TABLE 4.—*Metal content, in parts per million, of stream sediments and panned concentrates of stream sediments, Humboldt Creek drainage, Serpentine Hot Springs area, Alaska*

[S, stream sediment, PC, panned concentrate; SC, sluice box concentrate, N, below detection limit, L, detected but below limit of dependable reading; NDA, not definitely anomalous, ND, not determined, --, no anomaly All analyses are semiquantitative spectrographic except those for Au, which are atomic absorption, those for Hg, which are mercury detector, and those in italic for Cu, Ni, Pb, and Zn and those lower than 200 ppm for As, which are wet chemical. Double entry indicates duplicate determinations—highest value is used to compute anomaly Analysts R L Miller, D J. Grimes, R. B. Tripp, W B. Vaughn, and E E Martinez *In boxheads, numbers beneath element symbols give, in descending order, background value, L value, and detection limit*]

Locality No (fig 2)	Laboratory No	Field No	Sample type	Au	Ag	Hg	As	Mn [1]	Co	Cu	Mo	Ni	Pb	Sb	Sn	W	Zn	Metals present in anomalous amounts and their approximate concentration ratio	Approximate total anomaly	Concentration ratio of total sediment and panned concentrate
				<0 02	1	0 08	L	--------	20	100	5	150	70	L	15	L	L			
				--------	0 5	--------	150	--------	--------	--------	<5	--------	<70	150	>10<15	150	150			
				<0.02	<0 5	0 02	200	--------	10	2	5	2	10	200	10	(<200)	<200			
1	ACM-548	67-AKd-548	S, −80 mesh	<0 02	N	0 05, 0 03	*<10*	700	15	*20*, 10	N	*40*, 50	*<25*, 20	N	N	N	*85*, N	--------	--------	--------
2	AHI-509	68-ATr-61	PC	3	N	04	L	700	15	7	L	70	L	N	30	N	L	Au, 15, Sn, 2	15	137
3	ACM-547	67-ASn-547	S, −80 mesh	<. 02	N	11, 28	*<10*	700	10	*16*, 10	N	*34*, 50	*<25*, 20	N	N	N	*74*, N	Hg, 3.5	2. 5	--------
4	AHI-508	68-ATr-59	PC	04	N	.03	L	300	7	5	N	30	15	N	N	N	N	Au, 2	1	156
4A	371	59A	S, −40 mesh	<. 02	N	06	N	1,000	10	10	N	70	L	N	N	N	L	--------	--------	--------
5	507	58	PC	1 9	N	03	N	1,500	15	70	5	70	20	N	N	N	200	Au, 95, Zn, 1 3	94. 3	140
6	506	57	PC	06	N	04	N	700	15	70	5	70	20	N	N	N	200	Au, 3, Zn, 1 3	2 3	150
7	505	56	PC	8 6	N	02	L	700	15	50	L	70	15	N	15	N	200	Au, 430, Zn, 1 3	429 3	160
8	504	55	PC	< 02	L	07	N	300	10	30	N	50	L	N	N	N	L	--------	--------	154
9	ACM-546	67-ASn-546	S, −80 mesh	< 02	N	15	*<10*	1,000	15	50	N	70	20	N	N	N	N	Hg, 2	1	--------
9A	AHI-503	68-ATr-54	PC	06	L	1	L	200	10	5	N	30	L	N	L	N	L	Au, 3, Hg, 1 3	2 3	95
10	370	54A	S, −40 mesh	< 02	N	06	N	700	10	15	N	70	10	N	N	N	L	--------	--------	--------
11	502	53	PC	02	N	08	N	300	15	70	L	70	10	L	N	N	L	Au, NDA	--------	168
12	501	52	PC	02	N	06	N	300	15	20	L	70	L	N	N	N	L	Au, NDA	--------	155
13	500	41	PC	06	L	02	L	300	15	20	L	50	15	N	L	N	200	Au, 3, Zn, 1 3	2 3	140
14	406	68-AKd-51	PC	< 02	N	06	N	700	15	10	N	70	L	N	N	N	L	--------	--------	132
15	521	68-ATr-83A	SC	1,000	7	11	200	1,000	70	150	15	100	100	L	>1,000	N	700	Au, 50,000, Ag, 7, Hg, 1 4, As, 1 5, Co, 3 5, Pb, 1 4, Sn, 66 7, Zn, 5	50,078 5	23, 520
16	520	82	PC	< 02	N	04	N	150	10	10	L	50	L	N	N	N	N	--------	--------	88
17	482	32	PC	< 02	N	02	N	700	10	15	L	70	L	N	N	N	N	--------	--------	126
18	397	68-AKd-41	PC	< 02	L	.06	L	1,000	20	200	15	70	30	N	300	N	N	Cu, 2, Mo, 3, Sn, 20	22	107
19	483	68-ATr-33	PC	04	N	02	N	700	10	30	L	70	15	N	N	N	L	Au, 2	1	118
20	401	68-AKd-44A	PC	< 02	N	09	L	3,000	10	15	N	50	L	N	N	N	L	Hg, NDA	--------	134
21	405	48	PC	< 02	N	08	N	500	15	50	L	70	15	N	N	N	L	--------	--------	184
22	484	68-ATr-34	PC	< 02	N	02	N	300	10	10	L	50	15	N	N	N	L	--------	--------	119
23	409	68-AKd-52	PC	< 02	N	01	N	1,500	15	20	7	100	15	N	N	N	300	Zn, 2	1	82
23A	408	53	PC	< 02	N	04	N	500	15	7	L	70	10	N	N	N	L	--------	--------	54
23B	409	54	PC	< 02	N	03	N	2,000	15	20	5	100	30	N	15	N	300	Zn, 2	1	174
23C	410	54A	PC	< 02	N	02	N	3,000	15	50	7	100	30	N	N	N	500	Zn, 3 3	2. 3	140
24	485	68-ATr-35	PC	< 02	L	02	N	700	15	20	L	70	15	N	N	N	300	Zn, 2	1	140
25	104	18	S, −40 mesh	< 02	N	04	L	5,000	20	15	7	100	20	N	N	N	N	--------	--------	--------
26	411	68-AKd-55	PC	08	N	02	N	300	10	10	N	50	L	N	N	N	N	Au, 4	3	75
27	ACM-545	67-AKd-146B	S, −80 mesh	< 02	N	ND	N	3,000	20	70	10	100	70	N	N	N	500	Zn, 3 3	2 3	--------
27A	AHI-105	68-ATr-19	S, −40 mesh	<. 02	N	04	L	1,500	10	10	N	100	15	N	N	N	N	--------	--------	--------
28	413	68-AKd-57	PC	< 02	L	04	N	700	20	50	5	50	15	N	N	N	L	--------	--------	104
29	495	68-ATr-44	PC	< 02	L	06	L	200	10	10	N	50	L	N	N	N	L	--------	--------	138
30	496	45	PC	< 02	L	02	N	200	15	30	L	70	10	L	N	N	L	--------	--------	90
31	497	46	PC	3	L	03	N	150	10	15	L	30	10	N	N	N	L	Au, 15	14	142
32	498	47	PC	< 02	N	04	L	150	7	15	7	30	L	N	N	N	L	--------	--------	127
33	412	68-AKd-56	PC	< 02	N	.05	N	1,000	15	30	15	100	20	N	L	N	500	Zn, 3 3	2. 3	160
34	486	68-ATr-36	PC	1	N	03	L	5,000	10	150	15	100	700	N	10	N	500	Au, 5, Cu, 1 5, Mo, 3, Pb, 10, Zn, 3 3	17. 8	160
35	487	37	PC	< 02	5	12	N	2,000	100	150	10	200	70	N	N	N	500	Hg, 1 5, Co, 5, Cu, 1 5, Mo, 2, Ni, 1 3, Zn, 3 3	8. 6	156
35A	488	37A	PC	< 02	N	02	N	5,000	15	70	15	150	70	N	N	N	700	Mo, 3, Zn, 4 7	5. 7	183
36	489	38	PC	< 02	L	07	N	2,000	10	20	10	70	15	N	N	N	N	--------	--------	104
37	ACM-544	67-ASn-544	S, −80 mesh	0 14, 05	N	ND	N	3,000	20	70	10	100	70	N	N	N	500	Au, 7, Mo, 2, Zn, 3 3	9 3	--------
38	AHI-494	68-ATr-43	PC	< 02	L	06	L	150	10	30	10	50	70	L	N	N	300	Mo, 2; Zn, 2	2	120
39	493	42	PC	< 02	L	04	N	700	15	70	10	70	150	L	N	N	500	Mo, 2, Pb, 2, Zn, 3 3	4 3	112
40	492	41	PC	< 02	L	04	N	300	20	100	7	70	50	L	N	N	300	Mo, 1 4, Zn, 2	1 4	107
41	490	39	PC	< 02	N	02	L	100	5	7	N	20	L	N	N	N	L	--------	--------	183
42	491	40	PC	< 02	7	04	N	150	15	50	15	50	70	N	N	N	L	Mo, 3	2	94
43	519	75	PC	02	N	02	N	150	10	10	5	30	20	N	>1,000	N	L	Sn, >67	>66	95
43A	374	75A	S, −40 mesh	< 02	N	03	N	700	10	20	N	30	30	L	30	N	N	Sn, 2	1	--------
44	518	74	PC	< 02	L	09	N	700	10	5	L	50	15	N	500	N	N	Hg, 1, Sn, 33	32	200
45	ACM-539	67-AKd-143	S, −80 mesh	< 02	N	ND	N	700	10	50	N	30	30	N	L	N	N	--------	--------	--------
46	540	144	S, −80 mesh	< 02, 05	N	ND	N	700	15	50	N	50	30	N	N	N	L	--------	--------	--------
47	538	142	S, −80 mesh	1	N	ND	N	700	10	50	N	30	30	N	L	N	N	Au, 5	4	--------
48	AHI-517	68-ATr-71	PC	< 02	L	07	N	700	10	15	N	20	15	N	15	L	N	--------	--------	140
49	516	70	PC	< 02	N	04	N	300	7	7	N	50	L	N	N	N	L	--------	--------	160
50	515	68	PC	< 02	L	02	N	150	15	7	N	50	20	N	15	N	L	--------	--------	134
50A	373	68A	S, −40 mesh	< 02	N	02	L	1,500	15	15	10	50	30	N	L	N	N	Mo, 2	1	--------
51	514	66	PC	< 02	5	01	N	300	10	10	N	30	15	N	10	N	L	--------	--------	134
52	ACM-541	67-AKd-145	S, −80 mesh	6 2, < 05	N	ND	N	700	15	30	N	50	70	N	15	N	N	Au, 310	309	--------
53	None	68-AKd-39	S, −40 mesh	< 02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--------	--------	--------
54	ACM-543	67-ASn-543	S, −80 mesh	< 02, < 05	N	ND	N	700	15	50	<5	50	70	N	N	N	N	--------	--------	--------
54A	AHI-087	68-AKd-38	S, −40 mesh	< 02	N	03	N	1,500	15	150	5	100	70	N	15	N	L	--------	--------	--------
55	513	68-ATr-65	PC	< 02	L	01	N	300	15	7	L	70	15	N	L	N	N	--------	--------	120
56	ACM-542	67-AKd-145A	S, −80 mesh	< 02, < 05	7	ND	N	500	10	30	10	30	70	N	15	N	N	Mo, 2	1	--------
57	AHI-086	37	S, −40 mesh	< 02	L	06	N	3,000	20	50	N	100	50	N	L	N	L	--------	--------	--------
58	510	68-ATr-62	PC	< 02	L	04	L	700	10	30	7	50	30	N	30	N	L	Mo, 1 4, Sn, 2	1 4	167
59	511	63	PC	< 02	L	03	N	300	15	30	L	70	100	N	50	N	L	Pb, 1 4, Sn, 3 3	2 7	125
60	512	64	PC	< 02	N	06	L	700	15	150	N	30	30	N	L	N	L	Cu, 1.5	.5	130

[1] Mn is useful in interpreting erratic metal values because of its scavenging action in ionic solution, Ba is often associated with the outer zones of mineralized areas