAL VALUES.
AG PPM	*****	*****	26 NOT DETECTED, LESS THAN, OR TRACE VALUES.
AS PPM	*****	*****	26 NOT DETECTED, LESS THAN, OR TRACE VALUES.
AU PPM	*****	*****	26 NOT DETECTED, LESS THAN, OR TRACE VALUES.
B PPM	4.745952	2.09	20 NOT DETECTED, LESS THAN, OR TRACE VALUES.
BA PPM	91.054077	2.19	3 NOT DETECTED, LESS THAN, OR TRACE VALUES.
BE PPM	*****	*****	26 NOT DETECTED, LESS THAN, OR TRACE VALUES.
BI PPM	*****	*****	26 NOT DETECTED, LESS THAN, OR TRACE VALUES.
CD PPM	*****	*****	26 NOT DETECTED, LESS THAN, OR TRACE VALUES.
CO PPM	34.854782	1.95	26 SAMPLES AND 26 ANALYTICAL VALUES.
CR PPM	101.084747	2.69	1 NOT DETECTED, LESS THAN, OR TRACE VALUES.
CU PPM	96.315094	3.41	1 NOT DETECTED, LESS THAN, OR TRACE VALUES.
LA PPM	*****	*****	26 NOT DETECTED, LESS THAN, OR TRACE VALUES.
MO PPM	*****	*****	17 NOT DETECTED, LESS THAN, OR TRACE VALUES.
NB PPM	12.057766	1.23	26 SAMPLES AND 26 ANALYTICAL VALUES.
NI PPM	68.904099	2.21	26 SAMPLES AND 26 ANALYTICAL VALUES.
PB PPM	*****	*****	26 NOT DETECTED, LESS THAN, OR TRACE VALUES.

0 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.
6 REPORTED VALUES.
23 REPORTED VALUES.
0 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.
25 REPORTED VALUES.
25 REPORTED VALUES.
0 REPORTED VALUES. NO COMPUTATIONS.
9 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.

SB PPM	*****	*****
SC PPM	32.767715	1.57
SN PPM	*****	*****
SR PPM	168.967346	1.42
V PPM	256.520264	1.43
W PPM	*****	*****
Y PPM	24.067184	1.35
ZN PPM	*****	*****
ZR PPM	83.757126	1.44
AU PPM	*****	*****

26	NOT DETECTED, LESS THAN, OR TRACE VALUES.
26	SAMPLES AND 26 ANALYTICAL VALUES.
26	NOT DETECTED, LESS THAN, OR TRACE VALUES.
2	NOT DETECTED, LESS THAN, OR TRACE VALUES.
26	SAMPLES AND 26 ANALYTICAL VALUES.
26	NOT DETECTED, LESS THAN, OR TRACE VALUES.
26	SAMPLES AND 26 ANALYTICAL VALUES.
26	NOT DETECTED, LESS THAN, OR TRACE VALUES.
26	SAMPLES AND 26 ANALYTICAL VALUES.
26	NOT DETECTED, LESS THAN, OR TRACE VALUES.

0	REPORTED VALUES. NO COMPUTATIONS.
0	REPORTED VALUES. NO COMPUTATIONS.
24	REPORTED VALUES.
0	REPORTED VALUES. NO COMPUTATIONS.
0	REPORTED VALUES. NO COMPUTATIONS.
0	REPORTED VALUES. NO COMPUTATIONS.

TABLE 3. CRAIG C-6 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
22	ACE679	15.0000	3.0000	2.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
23	ACE681	7.0000	2.0000	0.7000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	200.0000
24	ACE682	15.0000	3.0000	2.0000	0.7000	5000.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
25	ACE693	15.0000	3.0000	2.0000	0.7000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
26	ACE683	3.0000	2.0000	0.7000	0.5000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	100.0000
27	ACE695	15.0000	3.0000	3.0000	0.7000	1000.0000	0.0 N	0.0 N	0.0 N	15.0000	300.0000
28	ACE684	15.0000	3.0000	5.0000	1.0000	1500.0000	0.0 N	0.0 N	0.0 N	15.0000	150.0000
29	ACE685	3.0000	1.5000	7.0000	0.3000	1500.0000	0.0 N	0.0 N	0.0 N	0.0 N	0.0 L

CRAIG C-6 STREAM SEDIMENTS

	SAMPLE	BE PPM		BI PPM		CD PPM		CO PPM		CR PPM		CU PPM		LA PPM		MO PPM		NB PPM		NI PPM
22	ACE679	0.0	L	0.0	N	0.0	N	30.0000		150.0000		70.0000		0.0	L	7.0000		10.0000		70.0000
23	ACE681	0.0	L	0.0	N	0.0	N	15.0000		30.0000		20.0000		0.0	N	0.0	N	10.0000		20.0000
24	ACE682	0.0	N	0.0	N	0.0	N	50.0000		100.0000		70.0000		0.0	L	7.0000		10.0000		50.0000
25	ACE693	0.0	N	0.0	N	0.0	N	50.0000		70.0000		150.0000		0.0	N	15.0000		10.0000		30.0000
26	ACE683	0.0	N	0.0	N	0.0	N	20.0000		30.0000		30.0000		0.0	N	0.0	N	10.0000		30.0000
27	ACE695	0.0	L	0.0	N	0.0	N	20.0000		100.0000		15.0000		0.0	N	0.0	L	0.0	L	30.0000
28	ACE684	0.0	N	0.0	N	0.0	N	30.0000		200.0000		20.0000		0.0	L	0.0	L	10.0000		50.0000
29	ACE685	0.0	N	0.0	N	0.0	N	20.0000		30.0000		30.0000		0.0	L	0.0	L	0.0	L	30.0000

CRAIG C-6 STREAM SEDIMENTS

	SAMPLE	PB PPM	SB PPM	SC PPM	SN PPM	SR PPM	V PPM	W PPM	Y PPM	ZN PPM	ZR PPM
22	ACE679	0.0 L	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
23	ACE681	0.0 N	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 L	50.0000
24	ACE682	0.0 L	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
25	ACE693	0.0 L	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	30.0000	0.0 L	70.0000
26	ACE683	0.0 L	0.0 N	15.0000	0.0 N	150.0000	150.0000	0.0 N	10.0000	0.0 L	50.0000
27	ACE695	0.0 N	0.0 N	30.0000	0.0 N	300.0000	200.0000	0.0 N	20.0000	0.0 L	70.0000
28	ACE684	0.0 L	0.0 N	30.0000	0.0 N	300.0000	300.0000	0.0 N	30.0000	0.0 L	70.0000
29	ACE685	0.0 L	0.0 N	20.0000	0.0 N	300.0000	200.0000	0.0 N	15.0000	0.0 N	70.0000

CRAIG C-6 STREAM SEDIMENTS

	SAMPLE	AU PPM
22	ACE679	0.0400L
23	ACE681	0.0200L
24	ACE682	0.0400L
25	ACE693	0.0200L
26	ACE683	0.0200L
27	ACE695	0.0200L
28	ACE684	0.0200L
29	ACE685	0.0200L

FREQUENCY TABLE FOR COLUMN 1 (FE PCT)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			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	2	2	25.00	25.00
3.8E 00	5.6E 00	0	2	0.0	25.00
5.6E 00	8.3E 00	1	3	12.50	37.50
8.3E 00	1.2E 01	0	3	0.0	37.50
1.2E 01	1.8E 01	5	8	62.50	100.00

HISTOGRAM FOR COLUMN 1 (FE PCT)

3.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXX

5.0E 00

7.0E 00 XXXXXXXXXXXXXXX

1.0E 01

1.5E 01 XX

69

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	8
0.0	0.0			0.0	0.0	

MAXIMUM = 1.50000E 01

MINIMUM = 3.00000E 00

GEOMETRIC MEAN = 9.11955E 00

GEOMETRIC DEVIATION = 2.08524E 00

FREQUENCY TABLE FOR COLUMN 2 (MG PCT)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	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	0	0	0.0	0.0
8.3E-01	1.2E 00	0	0	0.0	0.0
1.2E 00	1.8E 00	1	1	12.50	12.50
1.8E 00	2.6E 00	2	3	25.00	37.50
2.6E 00	3.8E 00	5	8	62.50	100.00

HISTOGRAM FOR COLUMN 2 (MG PCT)

1.5E 00 XXXXXXXXXXXXXXX

2.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 00 XX

N	L	H	B	T	G	ANALYTICAL
0	0	0	0	0	0	VALUES
0.0	0.0			0.0	0.0	8

50

MAXIMUM = 3.00000E 00

MINIMUM = 1.50000E 00

GEOMETRIC MEAN = 2.48582E 00

GEOMETRIC DEVIATION = 1.31554E 00

FREQUENCY TABLE FOR COLUMN 3 (CA PCT)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			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	2	2	25.00	25.00
8.3E-01	1.2E 00	0	2	0.0	25.00
1.2E 00	1.8E 00	0	2	0.0	25.00
1.8E 00	2.6E 00	3	5	37.50	62.50
2.6E 00	3.8E 00	1	6	12.50	75.00
3.8E 00	5.6E 00	1	7	12.50	87.50
5.6E 00	8.3E 00	1	8	12.50	100.00

HISTOGRAM FOR COLUMN 3 (CA PCT)

7.0E-01 XXXXXXXXXXXXXXXXXXXXXXXX
1.0E 00
1.5E 00
2.0E 00 XXXXXXXXXXXXXXXXXXXXXXXX
3.0E 00 XXXXXXXXXXXXXXXX
5.0E 00 XXXXXXXXXXXXXXXX
7.0E 00 XXXXXXXXXXXXXXXX

N L H B T G
0 0 0 0 0 0
0.0 0.0 0.0 0.0 0.0 0.0

ANALYTICAL
VALUES
8

MAXIMUM = 7.00000E 00

MINIMUM = 7.00000E-01

GEOMETRIC MEAN = 2.12231E 00

GEOMETRIC DEVIATION = 2.27893E 00

FREQUENCY TABLE FOR COLUMN 4 (TI PCT)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	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	1	1	12.50	12.50
3.8E-01	5.6E-01	2	3	25.00	37.50
5.6E-01	8.3E-01	3	6	37.50	75.00
8.3E-01	1.2E 00	2	8	25.00	100.00

HISTOGRAM FOR COLUMN 4 (TI PCT)

3.0E-01 XXXXXXXXXXXXXXXX

5.0E-01 XXXXXXXXXXXXXXXXXXXXXXXX

7.0E-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1.0E 00 XXXXXXXXXXXXXXXXXXXXXXXX

52

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
8

MAXIMUM = 1.00000E 00

MINIMUM = 3.00000E-01

GEOMETRIC MEAN = 6.32841E-01

GEOMETRIC DEVIATION = 1.49113E 00

FREQUENCY TABLE FOR COLUMN 5 (MN PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT FREQ CUM
LOWER	UPPER				
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	0	0	0.0	0.0
1.8E 01	2.6E 01	0	0	0.0	0.0
2.6E 01	3.8E 01	0	0	0.0	0.0
3.8E 01	5.6E 01	0	0	0.0	0.0
5.6E 01	8.3E 01	0	0	0.0	0.0
8.3E 01	1.2E 02	0	0	0.0	0.0
1.2E 02	1.8E 02	0	0	0.0	0.0
1.8E 02	2.6E 02	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	3	3	37.50	37.50
1.2E 03	1.8E 03	4	7	50.00	87.50
1.8E 03	2.6E 03	0	7	0.0	87.50
2.6E 03	3.8E 03	0	7	0.0	87.50
3.8E 03	5.6E 03	1	8	12.50	100.00

HISTOGRAM FOR COLUMN 5 (MN PPM)

1.0E 03 XX
 1.5E 03 XX
 2.0E 03
 3.0E 03
 5.0E 03 XXXXXXXXXXXXXXX

53

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	8
0.0	0.0			0.0	0.0	

MAXIMUM = 5.00000E 03

MINIMUM = 1.00000E 03

GEOMETRIC MEAN = 1.49766E 03

GEOMETRIC DEVIATION = 1.69364E 00

FREQUENCY TABLE FOR COLUMN 6 (AG PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
8

L
0
0.0

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 7 (AS PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
8	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 8 (AU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
8	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 9 (B PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	7	7	87.50	87.50

HISTOGRAM FOR COLUMN 9 (B PPM)

1.5E 01 XXX

N	L	H	B	T	G	ANALYTICAL
1	0	0	0	0	0	VALUES
12.50	0.0			0.0	0.0	7

MAXIMUM = 1.50000E 01

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 1.50000E 01

GEOMETRIC DEVIATION = 1.00000E 00

FREQUENCY TABLE FOR COLUMN 10 (BA PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			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	1	1	12.50	12.50
1.2E 02	1.8E 02	2	3	25.00	37.50
1.8E 02	2.6E 02	1	4	12.50	50.00
2.6E 02	3.8E 02	3	7	37.50	87.50

HISTOGRAM FOR COLUMN 10 (BA PPM)

1.0E 02 XXXXXXXXXXXXXXXX

1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXX

2.0E 02 XXXXXXXXXXXXXXXX

3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G
0	1	0	0	0	0
0.0	12.50			0.0	0.0

ANALYTICAL
VALUES
7

MAXIMUM = 3.00000E 02

MINIMUM = 1.00000E 02

GEOMETRIC MEAN = 1.98515E 02

GEOMETRIC DEVIATION = 1.54601E 00

FREQUENCY TABLE FOR COLUMN 11 (BE PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
5	3	0	0	0	0
62.50	37.50			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 12 (BI PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N	L	H	B	T	G
8	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 13 (CD PPM) ,

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
8	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 14 (CO PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER	UPPER			FREQ	PERCENT FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	1	1	12.50	12.50
1.8E 01	2.6E 01	3	4	37.50	50.00
2.6E 01	3.8E 01	2	6	25.00	75.00
3.8E 01	5.6E 01	2	8	25.00	100.00

HISTOGRAM FOR COLUMN 14 (CO PPM)

1.5E 01 XXXXXXXXXXXXXXXX
 2.0E 01 XX
 3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
8

MAXIMUM = 5.00000E 01

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 2.68484E 01

GEOMETRIC DEVIATION = 1.56318E 00

FREQUENCY TABLE FOR COLUMN 15 (CR PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER -	UPPER			FREQ	CUM
3.8E 00 -	5.6E 00	0	0	0.0	0.0
5.6E 00 -	8.3E 00	0	0	0.0	0.0
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	0	0	0.0	0.0
1.8E 01 -	2.6E 01	0	0	0.0	0.0
2.6E 01 -	3.8E 01	3	3	37.50	37.50
3.8E 01 -	5.6E 01	0	3	0.0	37.50
5.6E 01 -	8.3E 01	1	4	12.50	50.00
8.3E 01 -	1.2E 02	2	6	25.00	75.00
1.2E 02 -	1.8E 02	1	7	12.50	87.50
1.8E 02 -	2.6E 02	1	8	12.50	100.00

HISTOGRAM FOR COLUMN 15 (CR PPM)

3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 5.0E 01
 7.0E 01 XXXXXXXXXXXXX
 1.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.5E 02 XXXXXXXXXXXXX
 2.0E 02 XXXXXXXXXXXXX

69

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
8

MAXIMUM = 2.00000E 02

MINIMUM = 3.00000E 01

GEOMETRIC MEAN = 6.98549E 01

GEOMETRIC DEVIATION = 2.14789E 00

FREQUENCY TABLE FOR COLUMN 16 (CU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	0	0	0.0	0.0
8.3E 00	1.2E 01	0	0	0.0	0.0
1.2E 01	1.8E 01	1	1	12.50	12.50
1.8E 01	2.6E 01	2	3	25.00	37.50
2.6E 01	3.8E 01	2	5	25.00	62.50
3.8E 01	5.6E 01	0	5	0.0	62.50
5.6E 01	8.3E 01	2	7	25.00	87.50
8.3E 01	1.2E 02	0	7	0.0	87.50
1.2E 02	1.8E 02	1	8	12.50	100.00

HISTOGRAM FOR COLUMN 16 (CU PPM)

1.5E 01 XXXXXXXXXXXXXXXX
 2.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX
 3.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX
 5.0E 01
 7.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX
 1.0E 02
 1.5E 02 XXXXXXXXXXXXXXXX

79

N L H B T G
 0 0 0 0 0 0
 0.0 0.0 0.0 0.0 0.0 0.0

ANALYTICAL
 VALUES
 8

MAXIMUM = 1.50000E 02

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 3.75693E 01

GEOMETRIC DEVIATION = 2.21566E 00

FREQUENCY TABLE FOR COLUMN 17 (LA PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N
4
50.00

L
4
50.00

H
0

B
0

T
0
0.0

G
0
0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 18 (MO PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
3.8E 00	5.6E 00	0	0	0.0	0.0
5.6E 00	8.3E 00	2	2	25.00	25.00
8.3E 00	1.2E 01	0	2	0.0	25.00
1.2E 01	1.8E 01	1	3	12.50	37.50

HISTOGRAM FOR COLUMN 18 (MO PPM)

7.0E 00 XXXXXXXXXXXXXXXXXXXXXXXXXX

1.0E 01

1.5E 01 XXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
2	3	0	0	0	0	3
25.00	37.50			0.0	0.0	

MAXIMUM = 1.50000E 01

MINIMUM = 7.00000E 00

GEOMETRIC MEAN = 9.02460E 00

GEOMETRIC DEVIATION = 1.55274E 00

FREQUENCY TABLE FOR COLUMN 19 (NB PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00	1.2E 01	6	6	75.00	75.00

HISTOGRAM FOR COLUMN 19 (NB PPM)

1.0E 01 XX

N	L	H	B	T	G	ANALYTICAL VALUES
0	2	0	0	0	0	6
0.0	25.00			0.0	0.0	

MAXIMUM = 1.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 9.99997E 00

GEOMETRIC DEVIATION = 1.00233E 00

FREQUENCY TABLE FOR COLUMN 20 (NI PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER - UPPER				FREQ	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		1	1	12.50	12.50
2.6E 01 - 3.8E 01		4	5	50.00	62.50
3.8E 01 - 5.6E 01		2	7	25.00	87.50
5.6E 01 - 8.3E 01		1	8	12.50	100.00

HISTOGRAM FOR COLUMN 20 (NI PPM)

2.0E 01 XXXXXXXXXXXXXXXX

3.0E 01 XX

5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX

7.0E 01 XXXXXXXXXXXXXXXX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	
0.0	0.0			0.0	0.0	8

MAXIMUM = 7.00000E 01

MINIMUM = 2.00000E 01

GEOMETRIC MEAN = 3.60220E 01

GEOMETRIC DEVIATION = 1.49619E 00

FREQUENCY TABLE FOR COLUMN 21 (PB PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
2	6	0	0	0	0
25.00	75.00			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 22 (58 PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N

8

L

0

0.0

H

0

B

0

T

0

0.0

G

0

0.0

ANALYTICAL
VALUES

0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 23 (SC PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	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	2	2	25.00	25.00
1.8E 01	2.6E 01	1	3	12.50	37.50
2.6E 01	3.8E 01	5	8	62.50	100.00

HISTOGRAM FOR COLUMN 23 (SC PPM)

1.5E 01 XXXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 01 XXXXXXXXXXXXXXX

3.0E 01 XXX

N	L	H	B	T	G	ANALYTICAL
0	0	0	0	0	0	VALUES
0.0	0.0			0.0	0.0	8

MAXIMUM = 3.00000E 01

MINIMUM = 1.50000E 01

GEOMETRIC MEAN = 2.39801E 01

GEOMETRIC DEVIATION = 1.37934E 00

FREQUENCY TABLE FOR COLUMN 24 (SN PPM)

LIMITS
LOWER - UPPER

FREQ FREQ
CUM CUM

PERCENT
FREQ

PERCENT
FREQ CUM

N	L	H	B	T	G
8	0	0	0	0	0
*****	0.0			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 25 (SR PPM)

LIMITS		FREQ	FREQ CUM	PERCENT	
LOWER -	UPPER			FREQ	PERCENT FREQ CUM
8.3E 01 -	1.2E 02	0	0	0.0	0.0
1.2E 02 -	1.8E 02	2	2	25.00	25.00
1.8E 02 -	2.6E 02	0	2	0.0	25.00
2.6E 02 -	3.8E 02	6	8	75.00	100.00

HISTOGRAM FOR COLUMN 25 (SR PPM)

1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 02

3.0E 02 XX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	8
0.0	0.0			0.0	0.0	

MAXIMUM = 3.00000E 02

MINIMUM = 1.50000E 02

GEOMETRIC MEAN = 2.52267E 02

GEOMETRIC DEVIATION = 1.37841E 00

FREQUENCY TABLE FOR COLUMN 26 (V PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00 -	1.2E 01	0	0	0.0	0.0
1.2E 01 -	1.8E 01	0	0	0.0	0.0
1.8E 01 -	2.6E 01	0	0	0.0	0.0
2.6E 01 -	3.8E 01	0	0	0.0	0.0
3.8E 01 -	5.6E 01	0	0	0.0	0.0
5.6E 01 -	8.3E 01	0	0	0.0	0.0
8.3E 01 -	1.2E 02	0	0	0.0	0.0
1.2E 02 -	1.8E 02	2	2	25.00	25.00
1.8E 02 -	2.6E 02	3	5	37.50	62.50
2.6E 02 -	3.8E 02	3	8	37.50	100.00

HISTOGRAM FOR COLUMN 26 (V PPM)

1.5E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX

2.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX

3.0E 02 XXXXXXXXXXXXXXXXXXXXXXXXXXXX

N	L	H	B	T	G
0	0	0	0	0	0
0.0	0.0			0.0	0.0

ANALYTICAL
VALUES
8

MAXIMUM = 3.00000E 02

MINIMUM = 1.50000E 02

GEOMETRIC MEAN = 2.16684E 02

GEOMETRIC DEVIATION = 1.34265E 00

FREQUENCY TABLE FOR COLUMN 27 (W PPM)

LIMITS
LOWER - UPPER

FREQ

FREQ
CUM

PERCENT
FREQ

PERCENT
FREQ CUM

ANALYTICAL
VALUES

N	L	H	B	T	G
8	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		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM
8.3E 00 -	1.2E 01	2	2	25.00	25.00
1.2E 01 -	1.8E 01	1	3	12.50	37.50
1.8E 01 -	2.6E 01	1	4	12.50	50.00
2.6E 01 -	3.8E 01	4	8	50.00	100.00

HISTOGRAM FOR COLUMN 28 (Y PPM)

1.0E 01 XXXXXXXXXXXXXXXXXXXXXXXX

1.5E 01 XXXXXXXXXXXXXXXX

2.0E 01 XXXXXXXXXXXXXXXX

3.0E 01 XX

N	L	H	B	T	G	ANALYTICAL
0	0	0	0	0	0	VALUES
0.0	0.0			0.0	0.0	8

MAXIMUM = 3.00000E 01

MINIMUM = 1.00000E 01

GEOMETRIC MEAN = 1.98701E 01

GEOMETRIC DEVIATION = 1.63712E 00

FREQUENCY TABLE FOR COLUMN 29 (ZN PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
1	7	0	0	0	0
12.50	87.50			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

FREQUENCY TABLE FOR COLUMN 30 (ZR PPM)

LIMITS		FREQ	FREQ CUM	PERCENT FREQ	PERCENT	
LOWER	UPPER				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	2	2	25.00	25.00	
5.6E 01	8.3E 01	6	8	75.00	100.00	

HISTOGRAM FOR COLUMN 30 (ZR PPM)

5.0E 01 XXXXXXXXXXXXXXXXXXXXXXXXXX

7.0E 01 XX

N	L	H	B	T	G	ANALYTICAL VALUES
0	0	0	0	0	0	
0.0	0.0			0.0	0.0	8

MAXIMUM = 7.00000E 01

MINIMUM = 5.00000E 01

GEOMETRIC MEAN = 6.43523E 01

GEOMETRIC DEVIATION = 1.16847E 00

FREQUENCY TABLE FOR COLUMN 31 (AU PPM)

LIMITS		FREQ	FREQ	PERCENT	PERCENT
LOWER	UPPER		CUM	FREQ	FREQ CUM

N	L	H	B	T	G
0	8	0	0	0	0
0.0	*****			0.0	0.0

ANALYTICAL
VALUES
0

MAXIMUM = -9.99900E 48

MINIMUM = 9.99900E 48

GEOMETRIC MEAN = 9.99900E 48

GEOMETRIC DEVIATION = 9.99900E 48

A470 STATISTICAL SUMMARY

DATE 4/20/70

ELEMENT	N	L	H	B	T	G	ANALYTICAL VALUES
FE PCT	0	0	0	0	0	0	8
MG PCT	0	0	0	0	0	0	8
CA PCT	0	0	0	0	0	0	8
TI PCT	0	0	0	0	0	0	8
MN PPM	0	0	0	0	0	0	8
AG PPM	8	0	0	0	0	0	0
AS PPM	8	0	0	0	0	0	0
AU PPM	8	0	0	0	0	0	0
B PPM	1	0	0	0	0	0	7
BA PPM	0	1	0	0	0	0	7
BE PPM	5	3	0	0	0	0	0
BI PPM	8	0	0	0	0	0	0
CD PPM	8	0	0	0	0	0	0
CO PPM	0	0	0	0	0	0	8
CR PPM	0	0	0	0	0	0	8
CU PPM	0	0	0	0	0	0	8
LA PPM	4	4	0	0	0	0	0
MO PPM	2	3	0	0	0	0	3
NB PPM	0	2	0	0	0	0	6
NI PPM	0	0	0	0	0	0	8
PB PPM	2	6	0	0	0	0	0
SB PPM	8	0	0	0	0	0	0
SC PPM	0	0	0	0	0	0	8
SN PPM	8	0	0	0	0	0	0
SR PPM	0	0	0	0	0	0	8
V PPM	0	0	0	0	0	0	8
W PPM	8	0	0	0	0	0	0
Y PPM	0	0	0	0	0	0	8
ZN PPM	1	7	0	0	0	0	0
ZR PPM	0	0	0	0	0	0	8
AU PPM	0	8	0	0	0	0	0

80

ELEMENT	GEOMETRIC MEAN	GEOMETRIC DEVIATION	REMARKS
FE PCT	9.119543	2.09	8 SAMPLES AND 8 ANALYTICAL VALUES.
MG PCT	2.485817	1.32	8 SAMPLES AND 8 ANALYTICAL VALUES.
CA PCT	2.122312	2.28	8 SAMPLES AND 8 ANALYTICAL VALUES.
TI PCT	0.632841	1.49	8 SAMPLES AND 8 ANALYTICAL VALUES.
MN PPM	1497.659424	1.69	8 SAMPLES AND 8 ANALYTICAL VALUES.
AG PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.
AS PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.
AU PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.
B PPM	13.781607	1.25	1 NOT DETECTED, LESS THAN, OR TRACE VALUES.
BA PPM	139.885941	2.76	1 NOT DETECTED, LESS THAN, OR TRACE VALUES.
BE PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.
BI PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.
CD PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.
CO PPM	26.848389	1.56	8 SAMPLES AND 8 ANALYTICAL VALUES.
CR PPM	69.854736	2.15	8 SAMPLES AND 8 ANALYTICAL VALUES.
CU PPM	37.569229	2.22	8 SAMPLES AND 8 ANALYTICAL VALUES.
LA PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.
MO PPM	2.852427	2.96	5 NOT DETECTED, LESS THAN, OR TRACE VALUES.
NB PPM	9.406857	1.11	2 NOT DETECTED, LESS THAN, OR TRACE VALUES.
NI PPM	36.021912	1.50	6 SAMPLES AND 8 ANALYTICAL VALUES.
PB PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.

0 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.
7 REPORTED VALUES.
7 REPORTED VALUES.
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0 REPORTED VALUES. NO COMPUTATIONS.
0 REPORTED VALUES. NO COMPUTATIONS.
3 REPORTED VALUES.
6 REPORTED VALUES.
0 REPORTED VALUES. NO COMPUTATIONS.

SB PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
SC PPM	23.980057	1.38	8 SAMPLES AND 8 ANALYTICAL VALUES.	
SN PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
SR PPM	252.266510	1.38	8 SAMPLES AND 8 ANALYTICAL VALUES.	
V PPM	216.683136	1.34	8 SAMPLES AND 8 ANALYTICAL VALUES.	
W PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
Y PPM	19.870026	1.64	8 SAMPLES AND 8 ANALYTICAL VALUES.	
ZN PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.
ZR PPM	64.352219	1.17	8 SAMPLES AND 8 ANALYTICAL VALUES.	
AU PPM	*****	*****	8 NOT DETECTED, LESS THAN, OR TRACE VALUES.	0 REPORTED VALUES. NO COMPUTATIONS.