



CORRELATION OF MAP UNITS

SEDIMENTARY ROCKS		IGNEOUS ROCKS	
Qu	Quaternary	Quaternary	Quaternary
Kc	Upper Cretaceous	Cretaceous	Cretaceous
Knt	Lower Cretaceous	Jurassic (?) to Devonian	Jurassic (?) to Devonian
KJfk		Triassic	Triassic
Pps		Permian	Permian
Pmi		Pennsylvanian	Pennsylvanian
Mg		Mississippian	Mississippian
Dk	Upper Devonian	Devonian	Devonian
Dh	Lower Devonian	Devonian	Devonian
Dhuc	Upper Devonian	Devonian	Devonian
Dhlc	Lower Devonian	Devonian	Devonian
Dsa	Unconformity	Staurian	Staurian

DESCRIPTION OF MAP UNITS

SEDIMENTARY ROCKS

Qu QUATERNARY DEPOSITS, UNDIVIDED (QUATERNARY) COLLVILLE GROUP (UPPER CRETACEOUS)—Tuff; surfaceous clastic rocks.

Kc UPPER CRETACEOUS SHALE AND UNDIVIDED BROWN CALCAREOUS CLASTIC ROCKS (UPPER DEVONIAN)—Includes some reef limestone and red and green shale.

Knt NANSUIK GROUP (UPPER AND LOWER CRETACEOUS) AND TOROK FORMATION (LOWER CRETACEOUS)—Nonmarine and marine; sandstone, shale, siltstone, and conglomerate.

KJfk FOREST MOUNTAIN, OPIKUKIAK AND KONGARUT FORMATIONS (LOWER CRETACEOUS) AND KINGAK SHALE (TRASSIC)—Grayscale, dark-gray, partly marginiferous shale and siltstone, conglomerate.

Pps SHUBLEK FORMATION (TRASSIC) AND SALLEROGHT GROUP (TRASSIC AND PERMIAN)—Phosphatic shale and limestone, partly calcareous siltstone and shale, sandstone, barite concretions.

Pmi LISBURN GROUP (PENNSYLVANIAN AND MISSISSIPPIAN)—Limestone and dolomite.

Mg KANAYUT CONGLOMERATE (UPPER DEVONIAN)—Nonmarine quartzite, ferruginous conglomerate, red shale. Basal marine sandstone.

Dk HUNT FORK SHALE (UPPER DEVONIAN)—Marine; quartzite, ferruginous conglomerate, red shale. Basal marine sandstone.

Dh HUNT FORK SHALE (UPPER DEVONIAN)—Marine; quartzite, ferruginous conglomerate, red shale. Basal marine sandstone.

Dhuc HUNT FORK SHALE (UPPER DEVONIAN)—Marine; quartzite, ferruginous conglomerate, red shale. Basal marine sandstone.

Dhlc HUNT FORK SHALE (UPPER DEVONIAN)—Marine; quartzite, ferruginous conglomerate, red shale. Basal marine sandstone.

Dsa THIRST FAULT—See teeth on upper plate, dotted where concealed.

IGNEOUS ROCKS

Quartzite member CALICAREOUS SANDSTONE MEMBER OF HUNT FORK CLASTIC ROCKS (UPPER DEVONIAN)—Pillow basalt.

Dsa SKAIT LIMESTONE (DEVONIAN AND SILURIAN)—Limestone, dolomite, marble. Few small mafic dikes.

IGNEOUS ROCKS

Mv VOLCANIC ROCKS (MISSISSIPPIAN)—Diorite sill.

Dv VOLCANIC ROCKS (DEVONIAN)—Pillow basalt.

mr MAFIC ROCKS—gabbro, diorite, and gneiss.

GEOLOGIC CONTACTS—Approximately located

--- FAULT—dashed where approximately located

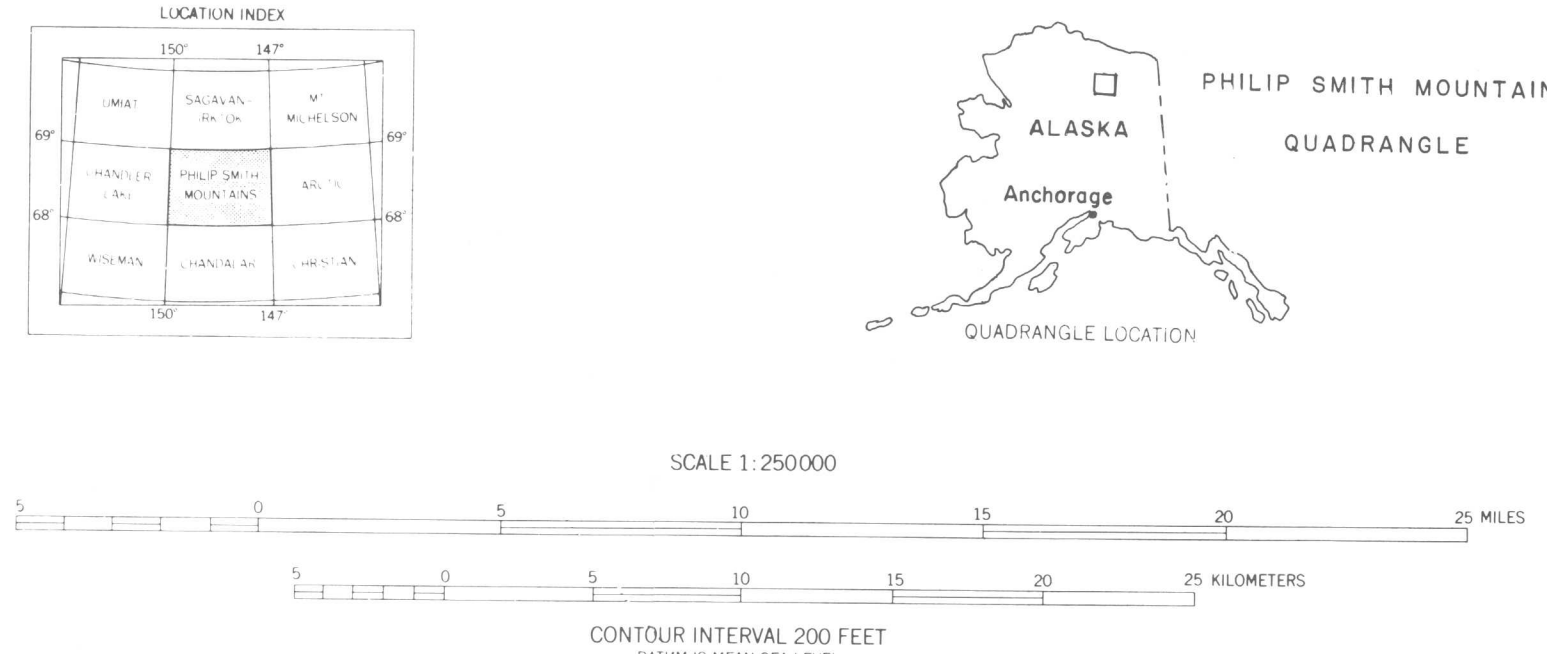
--- THIRST FAULT—See teeth on upper plate, dotted where concealed

GEOCHEMICAL SYMBOLS

▲ SILVER VALUE DETERMINED AT SAMPLE SITE. Letters are explained on histograms (figs. 1 and 2).

○ ANOMALOUS SILVER VALUE. Number corresponds to the analytical results shown in tables 1 and 2.

● ROCK SAMPLE SITE. Number corresponds to the analytical results shown in table 2.



Base from U.S. Geological Survey, 1971

SILVER IN THE MINUS 80 MESH STREAM SEDIMENT FRACTION AND ROCK

Geology generalized in 1977, by M. P. Broop, H. M. Bolser, J. T. Dutro, Jr., and R. L. Dettman

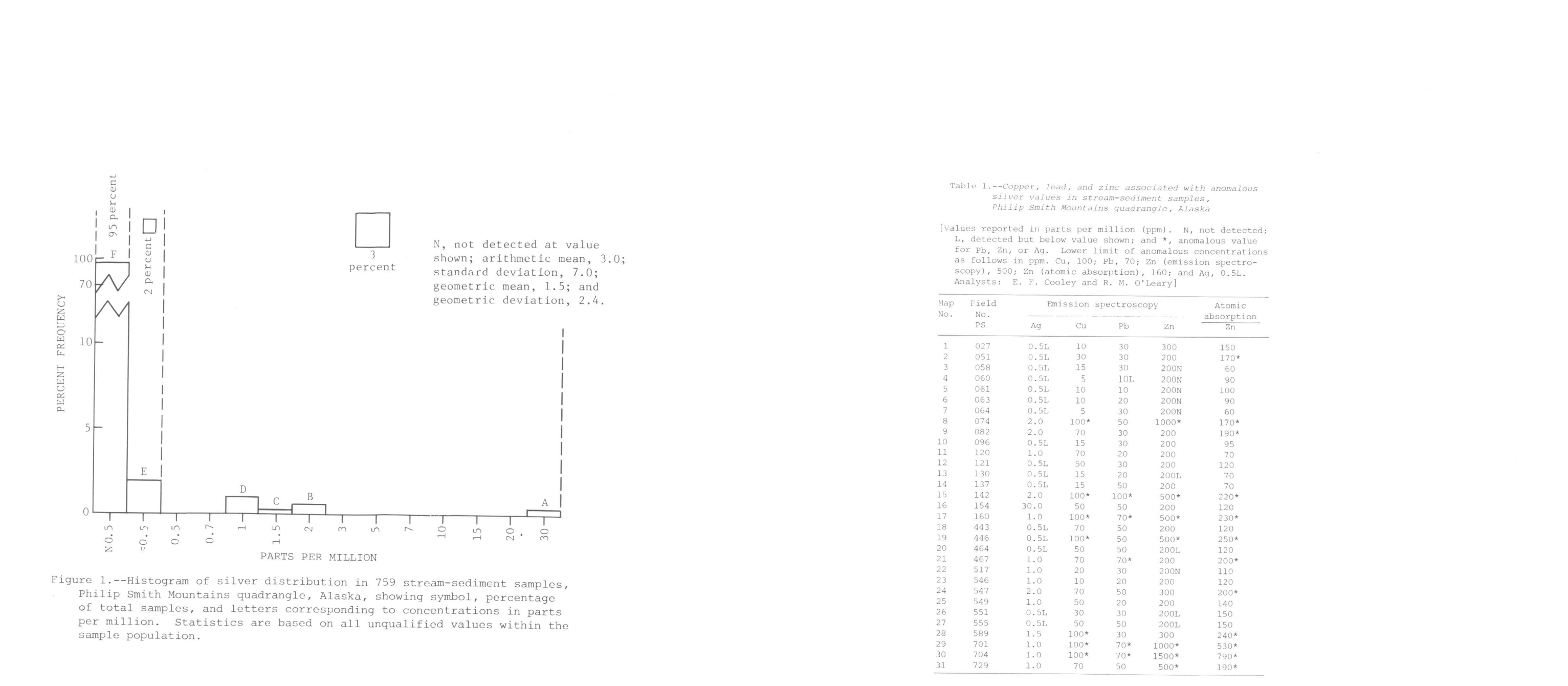


Figure 1.—Histogram of silver distribution in 797 stream-sediment samples, Philip Smith Mountains quadrangle, Alaska, showing symbol, percentage of total sample, and letters corresponding to concentrations in parts per million. Statistics are based on all unspiked values within the sample population.

Table 1.—Upper, lower, and size associated with anomalous silver values in stream-sediment samples, Philip Smith Mountains quadrangle, Alaska

Sample No.	Upper	Lower	Size	Symbol
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
24	24	24	24	24
25	25	25	25	25
26	26	26	26	26
27	27	27	27	27
28	28	28	28	28
29	29	29	29	29
30	30	30	30	30
31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
58	58	58	58	58
59	59	59	59	59
60	60	60	60	60
61	61	61	61	61
62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
66	66	66	66	66
67	67	67	67	67
68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
72	72	72	72	72
73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
77	77	77	77	77
78	78	78	78	78
79	79	79	79	79
80	80	80	80	80
81	81	81	81	81
82	82	82	82	82
83	83	83	83	83
84	84	84	84	84
85	85	85	85	85
86	86	86	86	86
87	87	87	87	87
88	88	88	88	88
89	89	89	89	89
90	90	90	90	90
91	91	91	91	91
92	92	92	92	92
93	93	93	93	93
94	94	94	94	94
95	95	95	95	95
96	96	96	96	96
97	97	97	97	97
98	98	98	98	98
99	99	99	99	99
100	100	100	100	100

Base from U.S. Geological Survey, 1971

SILVER IN THE NONMAGNETIC HEAVY-MINERAL CONCENTRATE FROM STREAM SEDIMENTS

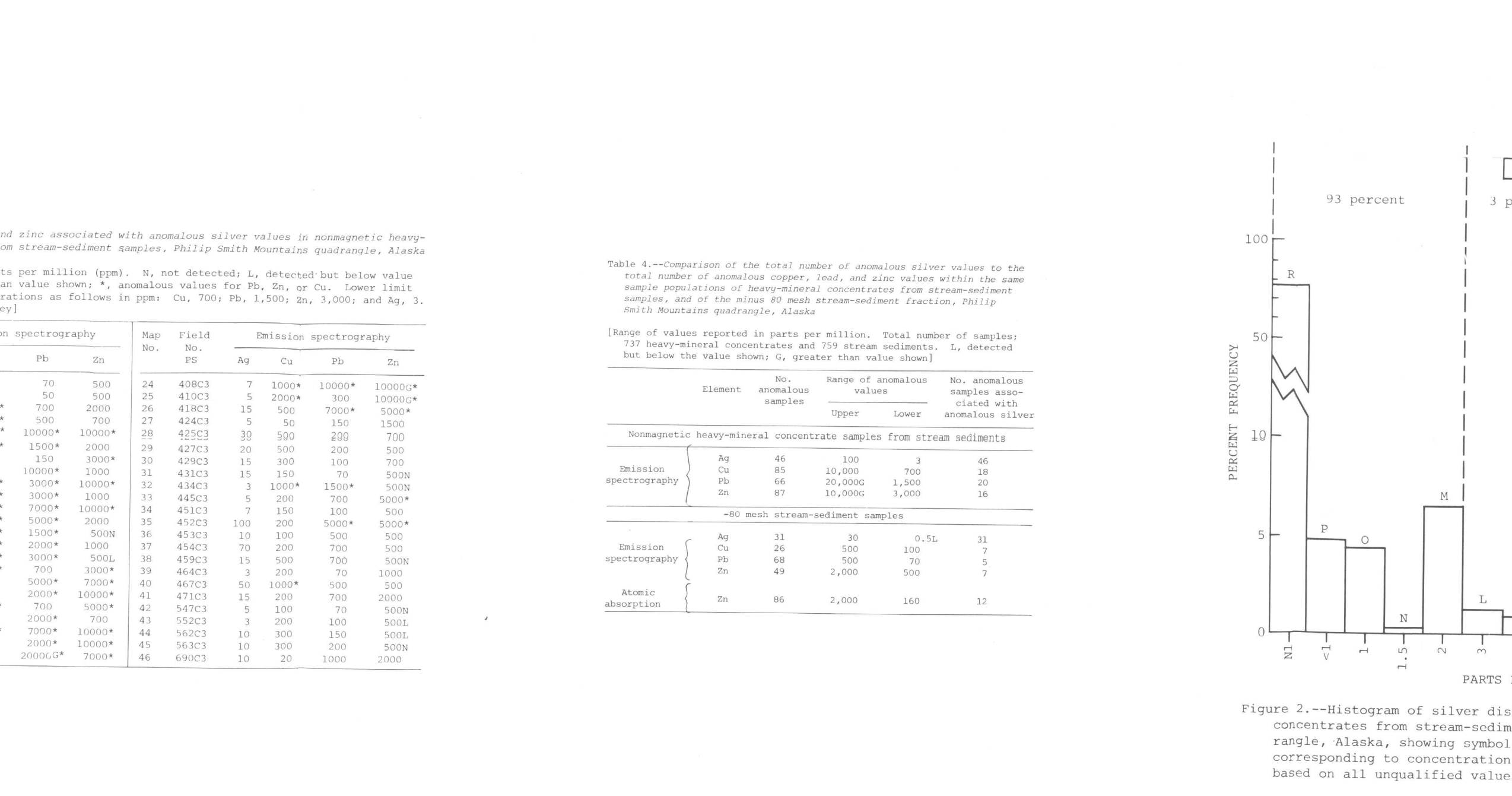


Figure 2.—Histogram of silver distribution in 797 nonmagnetic heavy-mineral concentrate from stream sediments, Philip Smith Mountains quadrangle, Alaska, showing symbol, percentage of total sample, and letters corresponding to concentrations in parts per million. Statistics are based on all unspiked values within the sample population.