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GEOLOGICAL SURVEY

Chemical data and statistical analyses from a uranium hydrogeochemical survey of the Rio Ojo Caliente drainage basin, New Mexico

Part II: Stream sediments

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INTRODUCTION

This report presents the chemical analyses and statistical evaluation of 51 stream-sediment samples collected in the north-central part of New Mexico near Ojo Caliente (figure 1 and table 1). Analyses of spring and stream-water samples, taken at the same locations as the stream sediments throughout the Rio Ojo Caliente drainage basin, are reported in Wenrich-Verbeek and Suits (1979).

A high U concentration (15 μg/ℓ) found in the water of the Rio Ojo Caliente near La Madera, Rio Arriba County, New Mexico, during a regional sampling-technique study in August 1975 by the senior author, was investigated further in May 1976 to determine whether stream waters could be effectively used to trace the source of a U anomaly. A detailed study of the tributaries to the Rio Ojo Caliente, involving 29 samples, was conducted during a moderate discharge period, May 1976, chosen so that the small tributaries would contain water. This study discovered that Cañada de la Cueva is the tributary contributing the anomalous U, so that in May 1977, an extremely low discharge period due to the 1977 drought, an additional 33 samples were taken to further define the anomalous area.

Analyses of stream sediments collected near La Madera at the water-sample sites do not reflect highly anomalous U values as do the water analyses. Nevertheless, a small local anomaly can be outlined over the water anomaly if only the sediment size fraction less than 88 μm (170 mesh) is considered. This is not the case for the size fraction less than 149 μm (100 mesh). This report presents and discusses the sediment results.

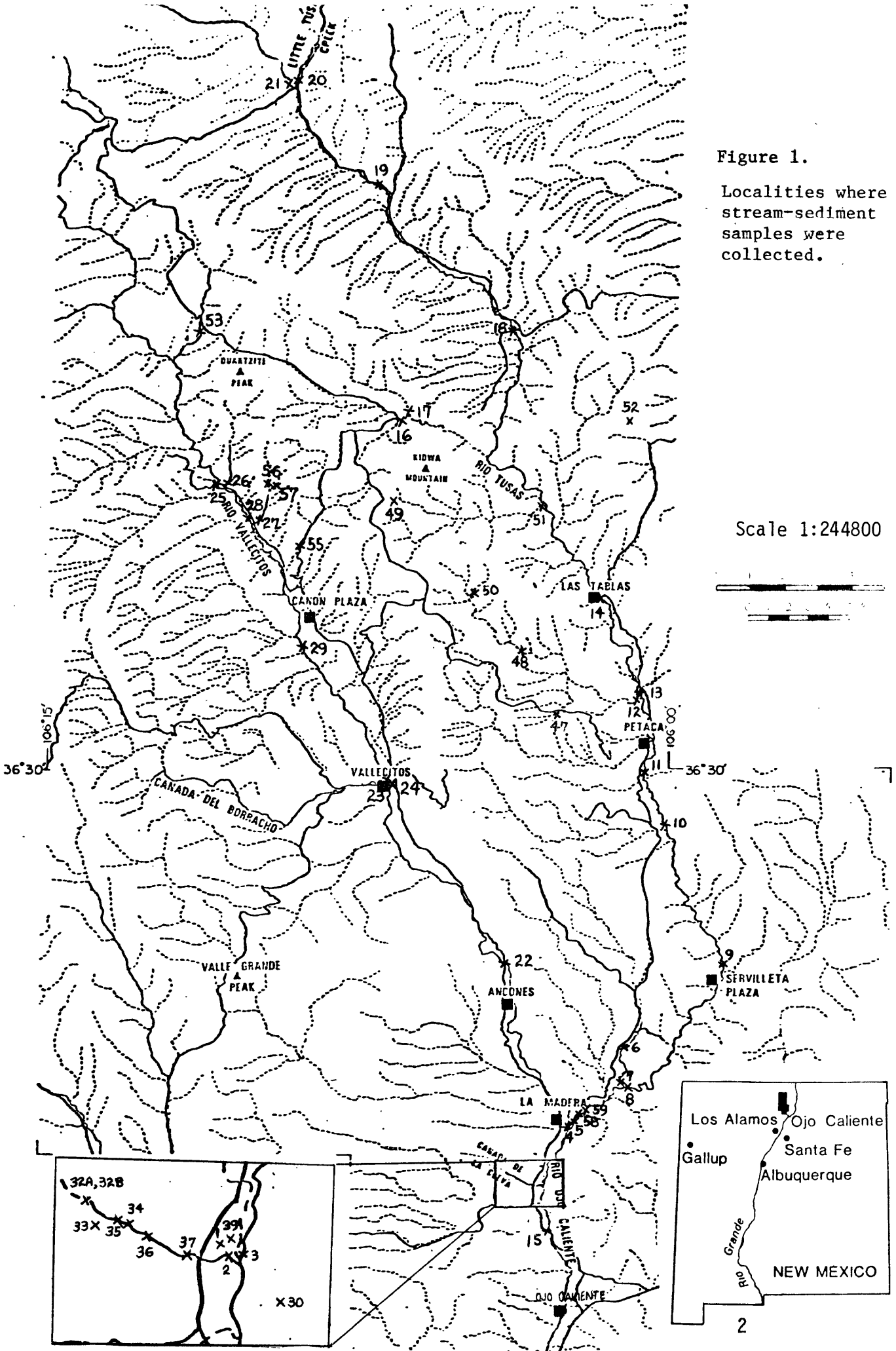

Figure 1.

Localities where stream-sediment samples were collected.

Scale 1:244800

Table 1.-- Sample collection sites in the Rio Ojo Caliente drainage area.

SAMPLE #	LAT	LONG	LOCATION NAME
*1	36.366	106.049	SPRING NEAR LA MADERA
2	36.364	106.047	CANADA DE LA CUEVA ABOVE JCT WITH OJO CALIENTE
3	36.364	106.046	RIO OJO CALIENTE ABOVE JCT WITH CANADA CUEVA
4	36.383	106.037	RIO VALLECITOS ABOVE JCT WITH TUSAS RIVER
5	36.383	106.356	TUSAS RIVER ABOVE JCT WITH RIO VALLECITOS
6	36.410	106.015	CANON DE LA PALOMA BELOW SALT LICK SPRING
7	36.388	106.006	CANON DE LA PALOMA ABOVE JCT WITH TUSAS RIVER
8	36.388	106.015	TUSAS RIVER ABOVE JCT WITH PETACA CREEK
9	36.434	105.978	TUSAS RIVER NEAR SERVILLETA PLAZA
10	36.480	106.001	TUSAS RIVER SOUTH OF SOUTH PETACA
11	36.497	106.010	TUSAS RIVER AT SOUTH PETACA
12	36.522	106.027	CANADA DE LA JARITA
13	36.523	106.011	TUSAS RIVER ABOVE PETACA
14	36.538	106.028	TUSAS RIVER AT LAS TABLAS
15	36.350	106.044	GAGING STATION, RIO OJO CALIENTE AT LA MADERA
16	36.612	106.114	SPRING CREEK ABOVE JCT WITH CLEVELAND GULCH
17	36.614	106.107	CLEVELAND GULCH
18	36.644	106.059	TUSAS RIVER AT TUSAS
19	36.687	106.120	TUSAS RIVER ABOVE JCT WITH CANADA BISCARA
20	36.720	106.156	LITTLE TUSAS ABOVE JCT WITH TUSAS
21	36.720	106.157	TUSAS RIVER ABOVE JCT WITH LITTLE TUSAS
22	36.436	106.063	RIO VALLECITOS AT BRIDGE ABOVE ANCONES
23	36.495	106.112	CANADA DEL BORRACHO AT VALLECITOS
24	36.495	106.112	RIO VALLECITOS AT VALLECITOS
25	36.592	106.184	VALLECITOS RIVER ABOVE LA JARA CANYON
26	36.591	106.168	LA JARA CANYON ABOVE RIO VALLECITOS
27	36.546	106.169	RITITO CANYON ABOVE JCT WITH VALLECITOS RIVER
28	36.546	106.171	RIO VALLECITOS ABOVE JCT WITH RITITO CANYON
29	36.537	106.148	RIO VALLECITOS BELOW CANON PLAZA
30	36.364	106.042	SPRING ON MESA AT S.W. BASE OF LA MADERA MTN.
*31	36.366	106.042	SPRING AT BOTTOM OF FIRST MESA, W. SIDE LA MADERA MTN.
**32	36.371	106.059	SPRING, UPPER CANADA DE LA CUEVA
33	36.370	106.058	SPRING, SIDE CANYON OF CANADA DE LA CUEVA
34	36.371	106.058	EAST SPRING IN BOX CANYON OF CANADA DE LA CUEVA
35	36.371	106.058	WEST SPRING IN BOX CANYON OF CANADA DE LA CUEVA
36	36.369	106.057	SPRING APPROX 1/2 KM UPSTREAM FROM HWY 111 IN CANADA DE LA CUEVA
37	36.367	106.051	CANADA DE LA CUEVA JUST UPSTREAM FROM HWY 111
*38	36.367	106.050	UPPER HOT SPRING (POOL) 2 KM S. OF LA MADERA
39	36.368	106.049	LOWER HOT SPRING (WINE BREWERY) 2 KM S. OF LA MADERA
*40	36.416	106.017	SERVIELLETA PLAZA ROAD CROSSING OF CANON DE LA PALOMA
*41	36.454	106.042	WELL NEAR TRIPLE E MINE
*42	36.306	106.053	OJO CALIENTE "AS" HOT SPRING
*43	36.306	106.053	OJO CALIENTE "FE" HOT SPRING
*44	36.306	106.053	OJO CALIENTE "NA" HOT SPRING
*45	36.306	106.053	OJO CALIENTE "NA PHOSPHATE" HOT SPRING
*46	36.306	106.053	OJO CALIENTE "LI" HOT SPRING
47	36.519	106.041	POND ABOVE PETACA TO S. OF CANADA DE LA JARITA
48	36.538	106.058	CANADA DE LA JARITA 100 YDS BELOW SPRING DUE S. OF BIG ROCK
49	36.587	106.461	KIAWA LAKE
50	36.557	106.081	ALICE SPRING SOUTH OF POSOS LAKE
51	36.584	106.050	TUSAS RIVER APPROX 5 KM ABOVE LAS TABLAS
52	36.610	106.024	CATTLE POND NEAR SAWMILL CREEK
53	36.641	106.193	ROCK CREEK ABOVE EL VALLECITO RANCH
*54	36.379	106.061	STATUE SPRINGS
55	36.574	106.153	ROAD CROSSING, CANADA DEL OSO
56	36.592	106.161	RITITO CANYON, W. TRIBUTARY ABOVE JCT
57	36.591	106.160	RITITO CANYON, E. TRIBUTARY ABOVE JCT
58	36.390	106.032	SEEP 0.8 KM EAST OF LA MADERA
59	36.383	106.033	SEEP 0.3 KM N.E. JCT OF TUSAS AND OJO CALIENTE RIVERS

*Water sample collected but no sediment.

**32A red precipitate, 32B stream sediment; water sample collected at this site also.

The data in the companion report on water in the Ojo Caliente area (Wenrich-Verbeek and Suits, 1979) is a demonstration that analysis of water of a drainage basin can identify areas of anomalous U, whereas the data in this report is a demonstration that analysis of the corresponding stream sediment may not.

GEOLOGIC BACKGROUND

The pegmatites of the Petaca mining district in northern New Mexico have been sources of commercial mica since the 17th century (Jahns, 1946), but it wasn't until 1930 that their U occurrences were first reported. The rocks in the Petaca-Ojo Caliente area are predominantly Precambrian quartzite and quartz-mica schist with lesser amounts of Precambrian amphibole schist, meta-rhyolite, and a medium-grained granite. These units are transected by pegmatite bodies and quartz-fluorite veins containing sparsely disseminated crystals of U minerals, notably samarskite. More than 200 pegmatites are present in the district, 69 of which contain accessory minerals. Of these 69, 40 contain samarskite and less than 5% include other U minerals such as uraninite and uranophane (Jahns, 1946). Samples of a radioactive vitreous black mineral taken from the Fridlund deposit by the authors were found to be metamict euxinite. To the knowledge of the authors, euxinite has not been reported before in the Petaca mining district. Monazite is present in over 80% of the accessory-mineral-bearing pegmatites and although the content has not been completely determined, it appears to be less than 1% in most monazites. The Precambrian meta-rhyolite locally contains fluorite occurrences, several of which have been staked as claims. Neither the fluorite, mica, nor U is presently being mined in this area. U-bearing resistate minerals such as

samarskite and monazite are not generally amenable to commercial U milling circuits in the U.S.

No Paleozoic or Mesozoic rocks are exposed in the area above La Madera although the Tertiary Carson Conglomerate of Just (1937), and Tertiary and Quaternary Santa Fe Group are present. Quaternary basalt caps many of the mesas and Quaternary alluvium forms flat valley bottoms along some stretches of the Tusas and Vallecitos Rivers.

Numerous thermal springs occur in this region of New Mexico. Some of them have been studied by Summers (1976, p. 24-38) who reported a few Rn-222 determinations ranging from 820 to 9400 pCi/ℓ, but no U. U concentrations are frequently low in springs of high Ra, the direct parent of Rn, but because of the different solubilities of Ra, Rn and U, and the loss of Rn as a gas, the range of U content in the hot springs of the Ojo Caliente area cannot be inferred from Summers' Rn data.

SAMPLING PROCEDURES

Sampling sites were chosen to represent the entire drainage of the Ojo Caliente area. The sampling in 1976 and 1977 concentrated on pinpointing the source of anomalous U in the Rio Ojo Caliente discovered during 1975. Samples were taken of each tributary and the main channel just upstream from the junction (far enough so that past flooding of the main channel would not have affected the stream sediment of the tributary). Figure 1 shows, and table 1 describes, the locations where water samples were collected; stream-sediment samples (listed with a *) were also collected at sites where available.

The stream-sediment samples represent composites of the top one or two centimeters of the bottom sediment collected along a zig-zag traverse upstream.

Selection of the fine material, silt- to clay-sized particles, from pools and the inside of meander bends was emphasized. The importance in geochemical exploration for U of the fine size-fraction sediment is discussed in Wenrich-Verbeek (1976) and is verified by the results of this study. Samples were collected in polyethylene plastic bags rather than cloth bags so that no fine sediment would be lost and no contamination during transport would occur.

CHEMICAL ANALYSES

Sediment samples were prepared before analysis by drying them in an oven at less than 100^{o} F; they were then passed through solderless stainless-steel sieves into three size fractions: (1) < 88 μm, (2) between 88 and 149 μm, and (3) > 149 μm. The > 149 μm fraction was discarded. The two finer size fractions were then submitted separately to the U.S. Geological Survey (USGS) analytical laboratories for analysis of the elements listed in table 2. Ten percent of the stream-sediment samples were divided by a sample splitter into two portions; both of these were submitted as separate samples in order to measure the analytical precision of laboratory results. All samples (including replicate samples) were randomly renumbered to insure that the replicate samples and the two size fractions for one location were treated without a prejudiced association by the chemical analyst.

PRESENTATION OF CHEMICAL DATA

Stream-sediment chemical analyses are listed in table 3; the units are in either ppm or percent and are indicated in the column header. Numerous abbreviations are used in the column headers because of space limitations;

Table 2.--Abbreviations, analytical procedures and detection limits for parameters presented in 1976 and 1977 studies

ABBREV	EXPLANATION	UNITS OR CODE	DETECTION LIMIT 1976 study	DETECTION LIMIT 1977 study	ANALYTICAL PROCEDURE
Latt	Latitude of sample location	degrees			
Long	Longitude of sample location	degrees			
Minutes	Minutes of latitude or longitude	decimal degrees			
SizeFrac	Size fraction of sediment analyzed	8: 88μm-149μm 9: <88μm			Sieved in laboratory with stainless-steel sieves
U ppm N	Parts uranium (U) per million	ppm	0.3	0.3	Delayed neutron analysis
**U ppm S	Parts uranium (U) per million	ppm	320	320	Emission spectrographic analysis
TH ppm N	Parts thorium (Th) per million	ppm	†		Delayed neutron analysis
**TH ppm S	Parts thorium (Th) per million	ppm	22	22	Emission spectrographic analysis
TH / U	Thorium to uranium ratio	--	--		Calculated from U, Th delayed neutron values
Coef %TH	Thorium coefficient of variation	%	--		Calculated from Th delayed neutron values
Coef %U	Uranium coefficient of variation	%	--		Calculated from U delayed neutron values
AG ppm S	Parts silver (Ag) per million	ppm	0.1	0.1	Emission spectrographic analysis
AL % S	Percent aluminum (Al)	%	.0318	.0318	Emission spectrographic analysis
AL203 %	Percent aluminum oxide (Al_2O_3)	%	.02	.02	X-ray spectroscopy
AS ppm A	Parts arsenic (As) per million	ppm	0.1	0.1	Atomic absorption - graphite furnace
**AS ppm S	Parts arsenic (As) per million	ppm	150	150	Emission spectrographic analysis
**AU ppm S	Parts gold (Au) per million	ppm	10	10	Emission spectrographic analysis
B ppm S	Parts boron (B) per million	ppm	4.6*	3.2*	Emission spectrographic analysis
BA ppm S	Parts barium (Ba) per million	ppm	2.2	3.2	Emission spectrographic analysis
BE ppm S	Parts beryllium (Be) per million	ppm	1.0	.68	Emission spectrographic analysis
**BI ppm S	Parts bismuth (Bi) per million	ppm	15	22	Emission spectrographic analysis
Total C%	Percent total carbon (C)	%	.01	.01	Combustion-thermal-conductivity detection
Inorg C%	Percent inorganic carbon (C)	%	.01	.01	Gasometric determination
Org C %	Percent organic carbon (C)	%	--		Calculated from total C and inorganic C
CA % S	Percent calcium (Ca)	%	.0015	.0015	Emission spectrographic analysis
CAO %	Percent CaO	%	.0028	.0028	X-ray spectroscopy
**CD ppm S	Parts cadmium (Cd) per million	ppm	32	32	Emission spectrographic analysis
CE ppm S	Parts cerium (Ce) per million	ppm	43*	29*	Emission spectrographic analysis
CO ppm S	Parts cobalt (Co) per million	ppm	1.0	1.0	Emission spectrographic analysis
CR ppm S	Parts chromium (Cr) per million	ppm	1.0	1.0	Emission spectrographic analysis
CU ppm S	Parts copper (Cu) per million	ppm	1.5	2.2	Emission spectrographic analysis
**DY ppm S	Parts dysprosium (Dy) per million	ppm	22	32	Emission spectrographic analysis
**ER ppm S	Parts erbium (Er) per million	ppm	10	10	Emission spectrographic analysis
EU ppm S	Parts europium (Eu) per million	ppm	1.5	1.5	Emission spectrographic analysis
FE % S	Percent iron (Fe)	%	.0056	.0171	Emission spectrographic analysis
FE203 %	Percent ferric oxide (Fe_2O_3)	%	.0027	.0027	Emission spectrographic analysis
GA ppm S	Parts gallium (Ga) per million	ppm	1.5	2.2	Emission spectrographic analysis
**GD ppm S	Parts gadolinium (Gd) per million	ppm	15	6.8	Emission spectrographic analysis
**GE ppm S	Parts germanium (Ge) per million	ppm	1.5	4.6	Emission spectrographic analysis
**HF ppm S	Parts hafnium (Hf) per million	ppm	15*	100*	Emission spectrographic analysis
**HO ppm S	Parts holmium (Ho) per million	ppm	6.8*	6.8*	Emission spectrographic analysis
**IN ppm S	Parts indium (In) per million	ppm	6.8	6.8	Emission spectrographic analysis

*Detection limit may vary due to interferences.

**All analytical results are below detection limit; element is not discussed further in this report.

†Limit of analytical technique based on Th/U ratio in each case. A high ratio (>5) indicates useful Th values; Th data is ignored for low ratios (<1).

Table 2, continued

ABBREV	EXPLANATION	UNITS OR CODE	DETECTION LIMIT 1976 study	DETECTION LIMIT 1977 study	ANALYTICAL PROCEDURE
K % S	Percent potassium (K)	%	.068	.068	Emission spectrographic analysis
K2O %	Percent K_2O	%	.001	.001	Emission spectrographic analysis
LA ppm S	Parts lanthanum (La) per million	ppm	10	10	Emission spectrographic analysis
**LI ppm S	Parts lithium (Li) per million	ppm	68	68	Emission spectrographic analysis
**LU ppm S	Parts lutetium (Lu) per million	ppm	22	22	Emission spectrographic analysis
MG % S	Percent magnesium (Mg)	%	.0022	.0031	Emission spectrographic analysis
MGO %	Percent magnesium oxide (MgO)	%	.0205	.0205	X-ray spectroscopy
MN ppm S	Parts manganese (Mn) per million	ppm	1.0	4.6	Emission spectrographic analysis
MNO %	Percent manganese oxide (MnO)	%	.001	.001	X-ray spectroscopy
**MO ppm S	Parts molybdenum (Mo) per million	ppm	2.2	2.2	Emission spectrographic analysis
NA % S	Percent sodium (Na)	%	.0047	.0068	Emission spectrographic analysis
NA2O %	Percent sodium oxide (Na_2O)	%	.0639	.0639	X-ray spectroscopy
NB ppm S	Parts niobium (Nb) per million	ppm	3.2	3.2	Emission spectrographic analysis
ND ppm S	Parts neodymium (Nd) per million	ppm	46	46	Emission spectrographic analysis
NI ppm S	Parts nickel (Ni) per million	ppm	1.5	4.6	Emission spectrographic analysis
P % S	Percent phosphorous (P)	%	.068	.072	Emission spectrographic analysis
P2O5 %	Percent P_2O_5	%	.005	.005	X-ray spectroscopy
PB ppm S	Parts lead (Pb) per million	ppm	10	10	Emission spectrographic analysis
**PD ppm S	Parts palladium (Pd) per million	ppm	1.5	1.5	Emission spectrographic analysis
**PR ppm S	Parts praseodymium (Pr) per million	ppm	68	68	Emission spectrographic analysis
**PT ppm S	Parts platinum (Pt) per million	ppm	6.8	6.8	Emission spectrographic analysis
**RE ppm S	Parts rhenium (Re) per million	ppm	10	10	Emission spectrographic analysis
**RH ppm S	Parts rhodium (Rh) per million	ppm	1.0	1.0	Emission spectrographic analysis
**SB ppm S	Parts antimony (Sb) per million	ppm	46	100	Emission spectrographic analysis
SC ppm S	Parts scandium (Sc) per million	ppm	1.0	1.0	Emission spectrographic analysis
SE ppm X	Parts selenium (Se) per million	ppm	0.1	0.1	X-ray fluorescence
SI % S	Percent silicon (Si)	%	.0046	.0022	Emission spectrographic analysis
SIO2 %	Percent silica (SiO_2)	%	.0124	.0124	Emission spectrographic analysis
**SM ppm S	Parts samarium (Sm) per million	ppm	22	46	Emission spectrographic analysis
SN ppm S	Parts tin (Sn) per million	ppm	1.5	6.8	Emission spectrographic analysis
SR ppm S	Parts strontium (Sr) per million	ppm	1.0	1.0	Emission spectrographic analysis
**TA ppm S	Parts tantalum (Ta) per million	ppm	460	320	Emission spectrographic analysis
**TB ppm S	Parts terbium (Tb) per million	ppm	32	32	Emission spectrographic analysis
**TE ppm S	Parts tellurium (Te) per million	ppm	2000	2000	Emission spectrographic analysis
TI % S	Percent titanium (Ti)	%	.0066	.0066	Emission spectrographic analysis
TIO2 %	Percent titanium oxide (TiO_2)	%	.0023	.0023	X-ray spectroscopy
**TL ppm S	Parts thallium (Tl) per million	ppm	3.2	10	Emission spectrographic analysis
**TM ppm S	Parts thulium (Tm) per million	ppm	4.6	4.6	Emission spectrographic analysis
V ppm S	Parts vanadium (V) per million	ppm	1.0	3.2	Emission spectrographic analysis
**W ppm S	Parts tungsten (W) per million	ppm	10	10	Emission spectrographic analysis
Y ppm S	Parts yttrium (Y) per million	ppm	1.5	1.5	Emission spectrographic analysis
YB ppm S	Parts ytterbium (Yb) per million	ppm	0.15	0.10	Emission spectrographic analysis
ZN ppm A	Parts zinc (Zn) per million	ppm	.05	.05	Atomic absorption - oxydizing flame
ZN ppm S	Parts zinc (Zn) per million	ppm	10	22	Emission spectrographic analysis
ZR ppm S	Parts zirconium (Zr) per million	ppm	4.6	4.6	Emission spectrographic analysis

these are listed in table 2. All element symbols appear as capital letters owing to computer limitations. In most cases, the method of analysis is indicated by one of the following one-letter codes in the column header:

N Delayed neutron analysis

S Emission spectrographic analysis

A Atomic absorption

X X-ray fluorescence

Where no code appears, refer to table 2 for a description of the method used.

The eight-unit sample identification number indicates the sample locality, size fraction of the sediment sample and the date collected. The first two digits describe the sample location number. Table 1 lists the sites by location number. Samples in table 3 are further described by the third and fourth digits which refer to the size fraction of the sediment sample: 02 designates the 88-149 μm fraction (170-100 mesh); 03 the < 88 μm fraction (< 170 mesh). An "R" appearing in the third digit indicates that the sample is a replicate of the previous sample. The last four digits of the sample number identify the month and year of field collection.

Some values in table 3 are associated with the letter code "N". N indicates that no amount of the element was detected (no spectrographic line was visible) at the lower limit of laboratory detection, as opposed to "<" which indicates that the element was detected (a spectrographic line was present), but at a value less than the detection limit.

All Ojo Caliente analytical results for the elements listed with a ** in table 2 are below the corresponding detection limit; the data for these

elements are not listed in table 3 and are not discussed any further in this report.

Figures 2-1 through 2-18 are locality maps for stream-sediment samples and show data for those elements which have a significant variation through the drainage basin or are of special interest. Because of the log-normal distribution of most geochemical data, the data are divided by semi-logarithmic intervals. Legends on each map explain the intervals used. The values plotted for each locality are for the finest size fraction (< 88 μm) analyzed for that site since the detected amount of most elements is greater in the finer fraction. Where the coarser fraction has a value significantly greater than the corresponding fine fraction value, the location symbol is hachured and the reader is referred to table 3.

Where sample collection location was duplicated between the 1976 and 1977 studies (samples #5 and #15), the 1977 data were plotted and the 1976 data were not. Samples along Cañada de la Cueva, because of their close spacing, have been plotted on an enlarged blow-up of the area. Although samples 32A and 32B were collected at the same site along Cañada de la Cueva, 32A a red precipitate and 32B the bottom sediment, their values are shown side by side, 32B at the correct map locality and 32A adjacent to it.

STATISTICAL ANALYSIS

Stream sediments were collected at sample sites #5 and #15 in both 1976 and 1977. Only the data obtained from the 1977 study were used in the statistical analyses so as not to weight the results towards these certain sites. Also, where two methods of analysis are reported for the same element (e.g. Zn), the values from the more reliable method were used.

Qualified data (such as greater or less than a certain value or not detected) or samples where analysis for certain elements was never performed appear in the analytical results (table 3) and are tallied in the frequency distribution diagrams (table 4). They are coded in table 4 as follows:

N Not detected at lower limit

L Detected, but less than lower detection limit

T Trace amount present

G Greater than upper detection limit

H No data because of analytical interference

B No analysis performed

The most common qualified data are those associated with N and L, which actually represents an interval within which the "true" value falls. For instance, a concentration of a certain element which appears as L 10 (less than a detection limit of 10 units) actually represents the range of values from >0 to 10. Since statistical analyses cannot be performed on a range of values, there are two courses of action:

(1) A value within the qualified range may be assigned to each qualified value (e.g., for every L 10 appearing in the chemical analyses the value of 7 may be assigned). The philosophy behind replacement of qualified values is to preserve the lower end of the frequency distribution, which otherwise becomes truncated.

(2) All qualified data may be omitted from the data matrix (i.e., the sample is treated as though analyses for the element were never performed).

The authors have used the second option in this report rather than the first for fear that by assigning one number to a range of values (Method #1) the natural spread of data is reduced and biased statistics may result. The shape of the frequency curve acquires a peak at the assigned value using Method #1 and thus a normal distribution would be distrubed. However, there appears to be no significant difference in the correlation coefficients between the two methods for the Ojo Caliente data tested by the authors. The most significant difference in the correlation coefficients between the two methods occurs when greater than forty percent of the data are qualified; the spread of data is decreased when the qualified data are omitted (Method #2), and a correlation coefficient cannot be properly determined in this case. Thus, if more than forty percent of the data were qualified for a specific element, that element was eliminated from the statistical analysis.

Frequency distributions: Histograms of the frequency distributions for the various parameters determined in the stream sediments are illustrated in table 4. This table also shows the mean, standard deviation and variance which should be useful in the data interpretation of anomalous values. Like most geochemical data, the distribution of all parameters in stream sediments except Eu, K_2O, Nd and SiO_2 are more log-normally distributed than normally distributed (easily determined by visual comparison of the histograms), so that their log distributions (shown with a prefix of L- beside the element symbol) have been used in the statistical analysis. However, geochemical distributions are seldom as normal as one would hope; some skewness and truncation of the distribution curves is to be expected. Note that even though

the element data for Eu and Nd and the log of the element data for As (by atomic absorption) and inorganic C were chosen as the most normal distributions for these elements, they still have poor normal distribution and any following statistical analyses involving them may not be entirely conclusive.

Correlation coefficients: Table 6 shows a correlation matrix of all elements determined in sediments. The number of pairs used to determined the correlation for each two elements is listed in parentheses next to the respective correlation coefficient. Generally the log data, but occasionally the untransformed data if normally distributed, were used in calculating the correlation matrix.

Correlation coefficients must be interpreted very carefully. First, the scatter diagrams should be checked to make sure that one or two extreme samples are not forcing a significant correlation, in that the extreme value minimizes the spread in the remaining data. Then, geochemical controls must be considered; for example, the data should be scanned to make sure that a correlation between two metals is not due to a high organic content adsorbing both elements, rather than a true correlation between those elements.

Scatter diagrams: Scatter diagrams were plotted for the various parameters against U concentration, utilizing a Fortran program written by Jennie L. Ridgley (USGS). The scatter diagrams for sediments are shown in figures 3-1 through 3-37. On all scatter diagrams the element concentrations are plotted on the ordinate against U on the abscissa, and on a log-log scale.

The correlation coefficient, r, appears on each diagram along with the number of data pairs (n). Unless otherwise noted, correlation coefficients

were calculated from the log values of both data sets. If the correlation coefficient between U and another parameter is significant, the linear regression line was plotted on the diagram. Significance of correlation at the 99% confidence level is indicated by ** on the diagram next to the value of r and significance at the 95% confidence level is indicated by * next to the value of r.

Analysis of analytical precision: An analysis of the variance between samples as compared to the variation in analytical results for those elements showing significant variation throughout the drainage basin is shown in table 5. The variation between samples appears in table 5 as the variance component associated with level 1 and depicted as a percentage of total variance by the first of these two numbers shown. The analytical differences between the replicate samples and their original couterparts is represented numerically by the variance component associated with level 2 and as a percentage by the second of the two percentage components. An asterisk appearing under the significance column indicates that the variation seen in the data is significantly related to geological variation at the 95% confidence level and is not overwritten by analytical error.

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Table 3.--Chemical analysis of stream-sediment samples, Rio Ojo Caliente drainage basin, New Mexico

"<" indicates presence of element in sample but amount is below adjacent lower detection limit.
"N" indicates element not detected at adjacent lower detection limit.
"--" indicates no analysis performed.

Sample	Latt	Minutes	Long	Minutes	SizeFrac	U ppm	N	TH ppm	N	TH / U	Coef %TH	Coef %U
					1976 Samples							
02020576	36	.364	106	.047	8	4.1		--		.93*	30	3
02030576	36	.364	106	.047	9	11.0		17.0		1.57	11	2
02R30576	36	.364	106	.047	9	11.0		12.0		1.02	16	2
03020576	36	.364	106	.046	8	2.4		5.5		2.30	18	4
03030576	36	.364	106	.046	9	5.1		10.0		1.94	14	3
04020576	36	.383	106	.037	8	2.3		4.0		1.74	24	5
04030576	36	.383	106	.037	9	4.4		10.0		2.36	13	3
05020576	36	.383	106	.356	8	2.0		5.7		2.78	18	5
05030576	36	.383	106	.356	9	3.9		10.0		2.56	12	3
06020576	36	.410	106	.015	8	2.2		5.4		2.40	23	6
06030576	36	.410	106	.015	9	2.9		9.0		3.16	14	5
07020576	36	.388	106	.006	8	2.0		6.9		3.36	23	8
07R20576	36	.388	106	.006	8	1.6		4.1		2.53	22	6
07030576	36	.388	106	.006	9	1.8		8.5		4.70	17	8
08020576	36	.388	106	.015	8	1.6		2.9		1.75	31	6
08030576	36	.388	106	.015	9	4.3		8.3		1.93	17	3
09020576	36	.434	105	.978	8	2.5		5.9		2.34	19	5
09030576	36	.434	105	.978	9	3.8		9.0		2.36	15	4
10020576	36	.480	106	.001	8	2.8		7.2		2.59	17	5
10030576	36	.480	106	.001	9	3.8		10.0		2.69	13	4
11020576	36	.497	106	.010	8	3.0		8.2		2.73	15	4
11030576	36	.497	106	.010	9	3.8		9.1		2.40	14	4
12020576	36	.522	106	.027	8	5.2		9.1		1.77	15	3
12030576	36	.522	106	.027	9	6.2		14.0		2.30	12	3
12R30576	36	.522	106	.027	9	6.2		13.0		2.14	12	3
13020576	36	.523	106	.011	8	2.4		6.0		2.54	18	5
13030576	36	.523	106	.011	9	4.0		14.0		3.39	10	3
14020576	36	.538	106	.028	8	3.2		8.7		2.74	13	4
14030576	36	.538	106	.028	9	5.0		15.0		2.95	10	3
15020576	36	.350	106	.044	8	4.6		9.3		2.03	12	3
15030576	36	.350	106	.044	9	9.6		23.0		2.36	8	2
16020576	36	.612	106	.114	8	4.2		11.0		2.62	15	4
16030576	36	.612	106	.114	9	3.9		9.6		2.43	16	4
17020576	36	.614	106	.107	8	2.8		9.2		3.34	13	5
17R20576	36	.614	106	.107	8	3.0		4.6		1.52	26	4
17030576	36	.614	106	.107	9	3.7		4.2		1.14	34	4
18020576	36	.644	106	.059	8	2.6		8.1		3.05	15	5
18030576	36	.644	106	.059	9	3.8		10.0		2.69	12	3
19020576	36	.687	106	.120	8	2.4		6.9		2.89	17	5
19030576	36	.687	106	.120	9	3.8		10.0		2.65	13	4

*Th values cannot be determined when Th/U ratios are less than 1.

Table 3, continued

Sample	Latt	Minutes	Long	Minutes	SizeFrac	U ppm N	TH ppm N	TH / U	Coef %TH	Coef %U
20020576	36	.720	106	.156	8	3.4	8.1	2.42	18	5
20030576	36	.720	106	.156	9	3.9	9.5	2.42	15	4
21020576	36	.720	106	.157	8	3.0	7.2	2.39	16	4
21030576	36	.720	106	.157	9	3.9	11.0	2.96	12	4
22020576	36	.436	106	.063	8	2.6	5.2	1.97	20	4
22030576	36	.436	106	.063	9	5.7	14.0	2.39	11	3
22R30576	36	.436	106	.063	9	6.2	12.0	2.02	12	3
23020576	36	.495	106	.112	8	2.5	6.8	2.69	18	5
23030576	36	.495	106	.112	9	4.3	9.0	2.08	15	3
24020576	36	.495	106	.112	8	2.6	6.7	2.62	16	4
24030576	36	.495	106	.112	9	4.1	10.0	2.44	13	3
25020576	36	.592	106	.184	8	2.6	7.8	3.00	14	4
25030576	36	.592	106	.184	9	4.0	12.0	2.98	11	3
26020576	36	.591	106	.168	8	7.5	--	.89*	37	4
26030576	36	.591	106	.168	9	6.0	8.8	1.47	23	4
27020576	36	.546	106	.169	8	3.9	7.0	1.80	20	4
27030576	36	.546	106	.169	9	4.7	7.6	1.60	20	3
28020576	36	.546	106	.171	8	3.2	9.7	3.04	15	5
28R20576	36	.546	106	.171	8	3.3	4.7	1.42	30	5
28030576	36	.546	106	.171	9	4.8	12.0	2.45	13	3
29020576	36	.537	106	.148	8	2.0	6.0	3.06	15	5
29030576	36	.537	106	.148	9	5.1	9.9	1.92	13	3
					1977 Samples					
01020577	36	.366	106	.049	8	4.6	--	.76*	35	3
01030577	36	.366	106	.049	9	22.0	--	--	--	1
05020577	36	.383	106	.356	8	3.6	7.1	1.97	18	4
05030577	36	.383	106	.356	9	7.1	13.0	1.85	14	3
15020577	36	.350	106	.044	8	1.5	3.8	2.54	25	6
15030577	36	.350	106	.044	9	4.9	11.0	2.20	13	3
30020577	36	.364	106	.042	8	6.5	--	.62*	57	4
30030577	36	.364	106	.042	9	6.9	7.0	1.01	26	3
32A20577	36	.371	106	.059	8	3.1	1.0	.33	99	5
32A30577	36	.371	106	.059	9	9.8	--	--	50	4
32B20577	36	.371	106	.059	8	2.4	--	.96*	45	5
32R20577	36	.371	106	.059	8	2.3	2.8	1.21	38	6
32B30577	36	.371	106	.059	9	7.9	8.1	1.03	26	3
33020577	36	.370	106	.058	8	1.8	3.8	2.18	22	6
33030577	36	.370	106	.058	9	5.6	10.0	1.84	17	4

*Th values cannot be determined when Th/U ratios are less than 1.

Table 3, continued

Sample	Latt	Minutes	Long	Minutes	SizeFrac	U ppm N	TH ppm N	TH / U	Coef %TH	Coef %U
34020577	36	.371	106	.058	8	10.0	--	--	50	2
34030577	36	.371	106	.058	9	20.0	--	--	50	3
35020577	36	.371	106	.058	8	2.8	3.3	1.17	31	4
35030577	36	.371	106	.058	9	11.0	14.0	1.28	13	2
36020577	36	.369	106	.057	8	3.0	4.8	1.59	21	4
36030577	36	.369	106	.057	9	12.0	14.0	1.12	16	2
37020577	36	.367	106	.051	8	8.6	--	.23*	77	2
37030577	36	.367	106	.051	9	22.0	--	.21*	57	1
39020577	36	.368	106	.049	8	5.0	--	--	--	3
39030577	36	.368	106	.049	9	20.0	--	--	--	1
47020577	36	.519	106	.041	8	3.4	12.0	3.43	11	4
47R20577	36	.519	106	.041	8	3.2	12.0	3.63	13	5
47030577	36	.519	106	.041	9	4.1	15.0	3.76	10	4
47R30577	36	.519	106	.041	9	4.3	12.0	2.72	13	4
48020577	36	.538	106	.058	8	7.3	15.0	2.10	10	2
48030577	36	.538	106	.058	9	12.0	29.0	2.38	8	2
49020577	36	.587	106	.461	8	2.4	7.8	3.22	16	6
49030577	36	.587	106	.461	9	3.8	8.9	2.33	14	4
50020577	36	.557	106	.081	8	13.0	--	--	--	2
50030577	36	.557	106	.081	9	12.0	15.0	1.30	14	2
51020577	36	.584	106	.050	8	3.4	7.1	2.08	18	4
51030577	36	.584	106	.050	9	4.7	12.0	2.61	12	4
52020577	36	.610	106	.024	8	3.5	10.0	2.87	14	5
52030577	36	.610	106	.024	9	3.9	13.0	3.30	12	5
53020577	36	.641	106	.193	8	5.2	6.6	1.26	27	4
53030577	36	.641	106	.193	9	4.4	10.0	2.37	16	4
55020577	36	.574	106	.153	8	1.8	6.1	3.43	17	7
55030577	36	.574	106	.153	9	3.2	7.8	2.42	16	5
55R30577	36	.574	106	.153	9	3.3	9.1	2.76	15	5
56020577	36	.592	106	.161	8	3.1	7.2	2.31	17	5
56030577	36	.592	106	.161	9	3.7	12.0	3.12	11	4
56R30577	36	.592	106	.161	9	4.0	13.0	3.25	10	4
57020577	36	.591	106	.160	8	3.8	5.7	1.49	23	4
57030577	36	.591	106	.160	9	5.4	10.0	1.90	14	3
58020577	36	.390	106	.032	8	8.4	13.0	1.56	13	2
58030577	36	.390	106	.032	9	14.0	--	--	--	2
59020577	36	.383	106	.033	8	63.0	--	--	50	1
59030577	36	.383	106	.033	9	40.0	--	--	--	1

*Th values cannot be determined when Th/U ratios are less than 1.

Table 3, continued

Sample	AG ppm S	AL % S	AL203 %	AS ppm A	B ppm S	BA ppm S	BE ppm S	Total C%	Inorg C%	Org C %
				1976 Samples						
02020576	<.10	3.80	6.41	4.5	31.0	720	4.6	.26	.12	.14
02030576	<.10	4.00	8.80	10.0	28.0	680	6.0	.96	.34	.62
02R30576	N .10	3.50	8.79	1.4	28.0	760	6.0	.94	.34	.60
03020576	<.10	3.70	7.74	3.2	9.8	580	1.5	.21	.07	.14
03030576	<.10	4.50	10.42	7.5	21.0	570	2.4	.74	<.01	.74
04020576	<.10	3.90	7.78	4.0	8.5	530	1.6	.53	<.01	.53
04030576	<.10	6.10	10.80	10.0	41.0	620	2.2	.82	.07	.75
05020576	<.10	5.20	9.98	2.3	12.0	860	2.1	.62	.21	.41
05030576	<.10	3.40	11.98	3.1	12.0	530	2.5	1.03	.11	.92
06020576	<.10	4.50	12.03	2.9	12.0	610	3.1	1.00	.14	.86
06030576	<.10	5.90	11.97	4.2	23.0	980	2.9	1.35	.28	1.07
07020576	<.10	4.00	11.36	5.0	16.0	530	3.0	--	--	--
07R20576	<.10	4.90	8.72	12.0	15.0	780	1.3	.48	.13	.35
07030576	<.10	3.70	11.62	6.0	20.0	500	2.7	3.66	2.19	1.47
08020576	<.10	4.90	8.87	1.5	11.0	790	1.8	.27	.07	.20
08030576	<.10	4.50	10.87	2.5	16.0	650	1.7	.91	<.01	.91
09020576	<.10	4.70	10.83	2.5	7.5	730	1.7	.93	<.01	.93
09030576	<.10	4.50	11.62	3.0	15.0	580	1.9	1.30	.07	1.23
10020576	<.10	7.60	12.41	2.8	6.5	790	3.5	.74	<.01	.74
10030576	<.10	5.60	12.25	4.5	13.0	580	2.6	1.01	.07	.94
11020576	<.10	6.10	11.94	2.5	<4.6	650	2.9	1.03	.13	.90
11030576	<.10	5.70	12.00	3.1	12.0	700	1.8	1.19	<.01	1.19
12020576	<.10	5.60	11.71	7.5	<4.6	390	4.2	.49	<.01	.49
12030576	<.10	4.90	12.18	9.0	12.0	400	3.0	.74	<.01	.74
12R30576	<.10	5.10	12.07	8.0	7.7	380	2.7	.78	<.01	.78
13020576	<.10	5.00	10.53	2.1	<4.6	640	1.7	.62	<.01	.62
13030576	<.10	5.90	11.53	3.5	23.0	660	2.1	.91	.07	.84
14020576	<.10	4.80	11.08	5.0	<10.0	500	1.9	.72	<.01	.72
14030576	<.10	4.80	11.59	4.2	23.0	540	2.0	1.82	.07	1.75
15020576	.32	2.50	5.25	9.5	18.0	500	1.7	.13	.06	.07
15030576	.33	3.70	8.79	6.5	21.0	680	2.5	--	--	--
16020576	<.10	5.50	14.71	7.5	15.0	620	2.9	1.80	.07	1.73
16030576	<.10	6.00	13.37	8.5	18.0	620	4.0	1.41	<.01	1.41
17020576	<.10	5.40	12.45	5.5	7.9	390	2.2	2.46	<.01	2.46
17R20576	<.10	3.90	12.46	5.5	<4.6	350	1.9	2.39	<.01	2.39
17030576	<.10	5.20	12.56	6.0	17.0	460	2.2	2.69	.07	2.62
18020576	<.10	5.80	12.36	2.0	8.4	680	2.2	1.49	<.01	1.49
18030576	<.10	6.00	12.30	2.8	16.0	670	1.9	1.60	<.01	1.60
19020576	N .10	7.40	13.88	2.0	9.2	780	2.0	.96	<.01	.96
19030576	<.10	4.70	12.58	2.6	13.0	590	1.9	1.26	<.01	1.26

Table 3, continued

Sample	AG ppm S	AL % S	AL203 %	AS ppm A	B ppm S	BA ppm S	BE ppm S	Total C%	Inorg C%	Org C %
20020576	<.10	5.80	13.62	3.0	8.4	720	2.0	2.40	.07	2.33
20030576	<.10	4.40	12.63	2.5	15.0	600	1.8	1.91	<.01	1.91
21020576	<.10	6.70	13.84	2.0	<4.6	830	1.8	1.47	<.01	1.47
21030576	<.10	4.50	12.56	2.4	16.0	590	1.8	1.34	<.01	1.34
22020576	<.10	4.30	7.91	8.0	16.0	380	1.6	.32	<.01	.32
22030576	<.10	4.90	10.99	19.0	15.0	540	2.1	.77	<.01	.77
22R30576	<.10	4.50	11.09	22.0	9.7	490	2.1	.98	<.01	.98
23020576	<.10	3.90	9.29	2.3	9.2	620	1.5	1.63	.07	1.56
23030576	<.10	5.20	9.37	2.9	38.0	730	1.8	1.50	<.01	1.50
24020576	<.10	4.60	10.85	3.0	6.7	620	1.8	.79	<.01	.79
24030576	<.10	5.10	10.85	3.5	16.0	590	2.0	1.16	<.01	1.16
25020576	<.10	5.30	11.84	2.4	11.0	730	2.1	.75	.07	.68
25030576	<.10	5.20	11.25	2.9	17.0	730	1.8	1.24	<.01	1.24
26020576	<.10	2.20	10.66	10.0	10.0	510	2.5	7.08	<.01	7.08
26030576	<.10	4.60	10.25	7.5	22.0	650	2.5	4.56	<.01	4.56
27020576	<.10	4.30	10.39	2.8	8.7	470	1.9	3.54	<.01	3.54
27030576	<.10	5.40	10.81	4.5	29.0	530	2.2	2.33	<.01	2.33
28020576	<.10	4.70	11.47	3.0	8.3	550	1.8	1.38	<.01	1.38
28R20576	<.10	4.60	11.44	3.2	11.0	560	1.9	1.86	<.01	1.86
28030576	<.10	4.40	11.81	5.5	16.0	540	2.1	2.70	.07	2.63
29020576	<.10	4.20	9.09	2.3	18.0	470	1.6	.29	<.01	.29
29030576	<.10	4.60	9.23	4.0	25.0	530	1.9	.51	<.01	.51
				1977 Samples						
01020577	.15	4.50	5.74	45.0	11.0	540	2.3	.16	<.01	.16
01030577	.20	6.30	8.02	115.0	42.0	590	8.5	.78	<.01	.78
05020577	<.10	5.10	8.90	8.5	7.5	420	2.3	.54	.48	.06
05030577	<.10	6.10	10.53	9.5	23.0	600	2.7	1.67	1.30	.37
15020577	.10	3.60	6.25	7.5	17.0	450	1.2	.26	.07	.19
15030577	<.10	6.30	9.85	12.0	33.0	570	4.0	1.44	.57	.87
30020577	<.10	1.90	5.69	55.0	55.0	230	4.3	8.11	3.39	4.72
30030577	<.10	2.90	6.64	45.0	52.0	300	3.1	6.63	2.84	3.79
32A20577	.13	5.10	5.68	360.0	30.0	510	1.0	2.72	.20	2.52
32A30577	<.10	1.60	4.13	1,250.0	36.0	450	5.4	13.20	2.61	10.59
32B20577	.10	4.30	5.94	55.0	23.0	580	1.2	.68	<.01	.68
32R20577	<.10	4.80	5.94	80.0	9.0	550	1.6	.67	<.01	.67
32B30577	<.10	4.50	7.95	240.0	23.0	650	3.8	3.69	2.59	1.10
33020577	.11	3.80	5.96	13.0	20.0	460	2.1	.17	<.01	.17
33030577	<.10	5.40	8.39	25.0	34.0	580	2.9	.80	.47	.33

Table 3, continued

Sample	AG ppm S	AL % S	AL203 %	AS ppm A	B ppm S	BA ppm S	BE ppm S	Total C%	Inorg C%	Org C %
34020577	<.10	1.80	4.90	720.0	23.0	330	15.0	2.50	.34	2.16
34030577	<.10	.37	1.50	2,900.0	<15.0	310	36.0	4.88	.76	4.12
35020577	.12	5.10	6.56	80.0	16.0	530	5.3	.18	<.01	.18
35030577	<.10	6.10	8.78	125.0	41.0	760	17.0	.89	.13	.76
36020577	.15	4.60	6.24	9.0	36.0	440	1.7	.09	<.01	.09
36030577	.13	5.90	8.40	30.0	37.0	550	3.7	.46	<.01	.46
37020577	<.10	3.40	4.97	9.0	12.0	400	2.2	3.11	2.72	.39
37030577	<.10	1.80	4.06	55.0	4.5	240	3.6	7.64	6.76	.88
39020577	.13	3.70	5.78	7.0	15.0	500	1.5	.19	<.01	.19
39030577	.13	4.90	8.03	19.0	42.0	520	3.4	.85	.07	.78
47020577	<.10	8.70	10.79	8.0	25.0	720	2.6	1.51	<.01	1.51
47R20577	<.10	6.30	10.96	8.0	20.0	570	2.3	1.69	<.01	1.69
47030577	<.10	8.00	12.68	14.0	34.0	720	2.8	1.78	<.01	1.78
47R30577	<.10	6.30	12.62	9.5	31.0	720	2.8	1.76	<.01	1.76
48020577	.13	5.20	11.56	24.0	<3.2	170	3.9	.75	<.01	.75
48030577	<.10	11.00	14.80	30.0	7.4	310	6.2	2.32	<.01	2.32
49020577	.13	5.20	10.19	6.0	12.0	380	1.7	1.29	<.01	1.29
49030577	.24	6.90	10.98	10.0	29.0	490	1.9	1.14	<.01	1.14
50020577	<.10	5.50	10.76	40.0	15.0	340	3.7	3.26	<.01	3.26
50030577	<.10	6.10	12.28	80.0	18.0	420	4.5	2.60	<.01	2.60
51020577	<.10	8.10	11.66	7.5	12.0	680	1.9	1.90	<.01	1.90
51030577	<.10	7.00	11.98	8.5	20.0	560	2.1	2.40	<.01	2.40
52020577	<.10	10.00	13.16	6.0	29.0	540	2.6	1.74	<.01	1.74
52030577	<.10	8.30	12.34	6.0	35.0	440	2.4	1.12	<.01	1.12
53020577	<.10	5.30	11.98	40.0	19.0	360	2.1	8.68	<.01	8.68
53030577	<.10	4.70	11.67	8.0	21.0	330	1.9	6.50	<.01	6.50
55020577	<.10	5.10	10.09	5.5	12.0	470	2.0	.78	<.01	.78
55030577	<.10	7.50	12.32	8.5	20.0	690	2.2	1.81	.07	1.74
55R30577	<.10	6.90	12.28	12.0	18.0	590	2.3	1.77	<.01	1.77
56020577	<.10	7.10	10.95	10.0	13.0	400	1.9	1.30	<.01	1.30
56030577	<.10	6.60	9.90	9.5	29.0	430	1.9	.73	<.01	.73
56R30577	<.10	6.70	9.79	9.5	30.0	480	2.3	.70	<.01	.70
57020577	<.10	8.70	10.68	4.5	14.0	440	2.6	1.24	<.01	1.24
57030577	<.10	8.20	9.36	7.0	38.0	440	2.4	1.09	<.01	1.09
58020577	.22	4.50	7.16	60.0	<15.0	370	3.5	.78	<.01	.78
58030577	.18	6.50	9.59	105.0	38.0	600	6.7	1.61	<.01	1.61
59020577	<.10	5.30	7.92	55.0	35.0	410	10.0	5.06	<.01	5.06
59030577	<.10	4.10	9.16	60.0	39.0	390	6.6	3.01	<.01	3.01

Table 3, continued

Sample	CA % S	CAO %	CE ppm S	CO ppm S	CR ppm S	CU ppm S	EU ppm S	FE % S	FE2O3 %	GA ppm S
					1976 Samples					
02020576	1.20	.940	69	3.4	19.0	9.1	<1.5	1.80	2.25	7.7
02030576	1.90	2.530	66	5.8	38.0	18.0	<1.5	3.10	4.27	9.1
02R30576	2.10	2.560	150	5.8	29.0	18.0	<1.5	3.10	4.33	10.0
03020576	1.40	1.340	59	5.4	30.0	5.5	<1.5	2.80	3.72	9.4
03030576	1.70	2.380	110	9.2	55.0	20.0	<1.5	4.70	6.25	15.0
04020576	1.40	1.220	72	5.1	22.0	9.7	<1.5	2.30	3.24	9.3
04030576	2.30	2.050	73	7.5	43.0	21.0	<1.5	4.10	5.33	18.0
05020576	2.60	2.720	61	6.1	37.0	10.0	<1.5	2.60	3.45	14.0
05030576	1.70	3.210	79	7.5	29.0	17.0	<1.5	3.30	5.23	12.0
06020576	1.50	2.330	52	6.0	24.0	11.0	<1.5	2.90	4.06	10.0
06030576	2.50	2.380	64	7.5	31.0	23.0	<1.5	2.50	3.65	20.0
07020576	4.00	10.310	94	11.0	67.0	27.0	<1.5	3.80	6.28	17.0
07R20576	2.30	2.080	47	4.9	24.0	5.3	<1.5	1.60	2.42	12.0
07030576	5.00	12.750	91	12.0	62.0	33.0	<1.5	3.30	5.85	16.0
08020576	2.20	2.100	50	4.8	16.0	6.5	<1.5	1.90	2.43	13.0
08030576	2.30	3.100	100	10.0	78.0	15.0	1.7	4.00	5.41	14.0
09020576	1.80	1.860	90	7.0	31.0	11.0	<1.5	2.40	3.94	14.0
09030576	1.90	2.290	72	7.5	56.0	33.0	<1.5	3.00	4.58	16.0
10020576	2.70	2.370	90	10.0	56.0	20.0	<1.5	4.40	4.94	26.0
10030576	1.90	2.520	110	10.0	55.0	22.0	<1.5	3.80	4.83	17.0
11020576	2.30	2.270	85	11.0	68.0	19.0	<1.5	5.40	6.02	26.0
11030576	2.30	2.340	100	10.0	100.0	22.0	<1.5	2.80	4.68	19.0
12020576	1.80	1.770	110	8.7	44.0	16.0	<1.5	4.10	5.50	22.0
12030576	1.90	2.620	110	9.6	67.0	20.0	<1.5	4.10	5.92	17.0
12R30576	2.00	2.640	100	11.0	74.0	22.0	<1.5	3.80	6.02	20.0
13020576	2.40	2.810	100	14.0	79.0	20.0	<1.5	5.10	6.06	18.0
13030576	2.40	2.750	140	14.0	72.0	23.0	<1.5	4.70	6.20	19.0
14020576	2.10	2.750	100	10.0	77.0	13.0	<1.5	7.60	9.24	18.0
14030576	2.00	2.700	120	11.0	54.0	32.0	1.6	4.70	7.02	17.0
15020576	.94	.730	H	18.0	130.0	9.7	<1.5	13.00	15.42	16.0
15030576	1.60	1.960	140	15.0	110.0	24.0	2.4	11.00	11.95	18.0
16020576	1.20	.990	110	11.0	38.0	24.0	<1.5	3.40	4.90	18.0
16030576	1.10	.910	96	7.7	36.0	21.0	<1.5	2.70	4.11	17.0
17020576	2.70	4.060	120	16.0	40.0	42.0	<1.5	9.60	11.07	21.0
17R20576	2.20	4.020	97	13.0	31.0	44.0	<1.5	6.90	10.81	18.0
17030576	2.30	3.180	110	12.0	33.0	45.0	<1.5	4.60	6.81	18.0
18020576	2.00	2.700	120	10.0	37.0	20.0	<1.5	3.10	4.31	16.0
18030576	2.30	2.620	73	9.8	57.0	26.0	<1.5	3.10	4.55	18.0
19020576	2.90	3.600	70	10.0	86.0	19.0	<1.5	3.40	4.69	21.0
19030576	2.00	3.030	77	11.0	61.0	23.0	<1.5	3.50	4.92	16.0

Table 3, continued

Sample	CA % S	CAO %	CE ppm S	CO ppm S	CR ppm S	CU ppm S	EU ppm S	FE % S	FE203 %	GA ppm S
20020576	2.40	3.370	75	14.0	68.0	22.0	<1.5	4.00	5.80	16.0
20030576	1.80	2.810	93	13.0	57.0	23.0	<1.5	3.10	5.21	15.0
21020576	3.10	3.710	92	11.0	68.0	18.0	1.7	3.10	4.89	21.0
21030576	2.10	3.000	61	7.4	42.0	20.0	<1.5	3.50	4.91	13.0
22020576	1.60	1.530	<43	6.6	37.0	9.7	<1.5	5.50	6.38	13.0
22030576	1.90	2.120	160	9.5	91.0	25.0	<1.5	9.90	12.52	21.0
22R30576	1.80	2.120	H	8.4	65.0	15.0	<1.5	9.50	11.99	17.0
23020576	1.30	1.310	62	3.7	13.0	8.5	<1.5	1.80	2.75	8.7
23030576	1.40	1.180	90	5.5	33.0	34.0	<1.5	2.90	3.37	14.0
24020576	1.80	1.880	74	5.7	25.0	8.5	<1.5	2.40	3.53	15.0
24030576	1.80	1.810	91	8.0	41.0	15.0	<1.5	3.10	4.17	14.0
25020576	2.00	2.200	94	6.1	24.0	9.3	<1.5	2.60	3.33	15.0
25030576	1.80	1.890	180	7.1	36.0	17.0	<1.5	2.50	4.08	15.0
26020576	.68	1.760	71	6.2	9.8	13.0	<1.5	1.70	3.76	5.7
26030576	1.30	1.380	95	9.0	27.0	23.0	<1.5	2.50	3.18	12.0
27020576	1.90	2.480	77	7.0	31.0	12.0	<1.5	2.90	5.14	14.0
27030576	2.10	2.400	92	8.6	42.0	15.0	<1.5	3.70	4.58	16.0
28020576	1.80	2.120	73	5.9	33.0	12.0	<1.5	3.30	4.60	14.0
28R20576	1.60	2.120	200	7.5	34.0	9.4	<1.5	2.90	4.56	14.0
28030576	1.60	1.890	90	9.2	72.0	20.0	<1.5	3.10	4.58	13.0
29020576	1.60	1.950	55	4.4	33.0	6.7	1.8	1.60	3.46	11.0
29030576	1.90	2.150	120	7.8	51.0	12.0	2.0	5.10	5.78	15.0
1977 Samples										
01020577	.34	.350	84	3.2	13.0	28.0	1.7	.91	1.36	6.2
01030577	1.00	.800	84	6.2	93.0	200.0	<1.5	3.00	4.13	11.0
05020577	1.70	2.260	49	8.6	50.0	12.0	<1.5	4.70	6.54	12.0
05030577	3.30	4.010	59	11.0	66.0	28.0	<1.5	3.50	6.03	16.0
15020577	.68	.920	39	4.0	11.0	5.0	<1.5	.92	2.03	4.4
15030577	3.10	4.290	92	7.8	30.0	17.0	<1.5	2.40	4.11	12.0
30020577	6.00	16.100	<29	4.8	13.0	16.0	<1.5	.76	2.08	2.3
30030577	6.10	13.500	36	5.6	17.0	30.0	<1.5	.82	2.05	4.6
32A20577	.77	1.720	42	3.0	9.8	4.6	2.5	.78	2.73	5.9
32A30577	5.80	13.100	<29	3.0	15.0	59.0	<1.5	3.90	9.89	3.1
32B20577	1.20	.860	30	3.1	9.7	4.6	1.6	.82	1.41	4.8
32R20577	1.10	.860	<29	2.4	7.7	4.7	1.8	.93	1.38	5.8
32B30577	3.70	6.230	40	4.3	22.0	28.0	<1.5	2.10	4.71	7.7
33020577	1.20	.600	39	3.6	130.0	7.9	1.9	1.50	1.25	3.8
33030577	2.30	2.650	52	5.4	39.0	53.0	<1.5	1.90	3.46	8.4

Table 3, continued

Sample	CA % S	CAO %	CE ppm S	CO ppm S	CR ppm S	CU ppm S	EU ppm S	FE % S	FE2O3 %	GA ppm S
34020577	1.30	2.380	<29	6.2	2.8	5.3	<1.5	4.70	17.00	4.6
34030577	2.00	5.010	<29	10.0	5.2	8.5	<1.5	>24.00	36.46	6.1
35020577	.66	.540	41	3.6	9.7	5.4	1.6	1.10	1.86	5.1
35030577	1.90	1.840	46	5.7	36.0	15.0	<1.5	4.20	6.52	12.0
36020577	.52	.410	<29	3.8	13.0	5.7	<6.8	1.50	2.32	6.4
36030577	.90	.970	87	7.7	44.0	54.0	1.9	3.80	6.74	12.0
37020577	1.90	13.600	<93	3.5	8.5	4.2	<1.5	4.20	.49	2.8
37030577	16.00	34.100	<93	5.9	11.0	11.0	<1.5	.70	1.60	4.5
39020577	.32	.340	<29	2.2	6.7	16.0	<1.5	.43	.66	5.3
39030577	1.00	1.100	<29	3.8	24.0	24.0	<1.5	1.20	2.09	7.4
47020577	1.10	.720	69	6.7	26.0	17.0	2.2	1.80	2.64	17.0
47R20577	.86	.750	<29	5.6	19.0	18.0	<1.5	1.80	2.94	12.0
47030577	1.00	.980	77	7.7	30.0	21.0	1.5	2.10	3.49	15.0
47R30577	1.10	.908	57	6.0	30.0	26.0	<1.5	2.10	3.58	15.0
48020577	.29	.480	100	2.9	8.2	7.5	<1.5	1.50	3.31	26.0
48030577	1.40	.990	120	5.0	21.0	32.0	1.6	1.90	4.10	34.0
49020577	.71	.740	51	5.0	21.0	13.0	<1.5	1.10	2.27	9.1
49030577	1.10	.830	51	5.6	35.0	18.0	1.8	1.40	2.46	13.0
50020577	.82	.880	61	6.6	23.0	17.0	<1.5	1.80	3.10	13.0
50030577	.69	1.040	96	6.5	23.0	18.0	1.5	1.50	3.37	11.0
51020577	3.00	2.540	63	12.0	66.0	17.0	1.6	2.90	4.91	17.0
51030577	2.20	2.590	56	12.0	64.0	26.0	<1.5	2.90	5.08	15.0
52020577	1.30	.860	87	8.1	88.0	52.0	1.8	2.10	3.64	20.0
52030577	.90	.830	63	6.8	44.0	59.0	2.2	2.00	3.28	16.0
53020577	1.30	2.290	69	8.4	24.0	36.0	<1.5	2.10	5.36	8.9
53030577	1.10	1.970	47	7.5	24.0	54.0	<1.5	2.00	4.84	8.2
55020577	2.40	2.010	<29	6.5	31.0	10.0	<1.5	2.10	3.46	12.0
55030577	2.60	2.390	65	12.0	53.0	19.0	<1.5	2.90	4.61	19.0
55R30577	2.10	2.330	37	11.0	40.0	18.0	<1.5	2.30	4.57	15.0
56020577	1.30	1.320	44	6.9	26.0	13.0	<1.5	1.60	3.10	13.0
56030577	1.30	1.260	48	6.6	33.0	17.0	1.6	1.80	3.06	10.0
56R30577	1.70	1.230	40	7.9	44.0	27.0	<1.5	2.10	3.05	12.0
57020577	2.50	1.850	78	7.0	40.0	8.5	<1.5	3.10	3.88	19.0
57030577	2.00	1.550	72	6.2	48.0	11.0	<1.5	2.10	3.37	13.0
58020577	1.40	1.060	<93	13.0	120.0	20.0	<1.5	15.00	17.29	19.0
58030577	1.80	1.480	100	9.9	94.0	78.0	<1.5	5.60	7.54	15.0
59020577	1.40	1.140	32	5.1	23.0	16.0	<1.5	1.80	3.08	9.0
59030577	.66	1.130	40	4.5	24.0	16.0	<1.5	1.10	2.77	6.0

Table 3, continued

Sample	K % S	K2O %	LA ppm S	MG % S	MGO %	MN ppm S	MNO %	NA % S	NA2O %	NB ppm S
				1976 Samples						
02020576	2.600	2.45	18	.29	.39	540	.0400	1.10	1.20	13.0
02030576	2.200	2.55	36	.31	.84	680	.0660	1.10	1.61	14.0
02R30576	2.400	2.56	38	.37	.86	800	.0660	1.10	1.67	23.0
03020576	2.100	2.19	29	.36	.60	930	.0540	1.10	1.72	7.4
03030576	2.100	2.26	40	.83	1.15	1,100	.0820	1.40	2.00	21.0
04020576	2.000	2.03	29	.34	.55	640	.0510	1.10	1.54	7.6
04030576	3.000	2.26	26	.75	.98	1,100	.0780	1.70	1.93	11.0
05020576	2.700	2.44	33	.64	.94	740	.0570	1.70	2.07	7.8
05030576	1.800	2.28	27	.86	1.45	950	.0810	1.10	2.17	120.0
06020576	2.500	3.13	27	.29	.87	1,100	.1080	1.40	2.19	11.0
06030576	3.800	3.32	30	.70	.96	1,400	.1280	1.90	2.08	13.0
07020576	2.100	2.12	34	1.40	2.60	1,600	.1440	1.40	1.96	9.7
07R20576	2.400	2.26	30	.52	.82	560	.0540	1.40	1.91	4.2
07030576	1.400	1.79	46	1.50	2.93	1,500	.1570	1.10	2.18	12.0
08020576	2.600	2.30	25	.57	.88	650	.0540	1.40	2.02	23.0
08030576	2.200	2.23	42	.89	1.39	1,300	.1070	1.40	2.11	13.0
09020576	3.100	2.76	54	.51	.99	950	.0810	1.40	2.17	7.3
09030576	2.500	2.47	27	.83	1.24	1,100	.0930	1.70	2.21	8.6
10020576	4.500	2.92	37	.98	1.15	1,800	.1190	2.40	2.48	15.0
10030576	2.300	2.49	49	.93	1.35	1,400	.1190	1.40	2.31	14.0
11020576	3.100	2.82	28	.94	1.15	1,600	.1150	1.90	2.19	14.0
11030576	3.300	2.49	39	.88	1.27	1,000	.0980	1.70	2.19	12.0
12020576	4.500	3.75	44	.53	.85	1,200	.1010	1.70	2.21	15.0
12030576	>2.200	2.74	39	.91	1.39	1,200	.1100	1.40	2.56	16.0
12R30576	>2.200	2.72	43	.87	1.43	1,300	.1100	1.70	2.59	9.8
13020576	2.100	2.11	33	1.00	1.47	1,400	.1050	1.70	2.19	15.0
13030576	2.400	2.10	55	1.30	1.66	1,500	.1210	1.70	2.07	12.0
14020576	2.000	2.11	33	.86	1.45	2,100	.1400	1.60	2.45	16.0
14030576	2.000	2.22	39	.90	1.46	1,500	.1400	1.60	2.30	14.0
15020576	>1.000	1.75	33	.23	.58	2,600	.1490	.72	1.04	36.0
15030576	1.900	2.06	49	.68	.99	2,300	.1540	1.10	1.61	38.0
16020576	>2.200	2.50	50	.65	1.06	1,200	.1170	1.10	1.40	13.0
16030576	2.500	2.57	44	.59	.92	910	.0840	1.40	1.63	17.0
17020576	1.300	1.68	54	1.30	2.09	3,600	.2600	1.40	2.10	31.0
17R20576	1.600	1.70	30	1.30	2.11	3,300	.2580	1.60	2.07	21.0
17030576	2.000	1.97	42	.99	1.56	2,600	.1990	1.40	2.05	12.0
18020576	2.500	2.34	51	.92	1.39	1,400	.1250	1.70	2.63	6.9
18030576	2.600	2.26	28	.96	1.42	1,600	.1270	1.90	2.35	11.0
19020576	2.700	2.25	31	1.20	1.75	1,700	.1160	2.10	3.28	10.0
19030576	2.000	2.20	32	1.00	1.66	1,400	.1250	1.40	2.54	6.3

Table 3, continued

Sample	K % S	K2O %	LA ppm S	MG % S	MGO %	MN ppm S	MNO %	NA % S	NA2O %	NB ppm S
20020576	2.000	2.11	32	1.30	1.89	2,400	.2240	1.70	2.53	9.7
20030576	2.000	2.11	42	1.00	1.71	2,000	.1910	1.40	2.15	10.0
21020576	2.100	2.05	37	1.30	1.86	1,400	.1190	2.40	2.93	9.7
21030576	1.600	1.99	22	1.10	1.66	1,100	.1130	1.40	2.39	6.1
22020576	1.800	1.64	15	.38	.70	960	.0730	1.40	1.59	15.0
22030576	2.000	2.13	42	.68	.96	1,400	.0980	1.40	1.77	21.0
22R30576	2.000	2.16	32	.60	.99	1,300	.0970	1.40	1.76	21.0
23020576	2.100	2.30	29	.32	.66	370	.0440	1.40	1.87	6.1
23030576	2.600	2.33	33	.52	.69	600	.0500	1.70	1.77	8.5
24020576	2.500	2.39	33	.52	.86	840	.0830	1.90	2.51	8.1
24030576	2.500	2.34	36	.66	.96	1,200	.1000	1.70	2.12	13.0
25020576	2.300	2.49	47	.73	1.02	850	.0770	1.70	2.59	6.9
25030576	2.500	2.29	110	.72	1.13	1,100	.0960	1.70	2.05	9.3
26020576	1.300	2.34	35	.24	.96	1,700	.2780	.46	1.52	7.2
26030576	2.400	2.44	52	.30	.77	2,300	.2010	1.20	1.71	12.0
27020576	2.300	2.09	31	.60	.96	1,100	.1030	1.90	2.57	9.7
27030576	2.200	2.12	36	.67	1.01	1,100	.0900	1.70	2.39	9.7
28020576	2.100	2.22	27	.66	1.06	1,200	.1070	1.70	2.40	16.0
28R20576	1.900	2.24	140	.72	1.04	1,200	.1100	1.40	2.49	12.0
28030576	1.900	2.23	37	.77	1.18	1,500	.1450	1.40	1.90	7.0
29020576	2.000	1.97	15	.48	.77	680	.0620	1.40	2.13	6.9
29030576	2.100	1.94	39	.72	.92	1,200	.0920	1.40	1.82	23.0
				1977 Samples						
01020577	1.700	2.33	16	.13	.12	290	.0290	.55	1.04	14.0
01030577	2.000	2.60	24	.32	.34	690	.0780	1.00	1.62	21.0
05020577	1.400	2.23	17	.54	.92	560	.0790	.90	1.82	15.0
05030577	1.600	2.15	29	.99	1.55	720	.0820	.99	1.94	14.0
15020577	1.300	2.25	19	.17	.32	250	.0331	.63	1.14	<3.2
15030577	1.500	2.40	46	.68	1.21	680	.0670	.92	1.60	13.0
30020577	.680	1.38	17	1.10	3.56	390	.0950	.28	.96	4.8
30030577	1.000	1.70	18	1.30	3.13	450	.0890	.45	1.19	8.8
32A20577	1.800	2.16	17	.22	.34	190	.0216	.73	.97	4.2
32A30577	.650	1.12	16	.36	1.40	390	.0636	.28	.82	<3.2
32B20577	2.000	2.27	14	.23	.27	190	.0200	.74	.99	<3.2
32R20577	1.700	2.27	17	.26	.28	280	.0190	.64	1.04	7.7
32B30577	1.500	2.34	22	.46	1.06	420	.0640	.95	1.32	8.6
33020577	1.500	2.20	14	.20	.22	200	.0210	.60	.99	<3.2
33030577	1.600	2.48	28	.41	.72	390	.0530	.71	1.37	8.0

Table 3, continued

Sample	K % S	K2O %	LA ppm S	MG % S	MGO %	MN ppm S	MNO %	NA % S	NA2O %	NB ppm S
34020577	.830	1.71	<10	.18	.46	940	.1580	.29	.86	<3.2
34030577	<.068	.30	14	.15	.81	1,500	.2380	.15	.41	4.2
35020577	1.700	2.38	15	.25	.29	260	.0248	.72	1.12	8.4
35030577	1.800	2.45	16	.57	.78	680	.0730	.90	1.44	19.0
36020577	1.600	2.31	<10	.25	.26	350	.0380	.50	1.07	12.0
36030577	1.800	2.46	42	.49	.68	610	.0920	.77	1.29	20.0
37020577	1.100	1.85	<10	.57	1.01	680	.0490	.32	.92	4.5
37030577	.770	1.06	20	.53	2.66	750	.1230	.31	.88	<3.2
39020577	1.800	2.52	<10	.14	.15	100	.0150	.69	1.13	3.2
39030577	1.600	2.71	21	.30	.47	300	.0400	.76	1.50	12.0
47020577	2.900	2.92	40	.56	.69	520	.0559	.95	1.12	14.0
47R20577	2.100	2.93	23	.51	.74	460	.0600	.68	1.22	17.0
47030577	2.000	2.88	45	.63	.86	540	.0670	.81	1.20	13.0
47R30577	2.100	2.84	36	.61	.93	460	.0670	.85	1.37	13.0
48020577	3.600	4.93	34	.11	.15	370	.0480	1.40	1.74	22.0
48030577	4.000	4.29	62	.30	.49	510	.0643	2.90	2.80	33.0
49020577	1.200	1.73	23	.30	.44	200	.0240	.56	.98	7.4
49030577	1.800	1.97	27	.37	.50	260	.0250	.77	1.26	14.0
50020577	2.100	3.13	46	.32	.53	500	.0690	.72	1.09	15.0
50030577	1.700	2.92	51	.37	.64	370	.0580	.90	1.62	16.0
51020577	2.000	2.27	31	.91	1.32	1,500	.1810	1.90	2.39	15.0
51030577	1.500	2.26	35	.88	1.45	1,800	.2460	1.20	2.12	13.0
52020577	2.300	2.62	49	.69	.86	390	.0470	1.50	1.40	12.0
52030577	2.000	2.53	34	.56	.81	350	.0430	1.00	1.43	14.0
53020577	.950	1.68	44	.56	1.16	1,200	.2160	.46	1.22	73.0
53030577	.960	1.91	28	.56	1.08	920	.1820	.45	1.33	8.2
55020577	1.300	1.96	14	.43	.60	580	.0780	1.80	2.28	9.7
55030577	1.600	2.37	35	.80	1.20	1,000	.1270	1.50	2.15	13.0
55R30577	1.700	2.33	26	.79	1.22	950	.1250	1.40	2.27	12.0
56020577	1.700	2.39	26	.40	.71	410	.0582	1.10	2.02	9.2
56030577	1.500	2.13	28	.49	.64	450	.0548	.97	1.78	11.0
56R30577	1.700	2.11	16	.53	.65	470	.0530	1.40	1.70	11.0
57020577	2.000	2.78	38	.56	.67	830	.0880	1.90	2.76	13.0
57030577	1.900	2.37	34	.47	.55	680	.0780	1.90	2.15	16.0
58020577	1.400	1.75	42	.43	.60	1,600	.1470	.67	1.25	40.0
58030577	2.100	2.38	41	.65	.90	730	.0810	.91	1.71	18.0
59020577	1.400	1.91	17	.44	.62	230	.0230	.61	.88	6.7
59030577	1.500	2.35	11	.30	.65	180	.0280	.53	1.43	9.0

Table 3, continued

Sample	ND ppm S	NI ppm S	P % S	P2U5 %	PB ppm S	SC ppm S	SE ppm X	SI % S	SIU2 %	SN ppm S
				1976 Samples						
02020576	<46	5.7	<.068	.050	15.0	4.4	<.1	>34.0	82.76	2.4
0203057e	<46	12.0	<.068	.090	16.0	6.3	<.1	>34.0	72.76	2.9
02R30576	<46	13.0	<.068	.090	17.0	6.5	<.1	26.0	72.64	<1.5
03020576	49	12.0	<.068	.060	13.0	4.9	<.1	>34.0	80.11	3.1
03030576	<46	23.0	<.068	.130	23.0	8.8	<.1	>34.0	70.25	<1.5
04020576	54	12.0	<.068	.060	13.0	5.8	.1	>34.0	80.74	2.2
04030576	<46	18.0	.071	.110	26.0	5.7	<.1	>34.0	70.96	<1.5
05020576	<46	19.0	.079	.100	19.0	5.4	<.1	>34.0	73.63	2.4
05030576	<46	23.0	.091	.150	14.0	8.2	<.1	23.0	67.92	3.0
06020576	<46	12.0	.082	.120	23.0	7.0	<.1	>34.0	70.46	4.0
0603057e	<46	15.0	<.068	.150	27.0	7.0	<.1	28.0	68.39	3.6
07020576	<46	47.0	.094	.150	16.0	11.0	<.1	18.0	50.44	<1.5
07R2057e	<46	12.0	<.068	.090	16.0	5.2	<.1	>34.0	78.34	2.8
07030576	<46	52.0	.085	.180	13.0	11.0	<.1	16.0	46.23	4.0
08020576	<46	12.0	.069	.100	14.0	5.6	<.1	>34.0	78.95	2.9
08030576	<46	24.0	.079	.150	18.0	7.1	<.1	27.0	69.21	<1.5
09020576	<46	17.0	<.068	.080	20.0	7.8	<.1	29.0	72.17	3.6
09030576	<46	32.0	.074	.120	23.0	6.4	.1	27.0	69.01	12.0
10020576	<46	24.0	<.068	.090	41.0	8.6	<.1	>34.0	68.38	1.6
10030576	<46	32.0	<.068	.120	23.0	9.8	<.1	>34.0	68.58	<1.5
11020576	<46	27.0	.071	.090	33.0	6.3	<.1	>34.0	68.37	<1.5
11030576	<46	37.0	<.068	.110	25.0	11.0	<.1	24.0	68.91	<1.5
12020576	<46	23.0	.078	.110	51.0	7.9	<.1	>34.0	71.70	3.7
12030576	<46	31.0	.069	.150	28.0	7.8	.2	26.0	68.27	<1.5
12R30576	<46	34.0	.069	.140	33.0	8.3	.2	26.0	68.43	3.7
13020576	<46	43.0	.084	.090	22.0	9.3	<.1	>34.0	70.92	<1.5
13030576	<46	41.0	<.068	.120	23.0	11.0	<.1	>34.0	67.52	<1.5
14020576	<46	21.0	<.068	.110	19.0	7.1	.5	27.0	66.33	<1.5
14030576	<46	21.0	<.068	.160	24.0	9.3	<.1	25.0	65.10	<1.5
15020576	<46	28.0	<.068	.070	27.0	7.8	<.1	>34.0	70.37	<1.5
15030576	<46	31.0	<.068	.130	31.0	9.3	<.1	>34.0	66.06	<1.5
16020576	78	22.0	.071	.110	32.0	9.9	.1	25.0	62.76	<1.5
1603057e	65	16.0	<.068	.080	28.0	8.7	<.1	26.0	67.99	2.8
17020576	<46	17.0	.190	.220	25.0	21.0	.2	24.0	56.86	<1.5
17R20576	<46	15.0	.150	.210	25.0	14.0	.3	21.0	56.71	2.3
1703057e	<46	15.0	.100	.190	25.0	13.0	.1	24.0	62.03	3.4
18020576	<46	22.0	.070	.110	22.0	11.0	<.1	>34.0	67.47	3.5
18030576	<46	21.0	.071	.140	24.0	8.7	<.1	>34.0	67.25	3.8
19020576	<46	22.0	.072	.110	24.0	11.0	<.1	>34.0	65.82	3.4
19030576	<46	27.0	.092	.150	20.0	10.0	<.1	26.0	66.55	3.9

Table 3, continued

Sample	ND ppm S	NI ppm S	P % S	P205 %	PB ppm S	SC ppm S	SE ppm X	SI % S	SIO2 %	SN ppm S
20020576	<46	34.0	.079	.190	22.0	9.9	<.1	22.0	60.13	<1.5
20030576	<46	33.0	.089	.190	20.0	9.7	.7	22.0	64.07	2.9
21020576	<46	27.0	<.068	.120	24.0	12.0	.2	24.0	64.17	<1.5
21030576	<46	18.0	.094	.160	16.0	9.3	.9	26.0	66.00	2.8
22020576	<46	12.0	<.068	.060	15.0	6.5	.3	>34.0	77.47	<1.5
22030576	<46	19.0	<.068	.150	31.0	10.0	<.1	34.0	64.64	<1.5
22R30576	<46	17.0	<.068	.130	28.0	11.0	<.1	25.0	64.81	<1.5
23020576	59	9.3	<.068	.100	15.0	4.2	.8	>34.0	75.90	2.6
23030576	56	12.0	.081	.130	28.0	5.4	<.1	>34.0	74.97	5.9
24020576	<46	12.0	<.068	.080	20.0	7.1	<.1	>34.0	74.71	2.2
24030576	<46	15.0	.071	.110	22.0	8.3	<.1	>34.0	72.25	3.7
25020576	<46	15.0	<.068	.080	21.0	8.2	.1	>34.0	72.19	2.8
25030576	82	16.0	<.068	.110	22.0	9.1	<.1	27.0	70.77	3.1
26020576	<46	12.0	.071	.200	7.2	5.7	1.5	17.0	58.56	1.8
26030576	76	17.0	.076	.150	19.0	7.0	.9	29.0	66.06	3.4
27020576	<46	12.0	<.068	.090	18.0	9.1	.4	25.0	68.20	7.4
27030576	<46	15.0	<.068	.090	22.0	9.6	<.1	34.0	69.15	6.2
28020576	<46	15.0	<.068	.100	22.0	7.5	.3	26.0	70.40	5.0
28R20576	69	17.0	<.068	.100	20.0	8.6	<.1	28.0	70.52	5.1
28030576	55	20.0	.073	.160	22.0	8.0	.4	26.0	65.83	6.1
29020576	<46	9.1	<.068	.060	16.0	6.8	<.1	>34.0	78.03	3.0
29030576	<46	15.0	<.068	.120	24.0	12.0	<.1	>34.0	73.96	<1.5
				1977 Samples						
01020577	<46	7.1	<.072	.060	12.0	3.2	.3	>34.0	86.35	<6.8
01030577	<46	22.0	.150	.140	33.0	6.2	.7	>34.0	76.49	27.0
05020577	<46	28.0	<.072	.110	17.0	4.0	--	36.0	72.80	<6.8
05030577	<46	27.0	.110	.160	23.0	8.1	--	31.0	63.80	<6.8
15020577	<46	6.9	<.072	.048	<10.0	3.1	--	>34.0	85.89	<6.8
15030577	<46	17.0	.120	.120	20.0	7.5	.2	32.0	67.33	<6.8
30020577	<46	11.0	<.072	.090	<10.0	3.4	--	16.0	42.81	<6.8
30030577	<46	12.0	.099	.080	14.0	4.0	.9	18.0	46.32	<6.8
32A20577	<46	6.2	.081	.160	13.0	2.8	--	>34.0	77.24	<6.8
32A30577	<46	9.1	.340	.810	<10.0	2.4	.4	14.0	32.18	<6.8
32B20577	<46	7.1	.087	.070	12.0	1.8	--	>34.0	83.60	<6.8
32R20577	<46	5.2	.095	.070	11.0	1.6	--	>34.0	83.75	<6.8
32B30577	<46	8.7	.160	.350	15.0	3.2	.2	25.0	61.48	<6.8
33020577	<46	92.0	.140	.040	11.0	2.2	--	>34.0	85.30	15.0
33030577	<46	130.0	.110	.090	15.0	4.4	.1	34.0	74.15	16.0

Table 3, continued

Sample	ND ppm S	NI ppm S	P % S	P2O5 %	PB ppm S	SC ppm S	SE ppm X	SI % S	SIO2 %	SN ppm S
34020577	<46	8.5	.420	1.390	<10.0	1.3	.5	21.0	56.55	<6.8
34030577	<46	13.0	1.100	3.980	11.0	1.5	6.5	4.1	12.74	<6.8
35020577	<46	6.3	.120	.096	10.0	3.3	--	>34.0	84.06	<6.8
35030577	<46	11.0	.230	.390	21.0	3.3	.7	>34.0	69.52	<6.8
36020577	<46	7.8	.095	.040	14.0	2.6	--	>34.0	84.35	<6.8
36030577	<46	13.0	<.072	.110	24.0	7.2	.2	35.0	72.20	<6.8
37020577	<46	8.8	.110	<.005	<10.0	1.9	--	30.0	62.28	<6.8
37030577	<46	12.0	.120	<.005	<10.0	2.9	.2	9.7	27.00	<6.8
39020577	<46	6.2	.090	.040	10.0	1.7	.1	>34.0	86.86	<6.8
39030577	<46	10.0	.087	.090	14.0	3.4	.2	>34.0	78.61	<6.8
47020577	69	12.0	.110	.087	26.0	8.9	.1	>34.0	73.09	<6.8
47R20577	<46	12.0	.100	.100	21.0	4.8	--	>34.0	72.00	<6.8
47030577	55	16.0	.100	.110	24.0	8.5	.3	35.0	67.71	<6.8
47R30577	<46	15.0	.120	.110	25.0	8.6	--	33.0	67.77	9.0
48020577	61	6.1	<.072	.050	52.0	3.1	.2	29.0	74.75	13.0
48030577	78	10.0	.130	.150	51.0	5.2	.3	28.0	64.20	17.0
49020577	56	11.0	<.072	.060	12.0	7.9	.4	33.0	75.69	<6.8
49030577	<46	15.0	<.072	.060	19.0	7.5	.1	>34.0	74.08	<6.8
50020577	55	11.0	.075	.100	29.0	5.6	1.2	30.0	69.48	<6.8
50030577	58	11.0	.110	.100	19.0	7.1	1.3	26.0	67.26	<6.8
51020577	<46	20.0	.130	.100	21.0	9.3	.2	31.0	67.16	<6.8
51030577	<46	22.0	.110	.170	22.0	10.0	.5	26.0	64.96	<6.8
52020577	60	21.0	.130	.100	24.0	10.0	.2	36.0	66.38	6.9
52030577	<46	19.0	.110	.100	23.0	9.2	.2	37.0	69.59	<6.8
53020577	73	13.0	.120	.230	13.0	10.0	1.2	21.0	52.13	<6.8
53030577	52	13.0	.140	.210	13.0	8.7	1.1	22.0	57.85	<6.8
55020577	<46	11.0	.094	.070	19.0	6.5	.1	>34.0	75.52	<6.8
55030577	<46	23.0	.100	.130	24.0	11.0	.2	32.0	67.46	<6.8
55R30577	<46	19.0	.120	.120	26.0	9.4	--	33.0	67.16	<6.8
56020577	<46	12.0	<.072	.052	22.0	7.1	.4	34.0	73.07	<6.8
56030577	<46	12.0	.092	.066	17.0	7.2	.3	>34.0	75.61	<6.8
56R30577	<46	13.0	.090	.060	20.0	7.4	.2	>34.0	75.37	<6.8
57020577	<46	14.0	.086	.050	23.0	8.8	.4	>34.0	72.46	8.2
57030577	<46	10.0	<.072	.070	22.0	7.5	.5	>34.0	74.95	<6.8
58020577	<46	69.0	<.072	.120	29.0	8.0	.2	31.0	64.19	12.0
58030577	<46	37.0	.110	.150	25.0	10.0	--	37.0	68.13	9.3
59020577	<46	34.0	.110	.090	13.0	4.8	1.3	34.0	70.20	<6.8
59030577	<46	57.0	.094	.100	13.0	4.2	.8	27.0	72.36	<6.8

Table 3, continued

Sample	SR ppm S	TI % S	TIO2 %	V ppm S	Y ppm S	YB ppm S	ZN ppm A	ZN ppm S	ZR ppm S
				1976 Samples					
02020576	250	.260	.66	42	17.0	5.00	44	17	1,400
02030576	370	.370	1.19	59	31.0	7.30	80	70	1,300
02R30576	350	.430	1.19	60	47.0	11.00	84	50	2,100
03020576	340	.310	.58	43	19.0	3.70	39	18	150
03030576	510	.360	1.05	70	42.0	8.40	105	75	750
04020576	400	.260	.48	39	30.0	5.00	42	14	500
04030576	470	.250	.83	55	19.0	6.80	63	66	330
05020576	620	.260	.53	45	16.0	2.60	51	32	130
05030576	570	.250	.96	56	20.0	3.70	73	56	400
06020576	470	.250	.63	55	22.0	3.40	61	38	140
06030576	580	.240	.72	44	17.0	4.70	65	37	430
07020576	670	.280	.81	55	27.0	3.80	100	70	150
07R20576	590	.200	.43	35	15.0	4.00	35	16	80
07030576	840	.280	.84	56	29.0	3.30	96	65	190
08020576	550	.180	.42	35	12.0	2.30	37	11	160
08030576	710	.320	1.07	69	18.0	5.30	74	69	440
09020576	360	.270	.59	48	31.0	4.70	63	36	110
09030576	410	.200	.83	53	33.0	11.00	85	57	400
10020576	490	.280	.75	63	34.0	9.60	88	76	300
10030576	450	.300	.85	64	41.0	8.60	82	66	34
11020576	470	.360	.90	77	22.0	7.00	89	97	220
11030576	390	.370	.83	61	29.0	6.10	84	48	350
12020576	180	.340	.76	48	66.0	14.00	99	84	160
12030576	280	.260	.96	50	49.0	11.00	98	89	600
12R30576	270	.330	.98	55	39.0	9.70	96	110	290
13020576	440	.400	1.02	78	27.0	5.50	78	76	360
13030576	460	.420	1.14	84	33.0	7.30	85	72	1,500
14020576	610	.380	1.27	110	16.0	5.80	88	100	270
14030576	490	.300	1.17	79	29.0	7.00	98	82	810
15020576	230	.740	2.52	220	23.0	6.00	133	150	7,400
15030576	530	.790	2.40	190	48.0	13.00	109	150	9,100
16020576	230	.260	.76	70	33.0	5.20	98	56	200
16030576	260	.260	.75	55	31.0	5.10	87	48	340
17020576	460	.680	1.94	160	34.0	5.80	160	140	410
17R20576	360	.540	1.88	130	25.0	4.60	160	130	260
17030576	450	.280	1.12	85	25.0	5.30	131	94	450
18020576	610	.310	.62	67	24.0	3.90	88	64	130
18030576	620	.250	.80	63	19.0	5.20	86	68	380
19020576	900	.250	.66	67	17.0	3.00	82	62	160
19030576	580	.260	.86	67	26.0	4.80	84	70	360

Table 3, continued

Sample	SR ppm S	TI % S	TIO2 %	V ppm S	Y ppm S	YB ppm S	ZN ppm A	ZN ppm S	ZR ppm S
20020576	660	.230	.82	68	19.0	3.10	93	76	130
20030576	600	.270	.94	69	25.0	4.30	93	57	220
21020576	960	.240	.66	73	16.0	2.90	77	77	190
21030576	580	.160	.85	58	18.0	4.40	81	55	560
22020576	320	.240	.80	63	18.0	5.60	52	40	1,100
22030576	370	.520	1.52	110	32.0	8.30	69	87	970
22R30576	360	.310	1.48	86	30.0	7.10	65	80	940
23020576	370	.210	.51	32	18.0	3.60	72	29	240
23030576	430	.270	.81	48	20.0	6.80	77	73	590
24020576	610	.200	.56	43	22.0	4.40	56	23	390
24030576	420	.340	.82	62	31.0	5.60	64	37	490
25020576	670	.300	.54	51	29.0	4.50	57	44	190
25030576	490	.380	.87	59	30.0	5.60	72	48	660
26020576	200	.140	.62	43	34.0	3.80	79	24	160
26030576	300	.250	.66	51	37.0	4.90	67	41	260
27020576	410	.310	.82	63	26.0	4.10	70	56	210
27030576	450	.300	.92	68	35.0	7.20	68	42	320
28020576	620	.210	.71	45	21.0	6.70	72	51	900
28R20576	530	.240	.70	55	30.0	3.80	73	71	190
28030576	430	.180	.81	53	22.0	5.10	79	55	450
29020576	500	.180	.65	44	17.0	4.10	52	18	250
29030576	530	.380	1.20	81	29.0	7.20	60	73	880
				1977 Samples					
01020577	89	.210	.46	25	12.0	2.30	44	48	1,400
01030577	110	.550	1.42	61	34.0	18.00	115	69	1,800
05020577	280	.260	.95	66	11.0	2.70	66	65	870
05030577	400	.100	1.12	66	29.0	6.80	79	51	300
15020577	94	.130	.39	24	9.5	1.20	27	49	130
15030577	290	.370	.82	53	26.0	4.70	71	41	560
30020577	590	.071	.32	22	8.4	1.30	74	63	110
30030577	520	.130	.45	25	19.0	2.90	67	57	220
32A20577	84	.180	.23	24	8.2	1.30	24	33	170
32A30577	430	.067	.27	65	19.0	1.90	66	60	150
32B20577	96	.120	.26	65	8.3	1.70	16	<22	79
32R20577	100	.130	.25	26	8.6	2.10	16	<22	52
32B30577	250	.150	.69	47	19.0	3.60	44	24	350
33020577	120	.100	.34	32	9.8	1.20	21	48	82
33030577	170	.380	.97	55	30.0	6.90	48	31	610

Table 3, continued

Sample	SR ppm S	TI % S	TIO2 %	V ppm S	Y ppm S	YB ppm S	ZN ppm A	ZN ppm S	ZR ppm S
34020577	190	.036	.22	22	8.1	.60	25	28	25
34030577	400	.021	.12	46	19.0	1.60	29	62	260
35020577	110	.240	.40	32	11.0	1.60	20	46	180
35030577	280	.370	1.41	74	17.0	7.00	57	35	1,400
36020577	94	.270	.66	41	9.1	2.10	27	<22	310
36030577	170	.570	1.82	84	37.0	8.30	72	47	1,600
37020577	310	.370	.16	13	5.8	.61	28	49	36
37030577	600	.067	.21	18	9.3	.93	71	120	92
39020577	75	.110	.27	14	5.6	1.00	27	<22	300
39030577	150	.370	.86	33	17.0	3.20	60	62	390
47020577	190	.290	.52	47	30.0	7.50	66	26	160
47R20577	160	1.600	.53	39	18.0	4.20	68	<22	180
47030577	270	.340	.71	55	39.0	7.40	80	39	310
47R30577	240	.240	.71	46	25.0	4.80	80	40	180
48020577	32	.130	.28	15	46.0	11.00	113	53	170
48030577	100	.250	.50	27	110.0	28.00	170	70	300
49020577	82	.210	.47	42	26.0	4.40	36	<22	410
49030577	140	.290	.68	48	23.0	4.30	38	54	820
50020577	80	.250	.53	43	40.0	5.60	97	36	150
50030577	120	.230	.69	38	46.0	6.80	99	33	320
51020577	360	.310	.72	65	23.0	5.50	77	42	120
51030577	300	.370	.89	66	30.0	6.20	84	44	500
52020577	130	.330	.65	58	30.0	5.00	76	37	230
52030577	130	.360	.70	56	28.0	4.70	70	26	240
53020577	170	.220	.73	61	26.0	4.00	89	34	110
53030577	150	.200	.77	54	27.0	4.80	86	28	210
55020577	280	.190	.51	40	11.0	2.60	42	<22	95
55030577	300	.310	.71	65	24.0	4.90	77	41	240
55R30577	290	.280	.70	60	20.0	4.10	76	46	180
56020577	170	.220	.45	42	17.0	2.50	53	72	180
56030577	180	.290	.72	45	20.0	4.60	47	47	430
56R30577	190	.320	.69	51	20.0	4.90	57	<22	400
57020577	250	.380	.67	60	28.0	5.60	66	57	640
57030577	230	.400	.88	48	24.0	6.10	66	25	740
58020577	200	.830	2.36	130	54.0	9.80	93	120	1,900
58030577	270	.420	1.30	70	22.0	7.20	90	69	610
59020577	150	.150	.52	43	13.0	2.60	127	68	140
59030577	150	.220	.78	39	30.0	4.50	11	43	390

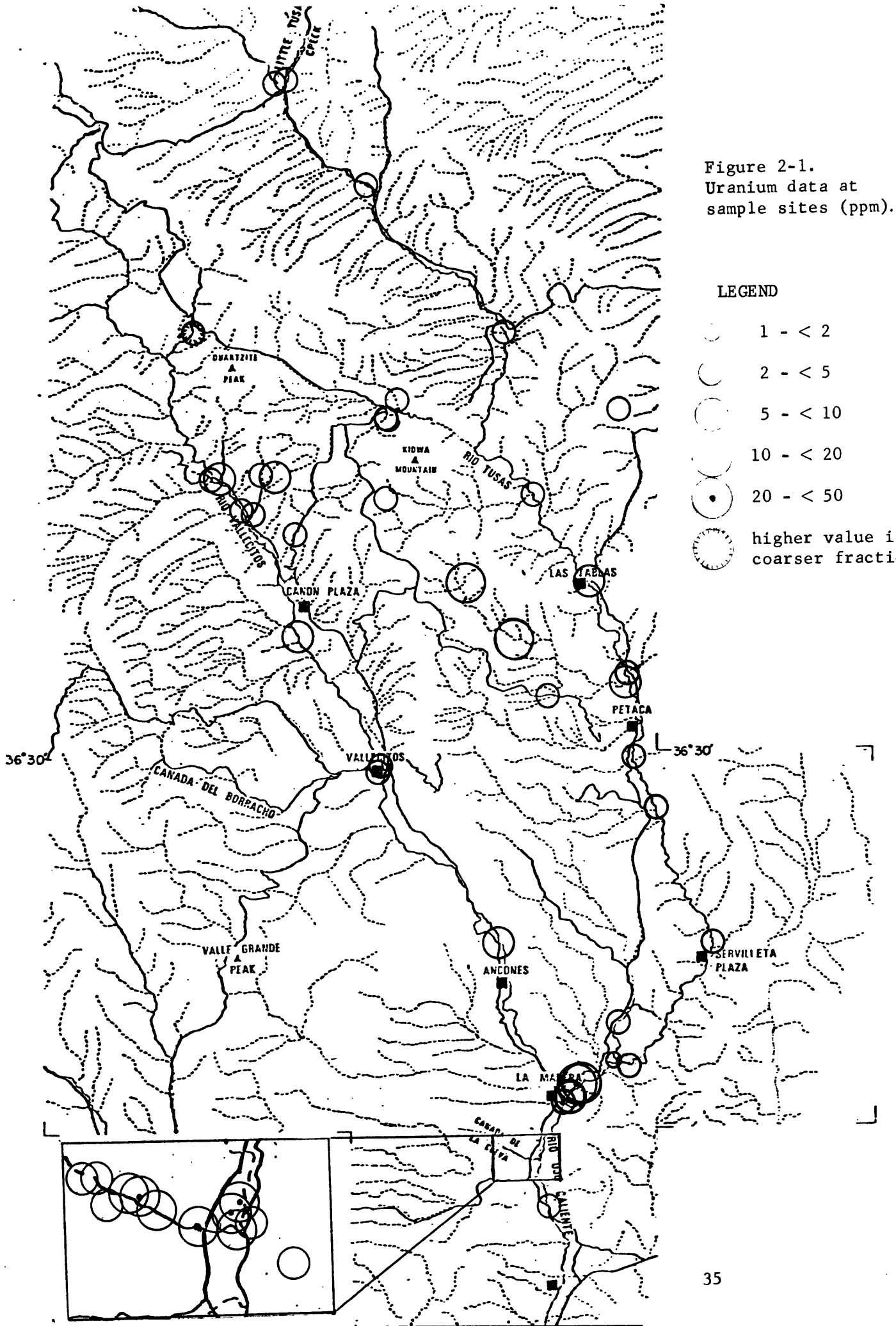

Figure 2-1.
Uranium data at sample sites (ppm).

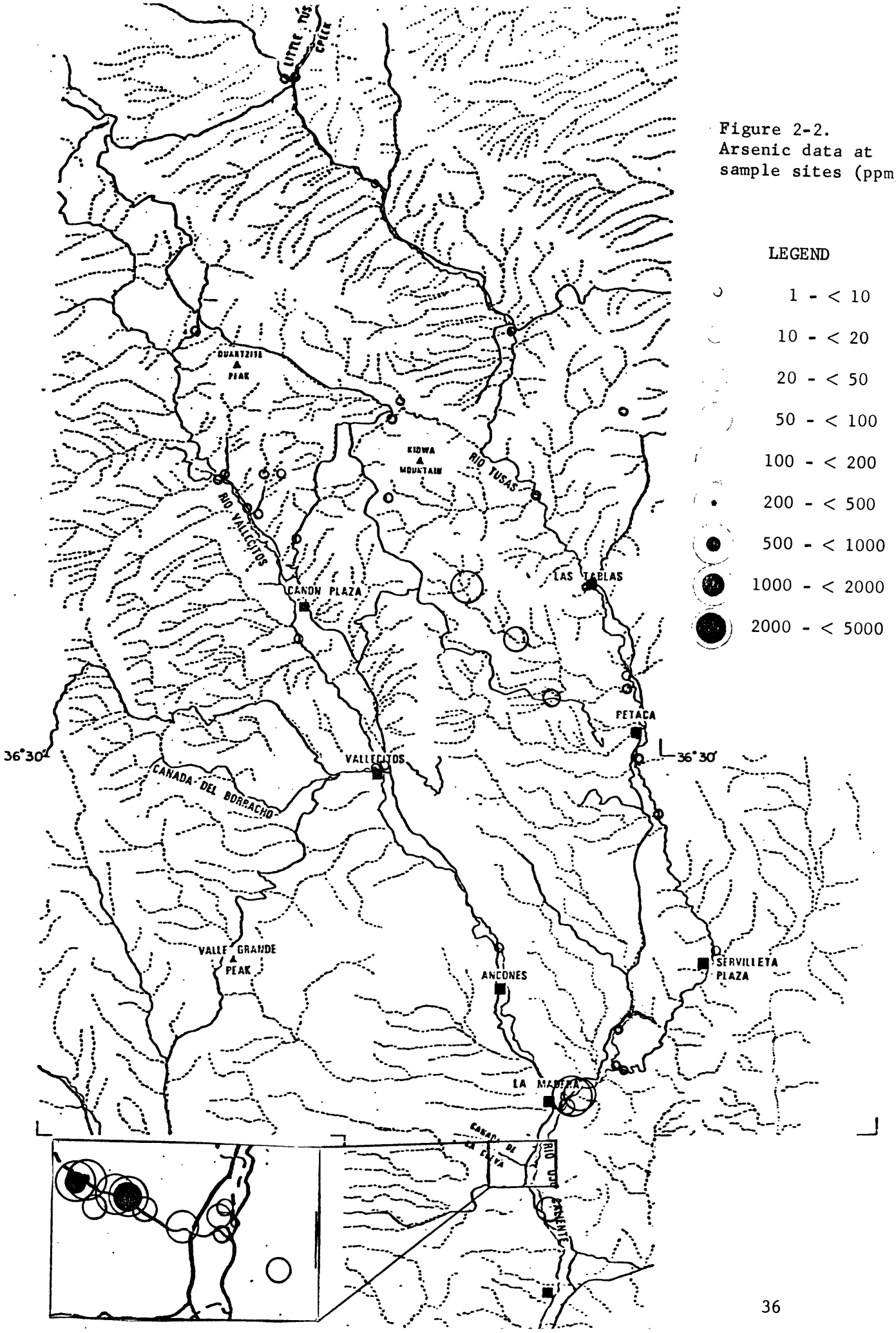

Figure 2-2.
Arsenic data at sample sites (ppm).

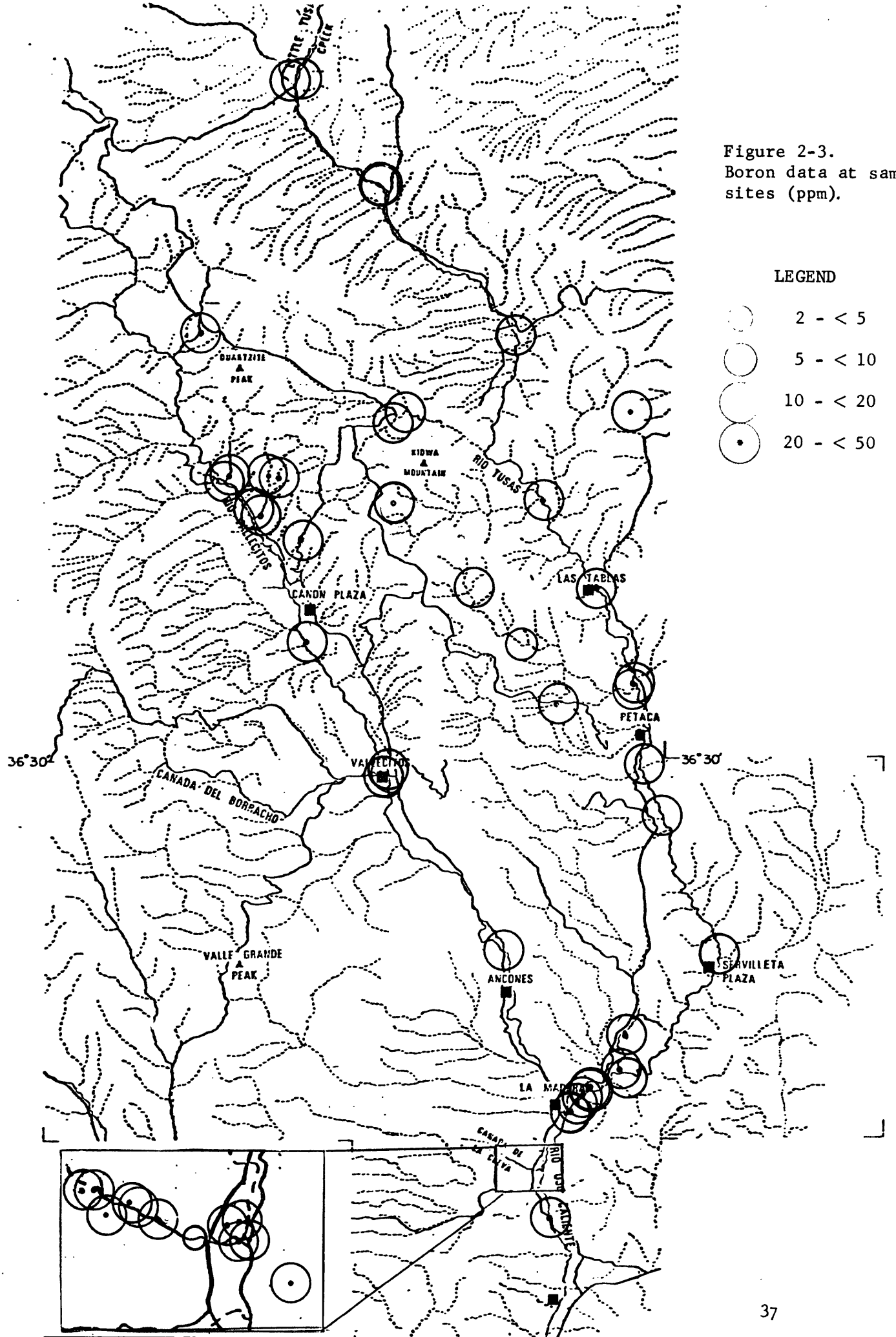

Figure 2-3.
Boron data at sample sites (ppm).

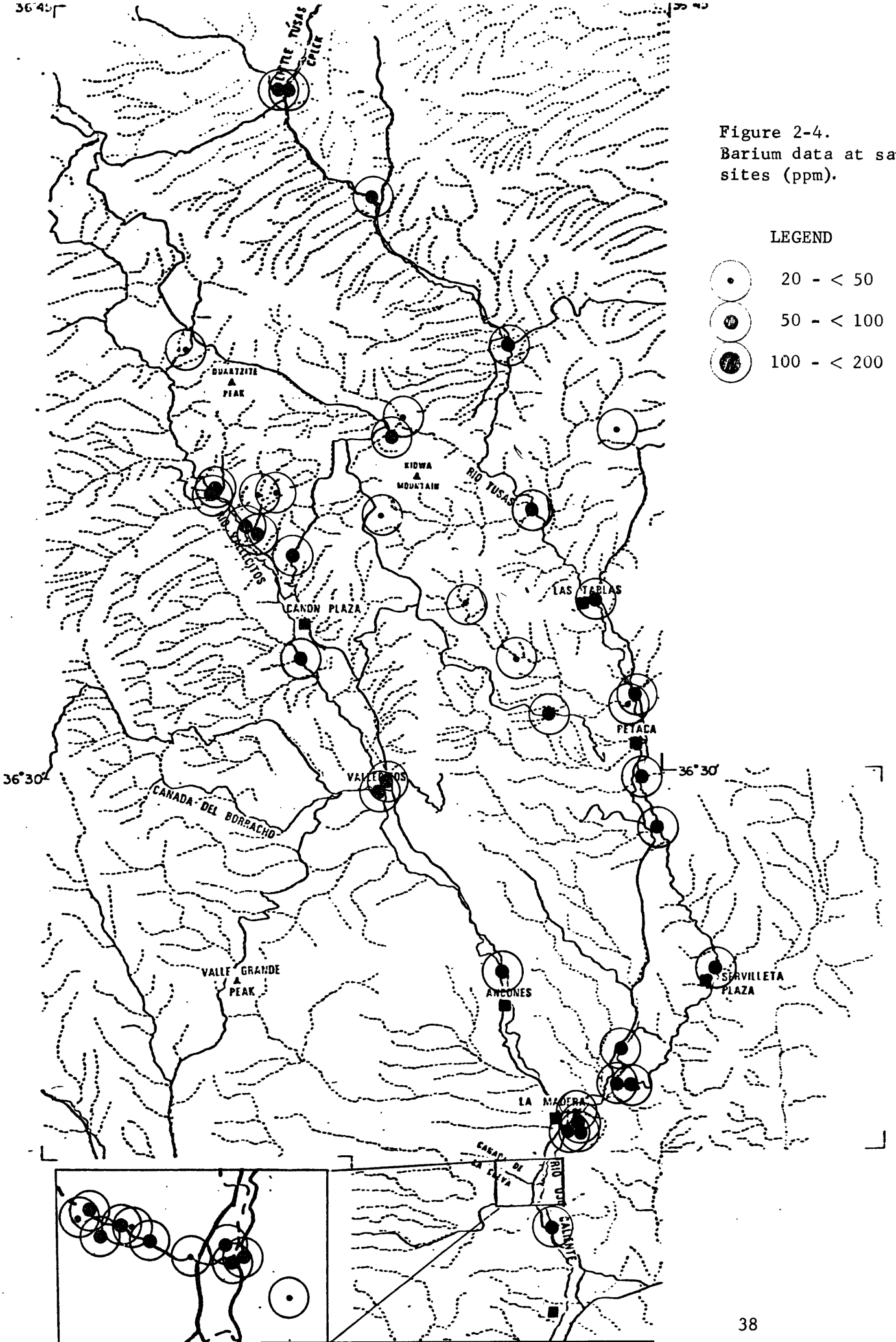

Figure 2-4.
Barium data at sample sites (ppm).

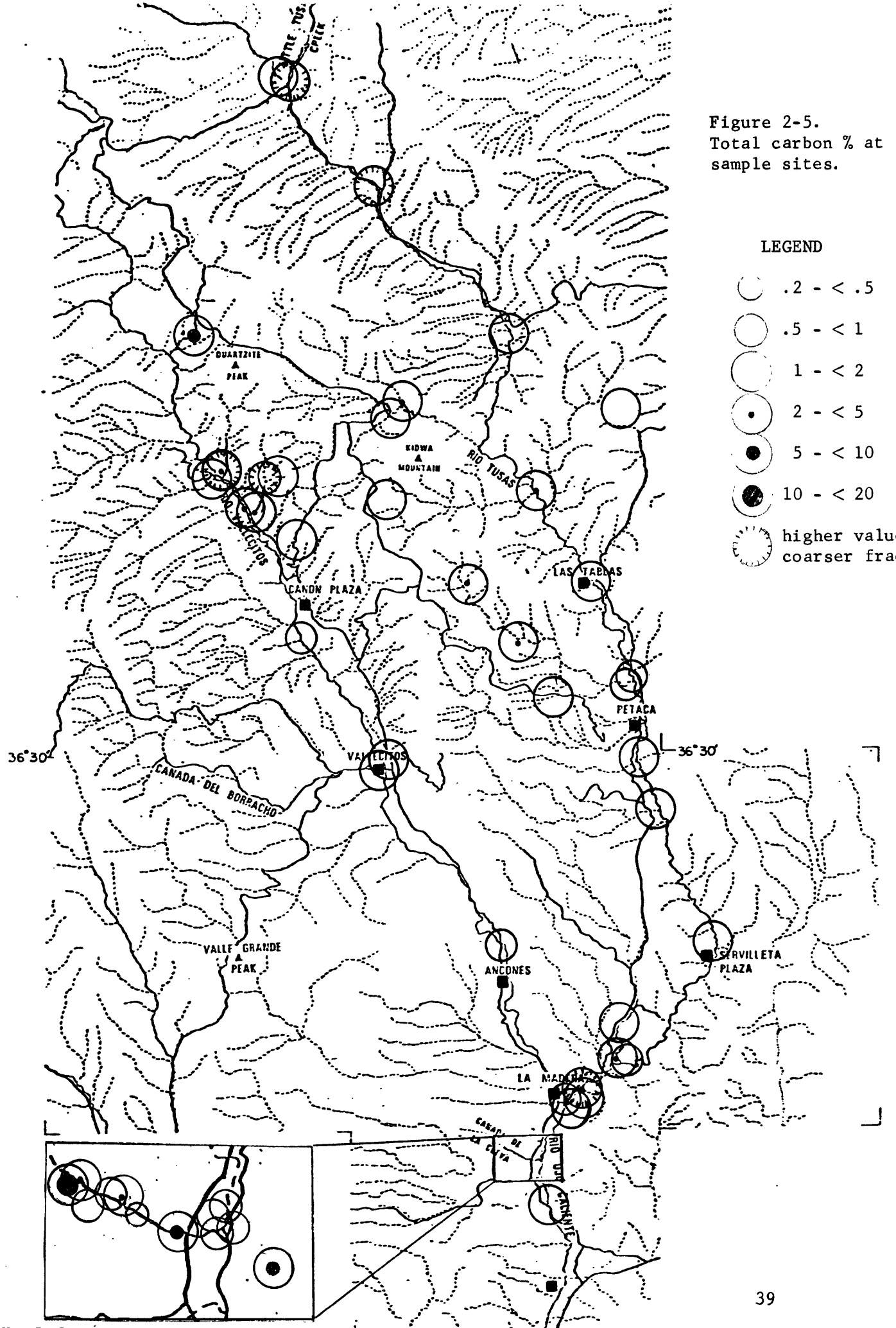

Figure 2-5.
Total carbon % at sample sites.

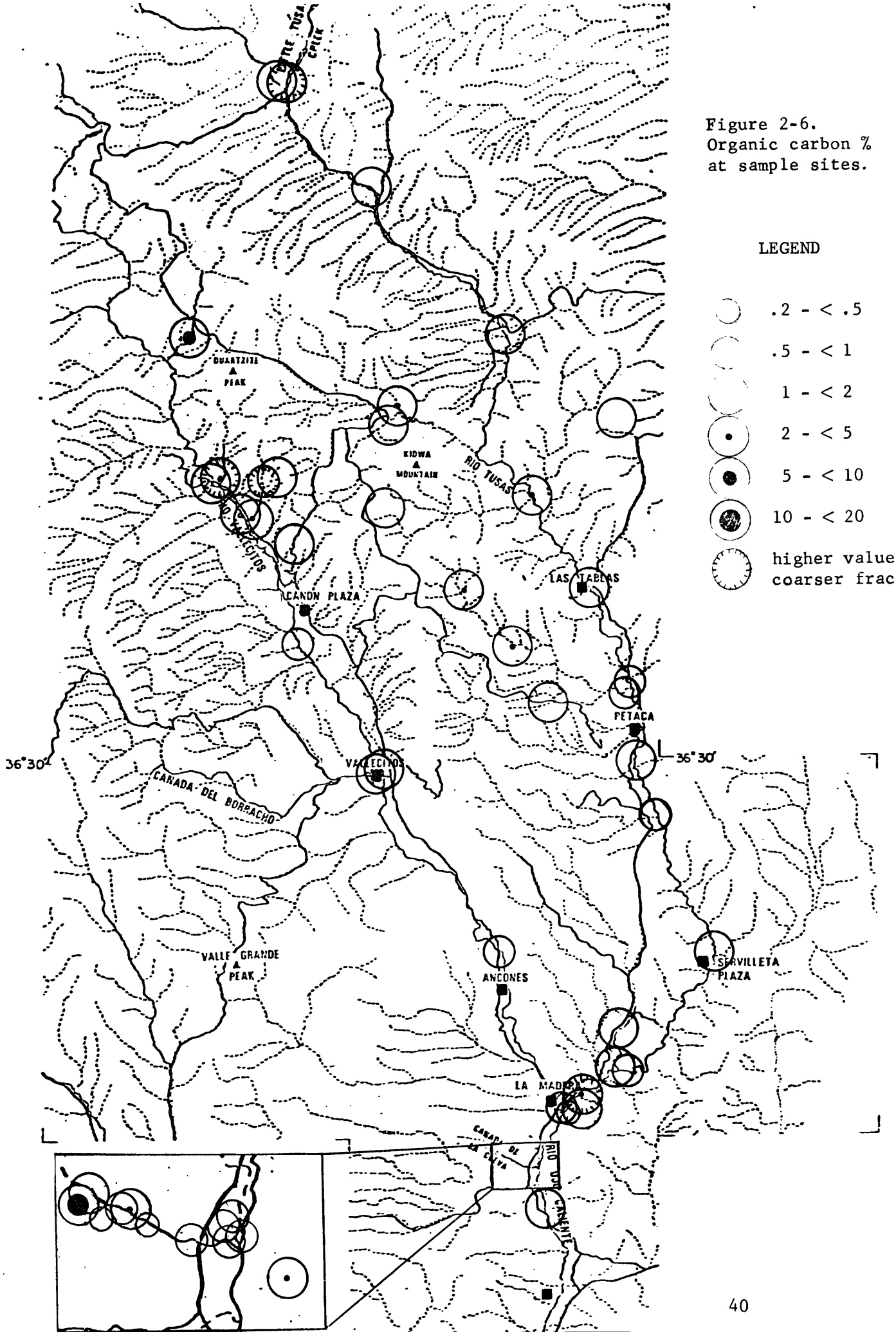

Figure 2-6.
Organic carbon %
at sample sites.

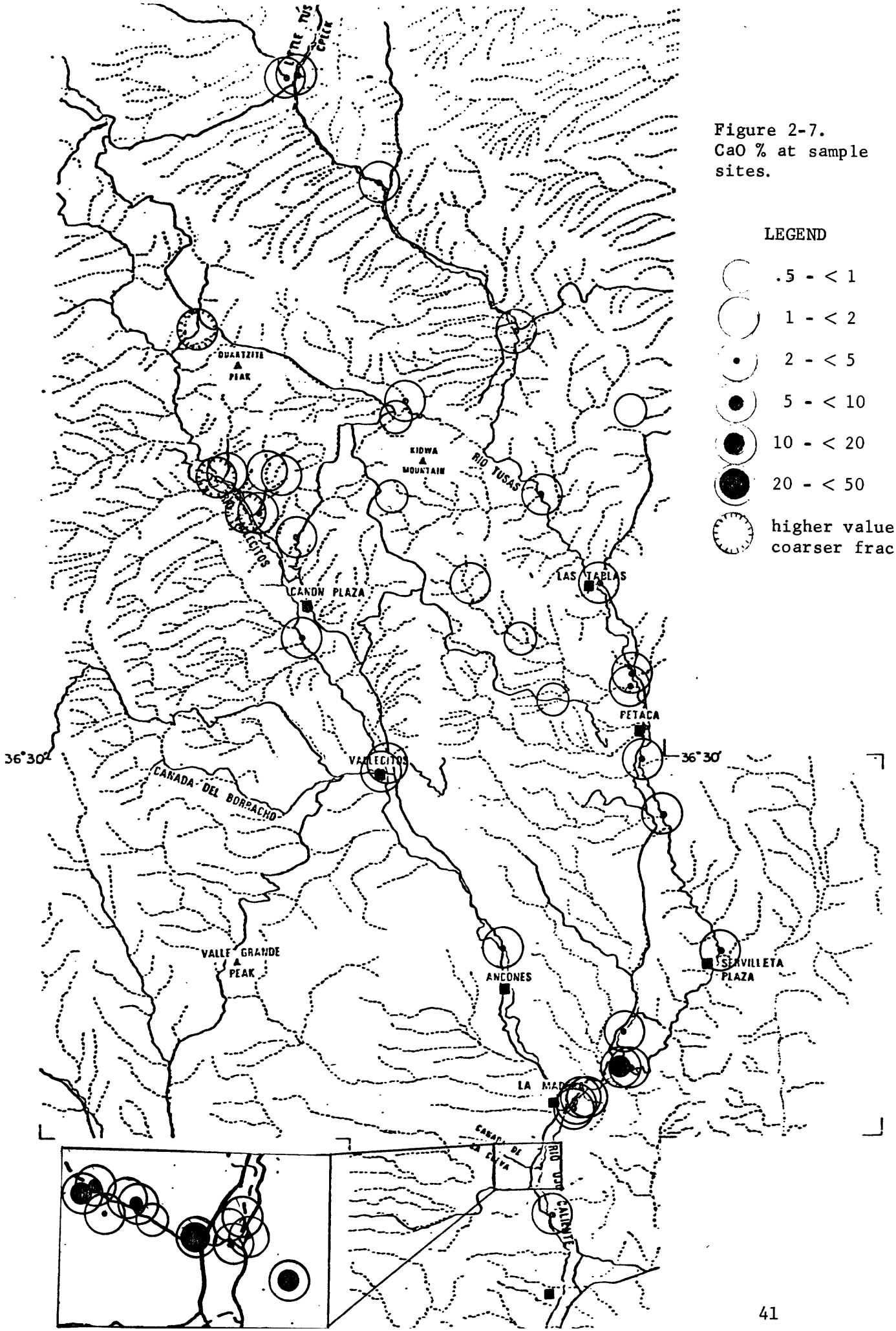

Figure 2-7.
CaO % at sample sites.

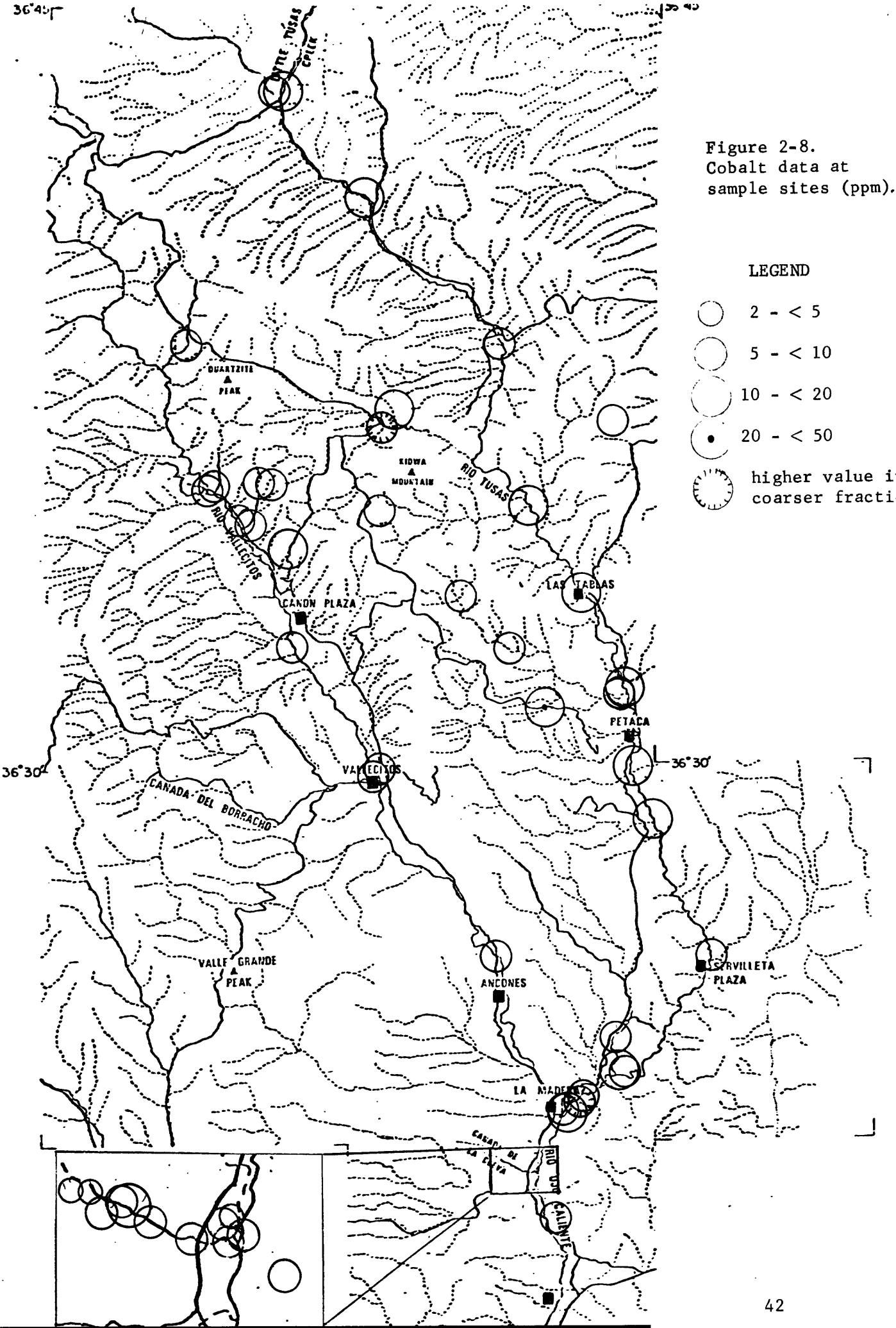

Figure 2-8.
Cobalt data at sample sites (ppm).

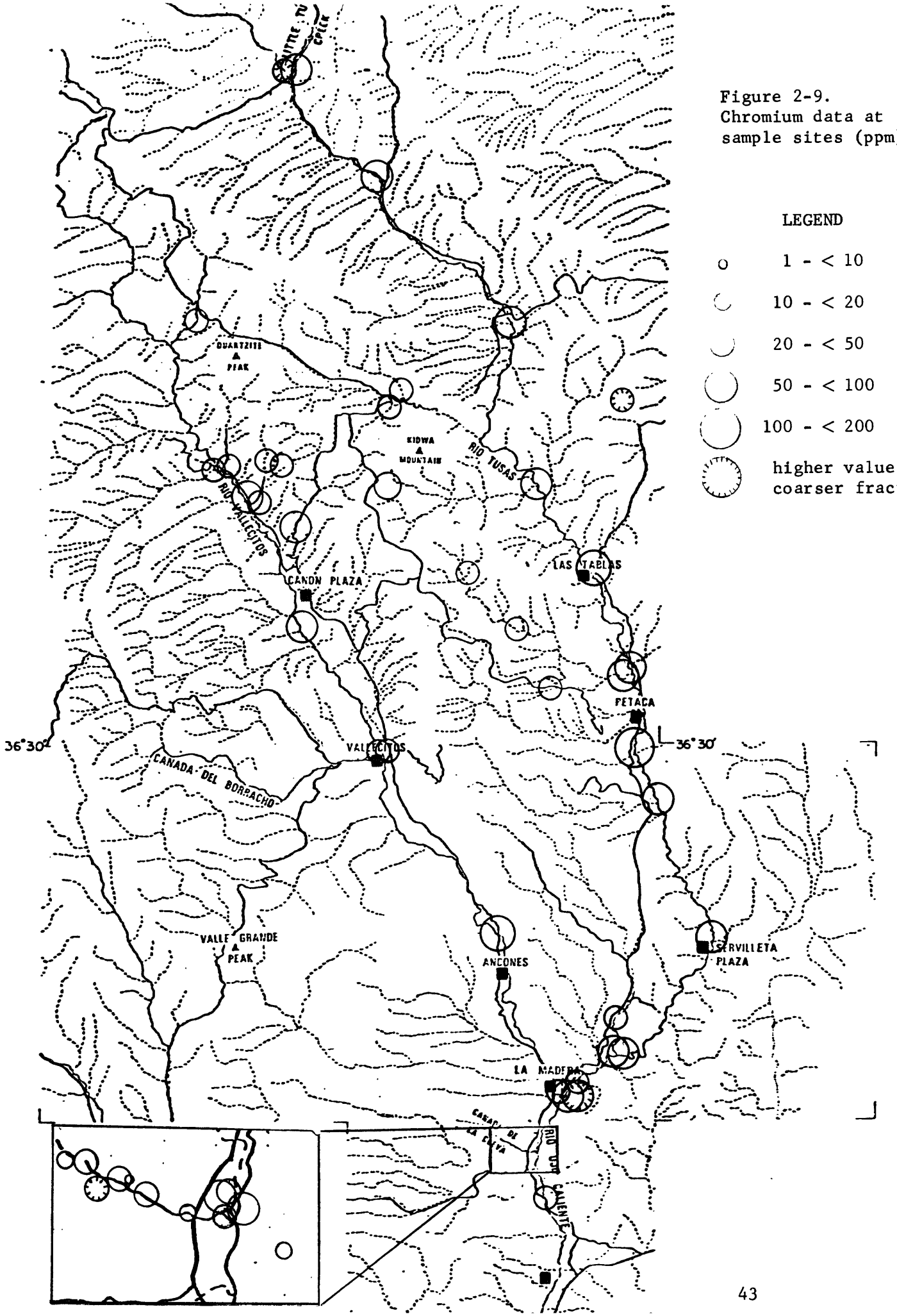

Figure 2-9.
Chromium data at sample sites (ppm).

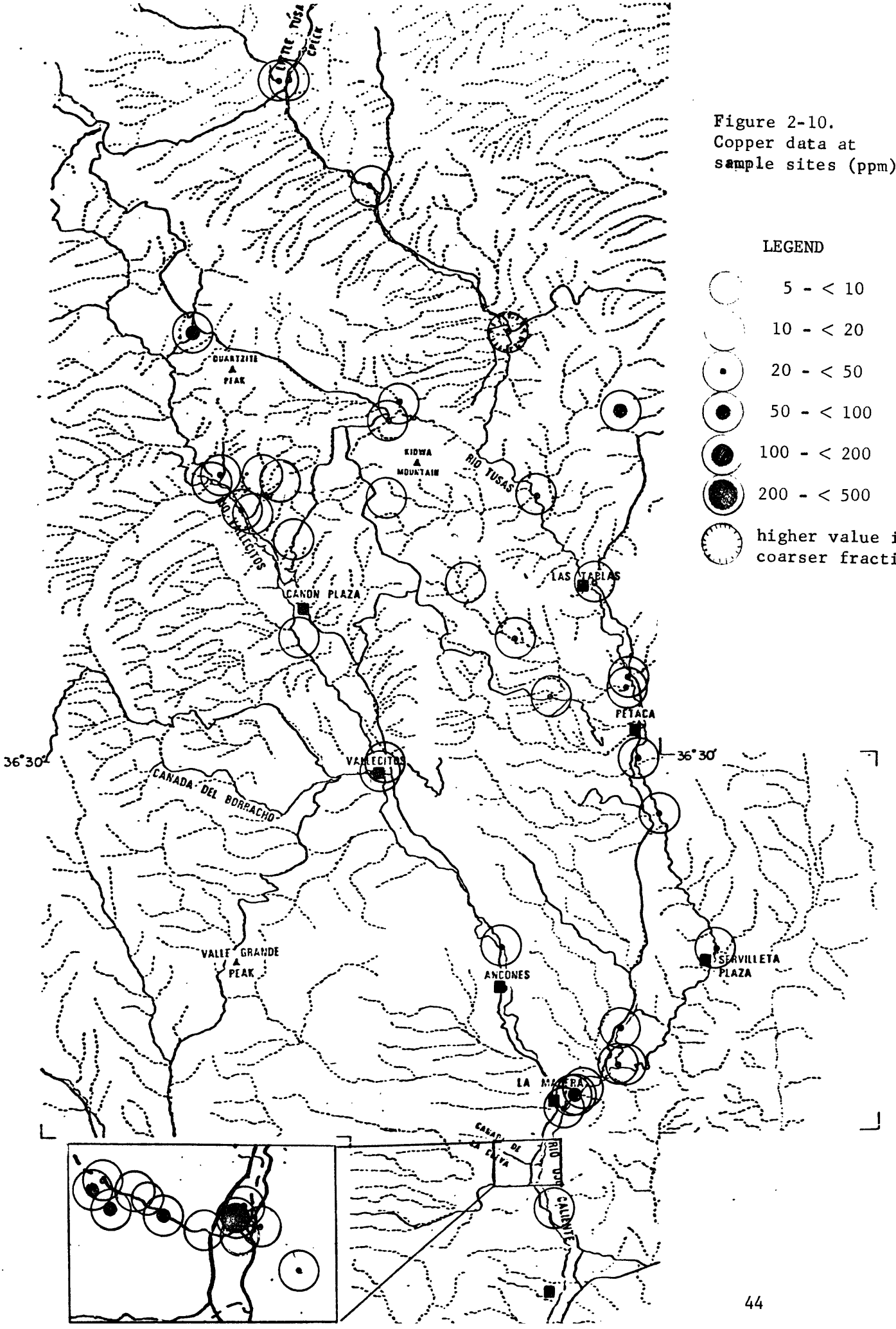

Figure 2-10. Copper data at sample sites (ppm).

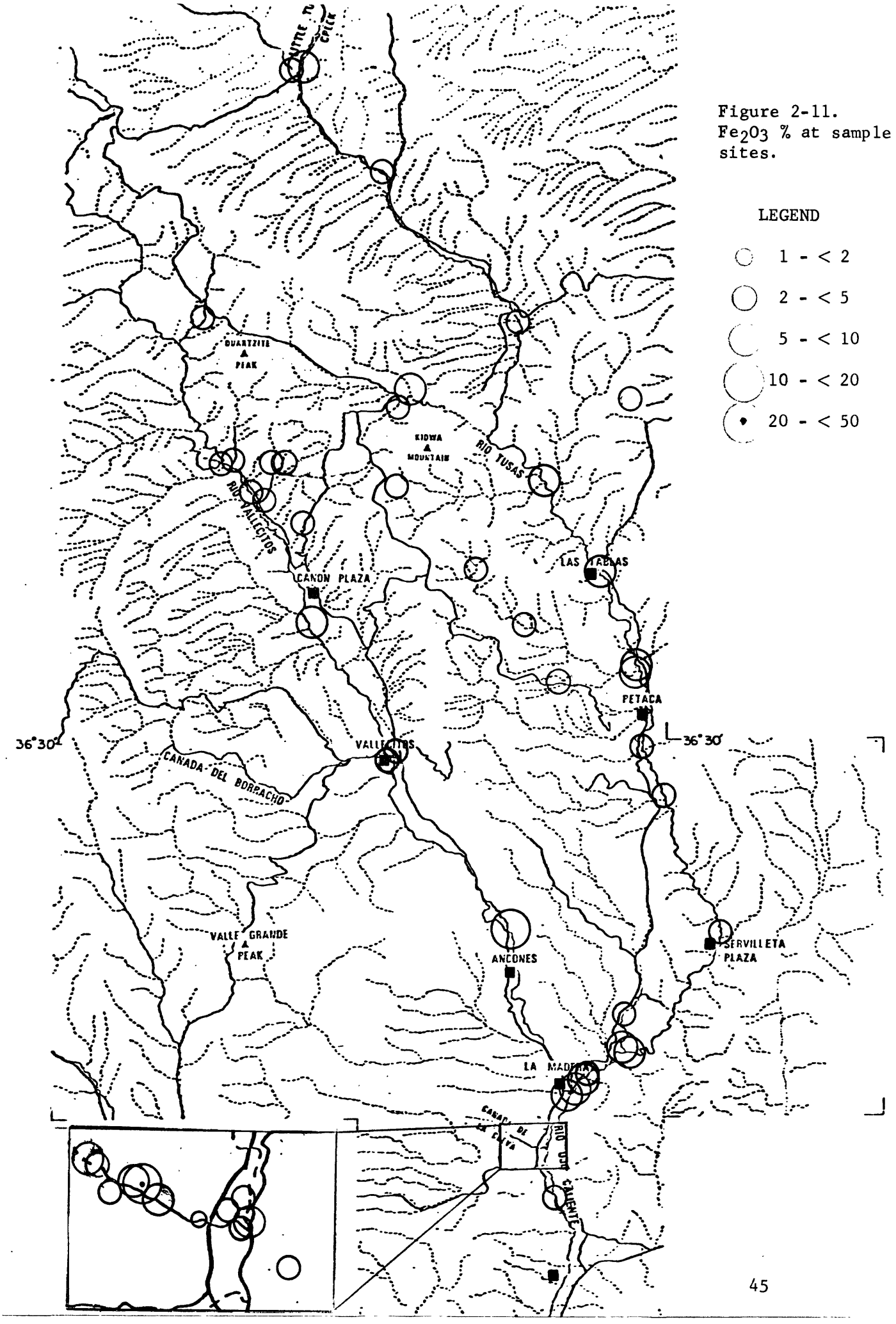

Figure 2-11. Fe_2O_3 % at sample sites.

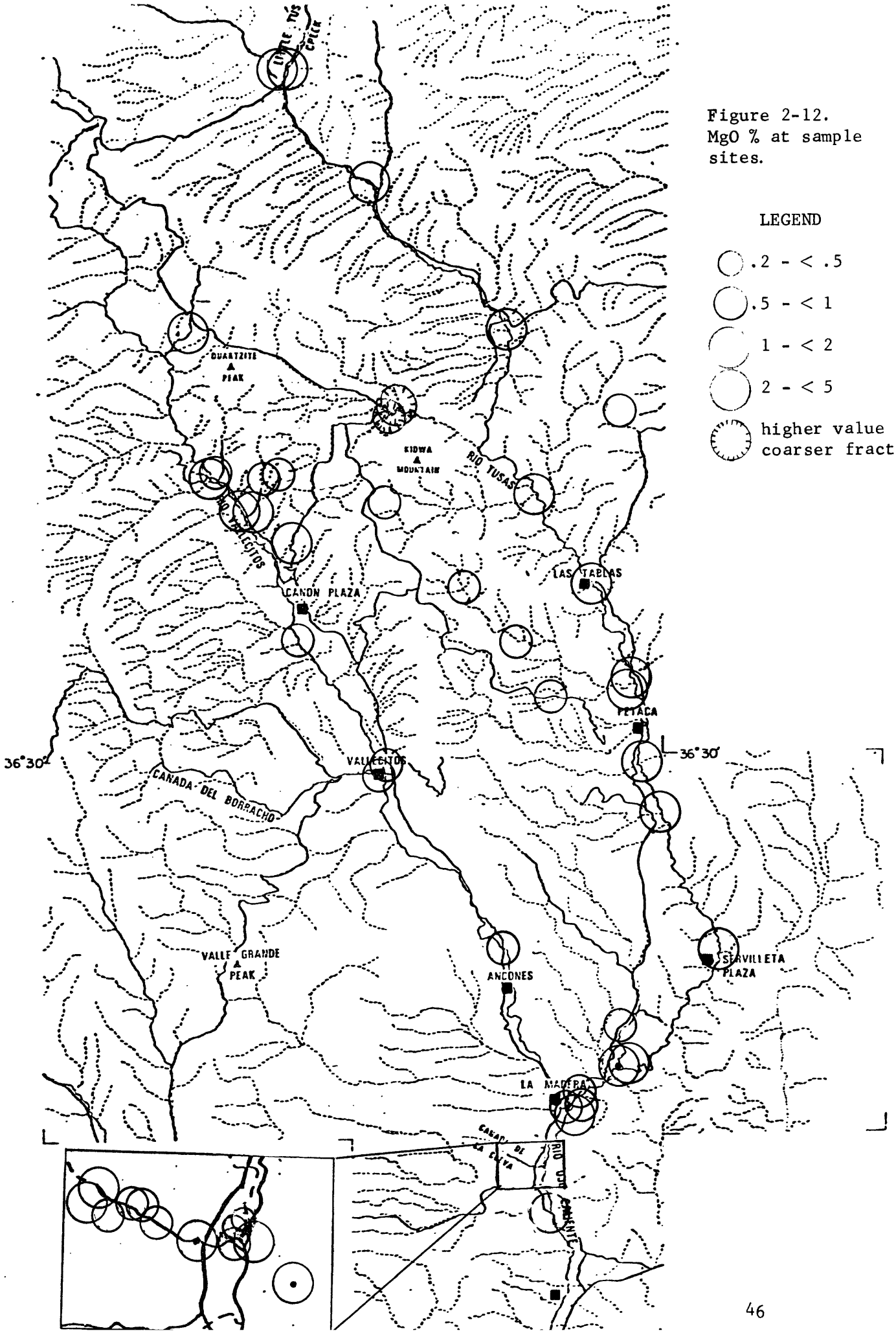

Figure 2-12. MgO % at sample sites.

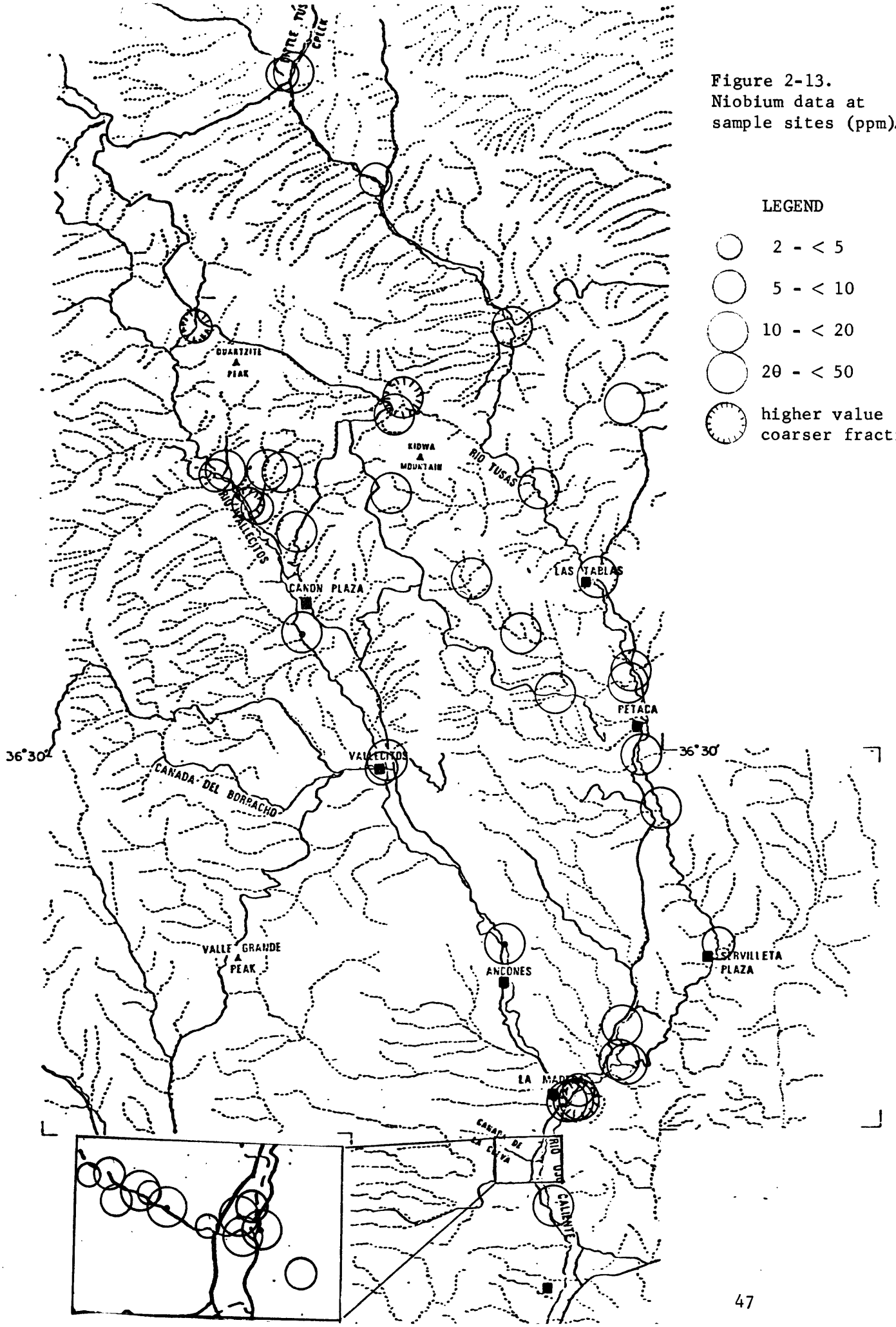

Figure 2-13. Niobium data at sample sites (ppm).

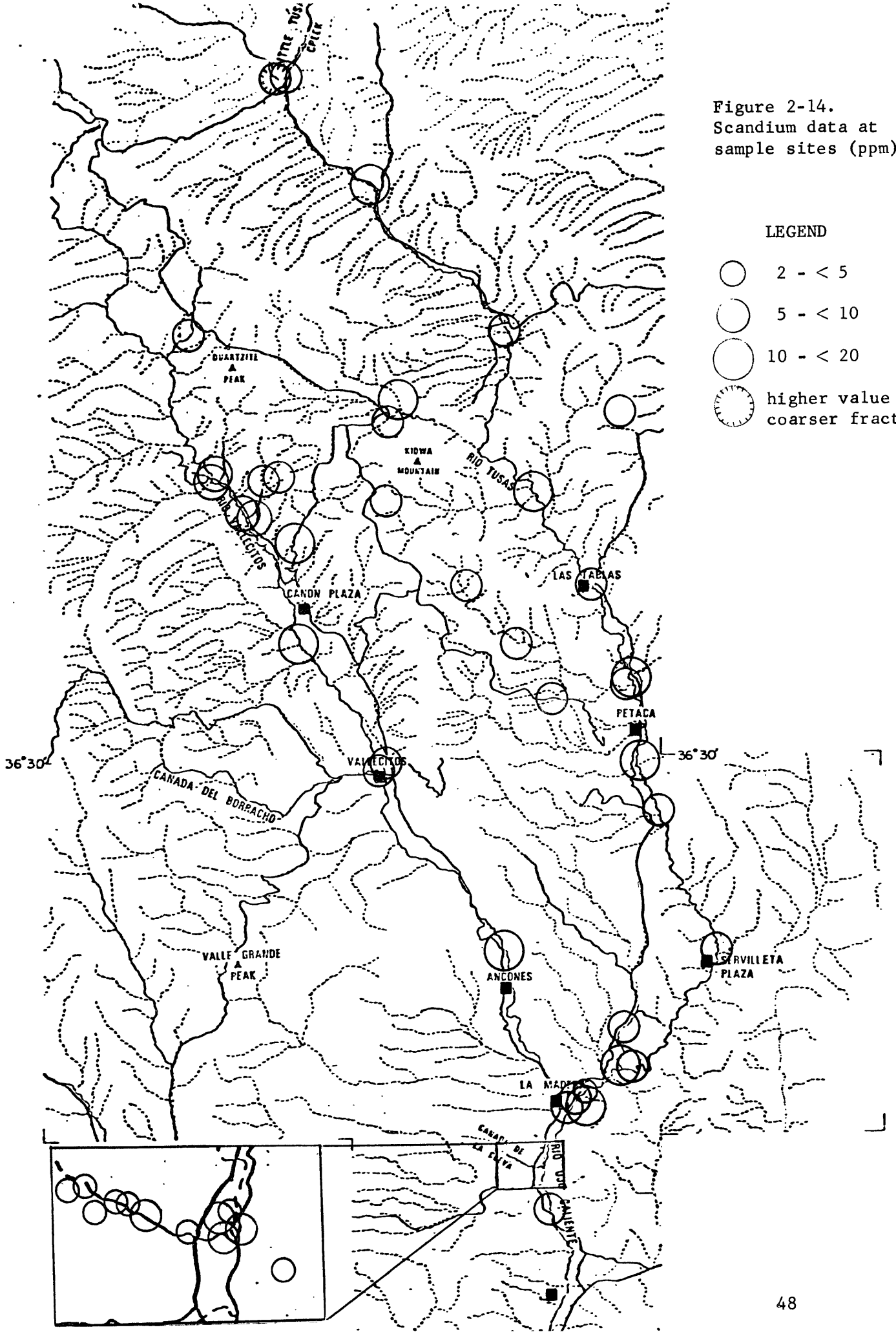

Figure 2-14.
Scandium data at sample sites (ppm).

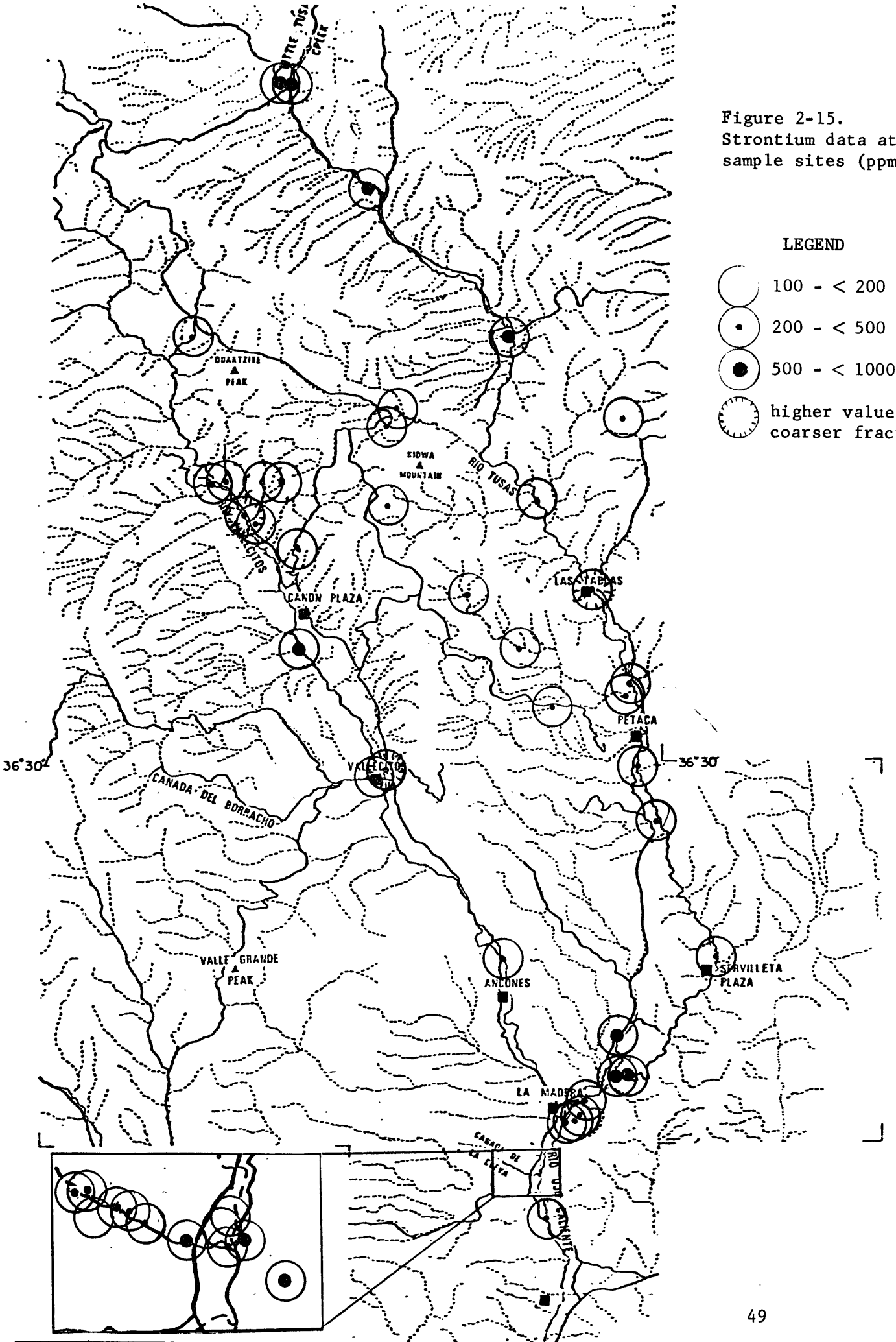

Figure 2-15.
Strontium data at sample sites (ppm).

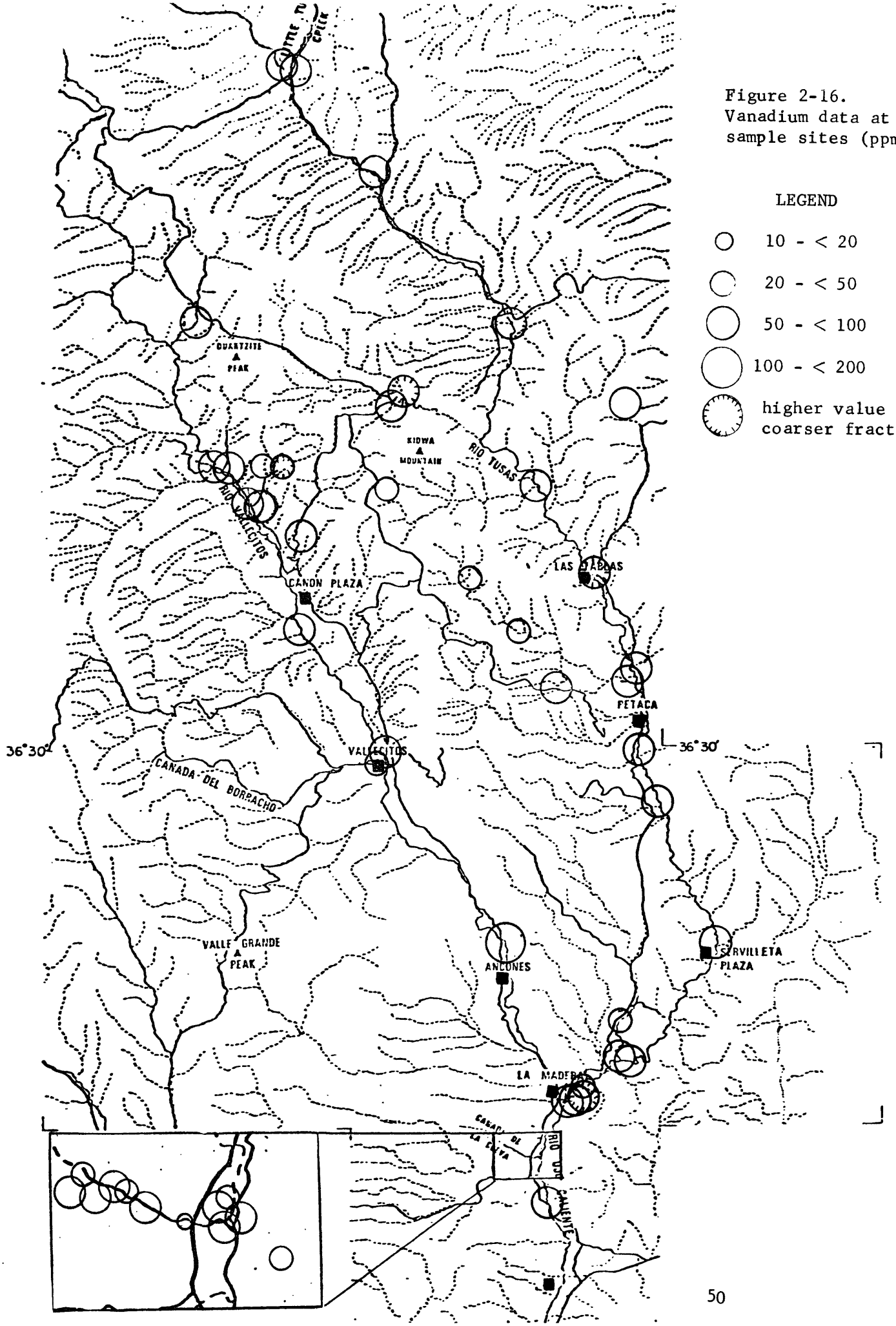

Figure 2-16. Vanadium data at sample sites (ppm).

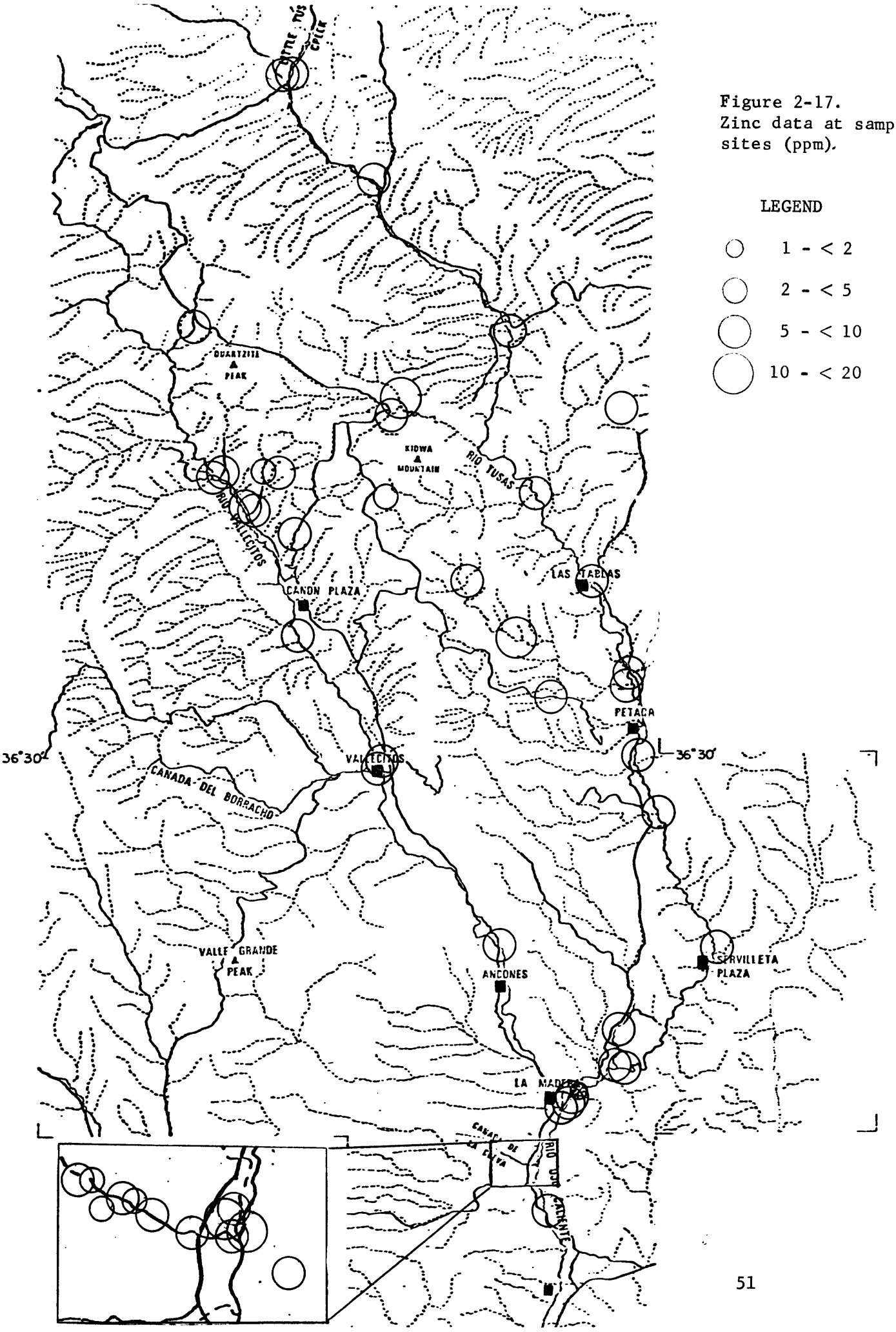

Figure 2-17.
Zinc data at sample sites (ppm).

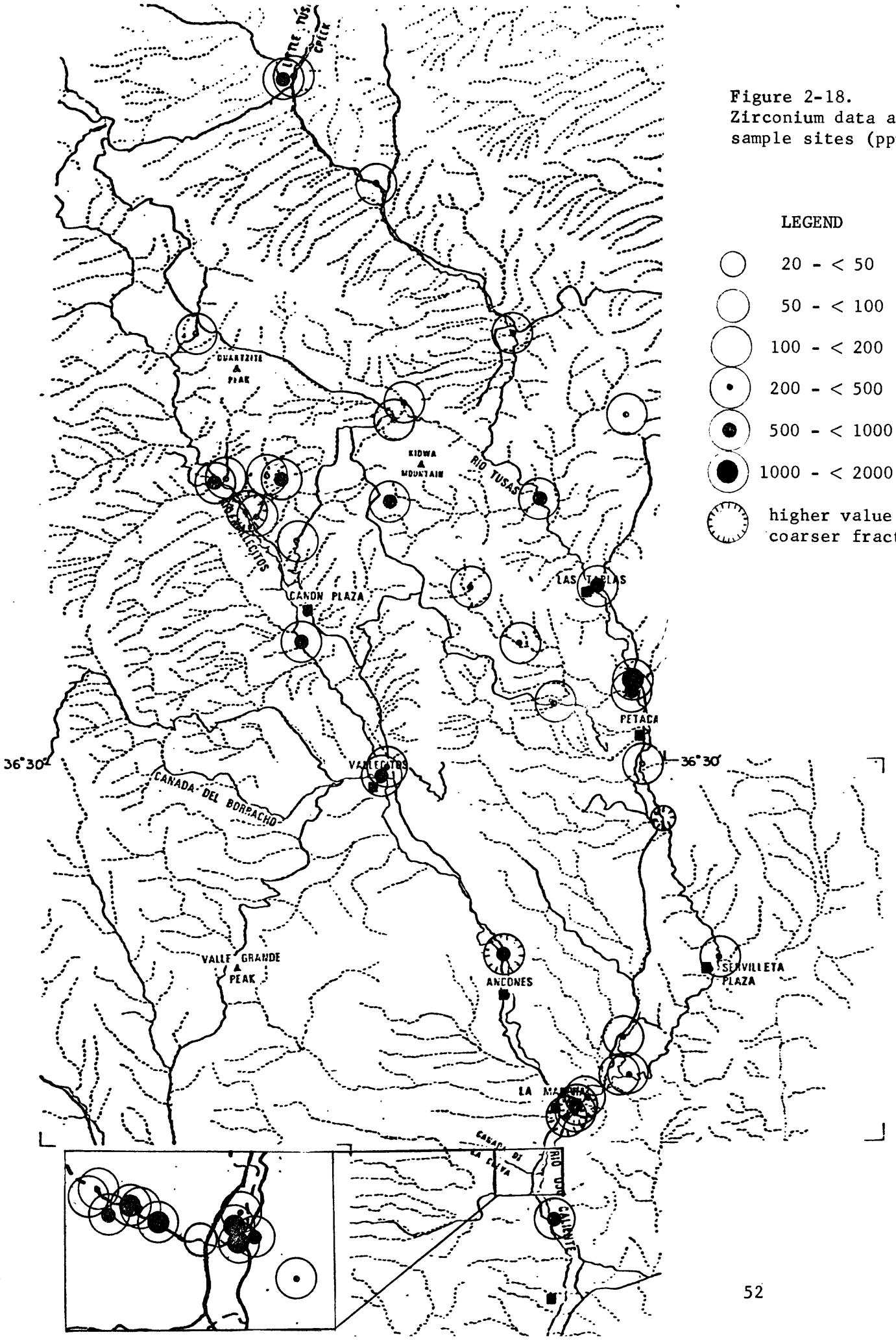

Figure 2-18.
Zirconium data at sample sites (ppm).

Table 4. Frequency Distribution for Elements Found in Stream Sediments of the Rio Ojo Caliente Drainage Basin

FREQUENCY TABLE FOR: L-U ppmN

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
1.761e-01	-	3.561e-01	8	8	8.00	8.00
3.561e-01	-	5.361e-01	27	35	27.00	35.00
5.361e-01	-	7.161e-01	37	72	37.00	72.00
7.161e-01	-	8.961e-01	10	82	10.00	82.00
8.961e-01	-	1.076e+00	7	89	7.00	89.00
1.076e+00	-	1.256e+00	5	94	5.00	94.00
1.256e+00	-	1.436e+00	4	98	4.00	98.00
1.436e+00	-	1.616e+00	1	99	1.00	99.00
1.616e+00	-	1.796e+00	0	99	0.00	99.00
1.796e+00	-	1.976e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-U ppmN

```
2.661e-01 XXXXXXXX
4.461e-01 XXXXXXXXXXXXXXXXXXXXXXXXX
6.261e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
8.061e-01 XXXXXXXXXX
9.861e-01 XXXXXXX
1.166e+00 XXXXX
1.346e+00 XXXX
1.526e+00 X
1.706e+00
1.886e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.76091e-01
MAXIMUM = 1.79934e+00
MEAN = 6.62953e-01
STD DEV = 2.94806e-01
VARIANCE= 8.69108e-02

FREQUENCY TABLE FOR: L-THppmN

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
0.000e+00	-	1.800e-01	1	1	1.20	1.20
1.800e-01	-	3.600e-01	0	1	0.00	1.20
3.600e-01	-	5.400e-01	2	3	2.41	3.61
5.400e-01	-	7.200e-01	6	9	7.23	10.84
7.200e-01	-	9.000e-01	23	32	27.71	38.55
9.000e-01	-	1.080e+00	37	69	44.58	83.13
1.080e+00	-	1.260e+00	13	82	15.66	98.80
1.260e+00	-	1.440e+00	0	82	0.00	98.80
1.440e+00	-	1.620e+00	1	83	1.20	100.00
	G		0	83	0.00	100.00
	H		0	83		
	B		17	100		
TOTALS LESS H AND B			83			

HISTOGRAM FOR: L-THppmN

```
9.000e-02 X
2.700e-01
4.500e-01 XX
6.300e-01 XXXXXXX
8.100e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
9.900e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.170e+00 XXXXXXXXXXXXXXXX
1.350e+00
1.530e+00 X
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THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 0.00000e+00
MAXIMUM = 1.46240e+00
MEAN = 9.25057e-01
STD DEV = 1.99688e-01
VARIANCE= 3.98754e-02

Table 4, continued

FREQUENCY TABLE FOR: L-AL203%

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.761e-01	-	2.861e-01	1	1	1.00	1.00
2.861e-01	-	3.961e-01	0	1	0.00	1.00
5.961e-01	-	5.061e-01	0	1	0.00	1.00
5.061e-01	-	6.161e-01	2	3	2.00	3.00
6.161e-01	-	7.261e-01	2	5	2.00	5.00
7.261e-01	-	8.361e-01	11	16	11.00	16.00
8.361e-01	-	9.461e-01	12	28	12.00	28.00
9.461e-01	-	1.056e+00	34	62	34.00	62.00
1.056e+00	-	1.166e+00	36	98	36.00	98.00
1.166e+00	-	1.276e+00	2	100	2.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-AL203%

```
2.311e-01 X
3.411e-01
4.511e-01
5.611e-01 XX
6.711e-01 XX
7.811e-01 XXXXXXXXXXX
8.911e-01 XXXXXXXXXXXX
1.001e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.111e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.221e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.76091e-01
MAXIMUM = 1.17026e+00
MEAN = 9.81667e-01
STD DEV = 1.47781e-01
VARIANCE= 2.18392e-02

FREQUENCY TABLE FOR: L-ASppmA

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.761e-01	-	5.461e-01	28	28	28.00	28.00
5.461e-01	-	9.161e-01	29	57	29.00	57.00
9.161e-01	-	1.286e+00	19	76	19.00	76.00
1.286e+00	-	1.656e+00	8	84	8.00	84.00
1.656e+00	-	2.026e+00	9	93	9.00	93.00
2.026e+00	-	2.396e+00	3	96	3.00	96.00
2.396e+00	-	2.766e+00	1	97	1.00	97.00
2.766e+00	-	3.136e+00	2	99	2.00	99.00
3.136e+00	-	3.506e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-ASppmA

```
3.611e-01 XXXXXXXXXXXXXXXXXXXXXXXXXX
7.311e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.101e+00 XXXXXXXXXXXXXXXXXX
1.471e+00 XXXXXXXX
1.841e+00 XXXXXXXXX
2.211e+00 XXX
2.581e+00 X
2.951e+00 XX
3.321e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.76091e-01
MAXIMUM = 3.46240e+00
MEAN = 1.00368e+00
STD DEV = 6.42426e-01
VARIANCE= 4.12711e-01

Table 4, continued

FREQUENCY TABLE FOR: L-BAppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
2.083e+00	-	2.250e+00	1	1	1.00	1.00
2.250e+00	-	2.416e+00	2	3	2.00	3.00
2.416e+00	-	2.583e+00	10	13	10.00	13.00
2.583e+00	-	2.750e+00	41	54	41.00	54.00
2.750e+00	-	2.916e+00	44	98	44.00	98.00
2.916e+00	-	3.083e+00	2	100	2.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-BAppmS

```
2.166e+00 X
2.333e+00 XX
2.500e+00 XXXXXXXXXX
2.666e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.833e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.000e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM =	2.23045e+00
MAXIMUM =	2.99123e+00
MEAN =	2.71750e+00
STD DEV =	1.27746e-01
VARIANCE=	1.63189e-02

FREQUENCY TABLE FOR: L-BEppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-8.400e-02	-	8.267e-02	3	3	3.00	3.00
8.267e-02	-	2.493e-01	11	14	11.00	14.00
2.493e-01	-	4.160e-01	50	64	50.00	64.00
4.160e-01	-	5.827e-01	18	82	18.00	82.00
5.827e-01	-	7.493e-01	9	91	9.00	91.00
7.493e-01	-	9.160e-01	4	95	4.00	95.00
9.160e-01	-	1.083e+00	2	97	2.00	97.00
1.083e+00	-	1.249e+00	2	99	2.00	99.00
1.249e+00	-	1.416e+00	0	99	0.00	99.00
1.416e+00	-	1.583e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-BEppmS

```
-6.667e-04 XXX
 1.660e-01 XXXXXXXXXX
 3.327e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 4.993e-01 XXXXXXXXXXXXXXXXX
 6.660e-01 XXXXXXXXX
 8.327e-01 XXXX
 9.993e-01 XX
 1.166e+00 XX
 1.333e+00
 1.499e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM =	0.00000e+00
MAXIMUM =	1.55630e+00
MEAN =	4.22140e-01
STD DEV =	2.44360e-01
VARIANCE=	5.97116e-02

Table 4, continued

FREQUENCY TABLE FOR: L-Tl C %

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-1.046e+00	-	-8.058e-01	1	1	1.01	1.01
-8.058e-01	-	-5.658e-01	8	9	8.08	9.09
-5.658e-01	-	-3.258e-01	3	12	3.03	12.12
-3.258e-01	-	-8.576e-02	20	32	20.20	32.32
-8.576e-02	-	1.542e-01	25	57	25.25	57.58
1.542e-01	-	3.942e-01	21	78	21.21	78.79
3.942e-01	-	6.342e-01	11	89	11.11	89.90
6.342e-01	-	8.742e-01	6	95	6.06	95.96
8.742e-01	-	1.114e+00	3	98	3.03	98.99
1.114e+00	-	1.354e+00	1	99	1.01	100.00
	G		0	99	0.00	100.00
	H		0	99		
	B		1	100		
TOTALS LESS H AND B			99			

HISTOGRAM FOR: L-Tl C %

```
-9.258e-01 X
-6.858e-01 XXXXXXXX
-4.458e-01 XXX
-2.058e-01 XXXXXXXXXXXXXXXXXXX
 3.424e-02 XXXXXXXXXXXXXXXXXXXXXXXX
 2.742e-01 XXXXXXXXXXXXXXXXXXX
 5.142e-01 XXXXXXXXXX
 7.542e-01 XXXXXX
 9.942e-01 XXX
 1.234e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.04576e+00
MAXIMUM = 1.12057e+00
MEAN = 9.33562e-02
STD DEV = 4.12759e-01
VARIANCE= 1.70370e-01

FREQUENCY TABLE FOR: L-InorC%

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		63	63	63.64	63.64
	T		0	63	0.00	63.64
-1.155e+00	-	-8.749e-01	19	82	19.19	82.83
-8.749e-01	-	-5.949e-01	2	84	2.02	84.85
-5.949e-01	-	-3.149e-01	5	89	5.05	89.90
-3.149e-01	-	-3.490e-02	2	91	2.02	91.92
-3.490e-02	-	2.451e-01	1	92	1.01	92.93
2.451e-01	-	5.251e-01	5	97	5.05	97.98
5.251e-01	-	8.051e-01	1	98	1.01	98.99
8.051e-01	-	1.085e+00	1	99	1.01	100.00
	G		0	99	0.00	100.00
	H		0	99		
	B		1	100		
TOTALS LESS H AND B			99			

HISTOGRAM FOR: L-InorC%

```
-1.015e+00 XXXXXXXXXXXXXXXXXX
-7.349e-01 XX
-4.549e-01 XXXXX
-1.749e-01 XX
 1.051e-01 X
 3.851e-01 XXXXX
 6.651e-01 X
 9.451e-01 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.15490e+00
MAXIMUM = 8.29947e-01
MEAN = -6.02547e-01
STD DEV = 6.49646e-01
VARIANCE= 4.22040e-01

Table 4, continued

FREQUENCY TABLE FOR: L-Org C%

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-1.222e+00	-	-9.718e-01	2	2	2.02	2.02
-9.718e-01	-	-7.218e-01	5	7	5.05	7.07
-7.218e-01	-	-4.718e-01	6	13	6.06	13.13
-4.718e-01	-	-2.218e-01	6	19	6.06	19.19
-2.218e-01	-	2.815e-02	27	46	27.27	46.46
2.815e-02	-	2.782e-01	29	75	29.29	75.76
2.782e-01	-	5.282e-01	14	89	14.14	89.90
5.282e-01	-	7.782e-01	6	95	6.06	95.96
7.782e-01	-	1.028e+00	4	99	4.04	100.00
	G		0	99	0.00	100.00
	H		0	99		
	B		1	100		
TOTALS LESS H AND B			99			

HISTOGRAM FOR: L-Org C%

```
-1.097e+00 XX
-8.468e-01 XXXXX
-5.968e-01 XXXXXX
-3.468e-01 XXXXXX
-9.685e-02 XXXXXXXXXXXXXXXXXXXXXXXXX
 1.532e-01 XXXXXXXXXXXXXXXXXXXXXXXXXX
 4.032e-01 XXXXXXXXXXXXX
 6.532e-01 XXXXXX
 9.032e-01 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.22185e+00
MAXIMUM = 1.02490e+00
MEAN = 2.03474e-02
STD DEV = 4.25430e-01
VARIANCE= 1.80991e-01

FREQUENCY TABLE FOR: L - CA0%

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-4.685e-01	-	-2.485e-01	5	5	5.00	5.00
-2.485e-01	-	-2.852e-02	11	16	11.00	16.00
-2.852e-02	-	1.915e-01	20	36	20.00	36.00
1.915e-01	-	4.115e-01	35	71	35.00	71.00
4.115e-01	-	6.315e-01	19	90	19.00	90.00
6.315e-01	-	8.515e-01	3	93	3.00	93.00
8.515e-01	-	1.071e+00	1	94	1.00	94.00
1.071e+00	-	1.291e+00	5	99	5.00	99.00
1.291e+00	-	1.511e+00	0	99	0.00	99.00
1.511e+00	-	1.731e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L - CA0%

```
-3.585e-01 XXXXX
-1.385e-01 XXXXXXXXXXX
 8.148e-02 XXXXXXXXXXXXXXXXXXXX
 3.015e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 5.215e-01 XXXXXXXXXXXXXXXXXX
 7.415e-01 XXX
 9.615e-01 X
 1.181e+00 XXXXX
 1.401e+00
 1.621e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -4.68521e-01
MAXIMUM = 1.53275e+00
MEAN = 2.95305e-01
STD DEV = 3.49114e-01
VARIANCE= 1.21881e-01

Table 4, continued

FREQUENCY TABLE FOR: L-CEppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			12	12	12.00	12.00
T			0	12	0.00	12.00
1.416e+00	-	1.583e+00	3	15	3.00	15.00
1.583e+00	-	1.749e+00	18	33	18.00	33.00
1.749e+00	-	1.916e+00	27	60	27.00	60.00
1.916e+00	-	2.083e+00	37	97	37.00	97.00
2.083e+00	-	2.249e+00	2	99	2.00	99.00
2.249e+00	-	2.416e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-CEppmS

```
1.499e+00 XXX
1.666e+00 XXXXXXXXXXXXXXXXX
1.833e+00 XXXXXXXXXXXXXXXXXXXXXXXXXX
1.999e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.166e+00 XX
2.333e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.47712e+00
MAXIMUM = 2.25527e+00
MEAN = 1.86987e+00
STD DEV = 1.60119e-01
VARIANCE= 2.56382e-02

FREQUENCY TABLE FOR: L-COppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
2.500e-01	-	4.167e-01	1	1	1.00	1.00
4.167e-01	-	5.833e-01	12	13	12.00	13.00
5.833e-01	-	7.500e-01	15	28	15.00	28.00
7.500e-01	-	9.167e-01	35	63	35.00	63.00
9.167e-01	-	1.083e+00	31	94	31.00	94.00
1.083e+00	-	1.250e+00	6	100	6.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-COppmS

```
3.333e-01 X
5.000e-01 XXXXXXXXXXX
6.667e-01 XXXXXXXXXXXXXX
8.333e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.000e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.167e+00 XXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 3.42423e-01
MAXIMUM = 1.20412e+00
MEAN = 8.43414e-01
STD DEV = 1.84377e-01
VARIANCE= 3.39949e-02

Table 4, continued

FREQUENCY TABLE FOR: L-CRppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
4.160e-01	-	5.827e-01	1	1	1.00	1.00
5.827e-01	-	7.493e-01	1	2	1.00	2.00
7.493e-01	-	9.160e-01	2	4	2.00	4.00
9.160e-01	-	1.083e+00	7	11	7.00	11.00
1.083e+00	-	1.249e+00	7	18	7.00	18.00
1.249e+00	-	1.416e+00	17	35	17.00	35.00
1.416e+00	-	1.583e+00	21	56	21.00	56.00
1.583e+00	-	1.749e+00	19	75	19.00	75.00
1.749e+00	-	1.916e+00	17	92	17.00	92.00
1.916e+00	-	2.083e+00	7	99	7.00	99.00
2.083e+00	-	2.249e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-CRppmS

```
4.993e-01 X
6.660e-01 X
8.327e-01 XX
9.993e-01 XXXXXXX
1.166e+00 XXXXXXX
1.333e+00 XXXXXXXXXXXXXXXX
1.499e+00 XXXXXXXXXXXXXXXXXXXX
1.666e+00 XXXXXXXXXXXXXXXXX
1.833e+00 XXXXXXXXXXXXXXXX
1.999e+00 XXXXXXX
2.166e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 4.47158e-01
MAXIMUM = 2.11394e+00
MEAN = 1.51858e+00
STD DEV = 3.17506e-01
VARIANCE= 1.00810e-01

FREQUENCY TABLE FOR: L-COppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
5.830e-01	-	7.497e-01	7	7	7.00	7.00
7.497e-01	-	9.163e-01	5	12	5.00	12.00
9.163e-01	-	1.083e+00	17	29	17.00	29.00
1.083e+00	-	1.250e+00	19	48	19.00	48.00
1.250e+00	-	1.416e+00	31	79	31.00	79.00
1.416e+00	-	1.583e+00	11	90	11.00	90.00
1.583e+00	-	1.750e+00	6	96	6.00	96.00
1.750e+00	-	1.916e+00	3	99	3.00	99.00
1.916e+00	-	2.083e+00	0	99	0.00	99.00
2.083e+00	-	2.250e+00	0	99	0.00	99.00
2.250e+00	-	2.416e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-COppmS

```
6.663e-01 XXXXXXX
8.330e-01 XXXXX
9.997e-01 XXXXXXXXXXXXXXXX
1.166e+00 XXXXXXXXXXXXXXXXXX
1.333e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.500e+00 XXXXXXXXXX
1.666e+00 XXXXXX
1.833e+00 XXX
2.000e+00
2.166e+00
2.333e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 6.23249e-01
MAXIMUM = 2.30103e+00
MEAN = 1.24035e+00
STD DEV = 2.91130e-01
VARIANCE= 8.47569e-02

Table 4, continued

FREQUENCY TABLE FOR: EU ppm S

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		80	80	80.00	80.00
	I		0	80	0.00	80.00
1.500e+00	-	1.670e+00	8	88	8.00	88.00
1.670e+00	-	1.840e+00	6	94	6.00	94.00
1.840e+00	-	2.010e+00	3	97	3.00	97.00
2.010e+00	-	2.180e+00	0	97	0.00	97.00
2.180e+00	-	2.350e+00	2	99	2.00	99.00
2.350e+00	-	2.520e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: EU ppm S

```
1.585e+00 XXXXXXXX
1.755e+00 XXXXXX
1.925e+00 XXX
2.095e+00
2.265e+00 XX
2.435e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM =  1.50000e+00
MAXIMUM =  2.50000e+00
MEAN    =  1.79000e+00
STD DEV =  2.63379e-01
VARIANCE=  6.93685e-02
```

Table 4, continued

FREQUENCY TABLE FOR: L-FE203%

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-3.098e-01	-	-9.980e-02	2	2	2.00	2.00
-9.980e-02	-	1.102e-01	1	3	1.00	3.00
1.102e-01	-	3.202e-01	8	11	8.00	11.00
3.202e-01	-	5.302e-01	21	32	21.00	32.00
5.302e-01	-	7.402e-01	43	75	43.00	75.00
7.402e-01	-	9.502e-01	18	93	18.00	93.00
9.502e-01	-	1.160e+00	4	97	4.00	97.00
1.160e+00	-	1.370e+00	2	99	2.00	99.00
1.370e+00	-	1.580e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-FE203%

```
-2.048e-01 XX
 5.196e-03 X
 2.152e-01 XXXXXXXX
 4.252e-01 XXXXXXXXXXXXXXXXXXXX
 6.352e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 8.452e-01 XXXXXXXXXXXXXXXXX
 1.055e+00 XXXX
 1.265e+00 XX
 1.475e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -3.09804e-01
MAXIMUM = 1.56182e+00
MEAN = 6.13820e-01
STD DEV = 2.57237e-01
VARIANCE= 6.61710e-02

FREQUENCY TABLE FOR: L-GAppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
2.500e-01	-	4.167e-01	1	1	1.00	1.00
4.167e-01	-	5.833e-01	3	4	3.00	4.00
5.833e-01	-	7.500e-01	7	11	7.00	11.00
7.500e-01	-	9.167e-01	10	21	10.00	21.00
9.167e-01	-	1.083e+00	18	39	18.00	39.00
1.083e+00	-	1.250e+00	38	77	38.00	77.00
1.250e+00	-	1.417e+00	22	99	22.00	99.00
1.417e+00	-	1.583e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-GAppmS

```
3.333e-01 X
5.000e-01 XXX
6.667e-01 XXXXXXX
8.333e-01 XXXXXXXXXX
1.000e+00 XXXXXXXXXXXXXXXXX
1.167e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.333e+00 XXXXXXXXXXXXXXXXXXXX
1.500e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 3.61728e-01
MAXIMUM = 1.53148e+00
MEAN = 1.07896e+00
STD DEV = 2.29992e-01
VARIANCE= 5.28963e-02

Table 4, continued

FREQUENCY TABLE FOR: K20 %

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
3.000e-01	-	8.100e-01	1	1	1.00	1.00
8.100e-01	-	1.320e+00	2	3	2.00	3.00
1.320e+00	-	1.830e+00	9	12	9.00	12.00
1.830e+00	-	2.340e+00	45	57	45.00	57.00
2.340e+00	-	2.850e+00	33	90	33.00	90.00
2.850e+00	-	3.360e+00	7	97	7.00	97.00
3.360e+00	-	3.870e+00	1	98	1.00	98.00
3.870e+00	-	4.380e+00	1	99	1.00	99.00
4.380e+00	-	4.890e+00	0	99	0.00	99.00
4.890e+00	-	5.400e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: K20 %

```
5.550e-01 X
1.065e+00 XX
1.575e+00 XXXXXXXXX
2.085e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.595e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.105e+00 XXXXXXX
3.615e+00 X
4.125e+00 X
4.635e+00
5.145e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 3.00000e-01
MAXIMUM = 4.93000e+00
MEAN = 2.30690e+00
STD DEV = 5.60463e-01
VARIANCE= 3.14119e-01

FREQUENCY TABLE FOR: L-LAppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			4	4	4.00	4.00
T			0	4	0.00	4.00
9.160e-01	-	1.083e+00	1	5	1.00	5.00
1.083e+00	-	1.249e+00	14	19	14.00	19.00
1.249e+00	-	1.416e+00	12	31	12.00	31.00
1.416e+00	-	1.583e+00	37	68	37.00	68.00
1.583e+00	-	1.749e+00	30	98	30.00	98.00
1.749e+00	-	1.916e+00	1	99	1.00	99.00
1.916e+00	-	2.083e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-LAppmS

```
9.993e-01 X
1.166e+00 XXXXXXXXXXXXX
1.333e+00 XXXXXXXXXXXX
1.499e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.666e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.833e+00 X
1.999e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.04139e+00
MAXIMUM = 2.04139e+00
MEAN = 1.48674e+00
STD DEV = 1.81569e-01
VARIANCE= 3.29672e-02

Table 4, continued

FREQUENCY TABLE FOR: L - MGO%

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		0	0	0.00	0.00
T		0	0	0.00	0.00
-9.208e-01	- -7.608e-01	3	3	3.00	3.00
-7.608e-01	- -6.008e-01	1	4	1.00	4.00
-6.008e-01	- -4.408e-01	6	10	6.00	10.00
-4.408e-01	- -2.808e-01	6	16	6.00	16.00
-2.808e-01	- -1.208e-01	18	34	18.00	34.00
-1.208e-01	- 3.918e-02	30	64	30.00	64.00
3.918e-02	- 1.992e-01	23	87	23.00	87.00
1.992e-01	- 3.592e-01	8	95	8.00	95.00
3.592e-01	- 5.192e-01	4	99	4.00	99.00
5.192e-01	- 6.792e-01	1	100	1.00	100.00
G		0	100	0.00	100.00
H		0	100		
B		0	100		
TOTALS LESS H AND B		100			

HISTOGRAM FOR: L - MGO%

```
-8.408e-01 XXX
-6.808e-01 X
-5.208e-01 XXXXXX
-3.608e-01 XXXXXX
-2.008e-01 XXXXXXXXXXXXXXXXXX
-4.082e-02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.192e-01 XXXXXXXXXXXXXXXXXXXXX
 2.792e-01 XXXXXXXX
 4.392e-01 XXXX
 5.992e-01 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -9.20819e-01
MAXIMUM = 5.51450e-01
MEAN = -5.92742e-02
STD DEV = 2.74288e-01
VARIANCE= 7.52340e-02

FREQUENCY TABLE FOR: L - MNO%

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		0	0	0.00	0.00
T		0	0	0.00	0.00
-1.824e+00	- -1.684e+00	2	2	2.00	2.00
-1.684e+00	- -1.544e+00	7	9	7.00	9.00
-1.544e+00	- -1.404e+00	3	12	3.00	12.00
-1.404e+00	- -1.264e+00	12	24	12.00	24.00
-1.264e+00	- -1.124e+00	13	37	13.00	37.00
-1.124e+00	- -9.839e-01	26	63	26.00	63.00
-9.839e-01	- -8.439e-01	21	84	21.00	84.00
-8.439e-01	- -7.039e-01	8	92	8.00	92.00
-7.039e-01	- -5.639e-01	7	99	7.00	99.00
-5.639e-01	- -4.239e-01	1	100	1.00	100.00
G		0	100	0.00	100.00
H		0	100		
B		0	100		
TOTALS LESS H AND B		100			

HISTOGRAM FOR: L - MNO%

```
-1.754e+00 XX
-1.614e+00 XXXXXXX
-1.474e+00 XXX
-1.334e+00 XXXXXXXXXXX
-1.194e+00 XXXXXXXXXXXX
-1.054e+00 XXXXXXXXXXXXXXXXXXXXXXXXX
-9.139e-01 XXXXXXXXXXXXXXXXXXX
-7.739e-01 XXXXXXXX
-6.339e-01 XXXXXXX
-4.939e-01 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.82391e+00
MAXIMUM = -5.55955e-01
MEAN = -1.09088e+00
STD DEV = 2.71493e-01
VARIANCE= 7.37086e-02

Table 4, continued

FREQUENCY TABLE FOR: L-NA2O %

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-3.872e-01	-	-2.872e-01	1	1	1.00	1.00
-2.872e-01	-	-1.872e-01	0	1	0.00	1.00
-1.872e-01	-	-8.722e-02	0	1	0.00	1.00
-8.722e-02	-	1.278e-02	10	11	10.00	11.00
1.278e-02	-	1.128e-01	14	25	14.00	25.00
1.128e-01	-	2.128e-01	17	42	17.00	42.00
2.128e-01	-	3.128e-01	19	61	19.00	61.00
3.128e-01	-	4.128e-01	33	94	33.00	94.00
4.128e-01	-	5.128e-01	5	99	5.00	99.00
5.128e-01	-	6.128e-01	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-NA2O %

```
-3.372e-01 X
-2.372e-01
-1.372e-01
-3.722e-02 XXXXXXXXXX
 6.278e-02 XXXXXXXXXXXXXX
 1.628e-01 XXXXXXXXXXXXXXXX
 2.628e-01 XXXXXXXXXXXXXXXXXX
 3.628e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 4.628e-01 XXXXX
 5.628e-01 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -3.87216e-01
MAXIMUM = 5.15874e-01
MEAN = 2.27449e-01
STD DEV = 1.57382e-01
VARIANCE= 2.47690e-02

FREQUENCY TABLE FOR: L-NBppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		6	6	6.00	6.00
	T		0	6	0.00	6.00
4.160e-01	-	5.827e-01	1	7	1.00	7.00
5.827e-01	-	7.493e-01	4	11	4.00	11.00
7.493e-01	-	9.160e-01	16	27	16.00	27.00
9.160e-01	-	1.083e+00	28	55	28.00	55.00
1.083e+00	-	1.249e+00	32	87	32.00	87.00
1.249e+00	-	1.416e+00	9	96	9.00	96.00
1.416e+00	-	1.583e+00	2	98	2.00	98.00
1.583e+00	-	1.749e+00	1	99	1.00	99.00
1.749e+00	-	1.916e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-NBppmS

```
 4.993e-01 X
 6.660e-01 XXXX
 8.327e-01 XXXXXXXXXXXXXXXX
 9.993e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.166e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.333e+00 XXXXXXXXX
 1.499e+00 XX
 1.666e+00 X
 1.833e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 5.05150e-01
MAXIMUM = 1.86332e+00
MEAN = 1.06663e+00
STD DEV = 2.10933e-01
VARIANCE= 4.44927e-02

Table 4, continued

FREQUENCY TABLE FOR: ND ppm S

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		81	81	81.00	81.00
	I		0	81	0.00	81.00
4.900e+01	-	5.450e+01	3	84	3.00	84.00
5.450e+01	-	6.000e+01	8	92	8.00	92.00
6.000e+01	-	6.550e+01	2	94	2.00	94.00
6.550e+01	-	7.100e+01	1	95	1.00	95.00
7.100e+01	-	7.650e+01	2	97	2.00	97.00
7.650e+01	-	8.200e+01	3	100	3.00	100.00
8.200e+01	-	8.750e+01	0	100	0.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: ND ppm S

```
5.175e+01 XXX
5.725e+01 XXXXXXXX
6.275e+01 XX
6.825e+01 X
7.375e+01 XX
7.925e+01 XXX
8.475e+01
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 4.90000e+01
MAXIMUM = 8.20000e+01
MEAN = 6.26842e+01
STD DEV = 1.01656e+01
VARIANCE= 1.03339e+02

FREQUENCY TABLE FOR: L-NIppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	I		0	0	0.00	0.00
7.500e-01	-	9.167e-01	9	9	9.00	9.00
9.167e-01	-	1.083e+00	30	39	30.00	39.00
1.083e+00	-	1.250e+00	20	59	20.00	59.00
1.250e+00	-	1.417e+00	20	79	20.00	79.00
1.417e+00	-	1.583e+00	13	92	13.00	92.00
1.583e+00	-	1.750e+00	4	96	4.00	96.00
1.750e+00	-	1.917e+00	2	98	2.00	98.00
1.917e+00	-	2.083e+00	1	99	1.00	99.00
2.083e+00	-	2.250e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-NIppmS

```
8.333e-01 XXXXXXXXX
1.000e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.167e+00 XXXXXXXXXXXXXXXXXXX
1.333e+00 XXXXXXXXXXXXXXXXXXX
1.500e+00 XXXXXXXXXXXXX
1.667e+00 XXXX
1.833e+00 XX
2.000e+00 X
2.167e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 7.55875e-01
MAXIMUM = 2.11394e+00
MEAN = 1.22255e+00
STD DEV = 2.59212e-01
VARIANCE= 6.71908e-02

Table 4, continued

FREQUENCY TABLE FOR: L-P205 %

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		2	2	2.00	2.00
	T		0	2	0.00	2.00
-1.398e+00	-	-1.178e+00	16	18	16.00	18.00
-1.178e+00	-	-9.579e-01	41	59	41.00	59.00
-9.579e-01	-	-7.379e-01	29	88	29.00	88.00
-7.379e-01	-	-5.179e-01	7	95	7.00	95.00
-5.179e-01	-	-2.979e-01	2	97	2.00	97.00
-2.979e-01	-	-7.794e-02	1	98	1.00	98.00
-7.794e-02	-	1.421e-01	0	98	0.00	98.00
1.421e-01	-	3.621e-01	1	99	1.00	99.00
3.621e-01	-	5.821e-01	0	99	0.00	99.00
5.821e-01	-	8.021e-01	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-P205 %

```
-1.288e+00 XXXXXXXXXXXXXXX
-1.068e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
-8.479e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
-6.279e-01 XXXXXXX
-4.079e-01 XX
-1.879e-01 X
 3.206e-02
 2.521e-01 X
 4.721e-01
 6.921e-01 X
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.39794e+00
MAXIMUM = 5.99883e-01
MEAN = -9.39924e-01
STD DEV = 2.84785e-01
VARIANCE= 8.11025e-02

FREQUENCY TABLE FOR: L-PBppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		6	6	6.00	6.00
	T		0	6	0.00	6.00
7.500e-01	-	9.167e-01	1	7	1.00	7.00
9.167e-01	-	1.083e+00	7	14	7.00	14.00
1.083e+00	-	1.250e+00	23	37	23.00	37.00
1.250e+00	-	1.417e+00	49	86	49.00	86.00
1.417e+00	-	1.583e+00	10	96	10.00	96.00
1.583e+00	-	1.750e+00	4	100	4.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-PBppmS

```
8.333e-01 X
1.000e+00 XXXXXXX
1.167e+00 XXXXXXXXXXXXXXXXXXXXX
1.333e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.500e+00 XXXXXXXXXX
1.667e+00 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 8.57332e-01
MAXIMUM = 1.71600e+00
MEAN = 1.29986e+00
STD DEV = 1.55332e-01
VARIANCE= 2.41279e-02

Table 4, continued

FREQUENCY TABLE FOR: L-SCppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
8.300e-02	-	2.497e-01	3	3	3.00	3.00
2.497e-01	-	4.163e-01	5	8	5.00	8.00
4.163e-01	-	5.830e-01	10	18	10.00	18.00
5.830e-01	-	7.497e-01	12	30	12.00	30.00
7.497e-01	-	9.163e-01	31	61	31.00	61.00
9.163e-01	-	1.083e+00	37	98	37.00	98.00
1.083e+00	-	1.250e+00	1	99	1.00	99.00
1.250e+00	-	1.416e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-SCppmS

```
1.663e-01 XXX
3.330e-01 XXXXX
4.997e-01 XXXXXXXXXX
6.663e-01 XXXXXXXXXXXX
8.330e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
9.997e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.166e+00 X
1.333e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.13943e-01
MAXIMUM = 1.32222e+00
MEAN = 8.05449e-01
STD DEV = 2.31206e-01
VARIANCE= 5.34560e-02

FREQUENCY TABLE FOR: L-SEppmX

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			34	34	38.20	38.20
T			0	34	0.00	38.20
-1.000e+00	-	-7.700e-01	10	44	11.24	49.44
-7.700e-01	-	-5.400e-01	14	58	15.73	65.17
-5.400e-01	-	-3.100e-01	12	70	13.48	78.65
-3.100e-01	-	-8.000e-02	9	79	10.11	88.76
-8.000e-02	-	1.500e-01	8	87	8.99	97.75
1.500e-01	-	3.800e-01	1	88	1.12	98.88
3.800e-01	-	6.100e-01	0	88	0.00	98.88
6.100e-01	-	8.400e-01	1	89	1.12	100.00
G			0	89	0.00	100.00
H			0	89		
B			11	100		
TOTALS LESS H AND B			89			

HISTOGRAM FOR: L-SEppmX

```
-8.850e-01 XXXXXXXXXXX
-6.550e-01 XXXXXXXXXXXXXXX
-4.250e-01 XXXXXXXXXXXXX
-1.950e-01 XXXXXXXXXX
 3.500e-02 XXXXXXXXX
 2.650e-01 X
 4.950e-01
 7.250e-01 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.00000e+00
MAXIMUM = 8.12913e-01
MEAN = -4.70796e-01
STD DEV = 3.95139e-01
VARIANCE= 1.56135e-01

Table 4, continued

FREQUENCY TABLE FOR: SIO2 %

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.274e+01	-	2.094e+01	1	1	1.00	1.00
2.094e+01	-	2.914e+01	1	2	1.00	2.00
2.914e+01	-	3.734e+01	1	3	1.00	3.00
3.734e+01	-	4.554e+01	1	4	1.00	4.00
4.554e+01	-	5.374e+01	4	8	4.00	8.00
5.374e+01	-	6.194e+01	6	14	6.00	14.00
6.194e+01	-	7.014e+01	41	55	41.00	55.00
7.014e+01	-	7.834e+01	33	88	33.00	88.00
7.834e+01	-	8.654e+01	11	99	11.00	99.00
8.654e+01	-	9.474e+01	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: SIO2 %

```
1.684e+01 X
2.504e+01 X
3.324e+01 X
4.144e+01 X
4.964e+01 XXXX
5.784e+01 XXXXXX
6.604e+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.424e+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
8.244e+01 XXXXXXXXXXX
9.064e+01 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.27400e+01
MAXIMUM = 8.68600e+01
MEAN = 6.81890e+01
STD DEV = 1.13639e+01
VARIANCE= 1.29138e+02

FREQUENCY TABLE FOR: L-SNppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			58	58	58.00	58.00
T			0	58	0.00	58.00
8.300e-02	-	2.497e-01	1	59	1.00	59.00
2.497e-01	-	4.163e-01	5	64	5.00	64.00
4.163e-01	-	5.830e-01	18	82	18.00	82.00
5.830e-01	-	7.497e-01	4	86	4.00	86.00
7.497e-01	-	9.163e-01	6	92	6.00	92.00
9.163e-01	-	1.083e+00	3	95	3.00	95.00
1.083e+00	-	1.250e+00	4	99	4.00	99.00
1.250e+00	-	1.416e+00	0	99	0.00	99.00
1.416e+00	-	1.583e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-SNppmS

```
1.663e-01 X
3.330e-01 XXXXX
4.997e-01 XXXXXXXXXXXXXXXXXX
6.663e-01 XXXX
8.330e-01 XXXXXX
9.997e-01 XXX
1.166e+00 XXXX
1.333e+00
1.500e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 2.04120e-01
MAXIMUM = 1.43136e+00
MEAN = 6.62921e-01
STD DEV = 2.92034e-01
VARIANCE= 8.52836e-02

Table 4, continued

FREQUENCY TABLE FOR: L-SRppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.416e+00	-	1.583e+00	1	1	1.00	1.00
1.583e+00	-	1.749e+00	0	1	0.00	1.00
1.749e+00	-	1.916e+00	3	4	3.00	4.00
1.916e+00	-	2.083e+00	10	14	10.00	14.00
2.083e+00	-	2.249e+00	11	25	11.00	25.00
2.249e+00	-	2.416e+00	12	37	12.00	37.00
2.416e+00	-	2.583e+00	18	55	18.00	55.00
2.583e+00	-	2.749e+00	27	82	27.00	82.00
2.749e+00	-	2.916e+00	15	97	15.00	97.00
2.916e+00	-	3.083e+00	3	100	3.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-SRppmS

```
1.499e+00 X
1.666e+00
1.833e+00 XXX
1.999e+00 XXXXXXXXXX
2.166e+00 XXXXXXXXXXX
2.333e+00 XXXXXXXXXXXX
2.499e+00 XXXXXXXXXXXXXXXXXX
2.666e+00 XXXXXXXXXXXXXXXXXXXXXXXXX
2.833e+00 XXXXXXXXXXXXXX
2.999e+00 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.50515e+00
MAXIMUM = 2.98227e+00
MEAN = 2.46624e+00
STD DEV = 2.95112e-01
VARIANCE= 8.70909e-02

FREQUENCY TABLE FOR: L-TIO2 %

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
-9.208e-01	-	-7.808e-01	2	2	2.00	2.00
-7.808e-01	-	-6.408e-01	2	4	2.00	4.00
-6.408e-01	-	-5.008e-01	5	9	5.00	9.00
-5.008e-01	-	-3.608e-01	5	14	5.00	14.00
-3.608e-01	-	-2.208e-01	15	29	15.00	29.00
-2.208e-01	-	-8.082e-02	40	69	40.00	69.00
-8.082e-02	-	5.918e-02	20	89	20.00	89.00
5.918e-02	-	1.992e-01	8	97	8.00	97.00
1.992e-01	-	3.392e-01	2	99	2.00	99.00
3.392e-01	-	4.792e-01	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-TIO2 %

```
-8.508e-01 XX
-7.108e-01 XX
-5.708e-01 XXXXX
-4.308e-01 XXXXX
-2.908e-01 XXXXXXXXXXXXXX
-1.508e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
-1.082e-02 XXXXXXXXXXXXXXXXXXX
 1.292e-01 XXXXXXXX
 2.692e-01 XX
 4.092e-01 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -9.20819e-01
MAXIMUM = 3.72912e-01
MEAN = -1.66093e-01
STD DEV = 2.20830e-01
VARIANCE= 4.87661e-02

Table 4, continued

FREQUENCY TABLE FOR: L-V ppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
1.083e+00	-	1.250e+00	3	3	3.00	3.00
1.250e+00	-	1.416e+00	7	10	7.00	10.00
1.416e+00	-	1.583e+00	7	17	7.00	17.00
1.583e+00	-	1.750e+00	39	56	39.00	56.00
1.750e+00	-	1.916e+00	37	93	37.00	93.00
1.916e+00	-	2.083e+00	5	98	5.00	98.00
2.083e+00	-	2.250e+00	2	100	2.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-V ppmS

```
1.166e+00 XXX
1.333e+00 XXXXXXX
1.500e+00 XXXXXXX
1.666e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.833e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.000e+00 XXXXX
2.166e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.11394e+00
MAXIMUM = 2.20412e+00
MEAN = 1.70481e+00
STD DEV = 1.89078e-01
VARIANCE= 3.57505e-02

FREQUENCY TABLE FOR: L-Y ppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
5.830e-01	-	7.497e-01	1	1	1.00	1.00
7.497e-01	-	9.163e-01	3	4	3.00	4.00
9.163e-01	-	1.083e+00	11	15	11.00	15.00
1.083e+00	-	1.250e+00	10	25	10.00	25.00
1.250e+00	-	1.416e+00	32	57	32.00	57.00
1.416e+00	-	1.583e+00	34	91	34.00	91.00
1.583e+00	-	1.750e+00	7	98	7.00	98.00
1.750e+00	-	1.916e+00	1	99	1.00	99.00
1.916e+00	-	2.083e+00	1	100	1.00	100.00
	G		0	100	0.00	100.00
	H		0	100		
	B		0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-Y ppmS

```
6.663e-01 X
8.330e-01 XXX
9.997e-01 XXXXXXXXXXX
1.166e+00 XXXXXXXXXX
1.333e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.500e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.666e+00 XXXXXXX
1.833e+00 X
2.000e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 7.48188e-01
MAXIMUM = 2.04139e+00
MEAN = 1.35086e+00
STD DEV = 2.19169e-01
VARIANCE= 4.80350e-02

Table 4, continued

FREQUENCY TABLE FOR: L-YBppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
-2.500e-01	-	-8.333e-02	2	2	2.00	2.00
-8.333e-02	-	8.333e-02	4	6	4.00	6.00
8.333e-02	-	2.500e-01	5	11	5.00	11.00
2.500e-01	-	4.167e-01	7	18	7.00	18.00
4.167e-01	-	5.833e-01	13	31	13.00	31.00
5.833e-01	-	7.500e-01	36	67	36.00	67.00
7.500e-01	-	9.167e-01	21	88	21.00	88.00
9.167e-01	-	1.083e+00	9	97	9.00	97.00
1.083e+00	-	1.250e+00	1	98	1.00	98.00
1.250e+00	-	1.417e+00	1	99	1.00	99.00
1.417e+00	-	1.583e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-YBppmS

```
-1.667e-01 XX
 4.936e-08 XXXX
 1.667e-01 XXXXX
 3.333e-01 XXXXXXX
 5.000e-01 XXXXXXXXXXXXX
 6.667e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 8.333e-01 XXXXXXXXXXXXXXXXXXXX
 1.000e+00 XXXXXXXXX
 1.167e+00 X
 1.333e+00 X
 1.500e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -2.21849e-01
MAXIMUM = 1.44716e+00
MEAN = 6.45664e-01
STD DEV = 2.86099e-01
VARIANCE= 8.18528e-02

FREQUENCY TABLE FOR: L-ZNppmA

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.041e+00	-	1.171e+00	1	1	1.00	1.00
1.171e+00	-	1.301e+00	2	3	2.00	3.00
1.301e+00	-	1.431e+00	6	9	6.00	9.00
1.431e+00	-	1.561e+00	3	12	3.00	12.00
1.561e+00	-	1.691e+00	10	22	10.00	22.00
1.691e+00	-	1.821e+00	18	40	18.00	40.00
1.821e+00	-	1.951e+00	41	81	41.00	81.00
1.951e+00	-	2.081e+00	15	96	15.00	96.00
2.081e+00	-	2.211e+00	3	99	3.00	99.00
2.211e+00	-	2.341e+00	1	100	1.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		
TOTALS LESS H AND B			100			

HISTOGRAM FOR: L-ZNppmA

```
1.106e+00 X
1.236e+00 XX
1.366e+00 XXXXXX
1.496e+00 XXX
1.626e+00 XXXXXXXXXX
1.756e+00 XXXXXXXXXXXXXXXXXX
1.886e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.016e+00 XXXXXXXXXXXXXX
2.146e+00 XXX
2.276e+00 X
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.04139e+00
MAXIMUM = 2.23045e+00
MEAN = 1.80944e+00
STD DEV = 2.08925e-01
VARIANCE= 4.36497e-02

Table 4, continued

FREQUENCY TABLE FOR: L-ZRppmS

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.250e+00	-	1.417e+00	1	1	1.00	1.00
1.417e+00	-	1.583e+00	2	3	2.00	3.00
1.583e+00	-	1.750e+00	0	3	0.00	3.00
1.750e+00	-	1.917e+00	2	5	2.00	5.00
1.917e+00	-	2.083e+00	6	11	6.00	11.00
2.083e+00	-	2.250e+00	16	27	16.00	27.00
2.250e+00	-	2.417e+00	18	45	18.00	45.00
2.417e+00	-	2.583e+00	16	61	16.00	61.00
2.583e+00	-	2.750e+00	16	77	16.00	77.00
2.750e+00	-	2.917e+00	10	87	10.00	87.00
2.917e+00	-	3.083e+00	5	92	5.00	92.00
3.083e+00	-	3.250e+00	6	98	6.00	98.00
3.250e+00	-	3.417e+00	2	100	2.00	100.00
G			0	100	0.00	100.00
H			0	100		
B			0	100		

TOTALS LESS H AND B 100

HISTOGRAM FOR: L-ZRppmS

```
1.333e+00 X
1.500e+00 XX
1.667e+00
1.833e+00 XX
2.000e+00 XXXXXX
2.167e+00 XXXXXXXXXXXXXXX
2.333e+00 XXXXXXXXXXXXXXXXX
2.500e+00 XXXXXXXXXXXXXXXX
2.667e+00 XXXXXXXXXXXXXXXX
2.833e+00 XXXXXXXXXX
3.000e+00 XXXXX
3.167e+00 XXXXXX
3.333e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.39794e+00
MAXIMUM = 3.27875e+00
MEAN = 2.48546e+00
STD DEV = 3.72941e-01
VARIANCE= 1.39085e-01

Table 5.--Analysis of variance for elements found in stream sediments of the Rio Ojo Caliente drainage basin

U ppm N

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	6305.0	103	61.214	1	104	55.373	2071.8	0.144e-08	*
2	1	.32500	11	0.29545d-01	2	115	0.29545d-01			
	TOTAL	6305.3	114				55.403			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

99.95 0.05

AL203 %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	746.85	103	7.2509	1	104	6.2727	22.662	0.747e-05	*
2	1	3.5195	11	.31995	2	115	.31995			
	TOTAL	750.37	114				6.5927			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

95.15 4.85

Table 5, continued

AS ppm A

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	0.10315d+08	103	0.10015d+06
2	1	395.25	11	35.932
	TOTAL	0.10316d+08	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	90605.
2	115	35.932
		90641.

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
2787.2	0.114e-08	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

99.96 0.04

BA ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	0.21947d+07	103	21308.
2	1	37950.	11	3450.0
	TOTAL	0.22327d+07	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	16162.
2	115	3450.0
		19612.

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
6.1763	0.127e-02	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

82.41 17.59

Table 5, continued

BE ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	1708.0	103	16,583
2	1	2.4350	11	.22136
	TOTAL	1710.5	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	14.808
2	115	.22136
		15.029

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
74.912	0.211e-06	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

98.53 1.47

CAO %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	1802.8	103	17.502
2	1	33.873	11	3.0794
	TOTAL	1836.6	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	13.053
2	115	3.0794
		16.133

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
5.6838	0.180e-02	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

80.91 19.09

Table 5, continued

CO ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	1171.0	103	11.369	1	104	7.3568	3.5089	0.131e-01	*
2	1	35.640	11	3.2400	2	115	3.2400			
TOTAL		1206.6	114				10.597			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

69.42 30.58

CR ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	67515.	103	655.48	1	104	421.77	3.4598	0.139e-01	*
2	1	2084.0	11	189.45	2	115	189.45			
TOTAL		69599.	114				611.22			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

69.00 31.00

Table 5, continued

CU ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	56826.	103	551.71	1	104	486.76	39.794	0.119e-05	*
2	1	152.50	11	13.864	2	115	13.864			
	TOTAL	56978.	114				500.63			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

97.23 2.77

FE2O3 %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	1976.6	103	19.190	1	104	16.739	27.623	0.380e-05	*
2	1	7.6420	11	.69473	2	115	.69473			
	TOTAL	1984.3	114				17.434			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

96.02 3.98

Table 5, continued

K2O %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	32.819	103	.31863
2	1	0.12750d-01	11	0.11591d-02
	TOTAL	32.832	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	.28732
2	115	0.11591d-02
		.28848

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
274.90	0.153e-07	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

99.60 0.40

MGO %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	39.274	103	.38130
2	1	1.5900	11	.14455
	TOTAL	40.864	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	.21427
2	115	.14455
		.35882

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
2.6379	0.389e-01	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

59.71 40.29

Table 5, continued

MNO %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	.35724	103	0.34684d-02	1	104	0.28041d-02	9.3750	0.222e-03	*
2	1	0.40695d-02	11	0.36996d-03	2	115	0.36996d-03			
	TOTAL	.36131	114				0.31741e-02			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

88.34 11.66

NA2O %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	35.850	103	.34806	1	104	.31178	97.794	0.112e-06	*
2	1	0.39150d-01	11	0.35591d-02	2	115	0.35591d-02			
	TOTAL	35.889	114				.31534			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

98.87 1.13

Table 5, continued

NB ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	9710.5	103	94.276
2	1	144.04	11	13.095
	TOTAL	9854.5	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	73.471
2	115	13.095
		86.566

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
7.1994	0.667e-03	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

84.87 15.13

NI ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	29172.	103	283.22
2	1	815.31	11	74.119
	TOTAL	29987.	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	189.25
2	115	74.119
		263.37

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
3.8212	0.933e-02	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

71.86 28.14

Table 5, continued

P205 %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	17.110	103	.16611	1	104	.15015	811.22	0.353e-08	*
2	1	0.22525d-02	11	0.20477d-03	2	115	0.20477d-03			
	TOTAL	17.112	114				.15036			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

99.86 0.14

PB ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	5934.9	103	57.620	1	104	48.445	14.085	0.433e-04	*
2	1	45.000	11	4.0909	2	115	4.0909			
	TOTAL	5979.9	114				52.536			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

92.21 7.79

Table 5, continued

SC ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	1439.9	103	13.979
2	1	26.730	11	2.4300
	TOTAL	1466.6	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	10.453
2	115	2.4300
		12.883

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
5.7528	0.171e-02	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

81.14 18.86

SIO2 %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	13005.	103	126.27
2	1	389.94	11	35.449
	TOTAL	13395.	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	82.193
2	115	35.449
		117.64

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
3.5619	0.124e-01	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

69.87 30.13

Table 5, continued

TIO2 %

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	21.094	103	.20480
2	1	0.75650d-01	11	0.68773d-02
	TOTAL	21.170	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	.17912
2	115	0.68773d-02
		.18600

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
29.779	0.296e-05	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

96.30 3.70

Y ppm S

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE

SOURCE BETWEEN	SOURCE WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
1	0	33652.	103	326.72
2	1	828.05	11	75.277
	TOTAL	34480.	114	

ESTIMATION OF VARIANCE COMPONENTS

LEVEL	UNIT SIZE	VARIANCE COMPONENT
1	104	227.56
2	115	75.277
		302.84

TEST OF HYPOTHESIS

F-RATIO	EST. Q	SIGNIFICANCE
4.3402	0.555e-02	*

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

75.14 24.86

Table 5, continued

ZN ppm A

SIGNIFICANCE LEVEL Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	95198.	103	924.26	1	104	656.83	4.6562	0.415e-02	*
2	1	2183.5	11	198.50	2	115	198.50			
	TOTAL	97382.	114				855.33			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

76.79 23.21

ZR ppm S

SIGNIFICANCE LEVEL. Q =0.0500

ANALYSIS OF VARIANCE					ESTIMATION OF VARIANCE COMPONENTS			TEST OF HYPOTHESIS		
SOURCE BETWEEN	WITHIN	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	LEVEL	UNIT SIZE	VARIANCE COMPONENT	F-RATIO	EST. Q	SIGNI-FICANCE
1	0	0.18931d+08	103	0.18380d+06	1	104	0.13442d+06	5.2112	0.260e-02	*
2	1	0.38796d+06	11	35270.	2	115	35270.			
	TOTAL	0.19319d+08	114				0.16969e+06			

VARIANCE COMPONENTS AS PERCENTAGES OF THE TOTAL VARIANCE

79.22 20.78

Table 6.--Correlation coefficients r and numbers of pairs (n) of elements found in sediments of the Rio Ojo Caliente drainage basin

	EU ppm S	K2O %	ND ppm S	SIO2 %	L-U ppmN	L-THppmN	L-AL2O3%	L-ASppmA	L-BAppmS	L-BEppmS
EU ppm S		-0.18(20)	0.33(5)	0.16(20)	-0.20(20)	-0.49(17)	-0.28(20)	0.13(20)	0.00(20)	-0.37(20)
K2O %			0.18(19)	0.48(100)	-0.03(100)	0.31(82)	0.51(100)	-0.23(100)	0.11(100)	-0.01(100)
ND ppm S				-0.40(19)	0.24(19)	0.38(17)	0.50(19)	0.12(19)	0.12(19)	0.32(19)
SIO2 %					-0.33(100)	-0.36(82)	0.26(100)	-0.39(100)	0.33(100)	-0.45(100)
L-U ppmN						0.66(82)	-0.32(100)	0.63(100)	-0.37(100)	0.71(100)
L-THppmN							0.53(82)	0.00(82)	-0.06(82)	0.47(82)
L-AL2O3%								-0.66(100)	0.38(100)	-0.39(100)
L-ASppmA									-0.46(100)	0.68(100)
L-BAppmS										-0.25(100)
L-BEppmS										
L-TI C %										
L-InorC%										
L-Org C%										
L - CAO%										
L-CEppmS										
L-COppmS										
L-CRppmS										
L-CUppmS										
L-FE2O3%										
L-GAppmS										
L-LAppmS										
L - MGO%										
L - MNO%										
L-NA2O %										
L-NPppmS										
L-NIppmS										
L-P2O5 %										
L-PBppmS										
L-SCppmS										
L-SEppmX										
L-SRppmS										
L-TIO2 %										
L-V ppmS										
L-Y ppmS										
L-YBppmS										
L-ZNppmA										
L-ZRppmS										

Table 6, continued

	L-Tl C %	L-InorC%	L-Org C%	L - CAO%	L-CEppmS	L-COppmS	L-CRppmS	L-CUppmS	L-Fe2O3%	L-GAppmS
EU ppm S	0.06(20)	1.00(2)	0.05(20)	-0.04(20)	-0.19(20)	-0.23(20)	-0.04(20)	-0.09(20)	-0.04(20)	-0.11(20)
K2O %	-0.27(98)	-0.55(35)	-0.17(98)	-0.48(100)	0.19(87)	-0.13(100)	0.09(100)	0.04(100)	-0.21(100)	0.47(100)
ND ppm S	0.30(19)	0.00(4)	0.31(19)	0.10(19)	0.69(19)	0.30(19)	0.03(19)	0.27(19)	0.30(19)	0.46(19)
SIO2 %	-0.76(98)	-0.67(35)	-0.61(98)	-0.75(100)	-0.28(87)	-0.36(100)	0.10(100)	-0.27(100)	-0.47(100)	0.11(100)
L-U ppmN	0.42(98)	0.49(35)	0.34(98)	0.06(100)	-0.04(87)	-0.12(100)	-0.18(100)	0.29(100)	0.10(100)	-0.24(100)
L-THppmN	0.26(82)	0.10(27)	0.25(82)	0.01(82)	0.44(78)	0.35(82)	0.34(82)	0.57(82)	0.39(82)	0.49(82)
L-AL2O3%	0.03(98)	-0.54(35)	0.17(98)	-0.12(100)	0.56(87)	0.52(100)	0.60(100)	0.35(100)	0.12(100)	0.78(100)
L-ASppmA	0.32(98)	0.54(35)	0.24(98)	0.04(100)	-0.36(87)	-0.34(100)	-0.46(100)	0.07(100)	0.16(100)	-0.53(100)
L-BAppmS	-0.26(98)	-0.61(35)	-0.17(98)	-0.08(100)	0.15(87)	0.26(100)	0.42(100)	0.12(100)	0.04(100)	0.36(100)
L-BEppmS	0.26(98)	0.34(35)	0.21(98)	0.09(100)	-0.04(87)	-0.04(100)	-0.23(100)	0.17(100)	0.34(100)	-0.15(100)
L-Tl C %	.....	0.66(35)	0.90(98)	0.58(98)	0.02(87)	0.25(98)	-0.12(98)	0.33(98)	0.23(98)	-0.10(98)
L-InorC%	.....	.....	0.21(35)	0.87(35)	-0.41(28)	-0.25(35)	-0.36(35)	0.10(35)	-0.13(35)	-0.62(35)
L-Org C%	.....	.....	.....	0.33(98)	0.12(87)	0.29(98)	-0.04(98)	0.37(98)	0.31(98)	0.06(98)
L - CAO%	.....	.....	.....	.....	0.16(87)	0.34(100)	0.08(100)	0.11(100)	0.26(100)	-0.11(100)
L-CEppmS	.....	.....	.....	.....	.....	0.56(87)	0.43(87)	0.33(87)	0.59(87)	0.68(87)
L-COppmS	.....	.....	.....	.....	.....	.....	0.68(100)	0.42(100)	0.67(100)	0.67(100)
L-CRppmS	.....	.....	.....	.....	.....	.....	.....	0.50(100)	0.35(100)	0.65(100)
L-CUppmS	.....	.....	.....	.....	.....	.....	.....	.....	0.31(100)	0.32(100)
L-FE2O3%	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.46(100)
L-GAppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-LAppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L - MGO%	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L - MNO%	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-NA2O %	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-NBppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-NIppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-P2O5 %	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-PBppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SCppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SFppmX	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SNppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SRppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-TIO2 %	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-V ppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Y ppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-YBppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-ZNppmA	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-ZRppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Table 6, continued

	L-LAppmS	L - MGU%	L - MNO%	L-NA2O %	L-NBppmS	L-NIppmS	L-P2O5 %	L-PBppmS	L-SCppmS	L-SEppmX
EU ppm S	-0.16(20)	-0.11(20)	-0.28(20)	-0.37(20)	-0.35(17)	-0.03(20)	0.09(20)	-0.06(20)	-0.05(20)	-0.62(11)
K2O %	0.35(95)	-0.34(100)	-0.18(100)	0.38(100)	0.28(93)	-0.07(100)	-0.39(97)	0.57(93)	0.12(100)	-0.25(55)
ND ppm S	0.75(19)	0.22(19)	0.39(19)	0.31(19)	0.49(19)	0.23(19)	0.31(19)	0.38(19)	0.30(19)	-0.18(14)
SIO2 %	-0.05(95)	-0.63(100)	-0.59(100)	0.23(100)	0.04(93)	-0.14(100)	-0.77(97)	-0.05(93)	0.00(100)	-0.42(55)
L-U ppmN	-0.10(95)	-0.07(100)	-0.03(100)	-0.41(100)	0.09(93)	0.02(100)	0.37(97)	0.05(93)	-0.30(100)	0.45(55)
L-ThppmN	0.50(82)	0.23(82)	0.32(82)	0.20(82)	0.38(80)	0.21(82)	0.27(82)	0.53(82)	0.34(82)	0.12(42)
L-AL2O3%	0.63(95)	0.33(100)	0.31(100)	0.80(100)	0.36(93)	0.33(100)	-0.29(97)	0.55(93)	0.82(100)	-0.31(55)
L-ASppmA	-0.40(95)	-0.27(100)	-0.18(100)	-0.73(100)	0.05(93)	-0.21(100)	0.52(97)	-0.20(93)	-0.61(100)	0.41(55)
L-BAppmS	0.24(95)	0.15(100)	0.08(100)	0.43(100)	-0.06(93)	0.21(100)	-0.05(97)	0.05(93)	0.37(100)	-0.27(55)
L-BEppmS	-0.18(95)	-0.05(100)	0.08(100)	-0.41(100)	0.13(93)	0.01(100)	0.56(97)	0.10(93)	-0.33(100)	0.45(55)
L-TI C %	0.14(95)	0.55(98)	0.45(98)	-0.13(98)	-0.09(93)	0.06(98)	0.56(97)	0.05(93)	0.11(98)	0.50(55)
L-InorC%	-0.40(33)	0.46(35)	0.02(35)	-0.56(35)	-0.32(32)	-0.10(35)	0.34(33)	-0.43(29)	-0.47(35)	0.28(16)
L-Org C%	0.23(95)	0.44(98)	0.45(98)	-0.02(98)	-0.03(93)	0.06(98)	0.50(97)	0.10(93)	0.25(98)	0.57(55)
L - CAU%	0.01(95)	0.82(100)	0.54(100)	0.10(100)	-0.17(93)	0.21(100)	0.50(97)	0.02(93)	0.10(100)	0.13(55)
L-CEppmS	0.81(87)	0.34(87)	0.52(87)	0.53(87)	0.34(84)	0.20(87)	0.21(87)	0.57(87)	0.64(87)	-0.31(45)
L-CGppmS	0.57(95)	0.69(100)	0.79(100)	0.51(100)	0.33(93)	0.62(100)	0.31(97)	0.43(93)	0.77(100)	0.04(55)
L-CRppmS	0.39(95)	0.42(100)	0.54(100)	0.61(100)	0.40(93)	0.73(100)	-0.14(97)	0.45(93)	0.73(100)	-0.26(55)
L-CUppmS	0.33(95)	0.33(100)	0.32(100)	0.16(100)	0.34(93)	0.42(100)	0.25(97)	0.34(93)	0.45(100)	-0.08(55)
L-FE2O3%	0.30(95)	0.41(100)	0.66(100)	0.20(100)	0.39(93)	0.34(100)	0.72(97)	0.56(93)	0.37(100)	0.27(55)
L-GAppmS	0.65(95)	0.28(100)	0.42(100)	0.75(100)	0.50(93)	0.37(100)	-0.07(97)	0.84(93)	0.77(100)	-0.33(55)
L-LAppmS	.....	0.32(95)	0.47(95)	0.48(95)	0.35(91)	0.23(95)	0.02(95)	0.53(91)	0.70(95)	-0.22(53)
L - MGU%	.....	.....	0.71(100)	0.40(100)	0.00(93)	0.43(100)	0.36(97)	0.21(93)	0.55(100)	0.08(55)
L - MNO%	.....	.....	.....	0.41(100)	0.26(93)	0.32(100)	0.53(97)	0.31(93)	0.52(100)	0.26(55)
L-NA2O %	.....	.....	.....	.....	0.20(93)	0.31(100)	-0.23(97)	0.49(93)	0.71(100)	-0.31(55)
L-NBppmS	.....	.....	.....	.....	.....	0.15(93)	0.01(93)	0.48(91)	0.40(93)	-0.07(52)
L-NIppmS	.....	.....	.....	.....	.....	.....	0.07(97)	0.17(93)	0.44(100)	-0.09(55)
L-P2O5 %	.....	.....	.....	.....	.....	.....	.....	0.01(93)	-0.12(97)	0.46(54)
L-PBppmS	.....	.....	.....	.....	.....	.....	.....	.....	0.47(93)	-0.34(52)
L-SCppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	-0.22(55)
L-SEppmX	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SNppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SRppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-TIO2 %	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-V ppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Y ppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-YBppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-ZNppmA	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-ZRppmS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Table 6, continued

	L-SNppmS	L-SRppmS	L-TIO2 %	L-V ppmS	L-Y ppmS	L-YbppmS	L-ZNppmA	L-ZRppmS
EU ppm S	-0.27(4)	-0.18(20)	-0.21(20)	-0.15(20)	-0.24(20)	-0.24(20)	-0.24(20)	-0.09(20)
K2O %	0.28(42)	-0.37(100)	0.14(100)	-0.14(100)	0.45(100)	0.51(100)	0.25(100)	0.05(100)
ND ppm S	0.19(10)	0.05(19)	0.17(19)	0.16(19)	0.42(19)	0.32(19)	0.42(19)	0.01(19)
SIO2 %	0.07(42)	-0.39(100)	0.19(100)	-0.08(100)	-0.09(100)	0.15(100)	-0.30(100)	0.24(100)
L-U ppmN	0.51(42)	-0.27(100)	-0.01(100)	-0.15(100)	0.13(100)	0.08(100)	0.10(100)	0.15(100)
L-ThppmN	0.33(38)	0.03(82)	0.53(82)	0.31(82)	0.68(82)	0.75(82)	0.64(82)	0.40(82)
L-AL203%	-0.19(42)	0.22(100)	0.61(100)	0.46(100)	0.58(100)	0.63(100)	0.59(100)	0.12(100)
L-ASppmA	0.68(42)	-0.45(100)	-0.37(100)	-0.26(100)	-0.17(100)	-0.27(100)	-0.28(100)	-0.06(100)
L-BAppmS	-0.50(42)	0.44(100)	0.37(100)	0.43(100)	0.05(100)	0.20(100)	0.05(100)	0.20(100)
L-BEppmS	0.42(42)	-0.15(100)	-0.11(100)	-0.08(100)	0.12(100)	0.04(100)	0.04(100)	0.04(100)
L-TI C %	0.01(42)	0.20(98)	-0.13(98)	0.03(98)	0.18(98)	-0.05(98)	0.34(98)	-0.28(98)
L-InorC%	0.18(13)	0.16(35)	-0.45(35)	-0.43(35)	-0.35(35)	-0.49(35)	-0.13(35)	-0.22(35)
L-Org C%	0.01(42)	0.14(98)	-0.03(98)	0.15(98)	0.32(98)	0.10(98)	0.38(98)	-0.21(98)
L - CAO%	-0.37(42)	0.69(100)	-0.06(100)	0.09(100)	-0.08(100)	-0.20(100)	0.24(100)	-0.23(100)
L-CEppmS	-0.01(41)	0.37(87)	0.51(87)	0.44(87)	0.61(87)	0.60(87)	0.62(87)	0.25(87)
L-CCppmS	-0.11(42)	0.56(100)	0.60(100)	0.74(100)	0.47(100)	0.44(100)	0.61(100)	0.14(100)
L-CRppmS	0.37(42)	0.40(100)	0.77(100)	0.72(100)	0.43(100)	0.59(100)	0.51(100)	0.38(100)
L-CUppmS	0.46(42)	0.08(100)	0.54(100)	0.44(100)	0.48(100)	0.51(100)	0.60(100)	0.35(100)
L-FE203%	0.09(42)	0.37(100)	0.45(100)	0.66(100)	0.42(100)	0.39(100)	0.43(100)	0.24(100)
L-GAppmS	0.09(42)	0.29(100)	0.61(100)	0.60(100)	0.66(100)	0.75(100)	0.65(100)	0.29(100)
L-LAppmS	-0.08(42)	0.20(95)	0.46(95)	0.41(95)	0.71(95)	0.57(95)	0.65(95)	0.08(95)
L - MGO%	-0.47(42)	0.81(100)	0.31(100)	0.44(100)	0.22(100)	0.14(100)	0.53(100)	-0.09(100)
L - MNO%	-0.29(42)	0.61(100)	0.37(100)	0.51(100)	0.38(100)	0.28(100)	0.60(100)	0.01(100)
L-NA2O %	-0.23(42)	0.52(100)	0.56(100)	0.44(100)	0.42(100)	0.54(100)	0.50(100)	0.16(100)
L-NBppmS	0.46(41)	-0.12(93)	0.57(93)	0.45(93)	0.49(93)	0.60(93)	0.45(93)	0.33(93)
L-NIppmS	0.41(42)	0.33(100)	0.48(100)	0.50(100)	0.32(100)	0.32(100)	0.30(100)	0.11(100)
L-P2O5 %	-0.05(42)	0.26(97)	-0.09(97)	0.22(97)	0.08(97)	-0.09(97)	0.13(97)	-0.11(97)
L-PbppmS	0.34(42)	0.11(93)	0.39(93)	0.31(93)	0.60(93)	0.74(93)	0.62(93)	0.14(93)
L-SCppmS	-0.30(42)	0.45(100)	0.71(100)	0.70(100)	0.61(100)	0.62(100)	0.67(100)	0.27(100)
L-SEppmX	-0.26(19)	-0.02(55)	-0.19(55)	-0.03(55)	0.02(55)	-0.14(55)	0.00(55)	-0.12(55)
L-SNppmS	.....	-0.62(42)	0.17(42)	-0.06(42)	0.25(42)	0.43(42)	0.18(42)	0.21(42)
L-SRppmS	.....	.....	0.28(100)	0.43(100)	0.04(100)	0.07(100)	0.33(100)	0.02(100)
L-TIO2 %	.....	.....	.....	0.79(100)	0.53(100)	0.71(100)	0.54(100)	0.62(100)
L-V ppmS	.....	.....	.....	.....	0.45(100)	0.54(100)	0.46(100)	0.40(100)
L-Y ppmS	.....	.....	.....	.....	.....	0.87(100)	0.62(100)	0.31(100)
L-YbppmS	.....	.....	.....	.....	.....	.....	0.63(100)	0.54(100)
L-ZNppmA	.....	.....	.....	.....	.....	.....	.....	0.21(100)
L-ZRppmS	.....	.....	.....	.....	.....	.....	.....	.....

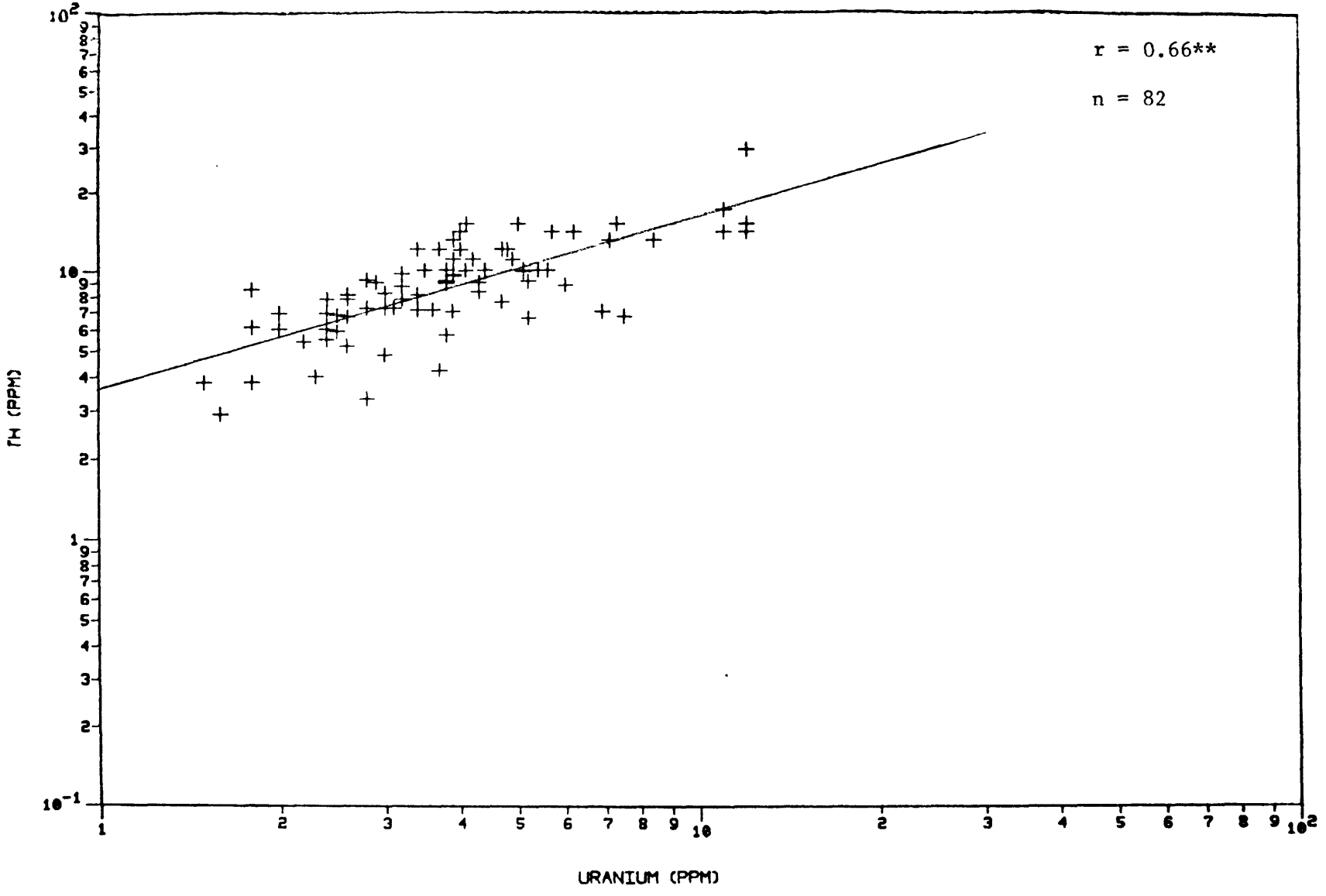

Figure 3-1. Scatter diagram of thorium versus uranium.

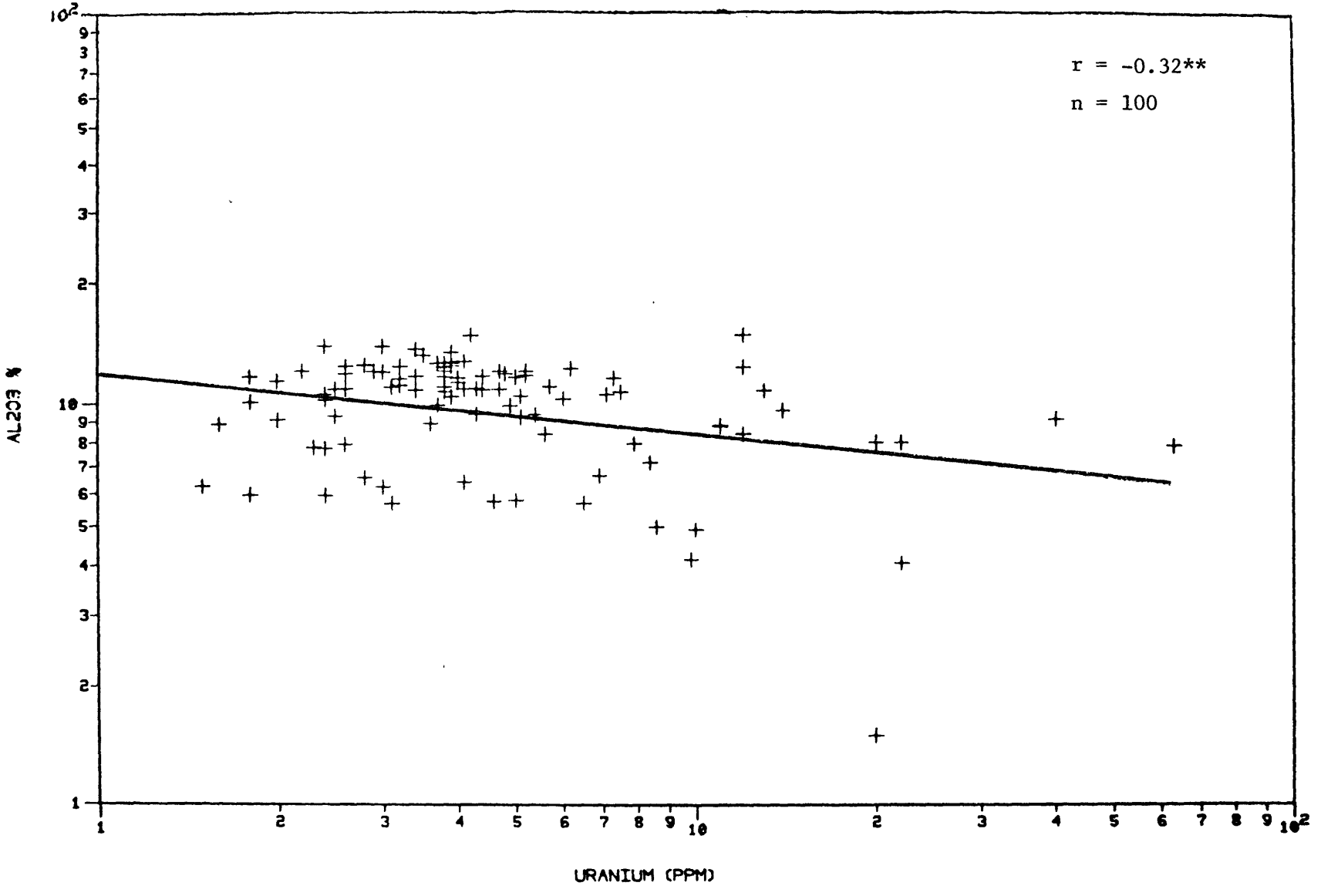

Figure 3-2. Scatter diagram of Al_2O_3 versus uranium.

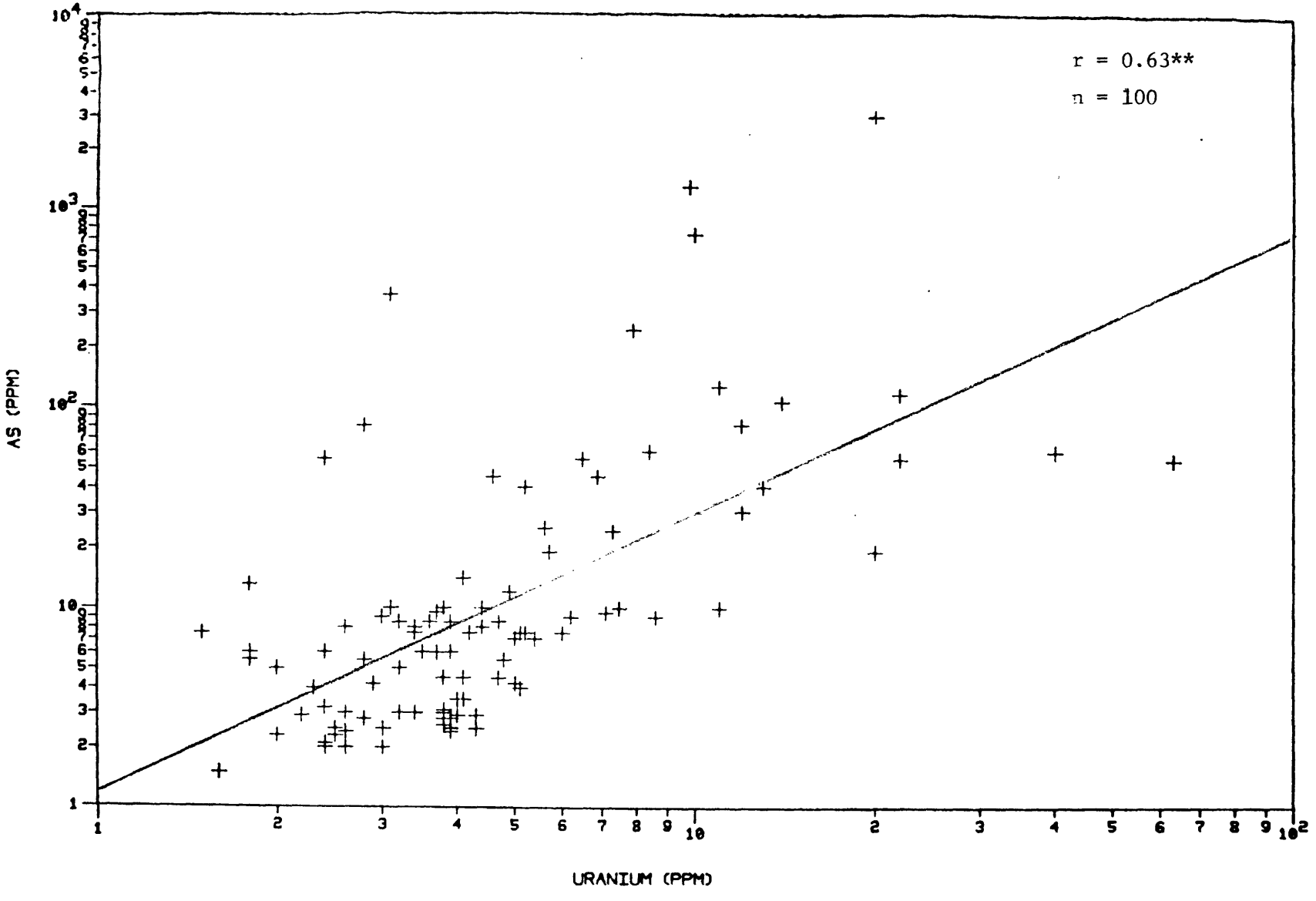

Figure 3-3. Scatter diagram of arsenic versus uranium.

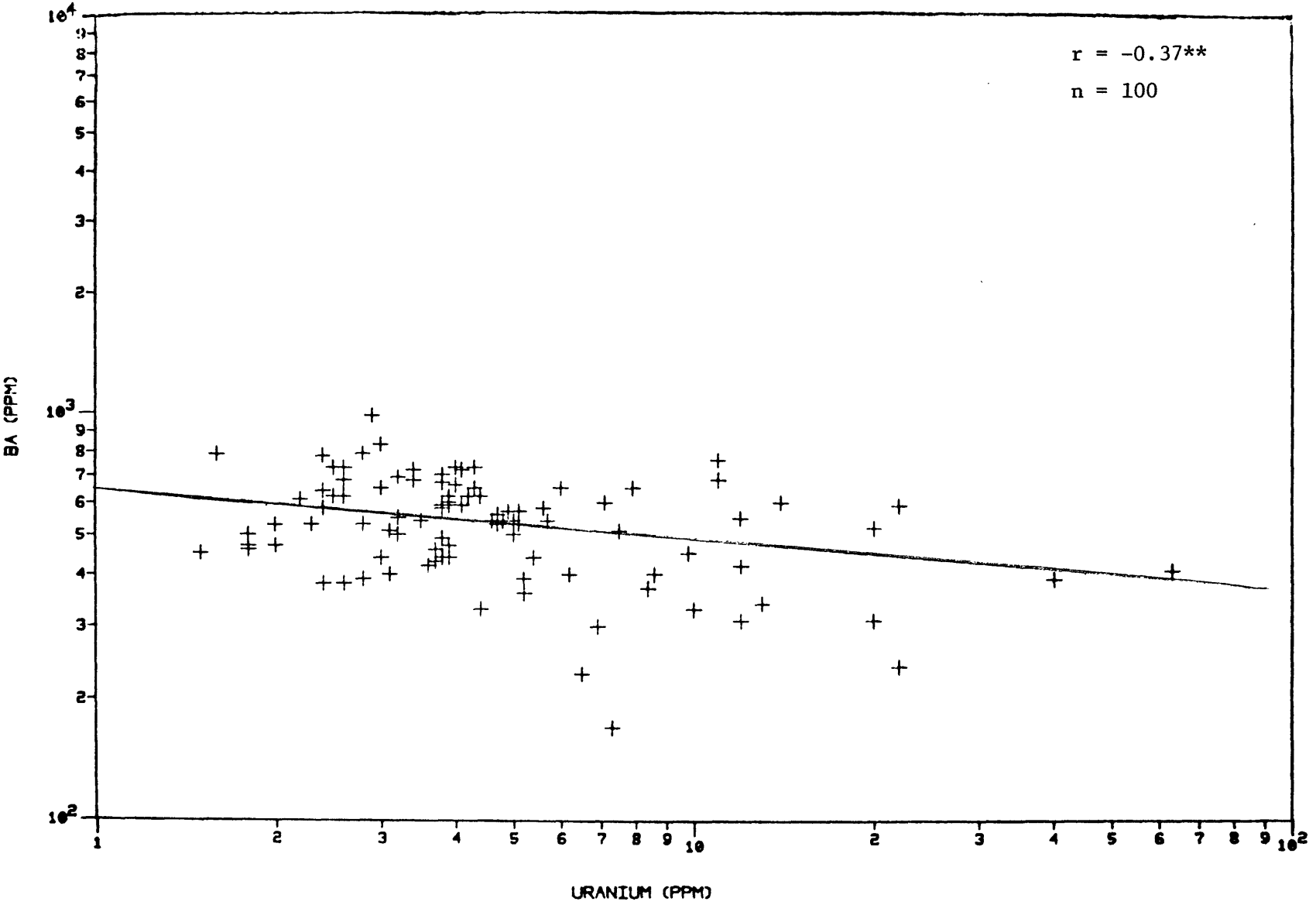

Figure 3-4. Scatter diagram of barium versus uranium.

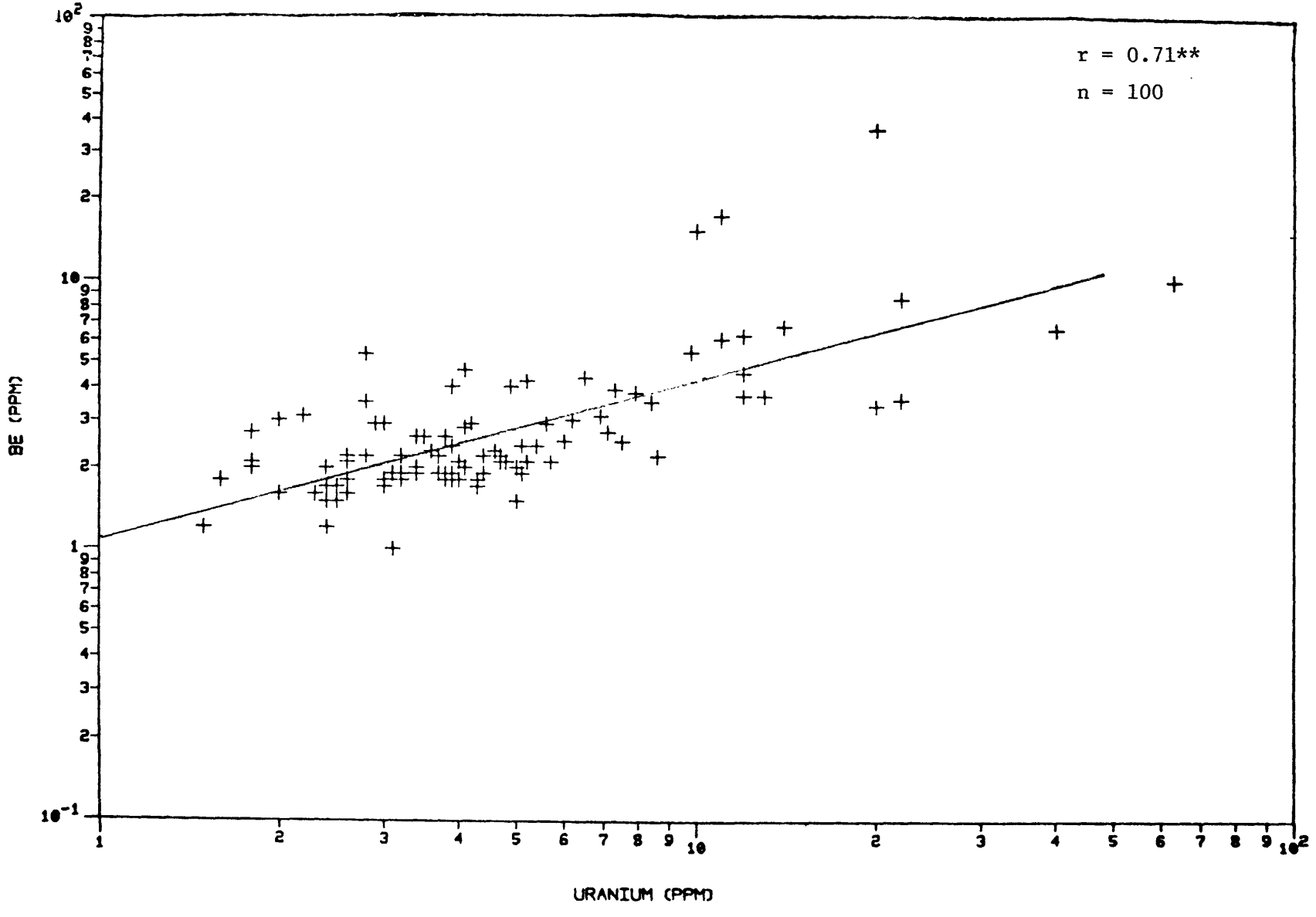

Figure 3-5. Scatter diagram of beryllium versus uranium.

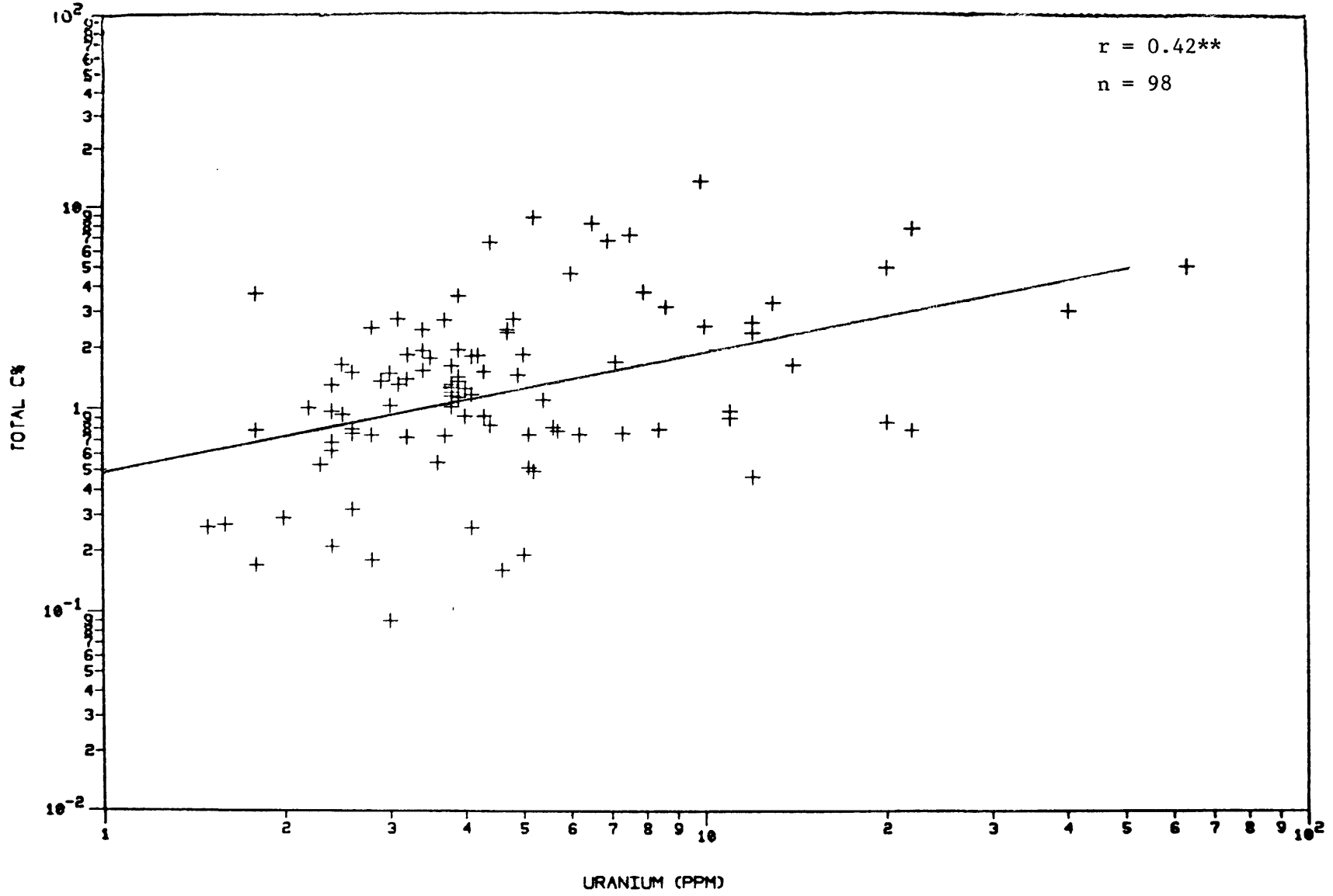

Figure 3-6. Scatter diagram of total carbon versus uranium.

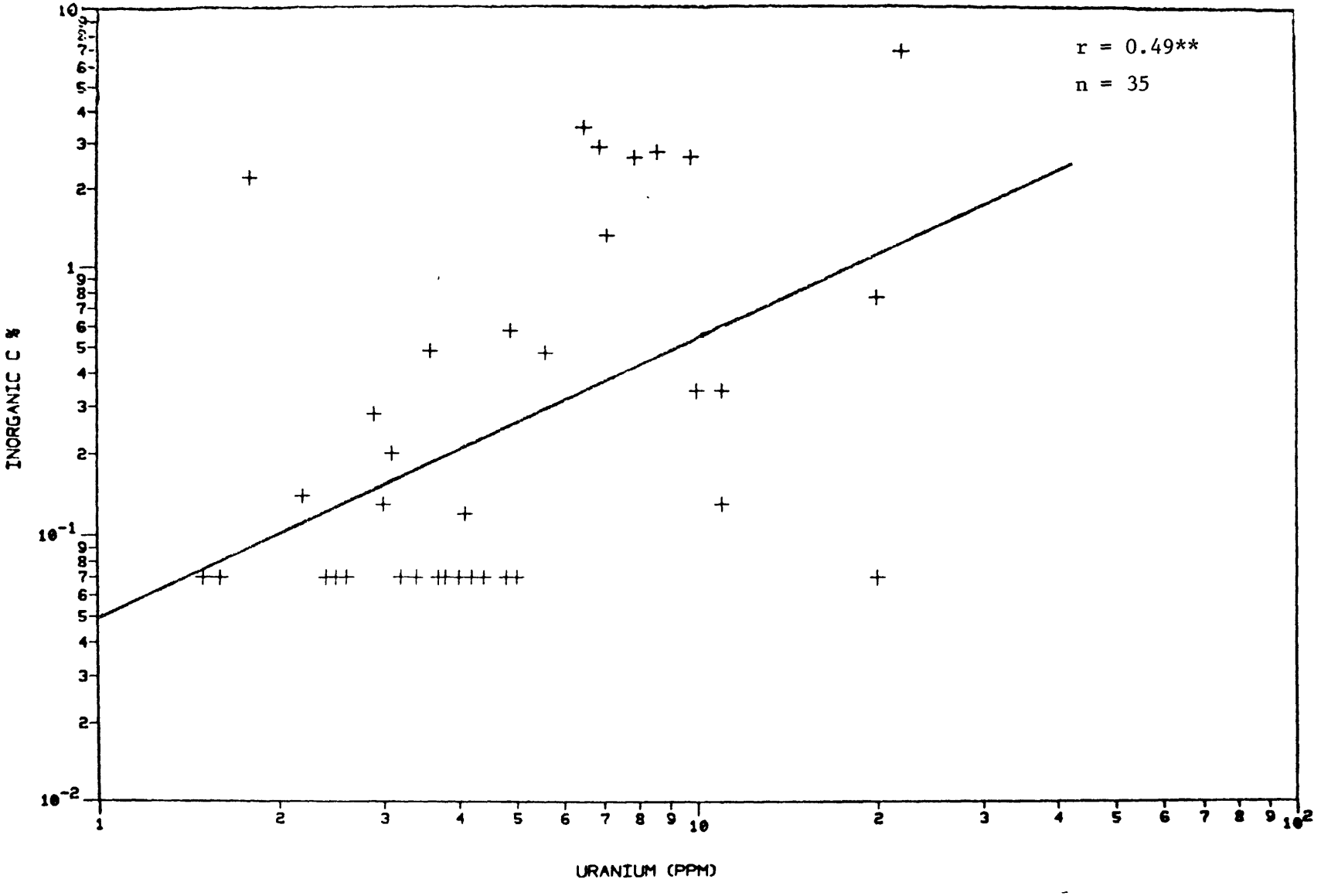

Figure 3-7. Scatter diagram of inorganic carbon versus uranium.

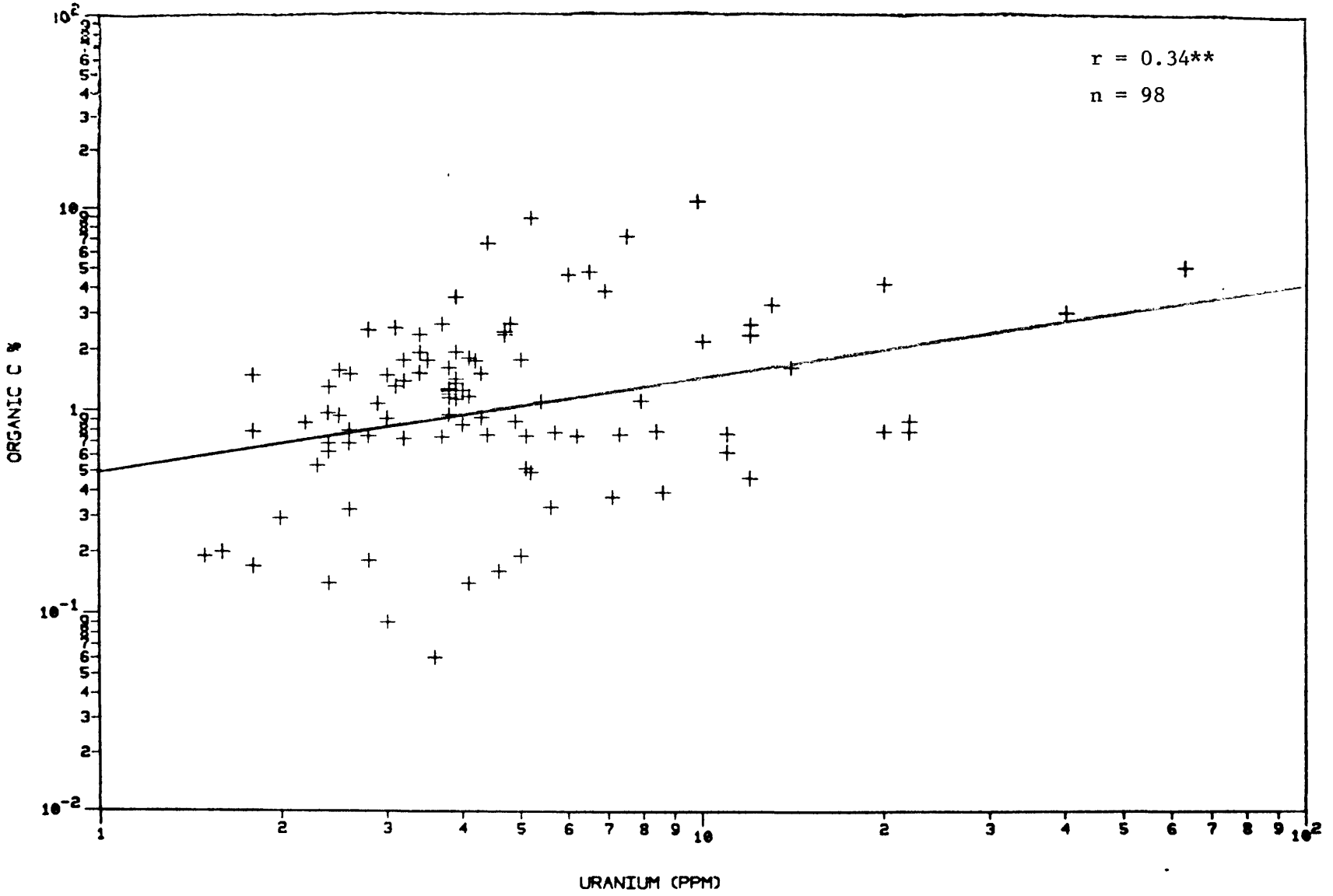

Figure 3-8. Scatter diagram of organic carbon versus uranium.

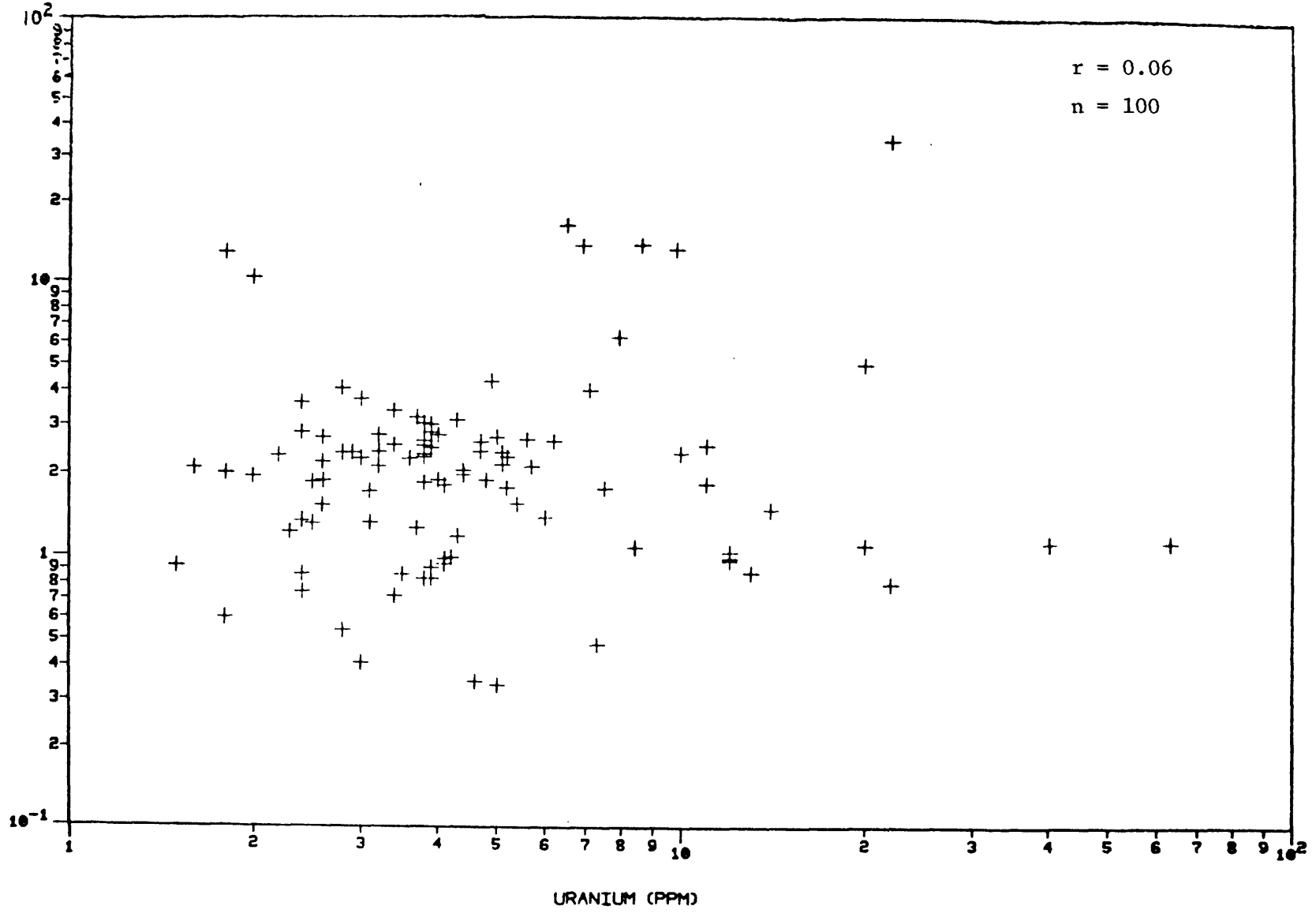

Figure 3-9. Scatter diagram of CaO versus uranium.

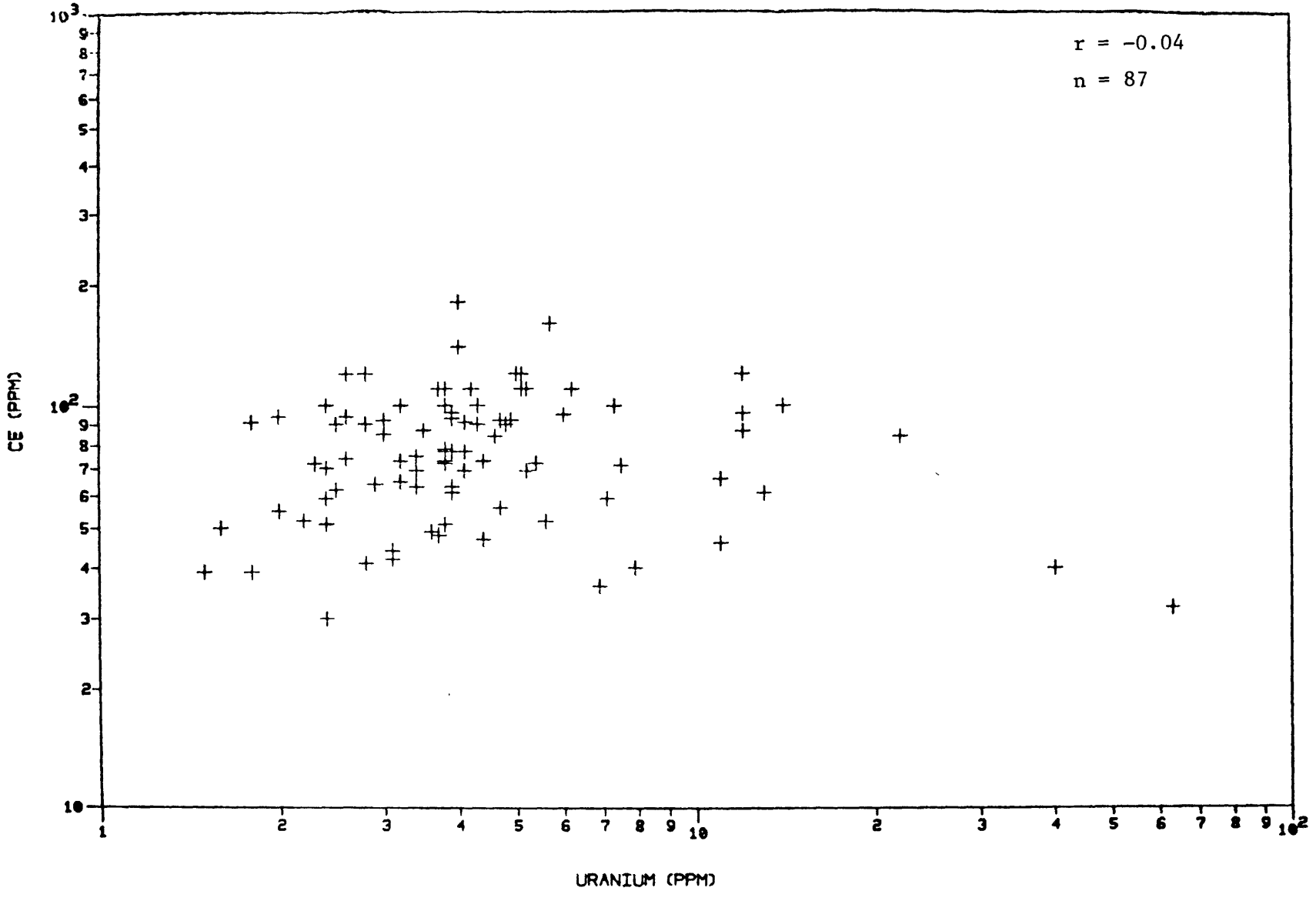

Figure 3-10. Scatter diagram of cerium versus uranium.

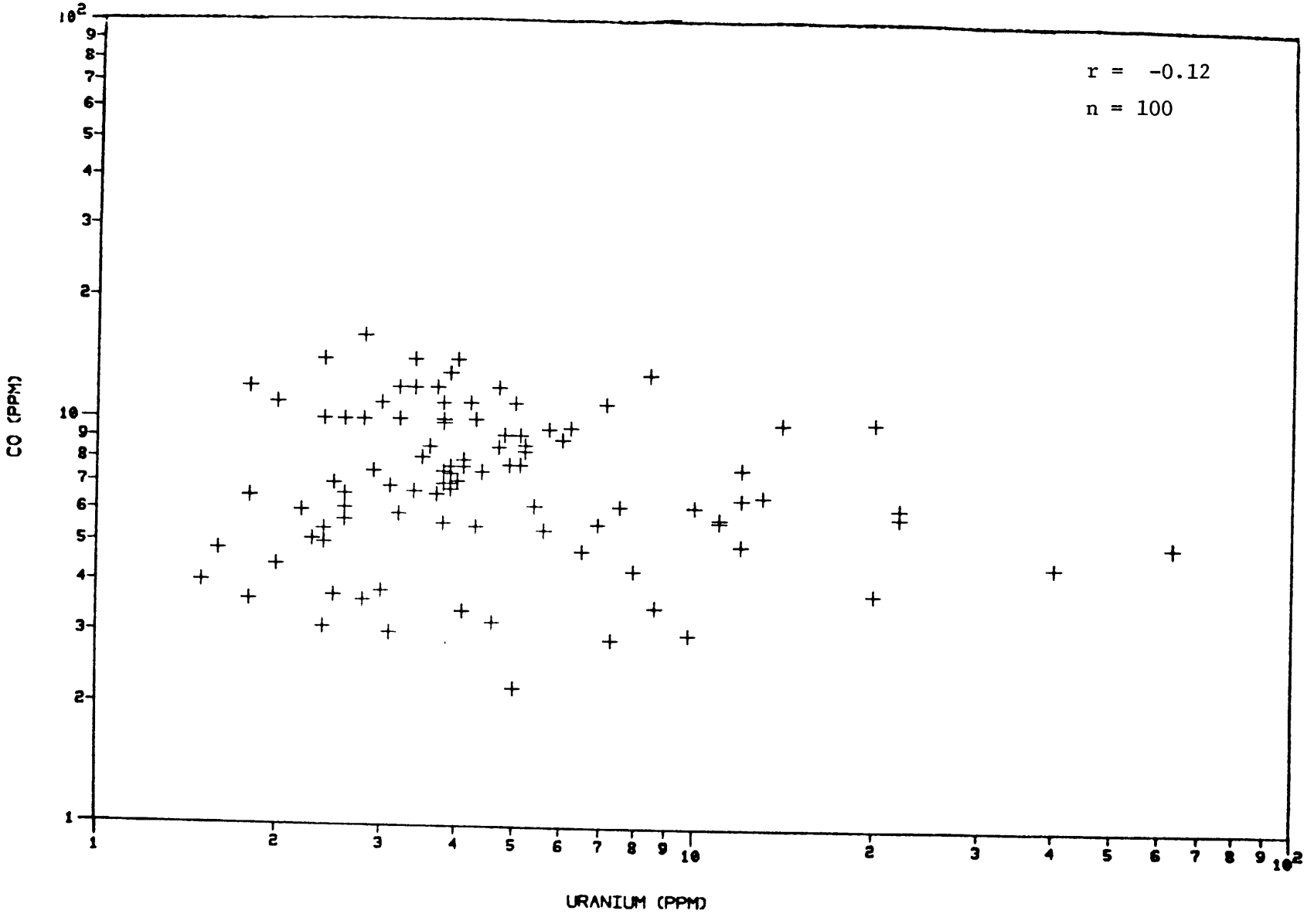

Figure 3-11. Scatter diagram of cobalt versus uranium.

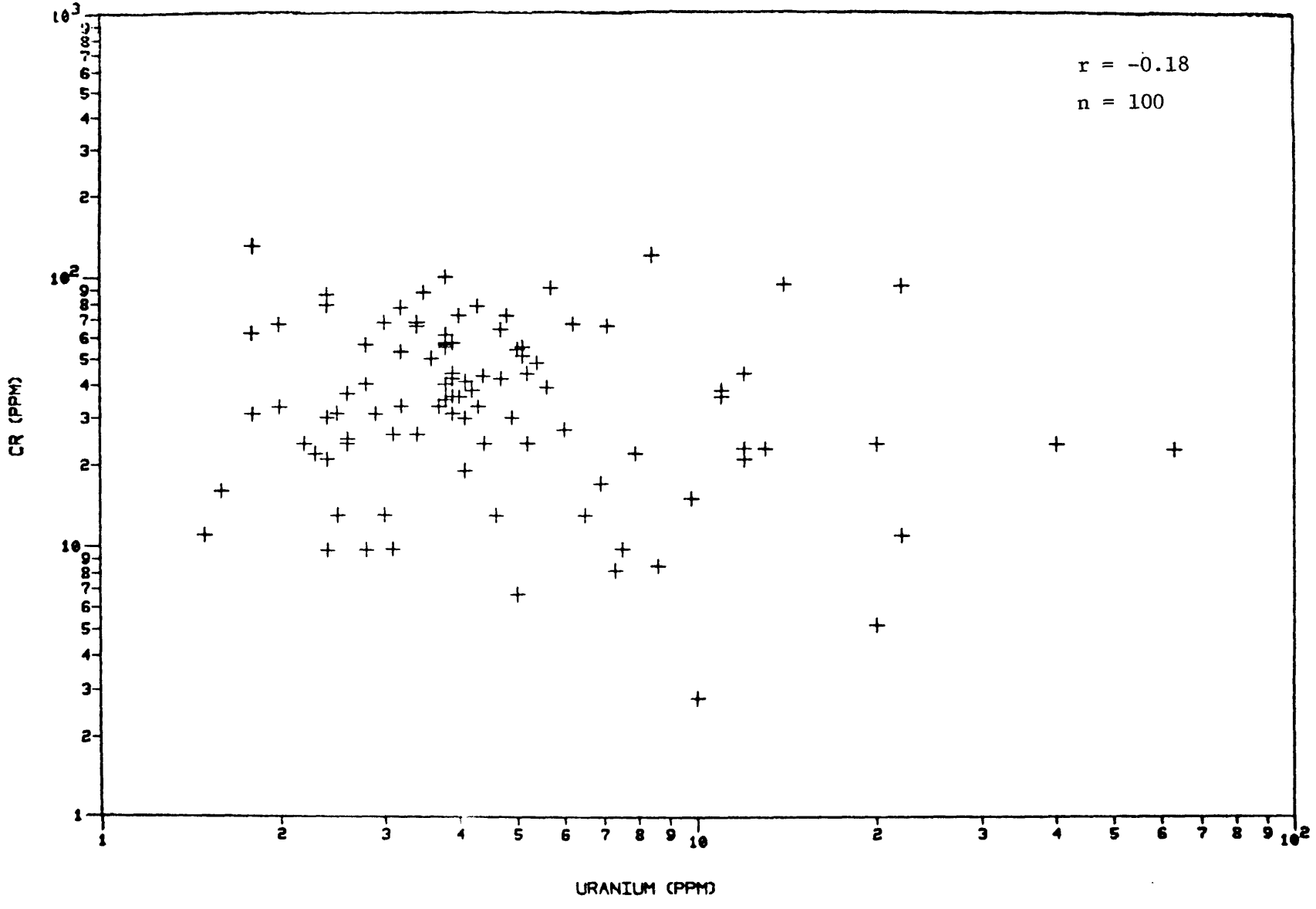

Figure 3-12. Scatter diagram of chromium versus uranium.

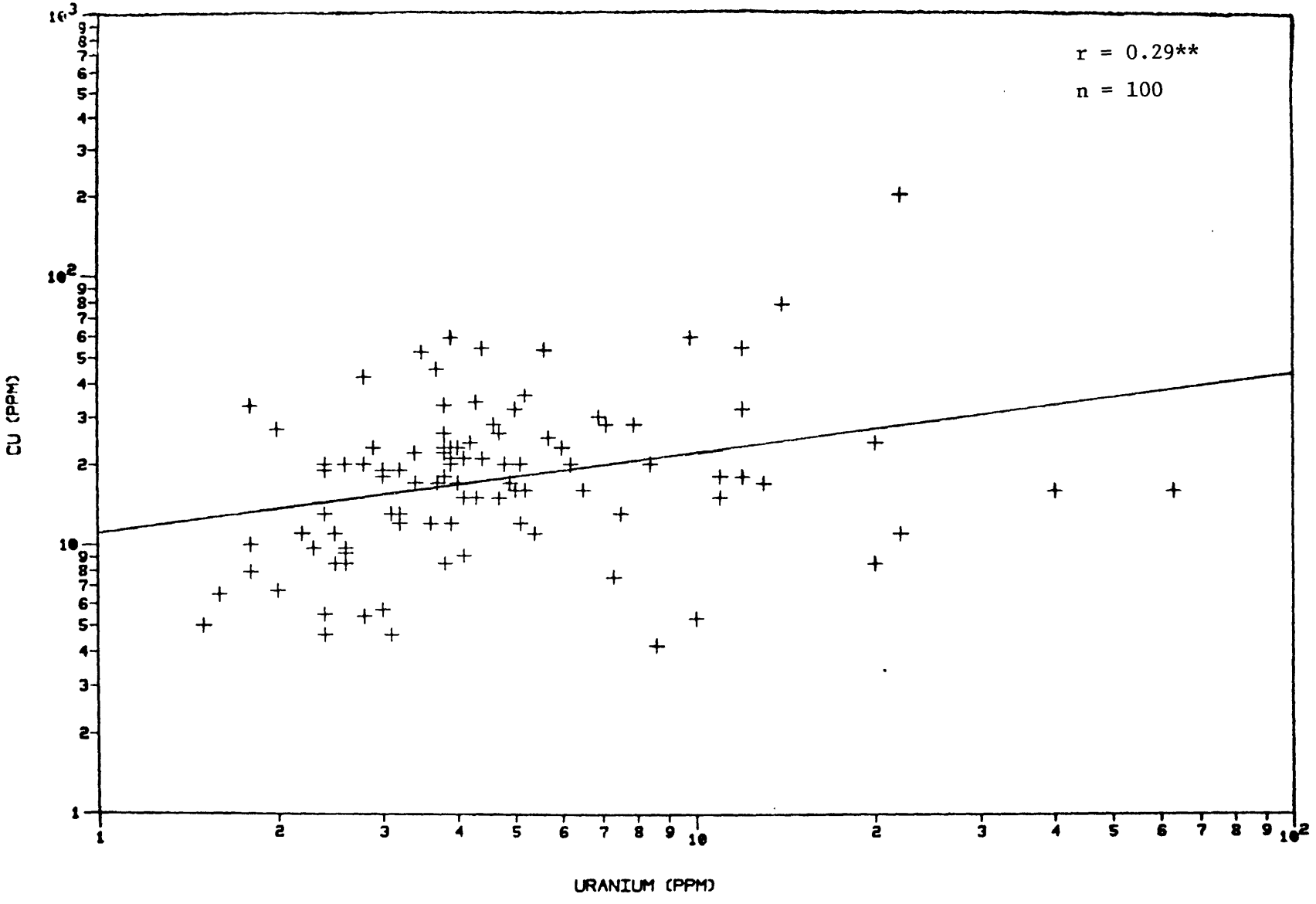

Figure 3-13. Scatter diagram of copper versus uranium.

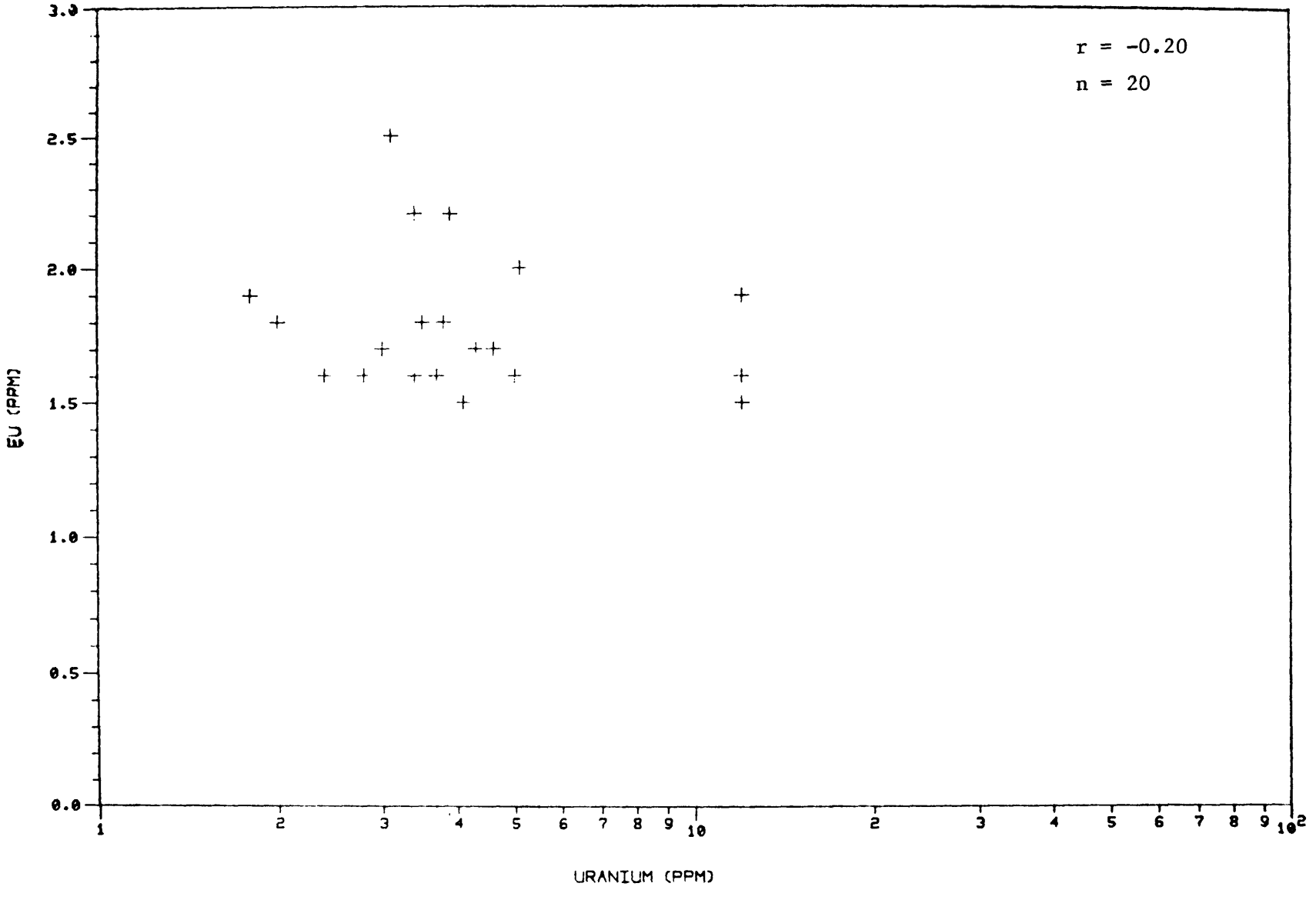

Figure 3-14. Scatter diagram of europium versus uranium. Raw data was used to calculate r.

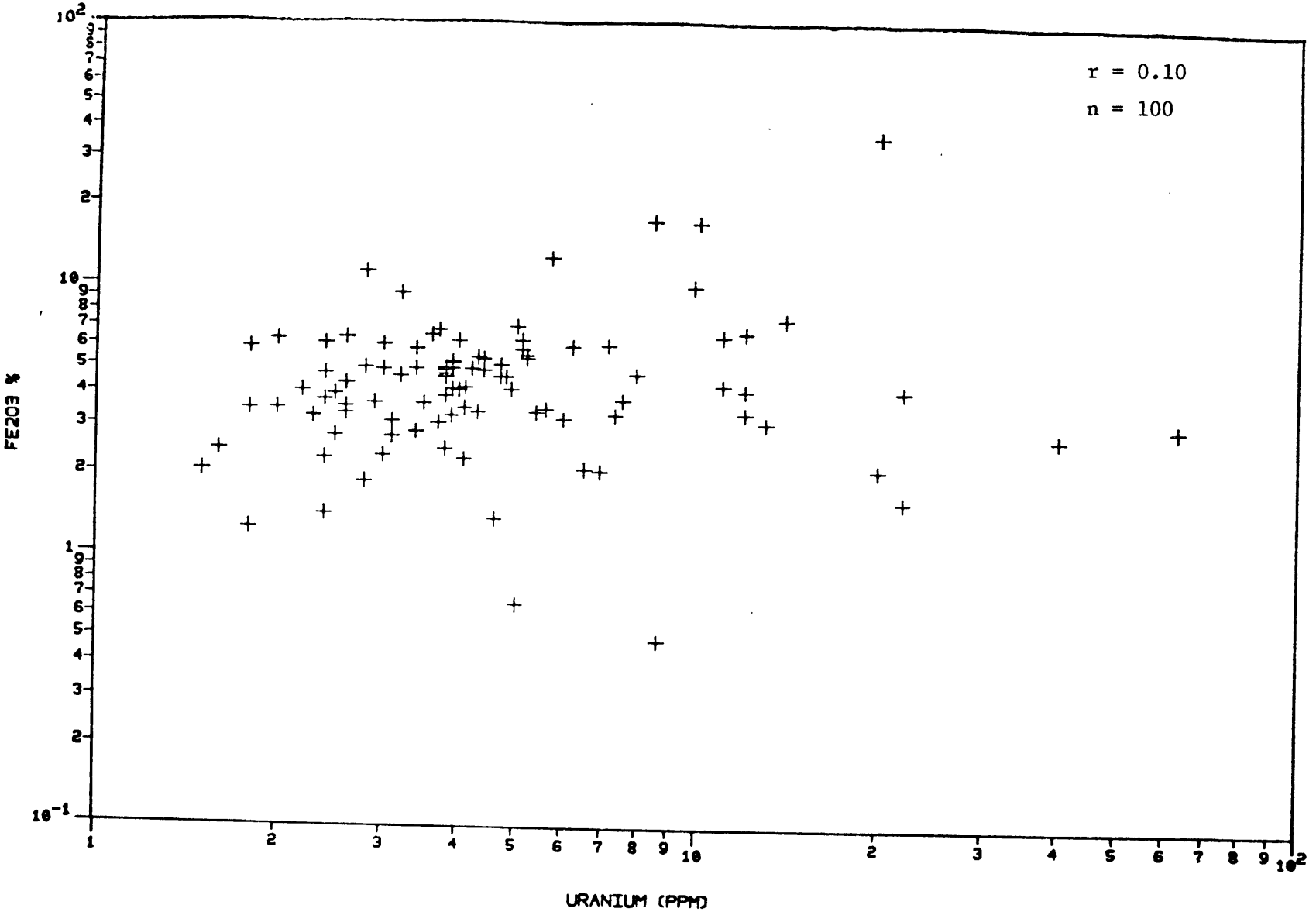

Figure 3-15. Scatter diagram of Fe_2O_3 versus uranium.

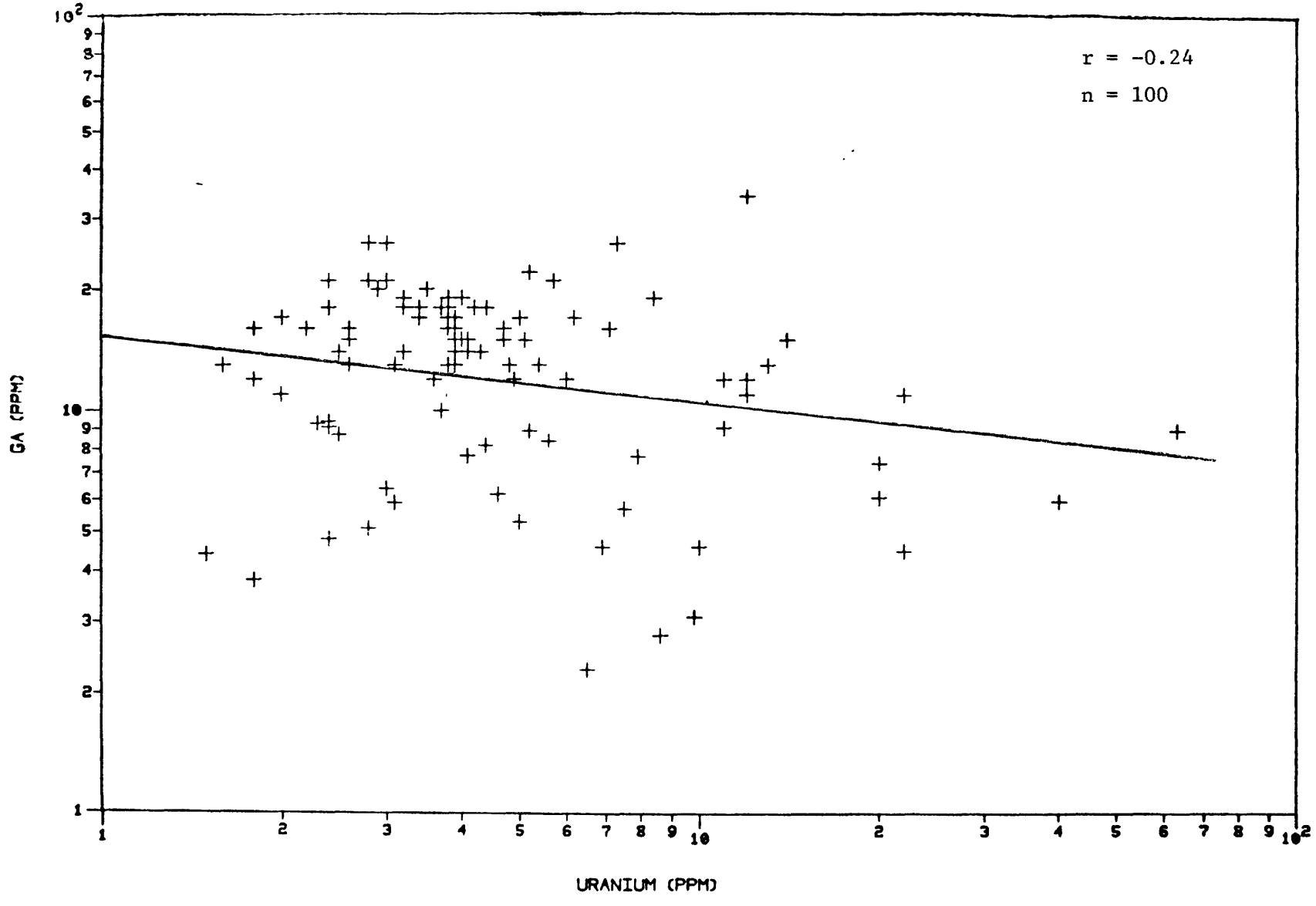

Figure 3-16. Scatter diagram of gallium versus uranium.

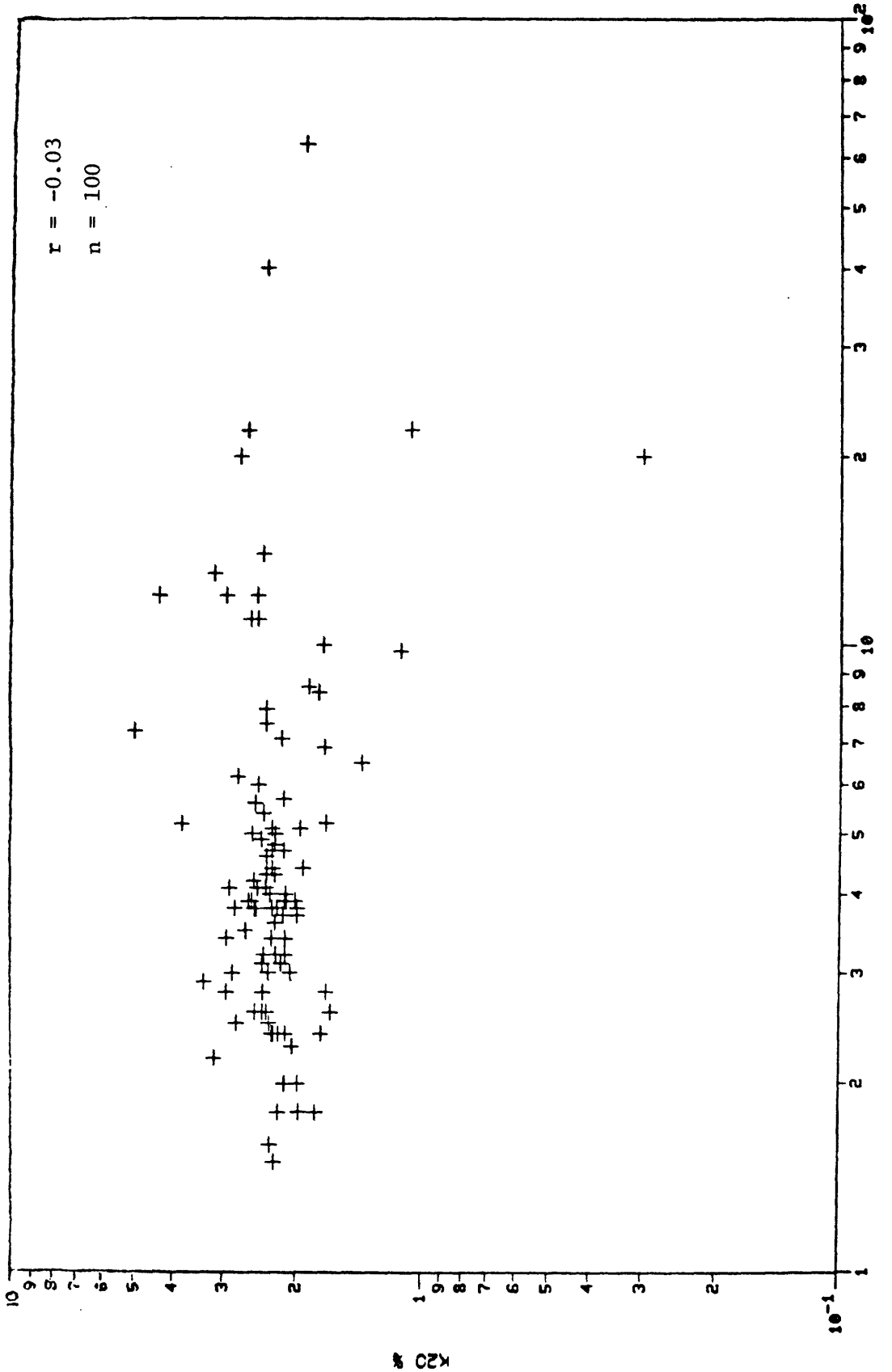

Figure 3-17. Scatter diagram of K_2O versus uranium. Raw data was used to calculate r.

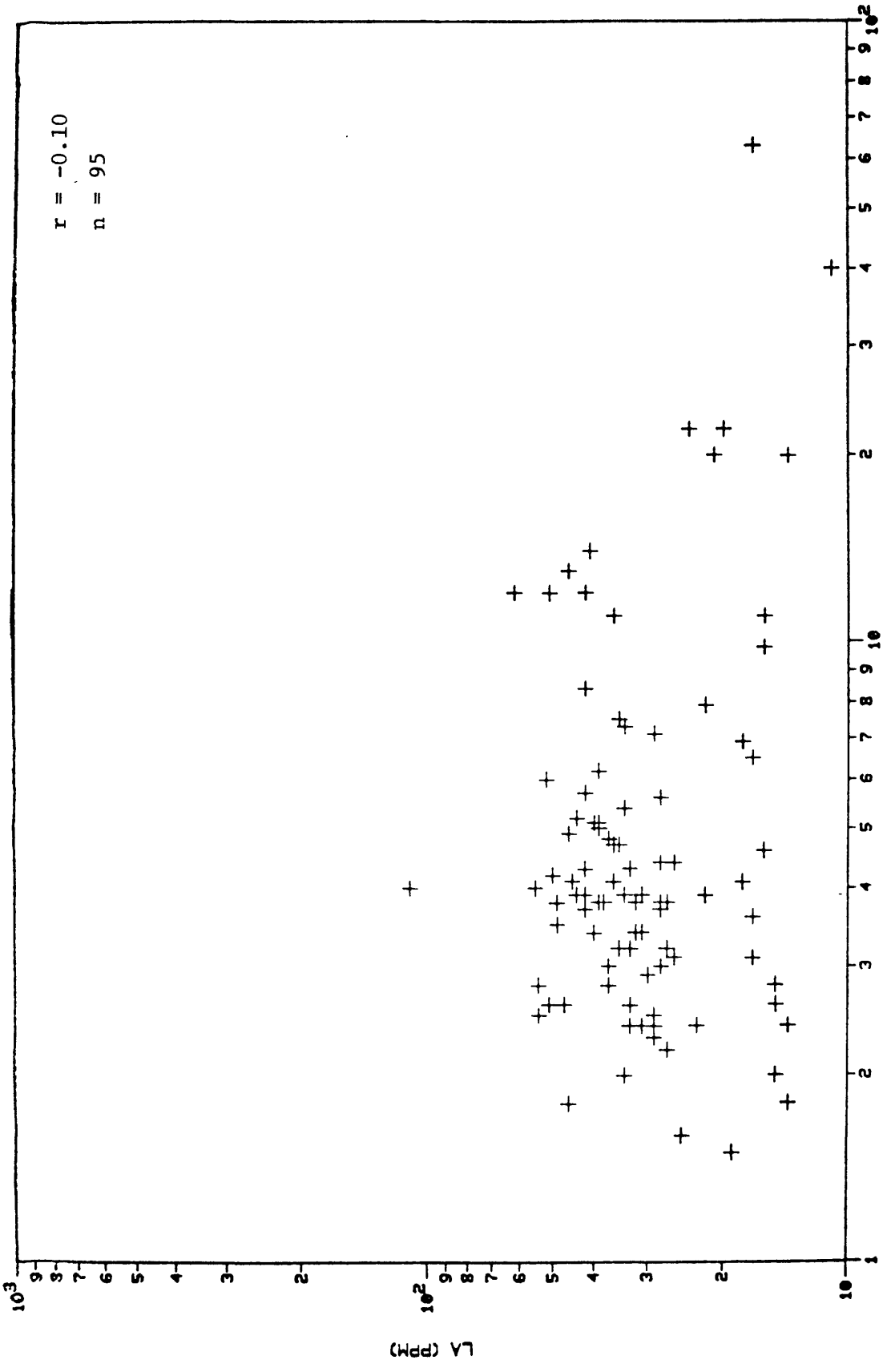

Figure 3-18. Scatter diagram of lanthanum versus uranium.

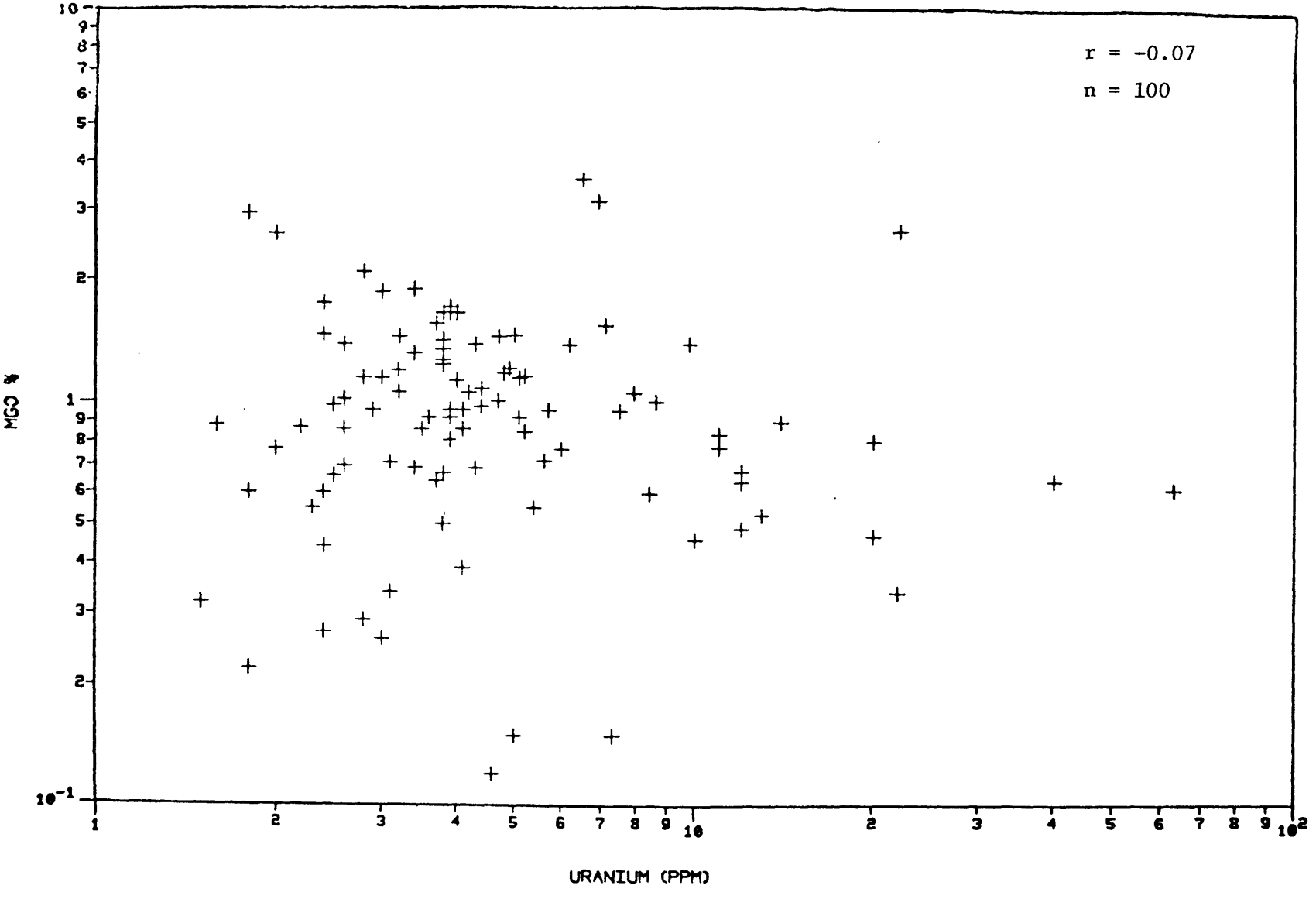

Figure 3-19. Scatter diagram of MgO versus uranium.

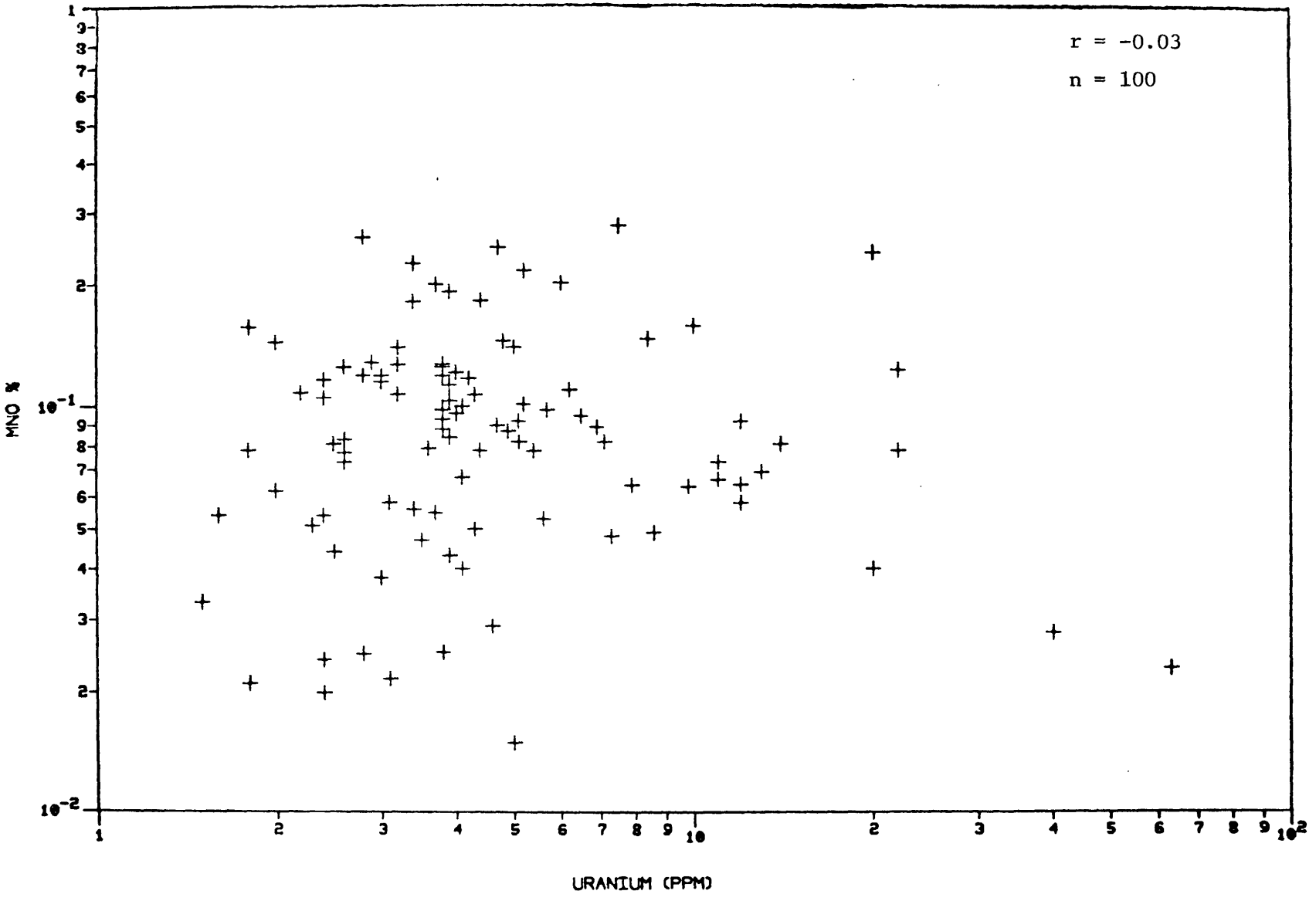

Figure 3-20. Scatter diagram of MnO versus uranium.

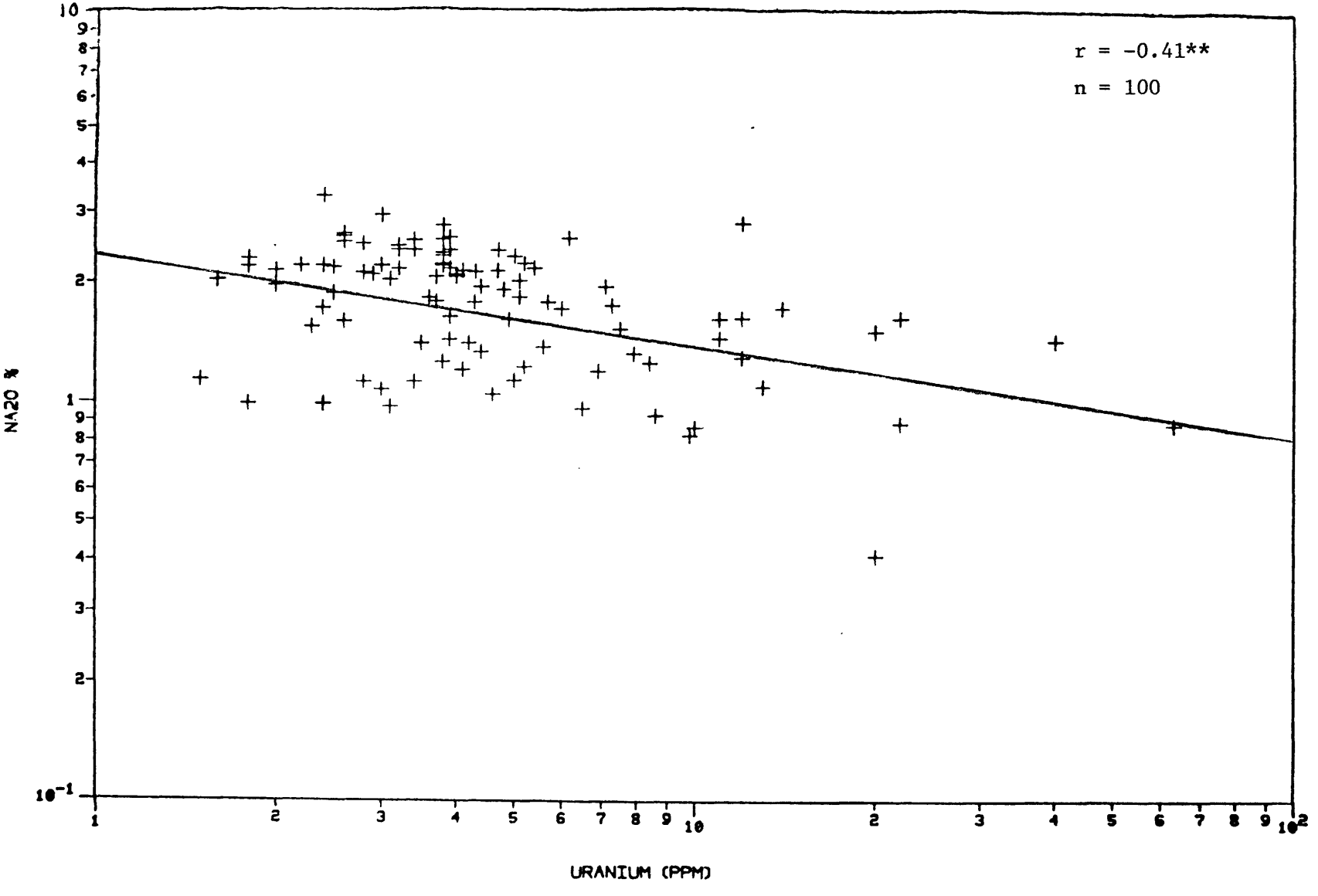

Figure 3-21. Scatter diagram of Na_2O versus uranium.

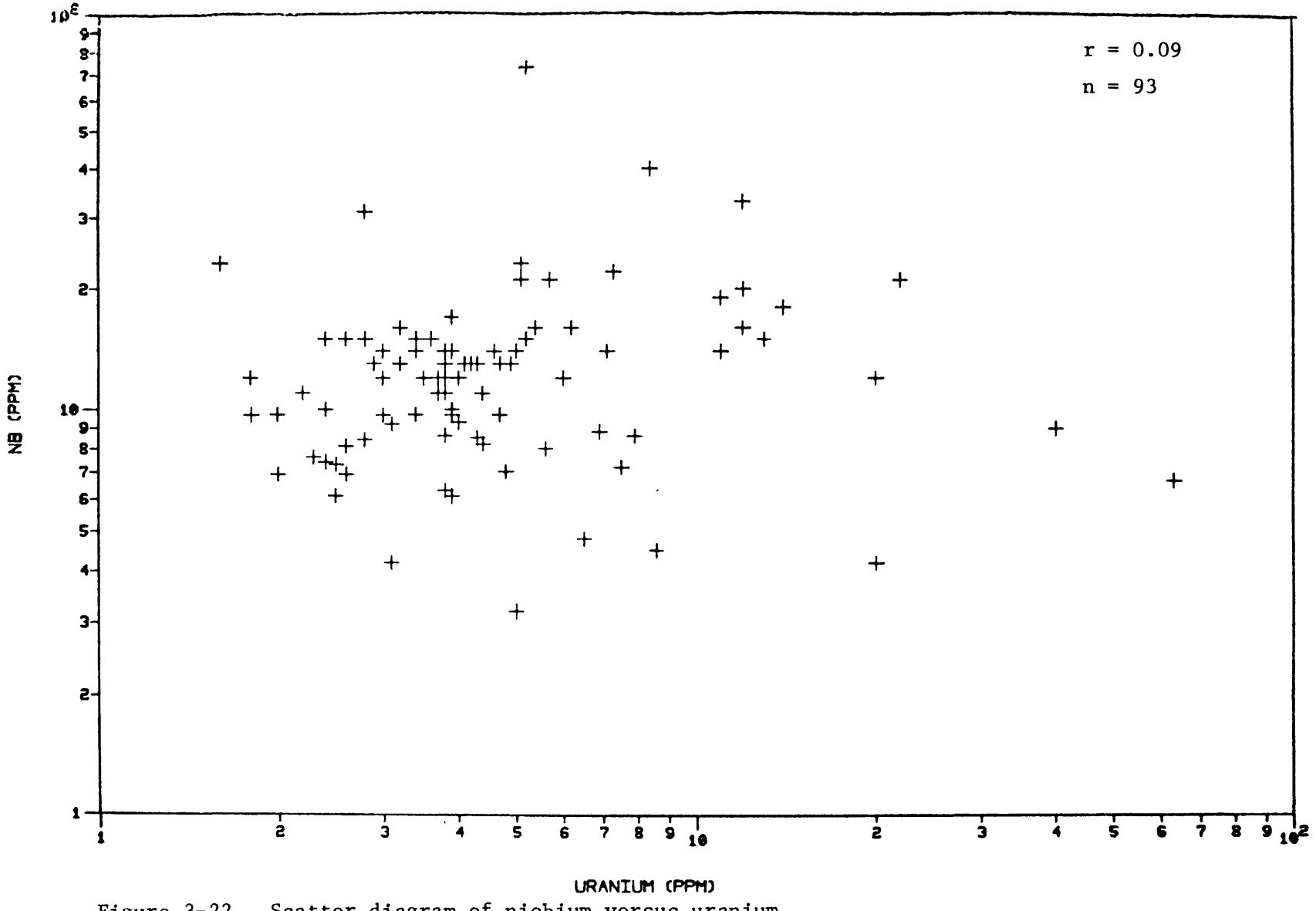

Figure 3-22. Scatter diagram of niobium versus uranium.

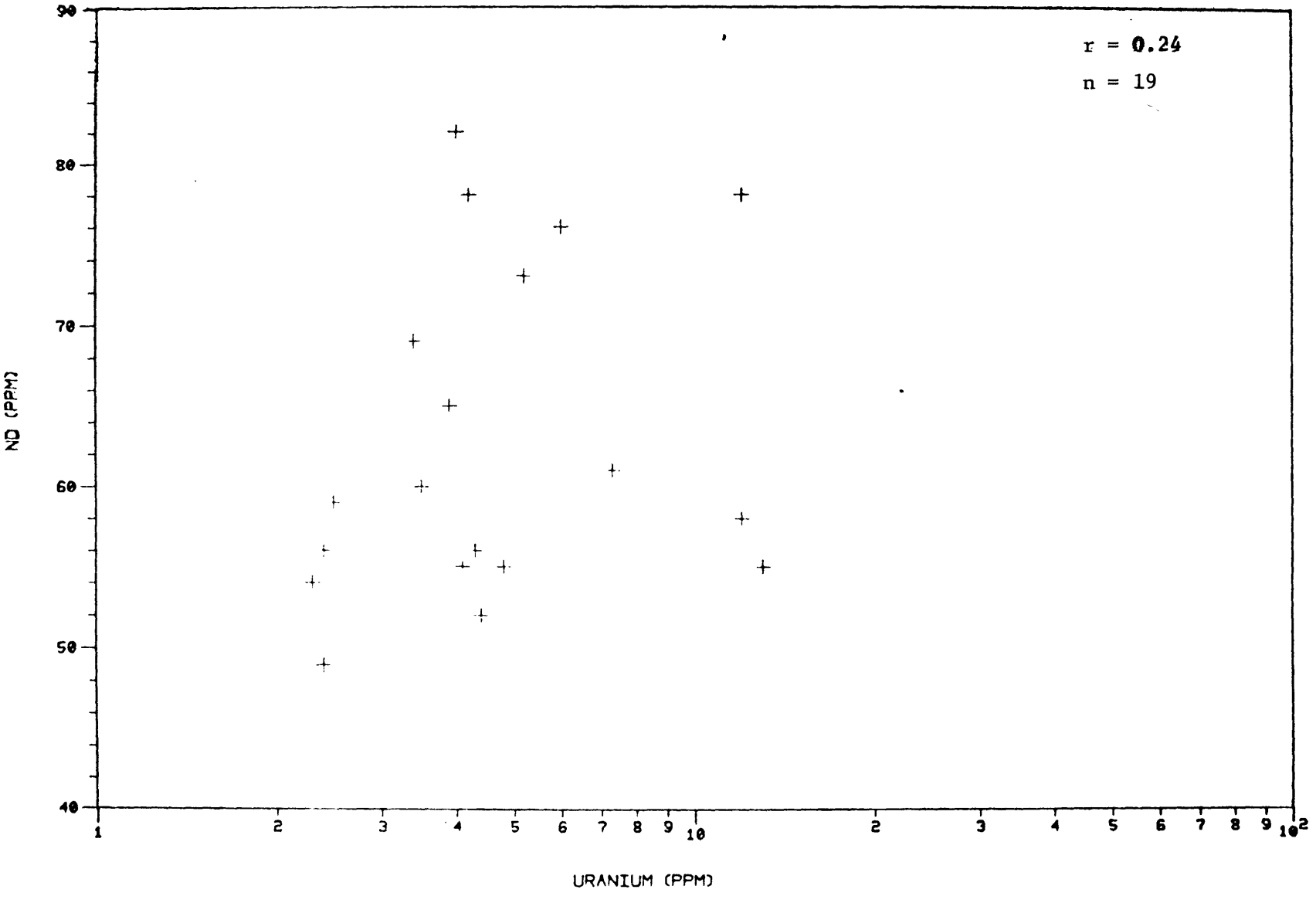

Figure 3-23. Scatter diagram of neodymium versus uranium. Raw data was used to calculate r.

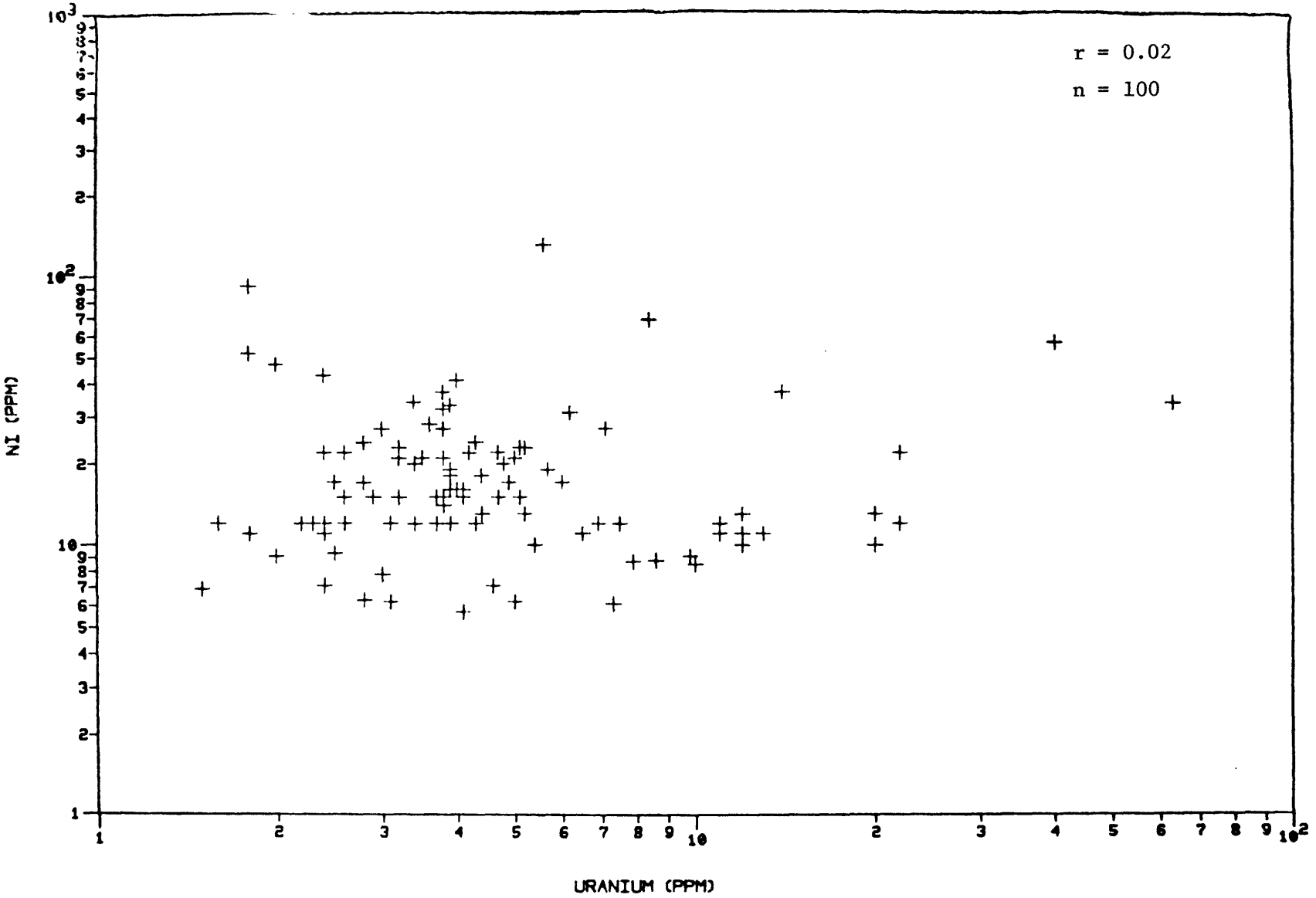

Figure 3-24. Scatter diagram of nickel versus uranium.

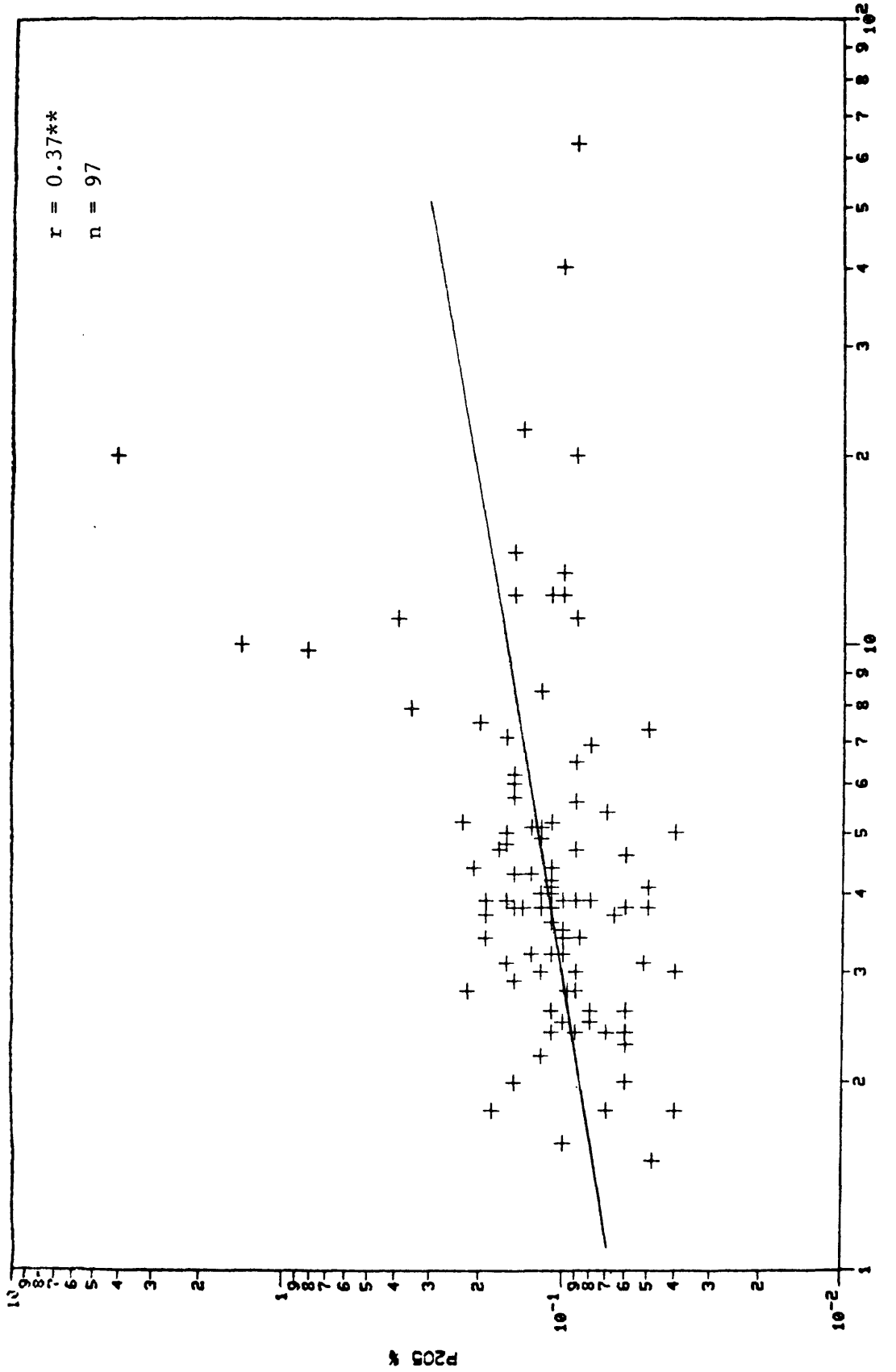

Figure 3-25. Scatter diagram of P_2O_5 versus uranium.

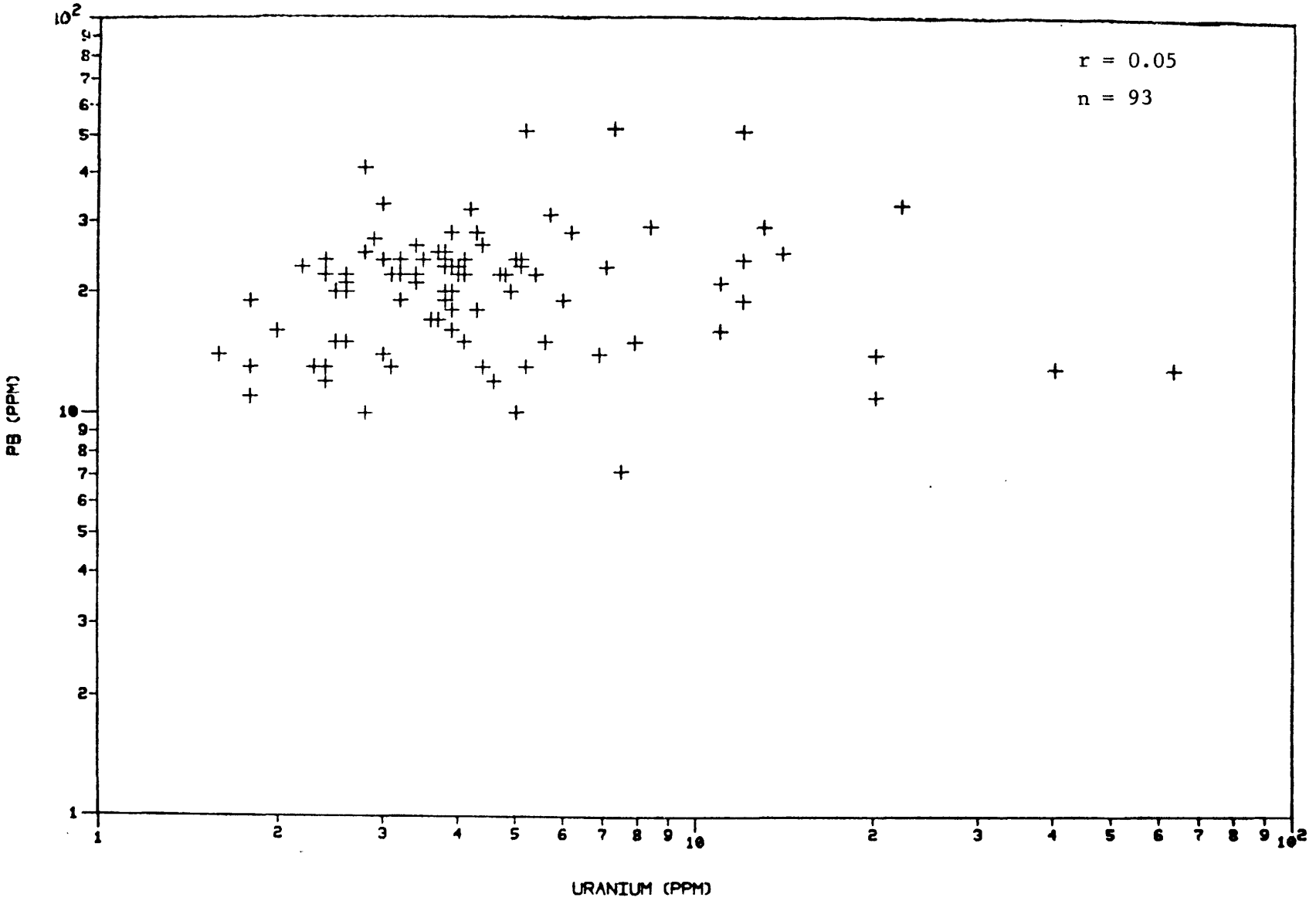

Figure 3-26. Scatter diagram of lead versus uranium.

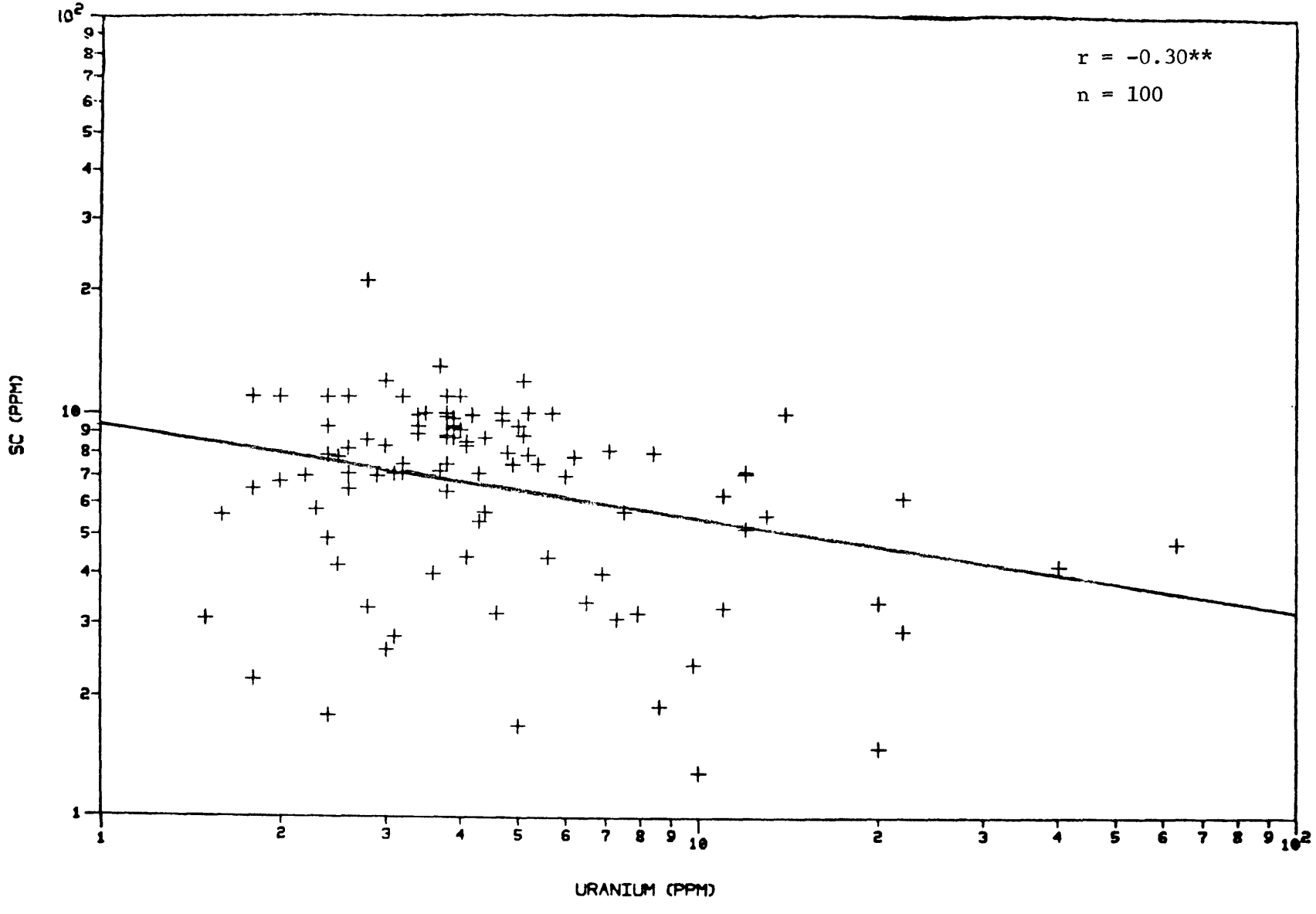

Figure 3-27. Scatter diagram of scandium versus uranium.

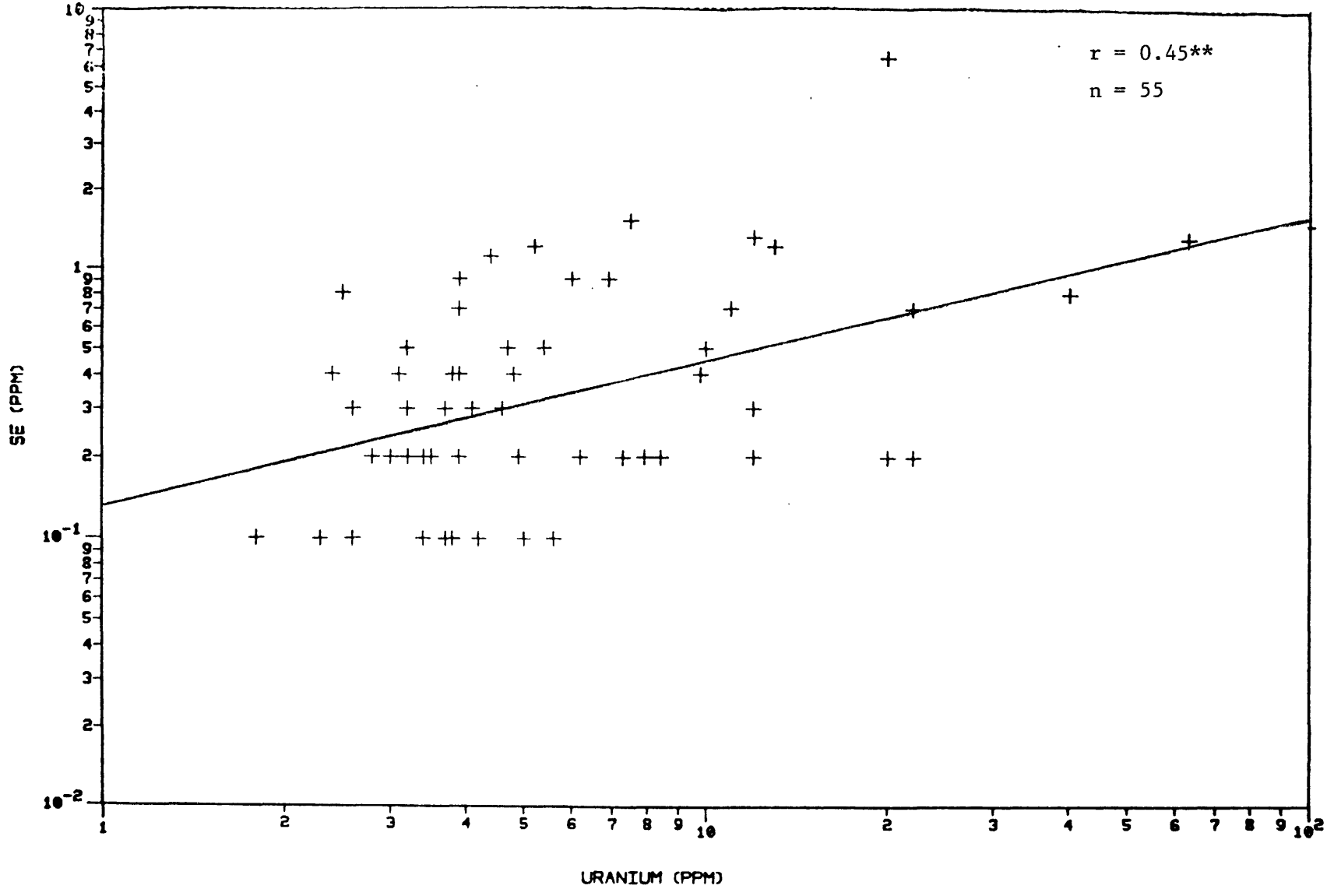

Figure 3-28. Scatter diagram of selenium versus uranium.

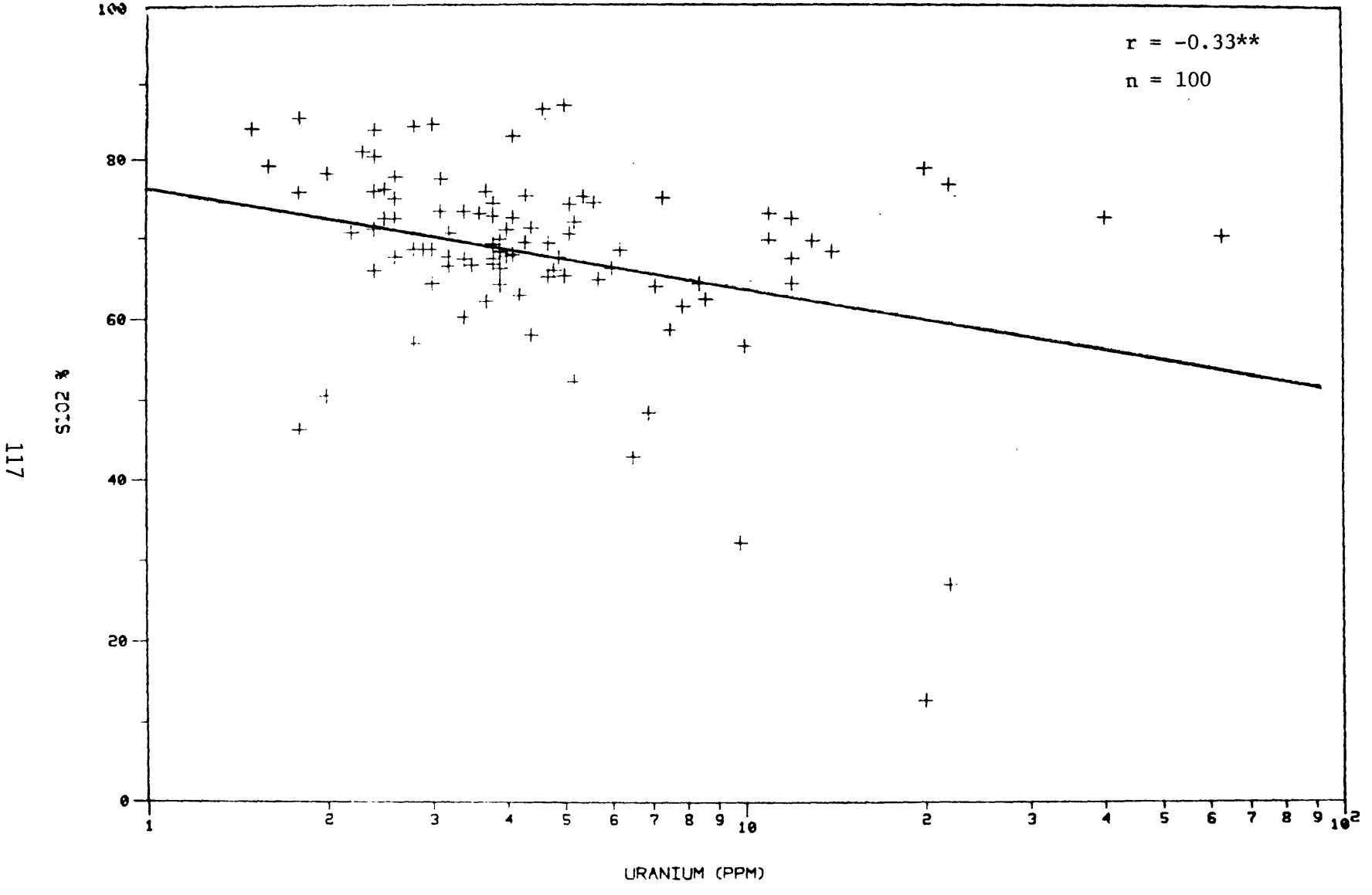

Figure 3-29. Scatter diagram of SiO_2 versus uranium. Raw data was used to calculate r.

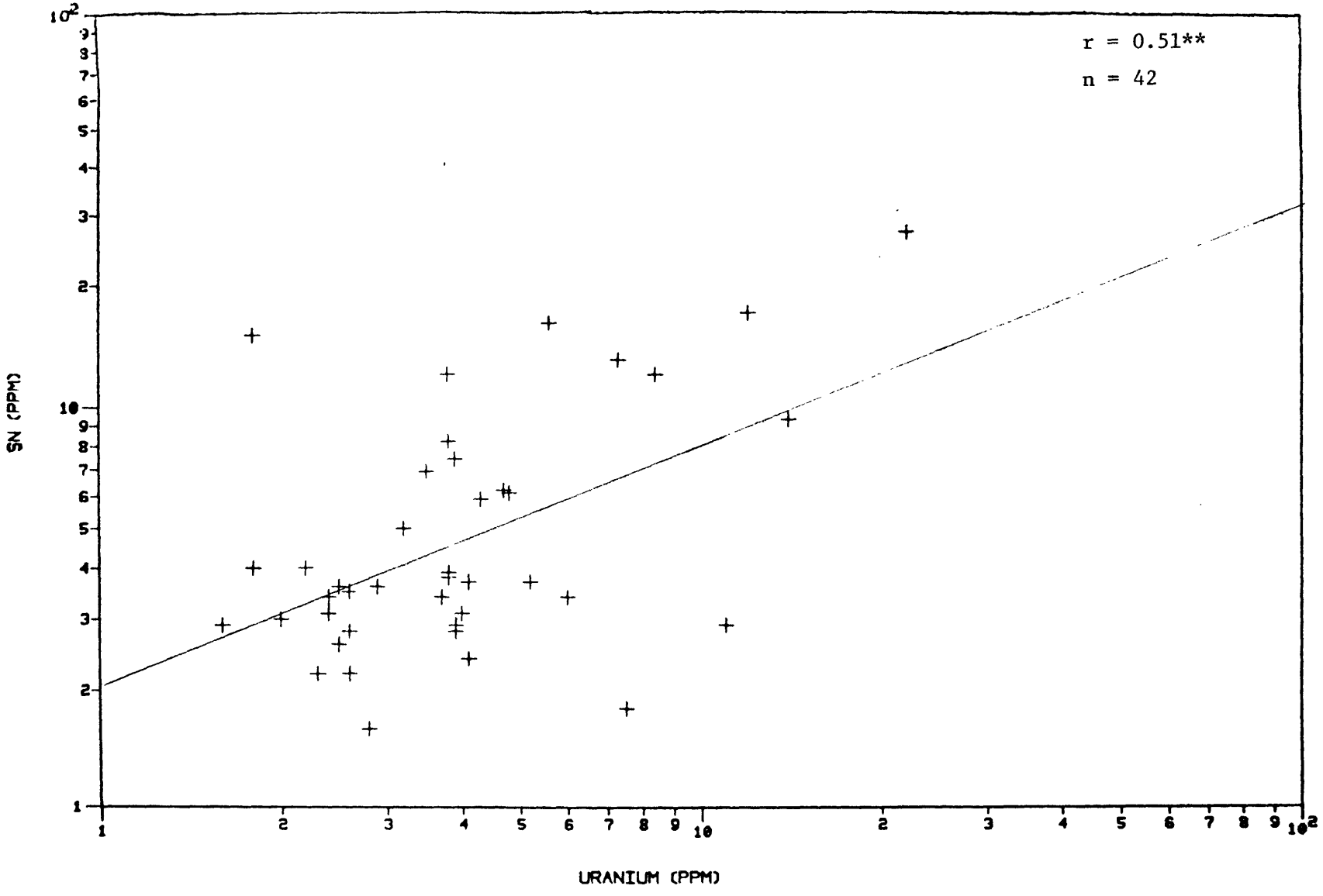

Figure 3-30. Scatter diagram of tin versus uranium.

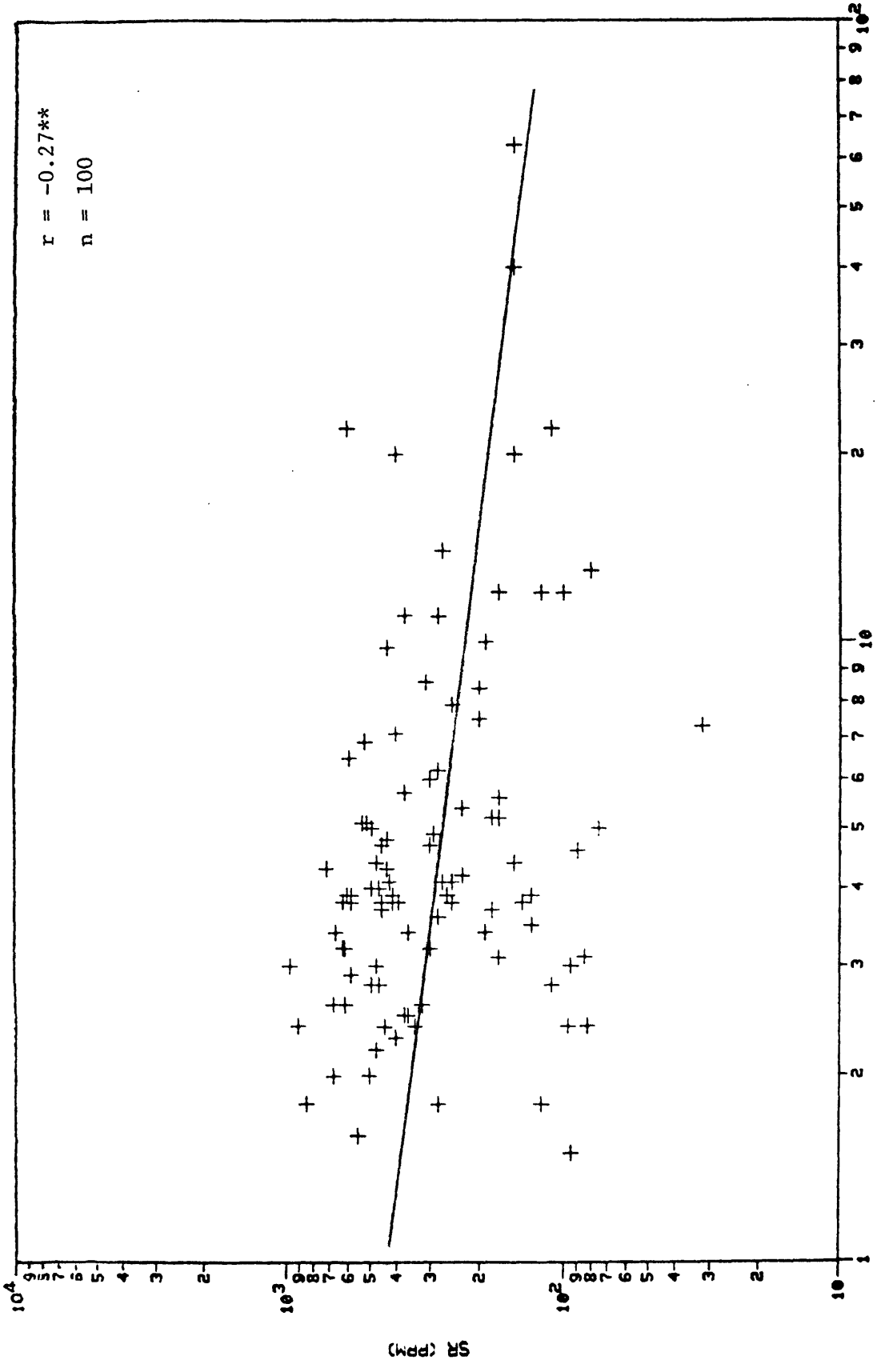

Figure 3-31. Scatter diagram of strontium versus uranium.

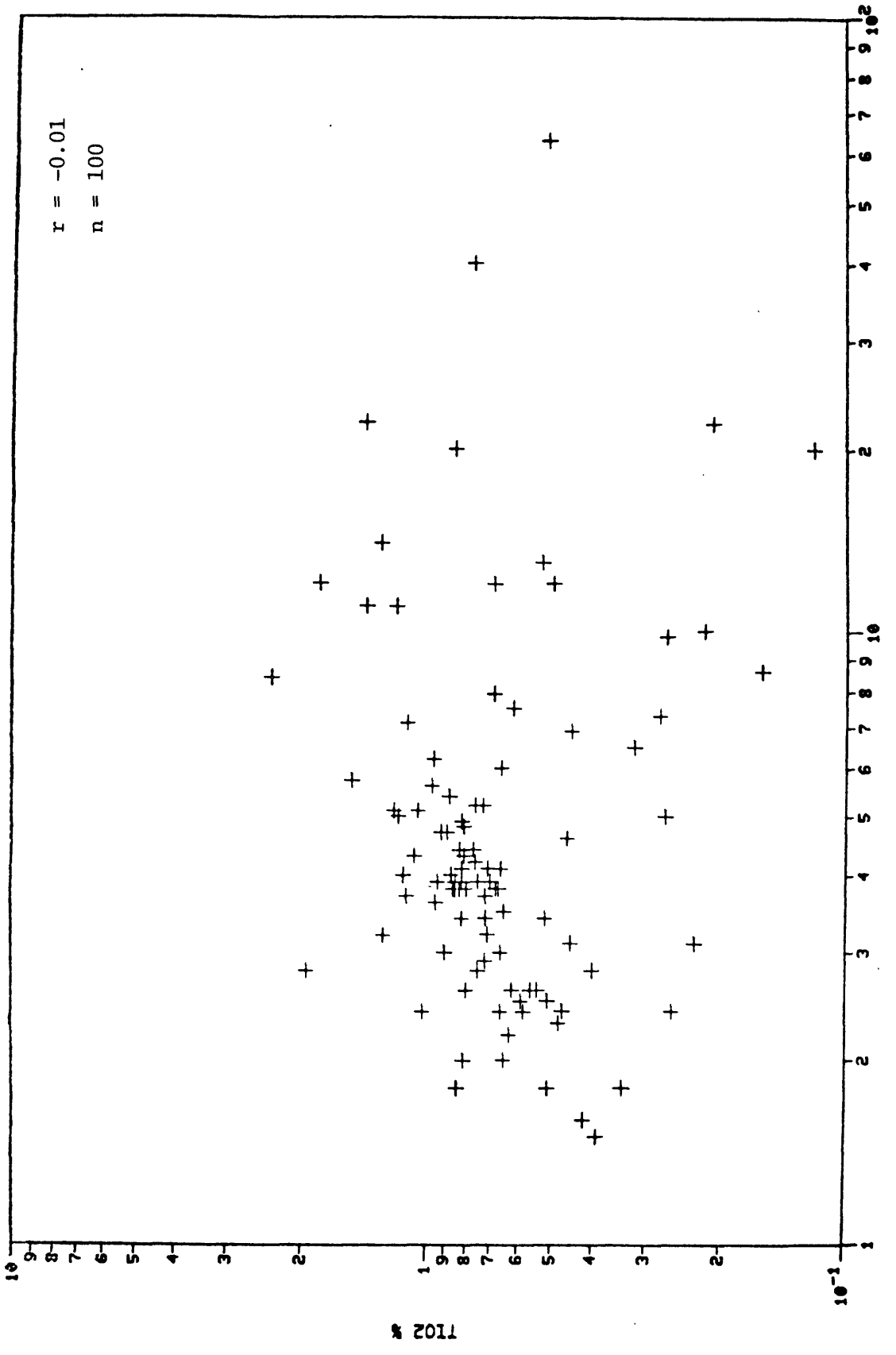

Figure 3-32. Scatter diagram of TiO_2 versus uranium.

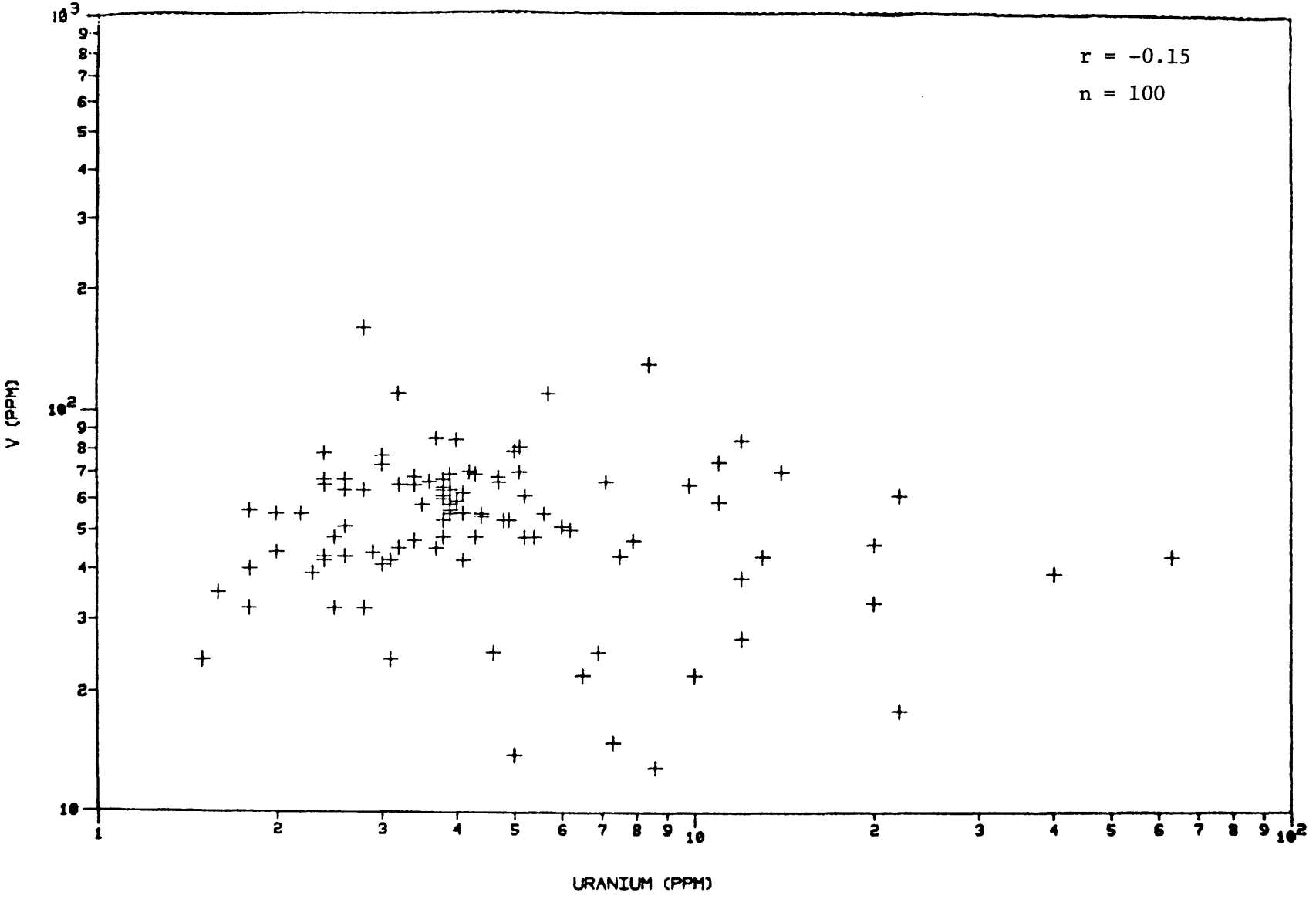

Figure 3-33. Scatter diagram of vanadium versus uranium.

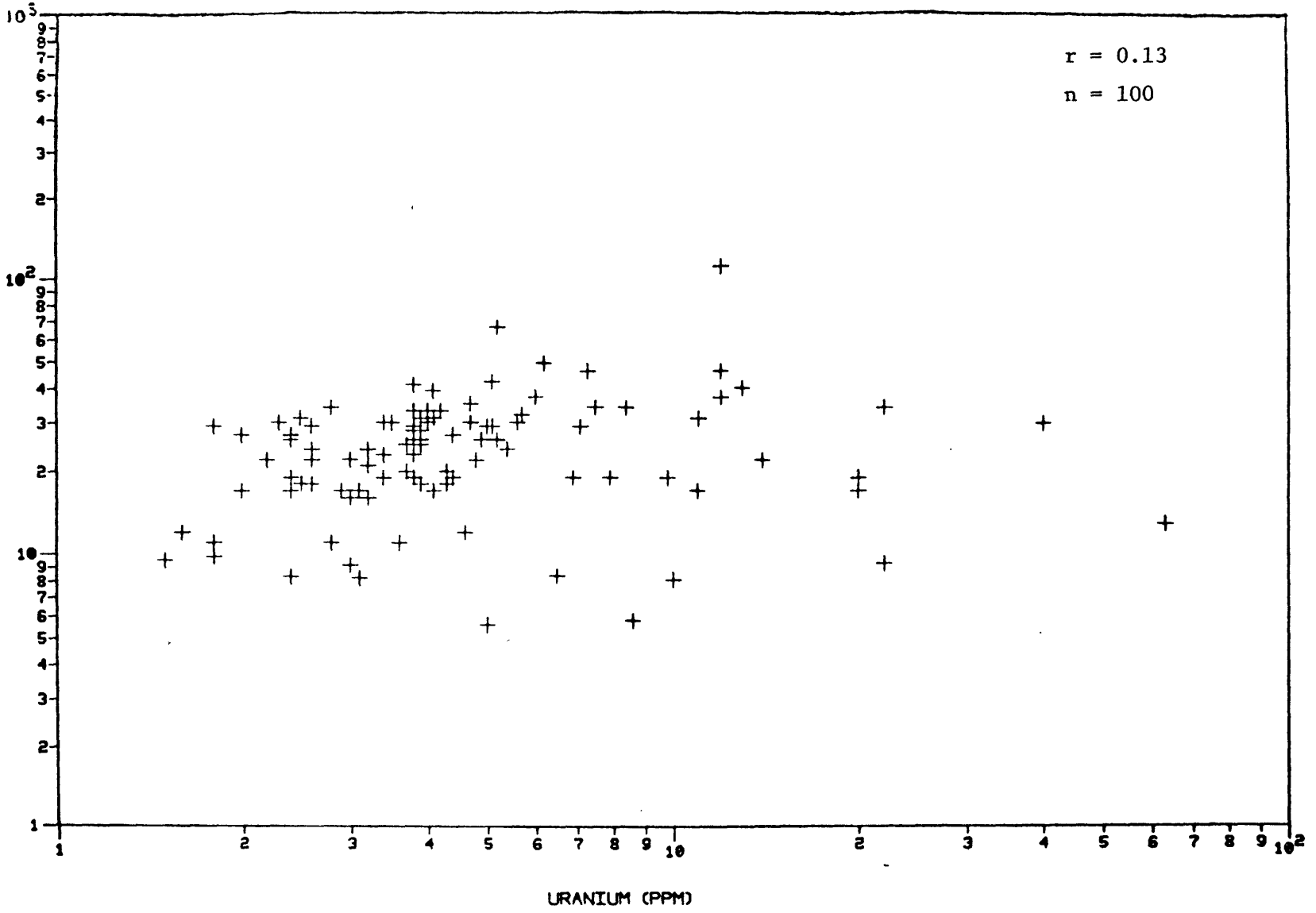

Figure 3-34. Scatter diagram of yttrium versus uranium.

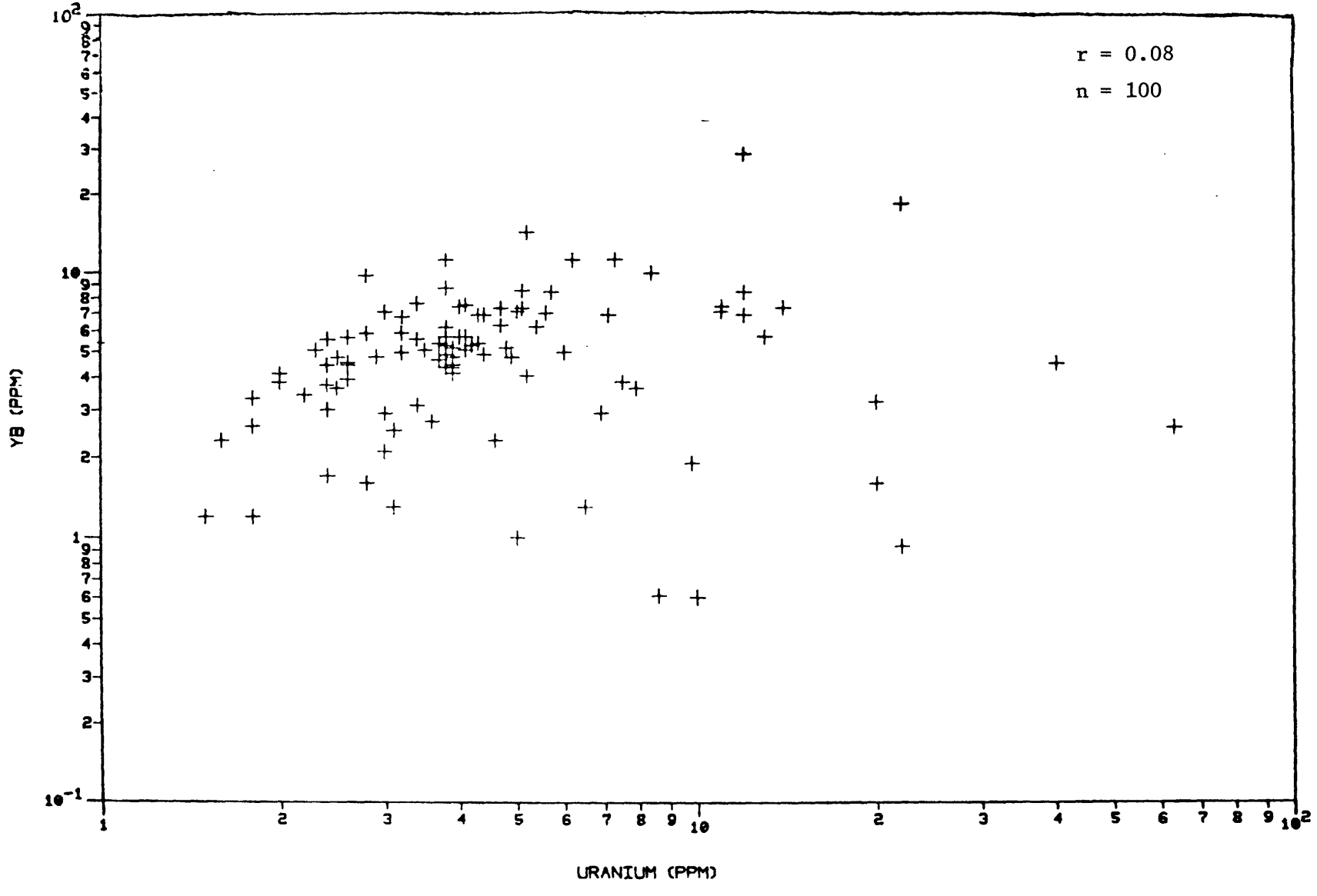

Figure 3-35. Scatter diagram of ytterbium versus uranium.

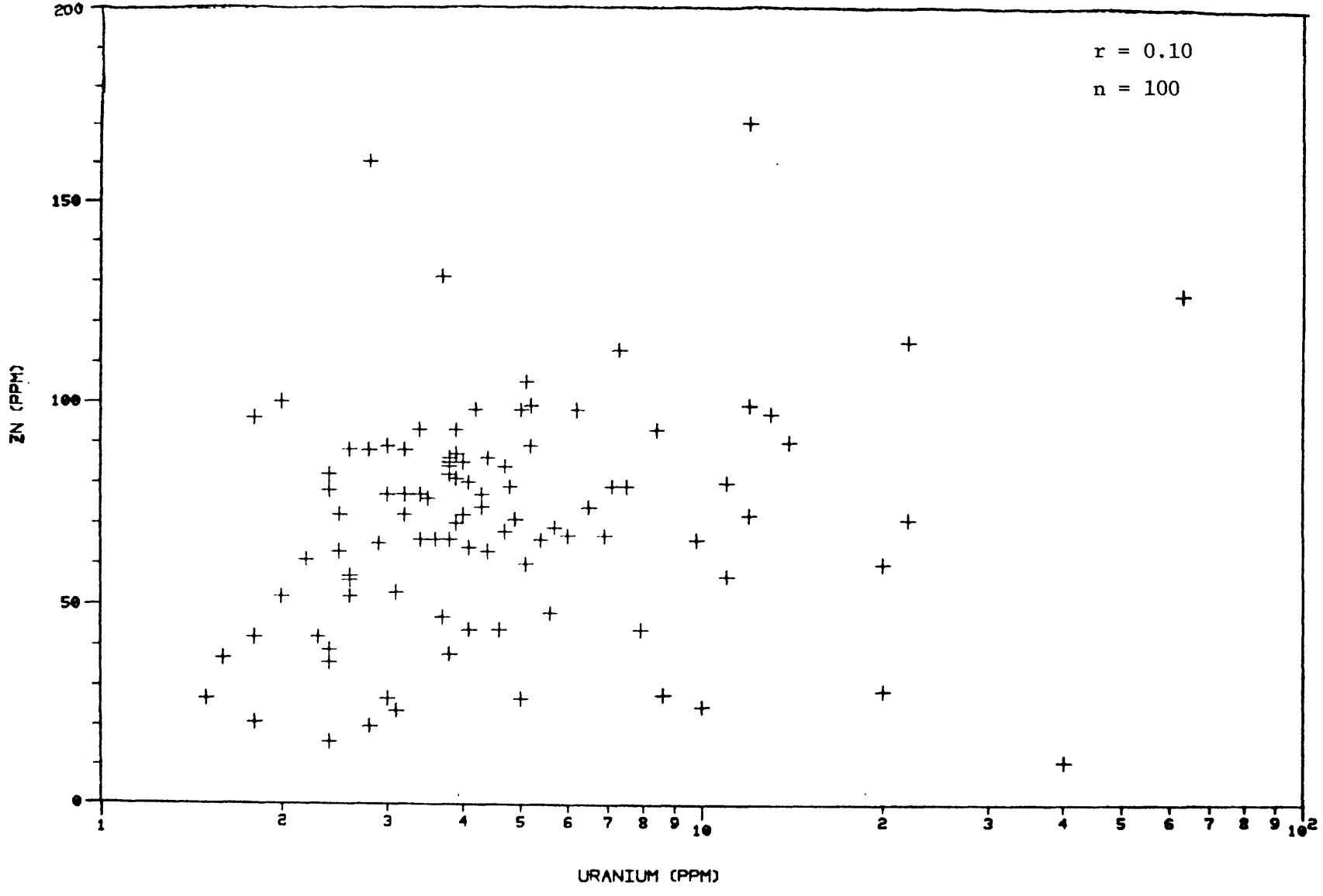

Figure 3-36. Scatter diagram of zinc versus uranium.

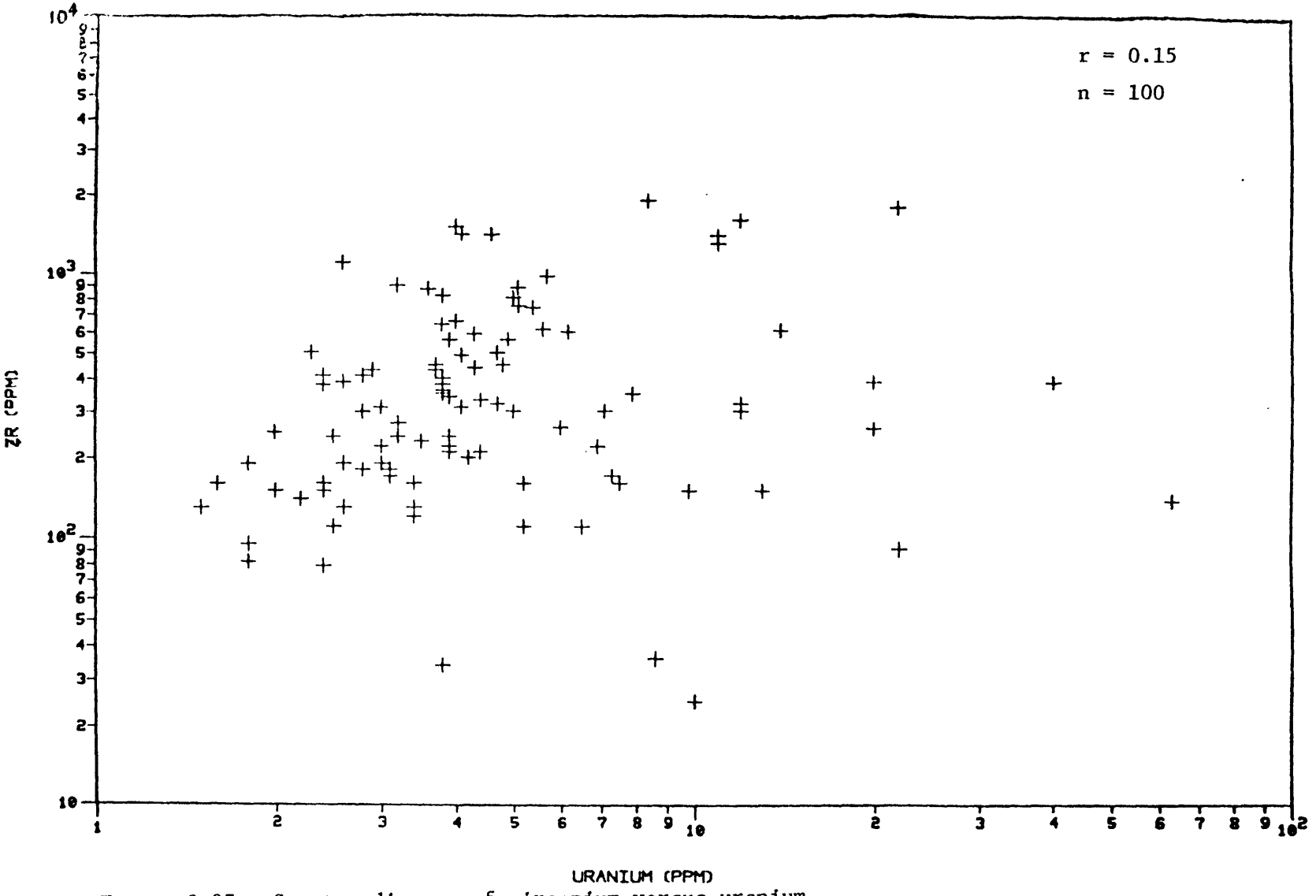

Figure 3-37. Scatter diagram of zirconium versus uranium.