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John W. Katz — *Commissioner*

Geoffrey Haynes — *Deputy Commissioner*

Ross G. Schaff — *State Geologist*

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GEOCHEMICAL RECONNAISSANCE OF THE NORTHERN FAIRBANKS D-1 AND SOUTHERN LIVENGOOD A-1 QUADRANGLES, ALASKA; SUMMARY OF DATA ON STREAM-SEDIMENT, PAN-CONCENTRATE, AND ROCK SAMPLES

By
M.D. Albanese

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GEOCHEMICAL RECONNAISSANCE OF THE NORTHERN FAIRBANKS D-1 AND SOUTHERN LIVENGOOD A-1 QUADRANGLES, ALASKA; SUMMARY OF DATA ON STREAM-SEDIMENT, PAN-CONCENTRATE, AND ROCK SAMPLES.

By
M.D. Albanese

INTRODUCTION

This report lists the geochemical analyses of 478 stream-sediment samples, 99 pan-concentrate samples, and 231 rock samples from the northern Fairbanks D-1 and southern Livengood A-1 Quadrangles, Alaska.

These geochemical results present part of a geological and mineral investigation of the Fairbanks Mining District conducted by DGGS and the Mineral Industry Research Laboratory, University of Alaska.

The samples were collected during May-July 1981 by DGGS staff members T.E. Smith, T.K. Bundtzen, M.S. Robinson, M.D. Albanese, D.N. Solie, V.M. Ferrell, G.M. Laird, J.D. Blum, M.H. Hall, J.D. Clough, and S.A. Liss; MIRL staff members P.A. Metz and B.W. Campbell; and D.B. Hawkins of the University of Alaska.

Copper, lead, zinc, gold, silver, and molybdenum were analyzed at the DGGS laboratory by atomic-absorption spectrophotometry with a lower detection limit of 0.01 ppm. DGGS laboratory staff involved in these analyses include M.A. Wiltse, D.R. Stein, N.C. Veach, M.R. Ashwell, T.A. Benjamin, M.K. Polly, C.L. Smith, and S.W. Seed.

Tin, tungsten, mercury, and arsenic were analyzed by Bondar-Clegg & Co. Ltd., Vancouver, B.C. Tungsten and arsenic were analyzed by coulometry with a lower detection limit of 2 ppm. Mercury was analyzed by cold-vapor atomic-absorption spectrophotometry with a lower detection limit of 5 ppb. Tin was analyzed by X-ray fluorescence with a lower detection limit of 5 ppm.

The geochemical data were sorted and plotted by using computer programs written by Alyce Egan and Otto Johansen. G. Hall and J. Lindhorst assisted in checking the data for accuracy.

STREAM SEDIMENT SAMPLES (IN PPM) LIVENGOOD (A-1) QUADRANGLE

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
142	65 5 27	147 13 46	31	15	78	0.3	2	130
143	65 5 18	147 13 23	22	12	63	0.2	3	190
144	65 5 11	147 13 9	19	13	60	0.2	2	150
147	65 4 46	147 12 36	14	14	56	0.2	1	135
148	65 5 10	147 12 19	21	14	57	0.2	1	240
149	65 4 57	147 12 15	15	13	54	0.1	1	115
150	65 1 7	147 6 53	33	14	82			115
326	65 2 48	147 11 45	18	8	49	0.2	<1	5
327	65 2 55	147 11 58	17	8	50	0.2	<1	5
328	65 2 59	147 12 31	18	8	54	0.2	<1	7
354	65 6 36	147 12 13	15	11	62	0.1	<1	32
355	65 6 37	147 11 42	11	7	43	0.1	<1	35
357	65 6 40	147 11 7	10	8	44	0.1	<1	30
358	65 6 45	147 10 58	23	14	50	0.3	<1	100
359	65 6 43	147 10 27	15	9	45	0.2	<1	32
360	65 5 59	147 9 49	34	12	67	0.1	1	220
361	65 6 7	147 9 35	20	9	51	0.1	<1	55
362	65 6 7	147 9 4	19	12	61	0.1	1	80
363	65 6 18	147 9 18	15	7	45	0.1	1	58
364	65 6 31	147 9 8	25	11	60	0.1	1	55
366	65 6 39	147 9 24	7	5	28	0.1	1	11
368	65 6 45	147 8 27	9	8	39	<0.1	<1	22
369	65 6 37	147 8 23	24	11	67	<0.1	<1	55
370	65 6 52	147 8 3	11	7	49	0.1	<1	21
371	65 7 0	147 7 41	10	6	44	0.1	<1	22
374	65 7 22	147 7 7	12	9	48	0.1	<1	25
375	65 7 19	147 6 5	12	14	60	0.1	<1	20
376	65 7 29	147 6 49	9	11	41	<0.1	<1	38
377	65 7 39	147 6 58	9	8	39	<0.1	<1	30
378	65 7 50	147 6 55	14	10	55	<0.1	<1	30
379	65 8 1	147 6 48	7	8	35	<0.1	<1	16
381	65 8 2	147 6 56	14	9	59	<0.1	<1	30
383	65 8 15	147 7 16	14	9	52	<0.1	<1	24
384	65 8 20	147 7 33	12	8	51	<0.1	<1	28
385	65 8 26	147 7 55	10	8	46	0.1	<1	26
386	65 8 21	147 8 13	13	12	53	0.2	<1	28
387	65 8 35	147 8 12	10	5	42	<0.1	1	25
388	65 8 37	147 8 46	13	10	34	<0.1	<1	12
389	65 8 51	147 8 48	12	6	46	<0.1	<1	25

Table 1

STREAM SEDIMENT SAMPLES (IN PPM) — LIVENGOOD (A-1) QUADRANGLE Continued

Table 1 (cont.)

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
390	65 8 56	147 8 57	11	5	44	<0.1	<1	25
391	65 9 2	147 9 9	12	6	45	<0.1	<1	25
393	65 9 12	147 9 32	13	7	46	0.1	<1	27
394	65 9 8	147 10 2	12	8	36		1	8
395	65 9 21	147 10 15	9	5	34	<0.1	<1	15
397	65 4 27	147 18 50	22	75	162	1.3	75	>1000
398	65 4 21	147 18 28	17	47	103	0.8	40	600
441	65 7 47	147 12 48	11	10	38	0.1	<1	10
442	65 7 52	147 12 50	14	12	46	0.1	<1	10
443	65 8 1	147 12 51	13	11	48	0.1	<1	14
444	65 8 9	147 12 49	12	9	41	0.1	<1	10
446	65 8 21	147 12 46	9	7	47	0.1	<1	8
448	65 8 34	147 12 40	9	7	46	<0.1	<1	
449	65 8 11	147 11 24	14	12	56	0.1	1	22
450	65 8 18	147 11 37	17	13	68	0.1	1	20
548	65 2 37	147 20 59	14	14	64			30
549	65 2 26	147 22 3	13	11	58			32
550	65 2 13	147 22 21	18	10	70			43
650	65 8 7	147 15 38	9	8	39	<0.1	1	11
651	65 8 22	147 15 33	8	8	39	<0.1	<1	8
652	65 8 35	147 15 29	12	10	47	0.1	<1	11
732	65 5 20	147 18 53	35	21	95	0.3	1	100
733	65 5 18	147 19 0	24	28	82	0.2	1	240
734	65 5 30	147 19 4	25	17	80	0.4	<1	140
735	65 5 41	147 19 12	28	18	82	0.2	<1	100
736	65 5 51	147 19 28	24	13	75	0.4	<1	75
740	65 7 6	147 14 34	19	25	87	0.2	<1	52
741	65 7 20	147 14 34	16	16	69	0.3	<1	20
742	65 7 31	147 14 39	16	14	70	0.1	<1	20
744	65 7 55	147 15 26	21	22	84	0.3	<1	22
745	65 7 56	147 15 37	13	15	49	0.5	<1	10
793	65 5 44	147 17 5	21	13	50	0.2	<1	90
794	65 5 56	147 17 16	16	9	51	0.1	<1	40
796	65 6 8	147 17 42	11	6	46	<0.1	<1	30
797	65 6 22	147 18 2	17	9	64	0.1	<1	50
798	65 6 37	147 18 10	16	9	59	0.1	<1	35
799	65 6 39	147 17 58	12	9	49	0.1	<1	40
852	65 6 10	147 20 2	25	12	78	0.2	1	35
854	65 6 21	147 20 3	24	12	72	0.6	<1	40

STREAM SEDIMENT SAMPLES (IN PPM) — LIVENGOOD (A-1) QUADRANGLE Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
856	65 6 31	147 20 12	23	13	81	0.2	<1	45
857	65 6 43	147 20 36	18	10	68	0.1	<1	35
858	65 6 56	147 21 8	16	10	58	0.1	<1	28
859	65 7 1	147 21 55	17	10	64	0.1	<1	30
860	65 7 10	147 22 36	30	8	51	0.1	<1	10
862	65 7 19	147 23 19	12	9	46	0.2	<1	8
864	65 7 19	147 23 10	12	7	51	<0.1	<1	12
865	65 5 10	147 7 21	17	15	67	0.5	<1	65
866	65 4 55	147 7 11	20	14	67	0.2	<1	52
867	65 4 40	147 7 5	23	14	67	0.6	<1	32
869	65 7 7	147 15 53	10	10	35	0.1	<1	16
870	65 7 19	147 15 57	12	12	39	0.1	<1	10
871	65 7 34	147 15 57	12	11	54	0.1	<1	10
872	65 7 46	147 15 53	15	14	44	0.1	<1	10
873	65 7 45	147 15 0	12	11	63	0.1	<1	18
874	65 8 49	147 15 29	9	7	45	0.1	<1	8
875	65 9 2	147 15 31	12	10	54	0.1	<1	12
876	65 9 12	147 15 49	12	10	56	0.1	<1	12
877	65 1 45	147 20 33	23	14	77	0.3	<1	12
878	65 1 40	147 19 58	15	11	57	0.5	<1	18
879	65 1 36	147 19 57	18	13	52	0.2	<1	7
880	65 1 35	147 19 21	16	10				15
881	65 1 30	147 19 14	24	12	58	0.4	<1	5
883	65 1 29	147 18 46	12	9	53	0.2	<1	7
884	65 1 26	147 18 18	10	6	48	0.1	<1	8
885	65 1 20	147 17 45	12	8	55	0.1	<1	6
886	65 1 13	147 17 16	13	7	63	0.1	<1	5
887	65 1 5	147 17 6	13	9	50	0.2	<1	6
888	65 1 0	147 17 22	13	10	54	0.1	<1	8
889	65 1 2	147 17 51	13	13	52	0.2	<1	7
891	65 1 6	147 16 42	17	12	65	0.1	<1	7
892	65 1 14	147 16 40	18	12	64	0.1	<1	12
893	65 1 4	147 16 10	19	11	71	0.1	<1	10
894	65 1 10	147 16 1	18	13	60	0.1	<1	9
895	65 0 59	147 16 2	13	10	53	0.1	<1	30
901	65 4 35	147 6 59	13	13	54	0.3	<1	8
902	65 4 39	147 7 34	16	11	63	0.2	<1	38
904	65 4 48	147 8 4	22	14	77	0.5	<1	55
905	65 4 28	147 7 22	16	10	61	0.1	<1	37

Table 1 (cont.)

STREAM SEDIMENT SAMPLES
(IN PPM)

LIVENGOOD (A-1) QUADRANGLE
Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
906	65 4 14	147 7 27	15	10	52	0.1	<1	32
907	65 4 0	147 7 41	18	14	69	0.2	<1	130
909	65 2 26	147 18 10	20	13	87	0.2	<1	8
910	65 2 37	147 18 3	11	11	53	<0.1	<1	13
911	65 2 36	147 17 32	13	11	60	0.1	<1	15
914	65 6 48	147 18 19	15	8	45	0.1	<1	30
915	65 7 1	147 18 29	10	7	43		<1	20
917	65 7 14	147 18 29	17	11	69	0.3	<1	35
918	65 7 23	147 18 32	17	11	72	0.2	<1	35
919	65 7 33	147 18 37	12	8	48	0.1	<1	20
920	65 7 45	147 18 56	13	9	51	0.1	<1	21
922	65 7 55	147 19 30	11	9	48	0.1	<1	18
923	65 7 55	147 20 8	14	12	41	0.1	<1	10
924	65 6 9	147 6 33	21	13	71	0.1	<1	52
925	65 6 16	147 6 0	20	16	104	0.2	<1	230
927	65 6 24	147 5 30	24	17	113	0.6	<1	180
928	65 6 28	147 4 55	23	15	96	0.3	<1	150
929	65 6 27	147 4 26	20	14	80	0.2	<1	105
930	65 6 20	147 4 9	16	11	59	0.1	<1	55
932	65 6 13	147 3 52	17	12	61	0.1	<1	58
933	65 6 5	147 3 25	17	11	64	0.1	<1	70
934	65 5 56	147 2 44	14	10	58	0.1	<1	50
935	65 5 48	147 2 23	15	10	58	0.2	<1	40
937	65 5 40	147 2 0	19	12	63	0.3	<1	20
938	65 5 50	147 1 42	15	11	58	0.3	<1	32
939	65 5 26	147 1 40	14	10	57	0.1	<1	17
940	65 8 27	147 11 53	14	11	56	0.1	1	16
942	65 8 35	147 12 15	16	10	61	0.1	1	22
943	65 8 50	147 12 42	15	9	61	0.1	<1	12
944	65 9 1	147 12 54	13	8	53	0.1	<1	8
946	65 9 18	147 13 9	14	8	49	0.1	<1	10
947	65 9 28	147 13 28	13	7	45	0.1	<1	14
948	65 9 39	147 13 56	16	8	50	0.1	<1	11
949	65 4 58	147 4 37	15	15	52	0.2	<1	7
950	65 5 1	147 4 44	20	14	66	0.3	<1	50
951	65 4 59	147 4 17	15	11	49	0.8	<1	17
952	65 4 57	147 3 48	18	11	59	0.1	<1	15
954	65 4 57	147 3 14	18	16	69	0.1	<1	20
955	65 5 0	147 2 38	16	10	55	0.6	<1	12

Table 1 (cont.)

STREAM SEDIMENT SAMPLES (IN PPM) — LIVENGOOD (A-1) QUADRANGLE Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
956	65 5 0	147 2 4	15	9	53	0.4	<1	10
957	65 5 3	147 1 35	19	9	55	0.1	<1	11
959	65 5 5	147 10 45	23	18	64	0.6	<1	130
960	65 4 56	147 11 1	22	21	89	0.2	<1	110
961	65 4 46	147 11 17	21	19	83	0.2	<1	100
963	65 4 32	147 11 30	20	15	77	0.2	<1	75
965	65 3 52	147 20 6	21	320	51	11.6	809	>1000
966	65 3 51	147 19 26	21	165	108	5.8	252	>1000
967	65 3 50	147 18 47	19	156	90	5.3	233	600
968	65 3 51	147 18 18	18	77	112	1.3	62	220
971	65 3 49	147 18 15	31	23	85	0.4	3	90
1001	65 5 10	147 1 26	14	9	56	0.1	<1	24
1002	65 1 58	147 22 31	17	12	66			20
1003	65 2 5	147 22 38	20	12	82			15
1004	65 2 0	147 22 55	18	11	65			45
1006	65 2 10	147 22 26	15	9	68			38
1008	65 2 27	147 22 43	14	20	67			42
1009	65 2 27	147 23 13	16	28	74			70
1010	65 2 27	147 23 35	17	34	79			95
1012	65 2 36	147 21 4	14	13	70			30
1013	65 2 45	147 21 2	25	15	68			33
1015	65 2 51	147 21 15	27	24	76			35
1016	65 3 0	147 21 9	28	22	82	0.4	1	33
1017	65 2 53	147 21 33	18	11	49	0.2	<1	52
1018	65 2 58	147 21 56	19	14	54	0.3	2	100
1039	65 2 39	147 20 30	20	13	63			32
1040	65 2 32	147 20 10	19	15	73			33
1041	65 2 40	147 19 47	12	11	44			38
1042	65 2 30	147 19 19	18	17	87			24
1043	65 2 41	147 19 18	13	10	52			25
1044	65 2 45	147 19 6	22	12	63			13
1045	65 2 58	147 19 10	19	10	53			11
1046	65 2 39	147 18 28	12	10	50			23
1048	65 2 42	147 1 28	12	7	48			25
1049	65 2 51	147 1 47	15	7	57			32
1050	65 2 24	147 17 26	16	71	52	0.2	34	10
1051	65 2 40	147 17 6	12	10	57	0.4	<1	23
1052	65 2 40	147 16 38	16	11	61	0.1	<1	7
1053	65 2 53	147 16 36	14	12	58	0.1	<1	18

Table 1 (cont.)

STREAM SEDIMENT SAMPLES (IN PPM) — LIVENGOOD (A-1) QUADRANGLE Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
1054	65 2 33	147 16 26	11	9	51	0.3	<1	20
1056	65 2 20	147 16 22	14	11	43	0.1	<1	5
1057	65 2 28	147 15 51	12	8	50	0.2	<1	14
1058	65 2 33	147 15 25	12	9	51	0.1	<1	7
1059	65 2 50	147 15 17	15	10	62	0.2	<1	6
1060	65 2 17	147 15 1	12	10	59	0.1	<1	24
1061	65 2 12	147 14 25	12	9	58	0.2	<1	15
1062	65 2 2	147 14 25	15	11	62	0.1	<1	10
1063	65 1 49	147 14 45	12	9	50	0.1	<1	5
1064	65 1 59	147 13 43	19	9	85	0.1	<1	10
1065	65 2 6	147 13 46	15	10	66			22
1067	65 2 22	147 13 43	16	10	53	0.2	<1	10
1068	65 0 23	147 6 33	15	19	85			45
1069	65 0 31	147 6 4	12	10	56			13
1070	65 0 38	147 5 37	15	10	64			23
1072	65 0 32	147 5 23	19	12	51			9
1073	65 0 45	147 5 5	14	9	56			17
1074	65 0 45	147 4 35	13	8	55			26
1075	65 0 40	147 4 8	16	9	49			15
1076	65 0 33	147 3 55	16	11	36			10
1077	65 0 27	147 3 40	12	8	43			15
1079	65 0 20	147 3 8	16	7	62	0.2	<1	15
1080	65 0 14	147 2 32	15	7	39	0.1	<1	10
1081	65 0 12	147 2 41	16	6	54	0.2	<1	20
1082	65 0 6	147 2 42	15	7	54	0.2	<1	7
1083	65 0 3	147 2 3	16	6	56	0.1	<1	13
1114	65 1 11	147 15 38	18	10	51			15
1115	65 0 58	147 15 39	16	11	54			10
1116	65 0 52	147 15 22	28	14	84			4
1117	65 0 53	147 15 5	15	9	50			12
1119	65 0 51	147 14 32	10	6	41			5
1120	65 0 44	147 14 11	12	7	47			10
1121	65 0 43	147 14 8	16	9	57			5
1122	65 0 43	147 13 52	14	8	53			10
1123	65 0 47	147 13 8	16	8	52			15
1124	65 0 57	147 12 51	15	7	46			7
1125	65 0 36	147 13 25	12	7	49			6
1127	65 0 30	147 12 52	16	7	51			7
1128	65 0 27	147 9 9	15	11	68			15

Table 1 (cont.)

STREAM SEDIMENT SAMPLES
(IN PPM)

LIVENGOOD (A-1) QUADRANGLE
Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
1129	65 0 36	147 9 30	11	9	46			7
1131	65 0 45	147 9 42	10	9	45			11
1132	65 0 52	147 10 2	13	9	57			22
1134	65 1 23	147 8 35	12	7	48			5
1135	65 1 10	147 8 9	13	7	46			6
1161	65 2 31	147 3 13	12	8	47			48
1163	65 2 18	147 2 46	18					170
1277	65 3 22	147 24 27	40	59	130			180
1278	65 3 33	147 24 28	31	54	146			190
1280	65 3 46	147 24 24	21	83	93			160
1282	65 3 48	147 24 15	31	109	308			400
1283	65 3 46	147 23 39	19	94	303			210
1284	65 3 23	147 26 5	20	34	102			180
1285	65 3 35	147 26 5	18	98	382			800
1286	65 2 24	147 26 7	18	13	60			110
1288	65 2 13	147 26 28	17	20	64			105
1289	65 2 2	147 26 52	15	20	66			170
1290	65 1 56	147 27 22	16	24	74			300
1292	65 1 49	147 27 45	18	26	88			
1300	65 0 49	147 20 54	19	13	59			4
1302	65 0 39	147 20 33	20	12	60			4
1303	65 0 33	147 20 12	11	8	46			3
1304	65 0 34	147 19 59	19	11	53			7
1305	65 0 24	147 19 51	12	10	50			6
1307	65 0 12	147 19 30	10	7	45			4
1308	65 0 4	147 19 15	14	9	58			3
1318	65 0 25	147 22 26	21	14	58			20
1319	65 0 22	147 22 31	16	9	51			6
1320	65 0 19	147 22 8	15	11	50			12
1322	65 0 11	147 21 46	12	8	46			8
1323	65 0 3	147 21 15	18	13	52			11
1340	65 0 17	147 24 22	18	12	54			110
1350	65 0 7	147 24 21	18	16	58			13
1356	65 3 11	147 29 11	20	28	64			120
1357	65 3 14	147 29 38	16	32	55			160
1364	65 4 45	147 22 17	25	116	247			>1000
1365	65 4 33	147 22 10	31	138	355			>1000
1366	65 5 1	147 21 31	23	18	64			230
1367	65 5 0	147 21 56	25	15	68			150

Table 1 (cont.)

STREAM SEDIMENT SAMPLES (IN PPM) — LIVENGOOD (A-1) QUADRANGLE Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
1368	65 4 55	147 22 25	18	11	46			110
1386	65 5 26	147 28 6	46	10	82			22
1387	65 5 39	147 28 13	23	8	68			15
1388	65 5 51	147 28 22	33	10	87			28
1390	65 6 9	147 28 48	19	8	50			8
1391	65 6 19	147 29 10	15	9	45			6
1392	65 6 0	147 27 12	35	8	67			7
1393	65 5 50	147 27 23	18	8	46			6
1394	65 5 51	147 26 18	40	9	114			9
1395	65 5 43	147 26 31	46	7	153			8
1403	65 2 30	147 28 7	13	19	64			115
1404	65 2 21	147 28 11	17	16	68			105
1405	65 2 12	147 28 18	20	20	102			195
1406	65 1 58	147 28 14	18	33	100			750
1454	65 0 20	147 18 16	19	9	67			30
1455	65 0 32	147 18 30	23	17	64			3
1456	65 3 48	147 28 0	16	14	53			28
1457	65 3 36	147 27 4	30	49	107			
1458	65 4 35	147 16 47	17	41	143			150
1468	65 1 14	147 29 49	18	21	81			8
1469	65 1 6	147 29 28	15	15	66			80
1470	65 3 39	147 27 47	20	35	85			8
1515	65 5 4	147 29 23	21	9	58			13
1517	65 5 16	147 29 49	16	8	44			18
1601	65 4 45	147 12 19	16	13	59	0.1	1	90
1602	65 5 10	147 15 23	23	16	60	0.2	2	250
1603	65 4 58	147 15 8	18	15	71	0.2	2	220
1604	65 4 48	147 14 52	16	15	73	0.2	1	180
1606	65 4 22	147 14 18	16	24	84	0.4	3	220
1607	65 3 43	147 15 44	23	23	66	0.6	2	20
1608	65 3 55	147 15 35	32	15	96	0.4	<1	33
1609	65 3 58	147 14 47	29	9	53	0.2	<1	12
1610	65 3 52	147 14 5	24	8	67	0.1	<1	20
1611	65 3 52	147 13 21	26	12	80	0.4	1	15
1612	65 4 5	147 13 24	23	11	60	0.2	<1	30
1613	65 3 56	147 11 36	13	9	48	0.1	<1	7
1657	65 1 42	147 25 9	18	11	68			105
1658	65 1 31	147 25 23	16	11	65			140
1660	65 1 7	147 25 44	15	10	65			180

Table 1 (cont.)

STREAM SEDIMENT SAMPLES (IN PPM) — LIVENGOOD (A-1) QUADRANGLE Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Ag	Sb	As
1661	65 1 6	147 24 12	18	10	57			6
1663	65 0 58	147 25 7	16	10	58			8
1664	65 1 0	147 25 35	14	8	52			8
1665	65 0 53	147 26 35	15	8	56			190
1666	65 0 45	147 27 27	29	11	75			12
1667	65 0 44	147 28 19	19	7	58			5
3114	65 4 2	147 17 56	17	37	109		28	600
3115	65 4 18	147 16 26	54	940	350		523	>1000
3116	65 4 31	147 16 41	15	37	142	0.6	6	240
3609	65 3 27	147 10 10	14	8	51	0.2	<1	25
3611	65 3 19	147 9 13	13	7	48	<0.1	<1	10

Table 1 (cont.)

STREAM SEDIMENT SAMPLES
(IN PPM)

FAIRBANKS (D-1) QUADRANGLE

Table 2

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	W	Hg	As
153	64 59 26	147 2 14	21	9	65								7
154	64 57 44	147 6 59	17	11	60								11
155	64 57 46	147 7 5	15	10	66								8
156	64 57 35	147 7 6	13	9	57								5
157	64 57 21	147 7 15	12	8	57								4
159	64 56 44	147 9 15	15	9	53								4
160	64 59 2	147 19 57	18	11	62								6
161	64 59 8	147 19 32	18	11	62								7
164	64 58 55	147 18 35	14	12	48								80
299	64 57 44	147 24 9	6	19	36		<0.1	1	<1		35	30	22
304	64 57 43	147 24 15	9	24	45		<0.1	2	<1		5	30	20
305	64 57 51	147 24 47	9	20	48		<0.1	3	<1		5	40	38
307	64 57 42	147 20 51	8	15	49		0.1	2	<1		18	50	7
308	64 57 32	147 21 13	10	16	58		0.1	3	<1		8	30	14
309	64 57 30	147 21 0	9	12	52		0.1	2	<1		4	30	15
336	64 57 3	147 28 20	20	38	107								450
341	64 59 9	147 29 1	12	6	43								3
342	64 59 14	147 28 0	13	8	48								5
343	64 59 14	147 27 53	13	7	48								4
435	64 58 18	147 25 46	9	18	52		0.1		<1				18
536	64 55 41	147 20 41	18	7	48		0.1		<1	ND	4	70	14
537	64 55 23	147 21 2	13	10	51		0.1	1	<1	ND	4	180	55
538	64 55 9	147 21 31	15	8	51		0.1		<1	ND	3	140	15
896	64 57 26	147 15 24	18	9	74		0.2		<1				15
897	64 57 29	147 15 15	17	9	67		0.3		<1				20
899	64 57 41	147 15 12	20	10	73		0.3		<1				15
900	64 57 48	147 14 59	21	12	75		0.3		<1				15
973	64 58 49	147 16 6	21	19	63		0.3		<1				14
974	64 58 54	147 15 42	13	8	52		0.2		<1				10
977	64 58 44	147 15 3	17	8	58		0.1		<1				7
978	64 58 40	147 14 49	14	8	61		0.1		<1				9
979	64 58 33	147 14 51	15	9	60		0.1		<1				15
980	64 58 42	147 14 22	15	8	56		0.2		<1				15
981	64 58 49	147 13 57	16	7	46		0.1		<1				9
983	64 58 56	147 13 49	12	6	38		0.1		<1				7
984	64 58 55	147 13 45	14	7	51		0.2		<1				10
985	64 58 59	147 13 43	19	7	49		0.1		<1				6
987	64 59 0	147 13 25	14	7	48		0.1		<1				18
988	64 59 10	147 13 9	16	7	54		0.2		<1				30

STREAM SEDIMENT SAMPLES
(IN PPM)

FAIRBANKS (D-1) QUADRANGLE
Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	W	Hg	As
990	64 59 19	147 12 58	14	7	53		0.2		<1				30
991	64 57 29	147 26 3	13	21	47								52
993	64 57 25	147 25 50	10	18	44								75
994	64 57 21	147 25 32	10	17	43								35
995	64 57 16	147 25 8	8	16	40								55
996	64 57 9	147 24 40	10	17	44								55
998	64 57 5	147 24 6	11	16	45								53
999	64 57 3	147 23 30	13	14	50								35
1000	64 56 50	147 23 3	17	20	54								20
1019	64 59 19	147 7 59	18	9	56		0.2		<1				10
1020	64 59 19	147 8 15	21	9	60		0.2		<1				15
1021	64 59 6	147 8 10	15	9	62		0.3		<1				25
1022	64 59 8	147 7 36	17	10	58		0.2		<1				12
1024	64 59 13	147 6 53	18	9	64		0.2		<1				13
1025	64 59 18	147 6 40	22	9	57		0.2		<1				7
1026	64 59 25	147 6 44	20	7	51		0.1		<1				7
1027	64 59 10	147 6 18	20	9	61		0.2		<1				13
1028	64 59 5	147 5 53	17	8	63		0.2		<1				14
1030	64 58 58	147 5 36	16	8	60		0.2		<1				14
1031	64 59 10	147 5 23	16	6	41		0.1		<1				8
1032	64 58 51	147 5 18	12	6	51		0.1		<1				10
1033	64 58 45	147 5 15	20	10	53		0.2		<1				10
1034	64 58 43	147 4 35	21	8	55		0.2		<1				10
1036	64 58 47	147 4 5	14	7	44		0.1		<1				8
1037	64 58 32	147 4 1	13	6	46		0.1		<1				9
1085	64 59 55	147 2 12	14	5	44		0.1		<1				8
1086	64 58 10	147 9 14	12	8	48								10
1087	64 58 12	147 8 57	10	9	49								7
1088	64 58 1	147 9 12	15	10	57								15
1089	64 57 50	147 9 20	14	9	61								8
1091	64 57 38	147 9 31	14	11	56								7
1092	64 57 28	147 9 44	11	9	48								6
1093	64 57 22	147 10 12	10	8	42								9
1094	64 57 16	147 10 42	13	10	52								13
1096	64 57 2	147 11 38	14	10	50								10
1101	64 57 51	147 15 28	20	11	69		0.3		<1				15
1102	64 57 16	147 15 14	14	8	57		0.2		<1				23
1103	64 57 5	147 15 8	15	8	61		0.2		<1				20
1105	64 56 52	147 15 5	17	9	60		0.2		<1				25

Table 2 (cont.)

STREAM SEDIMENT SAMPLES
(IN PPM)

FAIRBANKS (D-1) QUADRANGLE
Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	U	Hg	As
1106	64 56 51	147 15 18	15	9	53		0.2		<1				60
1107	64 56 53	147 15 52	15	8	52		0.3		<1				85
1108	64 56 38	147 14 51	20	10	62		0.3		<1				35
1109	64 56 27	147 14 41	18	7	53		0.2		<1				30
1111	64 56 19	147 14 24	15	7	49		0.1		<1				20
1112	64 56 8	147 15 34	20	6	49		0.1		<1				20
1113	64 56 15	147 16 14	18	7	49		0.1		<1				15
1180	64 56 56	147 22 57	9	14	41								28
1181	64 56 55	147 22 28	10	15	48								25
1183	64 56 55	147 21 55	10	14	48								30
1184	64 56 52	147 21 33	15	10	42								7
1241	64 57 47	147 29 35	12	15	57								430
1243	64 57 51	147 29 26	13	13	53								42
1245	64 57 55	147 29 37	13	15	59								170
1246	64 58 4	147 29 40	9	11	49								85
1309	64 59 28	147 22 5	14	15	58								15
1310	64 59 37	147 21 51	15	15	66								16
1312	64 59 48	147 21 21	13	10	57								8
1313	64 59 50	147 21 2	16	9	50								6
1314	64 59 29	147 21 5	14	17	49								6
1315	64 59 41	147 20 58	15	16	58								9
1317	64 59 51	147 20 54	16	16	64								12
1378	64 58 1	147 19 56											5
1379	64 57 55	147 20 27											7
1400	64 56 16	147 29 29	12	12	54								>1000
1417	64 56 24	147 29 12	9	9	43								180
1418	64 56 33	147 28 56	9	17	50								175
1419	64 56 12	147 29 43	15	10	56								55
1434	64 56 5	147 27 8	16	16	59								150
1435	64 55 58	147 27 40	16	14	57								40
1436	64 55 50	147 28 1	16	14	55								34
1437	64 55 42	147 28 24	18	15	60								35
1439	64 55 34	147 28 53	18	13	58								500
1442	64 54 46	147 23 18	14	13	49								14
1443	64 54 51	147 22 44	17	12	49								6
1444	64 54 57	147 22 9	20	18	76								8
1445	64 59 18	147 26 12	12	12	53								4
1447	64 59 22	147 26 1	11	12	49								5
1448	64 59 28	147 25 54	13	13	56								5

Table 2 (cont.)

STREAM SEDIMENT SAMPLES
(IN PPM)

FAIRBANKS (D-1) QUADRANGLE
Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	W	Hg	As
1475	64 54 38	147 25 53	20	7	63								8
1476	64 54 5	147 25 12	14	4	49								10
1477	64 54 20	147 25 22	15	10	53								8
1520	64 57 48	147 20 41											16
1521	64 57 37	147 20 57											18
1522	64 57 53	147 22 20											10
1523	64 57 48	147 21 46											12
1524	64 57 39	147 21 25											13
1526	64 57 25	147 21 7	7	13	55								16
1527	64 57 24	147 21 1	9	11	49								9
1528	64 57 14	147 21 12	8	8	48								8
1530	64 57 0	147 21 6	9	10	50								7
1531	64 56 54	147 21 18	9	10	53								8
1543	64 59 56	147 26 19	17	15	57								6
1544	64 59 54	147 26 29	17	14	60								6
1545	64 59 51	147 26 17	19	16	62								6
1546	64 59 39	147 26 4	12	10	47								4
1615	64 58 41	147 11 32	19	9	53				<1				15
1616	64 58 28	147 11 40	16	8	57				<1				14
1617	64 58 12	147 11 53	12	6	50				<1				7
1619	64 58 10	147 12 6	19	9	65		0.2		<1				25
1621	64 58 0	147 11 54	15	8	57		0.1		<1				15
1622	64 57 47	147 11 47	12	8	52				<1				15
1624	64 57 17	147 11 38	11	7	43		<0.1		<1				10
1625	64 57 4	147 12 43	18	7	50				<1				15
1626	64 56 54	147 12 26	17	7	46		0.1		<1				15
1627	64 56 49	147 26 14	13	17	55								200
1628	64 56 44	147 25 53	12	15	57								160
1630	64 56 32	147 24 58	13	11	59								180
1631	64 56 25	147 24 35	15	13	70								220
1632	64 56 14	147 24 9	13	11	60								100
1634	64 56 1	147 23 7	10	8	46								45
1701	64 59 44	147 24 30	12	12	45								8
1702	64 59 41	147 24 30	14	14	49								14
1703	64 59 37	147 24 48	16	16	56								11
1705	64 59 29	147 25 36	17	14	58								7
1706	64 59 29	147 25 12											
2030	64 56 45	147 29 38	15	16	70	<0.1	<0.1	10	<2		9	105	105

Table 2 (cont.)

STREAM SEDIMENT SAMPLES
(IN PPM)

FAIRBANKS (D-1) QUADRANGLE
Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	W	Hg	As
2031	64 56 56	147 29 48	15	15	61	0.1		12	<2				
2037	64 56 17	147 29 15	14	12	63	<0.1	0.2	9	<2		21		30
2040	64 57 3	147 28 13	9	22	58	<0.1		5	<2		4		400
2042	64 57 6	147 28 19	12	29	59	<0.1	0.3	3	<2		4		180
2043	64 57 5	147 28 25	17	20	53	<0.1		5	<2		3		250
2044	64 57 1	147 28 27	13	27	68	<0.1		3	<2		4		260
2045	64 56 58	147 28 29	11	20	65	<0.1		3	<2		5		260
2046	64 56 58	147 28 36	18	14	78	<0.1	0.1	7	<2		35		300
2047	64 56 51	147 28 31	11	20	65	<0.1		3	<2		5		260
2048	64 56 16	147 29 44	12	16	56	0.5	0.3	3	<2		30		190
2070	64 57 13	147 27 52	15	23	52	<0.1		4	<2		4		75
2071	64 57 9	147 28 1	8	26	44	<0.1	0.2	2	<2		3		130
2072	64 57 12	147 28 14	15	17	52	<0.1		3	<2		2		125
2073	64 57 14	147 28 26	13	21	47	<0.1		3	<2		4		260
2074	64 57 3	147 28 47	14	13	57	<0.1	0.1	5	<2		28		140
2075	64 56 45	147 28 28	20	18	58	<0.1		5	<2		4		67
2076	64 56 42	147 28 38	12	21	59	<0.1		4	<2		4		450
2077	64 56 36	147 28 44	13	22	62	<0.1		4	<2		3		280
2079	64 56 32	147 28 52	13	21	60	<0.1	0.2	4	<2		4		260
3118	64 59 51	147 14 35	13	7	59				<1				13
3119	64 59 57	147 16 4	14	13	60		0.2		<1				10
3120	64 59 55	147 17 17	17	11	64				<1				5
3121	64 59 36	147 18 8	12	10	67		0.2		<1				5
3123	64 57 48	147 17 30	19	15	76								20
3124	64 57 33	147 17 44	14	10	69								15
3125	64 57 18	147 17 55	14	9	60								10
3127	64 57 4	147 18 0	13	11	51								35
3128	64 56 51	147 18 18	13	12	54								48
3601	64 59 23	147 21 1	14	14	45				<1				12
3634	64 58 34	147 23 29	18	11	53								8
3635	64 58 34	147 24 2	16	10	52								14
3636	64 58 42	147 24 36	16	9	52								11
3637	64 58 44	147 25 3	17	9	56								7
3638	64 58 41	147 25 32	17	8	57								6
3640	64 58 2	147 26 9	24	19	90								48
3646	64 55 25	147 25 31	18	17	60								54
3647	64 55 23	147 25 2	13	13	50								42
3648	64 55 28	147 24 51	16	10	57								18
3649	64 55 23	147 24 35	13	10	43								34

Table 2 (cont.)

STREAM SEDIMENT SAMPLES
(IN PPM)

FAIRBANKS (D-1) QUADRANGLE
Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	W	Hg	As
3650	64 55 20	147 24 5	14	10	52								20
3651	64 55 15	147 23 35	16	13	61								45
3652	64 55 13	147 23 4	18	11	66								78
3653	64 55 14	147 22 32	13	8	56								35
3681	64 58 9	147 13 10	20	18	76								55

Table 2 (cont.)

Table 3

PAN CONCENTRATE SAMPLES
(IN PPM)

LIVENGOOD (A-1) QUADRANGLE

Sample	Lat(N)	Long(W)	Cu	Pb	Au	Ag	Sb	Sn	W
146	65 4 57	147 12 50			0.1		5	ND	4
325	65 2 45	147 11 45			0.02		<1	ND	4
356	65 6 37	147 11 42			<0.01		<1	ND	2
365	65 6 31	147 9 9			30.8		2.	ND	2
367	65 6 39	147 9 25			<0.01		<1	ND	4
373	65 7 11	147 7 23			<0.1		3	ND	4
380	65 8 1	147 6 48			<0.1		1	ND	3
382	65 8 2	147 6 56			<0.1		1	ND	3
392	65 9 2	147 9 9			<0.01		6	ND	3
396	65 9 21	147 10 16			<0.01		4	ND	4
447	65 8 21	147 12 46			<0.1		<1	ND	3
653	65 8 49	147 15 29						ND	4
737	65 5 51	147 19 28			<0.01		<1	ND	3
795	65 6 8	147 17 43			<0.01		<1	ND	5
855	65 6 30	147 20 12						ND	4
861	65 7 9	147 22 35			<0.01		2	ND	5
863	65 7 19	147 23 21			<0.01		1	ND	4
868	65 4 40	147 7 6			<0.1		<1	ND	3
882	65 1 29	147 18 46			<0.01		<1	ND	3
890	65 1 6	147 16 42			<0.01		<1	ND	
903	65 4 39	147 7 35			<0.1		<1	ND	2
908	65 4 0	147 7 42			<0.1		<1	ND	3
916	65 7 14	147 18 29			<0.01		<1	ND	4
921	65 7 55	147 19 30			<0.01		<1	ND	5
926	65 6 23	147 5 29			0.03		4	ND	5
931	65 6 13	147 3 51			<0.01		1	ND	5
936	65 5 40	147 2 0			<0.01		1	ND	5
941	65 8 27	147 11 53			<0.01		<1	ND	4
945	65 9 1	147 12 54			<0.01		<1	ND	3
953	65 4 57	147 3 48			<0.1		<1	ND	3
958	65 5 3	147 1 35			<0.1		<1	ND	2
962	65 4 46	147 11 18			<0.1		5	ND	3
969	65 3 51	147 18 11						18	3
970	65 3 49	147 18 15			<0.01		39	ND	3
1011	65 2 36	147 21 5			<0.01		3	ND	3
1014	65 2 51	147 21 15						ND	10
1047	65 2 39	147 18 28			<0.1	<0.1	<1	ND	2
1055	65 2 32	147 16 25			<0.01		2	ND	3
1066	65 2 6	147 13 47			<0.01		1	ND	3

PAN CONCENTRATE SAMPLES
(IN PPM)

LIVENGOOD (A-1) QUADRANGLE
Continued

Sample	Lat(N)	Long(W)	Cu	Pb	Au	Ag	Sb	Sn	W
1078	65 0 27	147 3 40	11		<0.1	<0.1	<1	ND	3
1084	65 0 3	147 2 2			<0.1		<1	ND	4
1118	65 0 51	147 14 30			<0.1	<0.1	<1	ND	3
1126	65 0 30	147 12 54			<0.1	<0.1	<1	ND	3
1130	65 0 45	147 9 43			<0.1	<0.1	<1	ND	2
1160	65 2 51	147 1 47						ND	2
1162	65 2 31	147 3 13			<0.1	2.0	23	ND	2
1279	65 3 46	147 24 24			0.4		8	ND	3
1281	65 3 48	147 24 16			0.1		48	335	225
1291	65 1 50	147 27 46			<0.1	0.3	9	ND	11
1293	65 1 51	147 28 1			1.8	0.4	15	30	38
1301	65 0 39	147 20 33			<0.1	<0.1	<1	ND	3
1306	65 0 12	147 19 31			<0.1	<0.1	<1	ND	2
1321	65 0 11	147 21 46	8		<0.1	<0.1	<1	ND	2
1358	65 3 14	147 29 38			<0.1		25	ND	315
1389	65 6 1	147 28 32			<0.1		1	ND	2
1459	65 4 35	147 16 46			<0.1	0.2	8		2
1516	65 5 4	147 29 23			<0.1		2	ND	2
1605	65 4 31	147 14 34						ND	5
1614	65 4 2	147 11 17			<0.01		4	ND	3
1662	65 1 1	147 24 41			<0.1		<1	ND	3
3112	65 4 11	147 18 12		49					
3117	65 4 31	147 16 41			0.02		10	10	4
3610	65 3 19	147 9 14			<0.01		1	ND	3

Table 3 (cont.)

PAN CONCENTRATE SAMPLES (IN PPM) FAIRBANKS (D-1) QUADRANGLE

Sample	Lat(N)	Long(W)	Pb	Au	Ag	Sb	Sn	W
152	64 59 18	147 1 56		<0.1	<0.1	<1	ND	2
158	64 57 13	147 7 8		<0.1	<0.1	<1	ND	43
162	64 59 12	147 19 23		10.2	0.9	<1	ND	60
898	64 57 41	147 15 12					ND	4
975	64 58 51	147 15 28		0.18		<1	ND	360
982	64 58 49	147 13 58		<0.01		<1	ND	8
989	64 59 19	147 12 58		<0.01		<1	ND	215
992	64 57 25	147 25 50		<0.1		<1	ND	250
997	64 57 5	147 24 5		<0.1		<1	ND	30
1023	64 59 8	147 7 35		<0.1		31	ND	5
1029	64 59 5	147 5 55		<0.1		<1	ND	4
1035	64 58 43	147 4 35		<0.1		<1	ND	3
1038	64 58 32	147 4 0		<0.1		<1	ND	3
1090	64 57 50	147 9 20		<0.1	<0.1	<1	ND	2
1095	64 57 16	147 10 42		<0.1	<0.1	<1	ND	2
1104	64 56 52	147 15 5		<0.1		<1	ND	3
1182	64 56 55	147 21 54		<0.1		7	ND	4
1242	64 57 47	147 29 34		<0.1	<0.1		ND	18
1248	64 57 51	147 29 26		<0.1	<0.1	<1	ND	3
1311	64 59 48	147 21 21		<0.1	<0.1	<1	ND	3
1316	64 59 51	147 20 54		<0.1	<0.1	<1	ND	2
1416	64 56 16	147 29 29		<0.1	<0.1	<1	ND	3
1438	64 55 42	147 28 23		<0.1	<0.1	<1		3
1446	64 59 18	147 26 12		<0.1	<0.1	<1		2
1449	64 59 28	147 25 54		<0.1	<0.1	<1		3
1519	64 57 54	147 20 28		<0.1	<0.1	<1		2
1525	64 57 39	147 21 25		<0.1	<0.1	<1		2
1529	64 57 14	147 21 10		<0.1	<0.1	<1	ND	3
1618	64 58 12	147 11 52		<0.01		<1	ND	4
1620	64 58 10	147 12 7		<0.01		<1	ND	3
1628	64 56 36	147 25 28		<0.1		<1	ND	4
1633	64 56 8	147 23 40		<0.1		1	ND	5
3126	64 57 18	147 17 55		<0.1		<1	ND	5
3613	64 57 4	147 7 1	5					
3639	64 58 41	147 25 32						
3641	64 58 2	147 26 9	11					
3643	64 58 14	147 25 43	22					
3645	64 58 28	147 25 53	12					

Table 4

ROCK SAMPLES
IN PPM (unless specified otherwise)

LIVENGOOD (A-1) QUADRANGLE
ND=not determined

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	Hg	W	As
147	65 04 51	147 12 33								ND	3	15	29
165	65 02 44	147 03 18	109	13	19	<0.1	0.1		11		2	20	5
166	65 02 44	147 03 18	115	25	23	<0.1	0.2		10		2	30	38
167	65 02 44	147 03 18	88	12	37	<0.1	0.1		10			IS	
169	65 02 44	147 03 18	49	15	83	0.01	<0.1		<1		3	480	2
320	65 6 37	147 14 59	114	9	27	<.1	<.1		4		3		6
321	65 6 49	147 14 3	130	16	31	<.1	<.1		7		3		5
323	65 4 37	147 8 39	70	7	71	<.1	<.1	4	6		2		
324	65 4 33	147 8 33	26	13	81	<.1	<.1	4	4		2		
346	65 03 07	147 01 28	5	12	8		<0.1	8					
351	65 00 41	147 23 52	33	102	5	<.1	0.4		15	ND	4	150	28
352	65 00 41	147 23 52	82	31	9	0.3	1.7		45	ND	3	20	>1000
399	65 04 23	147 18 37	118	6	28	<.1	<.1		7		2		50
437	65 00 31	147 17 46	134	6	22	<.1	<.1		10	ND	2	15	ND
438	65 00 29	147 14 55	81	2	6	<.1	<.1		1	ND	2	5	2
439	65 00 16	147 14 36	85	6	15	<.1	<.1		2	ND	3	5	2
440	65 00 16	147 15 19	81	5	16	<.1	<.1		2				
445	65 08 19	147 12 34	77	6	35	<0.1	0.1		7		2	10	10
496	65 05 29	147 08 55	128	409	266	0.1	10.3		34				>1000
497	65 05 29	147 08 55	385	1.59%	466	1.6	119		99				>1000
498	65 05 29	147 08 55	110	148	119	0.1	3.5		21				>1000
499	65 05 29	147 08 55	128	2990	321	0.3	6.6		61				>1000
500	65 05 29	147 08 55	226	8258	839	0.6	191		163				>1000
501	65 05 29	147 08 55	55	41	73	0.1	2.6		14				1000
502	65 05 29	147 08 55	434	1.69%	315	1.6	168		165				>1000
503	65 05 29	147 08 55	104	710	376	1.2	5.6		26				>1000
504	65 05 29	147 08 55	102	164	101	0.2	5.7		13				>1000
505	65 05 29	147 08 55	51	17	102	0.1	0.1		12				260
539	65 00 06	147 23 37	43	7	25	<.1	<.1		9	ND	1350	5	2
540	65 00 02	147 23 39	45	5	36	<.1	<.1		7	ND	1125	10	2

Table 5

ROCK SAMPLES
IN PPM (unless otherwise specified)

LIVENGOOD (A-1) QUADRANGLE
ND=not determined

Table 5 (cont.)

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	Hg	W	As
551	65 07 31	147 11 33	47	5	21	<0.1	<0.1		12		5	5	20
554	65 05 38	147 07 21	47	7	36	<0.1	0.1		5		3	5	38
555	65 05 13	147 06 20	99	2	4	<0.1	<0.1		3		4	5	3
556	65 04 57	147 06 13	108	2	2	<0.1	<0.1		2		2	20	4
557	65 04 23	147 03 54	64	12	16	<0.1	<0.1		3		3	10	4
728	65 3 1	147 27 19	66	17	550	<.1	0.1		685				
729	65 3 26	147 27 39	62	17	14	<.1	<.1		12				
731	65 3 58	147 28 15	16	19	20	<.1	<.1		43				
739	65 1 30	147 28 5	44	330	180	<.1	2.2		17				
738	65 02 04	147 27 55	84	444	29	9.0	15.6		156				
807	65 2 57	147 25 27	241	8300	600	1.13	44.9		1710		3	40	>1000
808	65 2 57	147 25 27	860			3.78					3	300	>1000
809	65 2 57	147 25 26	129	6100	131	.11	18.6		511		3	130	>1000
814	65 2 15	147 27 9	42	9	220	<.1	.1		14		520		280
815	65 2 11	147 27 18	62	12	39	<.1	0.3		16				
812	65 02 54	147 25 41	950	1.6%	1851	7.6	3991		4.3%				
813	65 02 33	147 26 25	30	96	15	0.1	0.6		7				
821	65 2 51	147 27 35	69	13	181	.2	.2		20				
833	65 03 44	147 28 20	63	177	120	0.7	1.4		125				
834	65 03 44	147 28 20	109	16	79	0.7	0.5		224				
835	65 03 20	147 28 26	137	95	130	1.3	3.6		78				
839	65 03 24	147 28 26	31	444	22	0.2	8.2		192				
964	65 04 33	147 11 30	183	14	21	<0.1	0.3		4		0	0	34
1287	65 2 18	147 26 12	121	9	64	<0.1	<0.1		17		50	ND	2
1287	65 02 18	147 26 12	121	9	64	<0.1	<0.1		17		50	ND	2
1401	65 03 05	147 01 37	188	15	72	0.1	0.4		22		3	70	58
1402	65 03 05	147 01 37	120	11	52	0.1	0.2		18		2	45	46
1491	65 4 18	147 26 56	137	6	50	<.1	-.1		1				13
1492	65 4 23	147 26 38	69	46	42	.1	.1		5				70
1493	65 4 43	147 25 56	60	43	41	<.1	.1		4				500
1580	65 1 41	147 27 48								ND	2	10	52
1581	65 1 31	147 27 53							ND	ND	3	10	33

ROCK SAMPLES
IN PPM (unless otherwise specified)

LIVENGOOD (A-1) QUADRANGLE
ND=not determined

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	Hg	W	As
1582	65 1 43	147 28 22								ND	3	20	58
1583	65 1 31	147 28 30								ND	2	20	12
1584	65 1 22	147 28 34								ND	10	20	7
1585	65 1 11	147 28 49								ND	40	10	2
1586	65 1 10	147 28 19								ND	2	10	5
1751	65 2 43	147 26 27	73	47	54		.5	5			3	35	
1752	65 2 41	147 26 33	79	18	64	.04	.3	7	8		3	90	
1753	65 2 37	147 26 38	83	1360	132	.07	10.9	10	8		3	110	
1754	65 2 35	147 26 41	99	140	191		1.1	23			2	75	
1755	65 2 33	147 26 45	88	290	200		1.1	52			4	85	
1756	65 2 29	147 26 50	91	290	196	.07	1.5	18	8		3	30	
1776	65 2 52	147 26 14	98	64	74	.1	.4		3				
1777	65 2 56	147 26 27	148	63	930	.1	.7		6				
1778	65 2 56	147 26 27	760	6%	1780	3.8	230		1.10%				
1779	65 2 56	147 26 26	125	183	980	.1	1.6		34				
1780	65 2 59	147 26 34	60	5	24	.1	.1		3				
1781	65 3 23	147 27 36	99	8	54	<.1	.1		2				
1782	65 3 26	147 27 39	159	82	41	<.1	.6		9				
1783	65 3 26	147 27 37	180	3	18	<.1	.1		-1				
1784	65 3 27	147 28 5	85	236	125	.1	3.1		8.8				
3602	65 2 16	147 28 15	111	19	51	<.1	0.1		8				
3603	65 2 13	147 28 13	98	31	60	<.1	0.1		12				
3604	65 2 14	147 28 23	75	10	38	<.1	<.1		8		2		240
3605	65 05 27	147 09 26	75	10	42	<.1	0.1		10		2		125
3606	65 06 10	147 07 24	77	12	36	<.1	0.1		8		2		16
3607	65 06 35	147 07 13	88	11	63	0.2	0.2		9		3		800
3608	65 06 49	147 06 19	51	8	32	<.1	<.1		5		3		5
3654	65 2 44	147 28 33	32	5	14	0.1	<.1		14		3	10	4
3655	65 2 41	147 28 33	34	4	12	<.1	<.1		9		2	10	15
3656	65 2 39	147 28 39	42	16	203	<.1	0.2		13		2	20	80
3657	65 2 38	147 28 44	66	11	52	0.4	0.1		80		15	60	>1000
3658	65 2 36	147 28 50	42	24	34	<.1	0.1		23		11	5	200
3659	65 2 32	147 28 56	45	19	62	<.1	<.1		35		35	10	12
3660	65 2 30	147 28 59	180	13	162	<.1	<.1		114		15	170	7
3661	65 2 27	147 29 3	41	6	26	<.1	<.1		117		3	10	8
3662	65 2 24	147 29 7	46	6	16	<.1	<.1		23		20	15	55

ROCK SAMPLES
IN PPM (unless otherwise specified)

LIVENGOOD (A-1) QUADRANGLE
ND=not determined

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	Hg	W	As
3663	65 2 22	147 29 13	54	7	24	<.1	<.1		20		2	20	150
3665	65 2 20	147 29 21	57	8	19	<.1	<.1		22		16	60	165
3666	65 2 20	147 29 21	36	9	26	<.1	<.1		16		2	15	200
3667	65 2 36	147 29 20	65	60	21	<.1	0.1		23		20	15	10
3668	65 2 35	147 29 9	60	181	24	0.4	0.5		45		3	30	8
3669	65 2 36	147 29 2	61	140	15	<.1	0.2		25		3	30	600
3670	65 2 36	147 28 56	56	9	51	<.1	0.1		26	13	20	400	
3671	65 2 46	147 28 2	44	8	37	<.1	0.4		27		3	25	14
3672	65 2 46	147 27 54	42	17	20	<.1	0.1		11		2	30	130
3673	65 2 44	147 27 47	50	24	45	<.1	0.1		26		4	25	110
3674	65 2 40	147 27 45	47	10	37	<.1	0.1		12		6	20	12
3675	65 2 38	147 27 41	49	50	56	0.1	0.7		19		7	50	12
3676	65 2 35	147 27 36	46	17	24	<.1	0.1		12		3	10	13
3677	65 2 33	147 27 32	50	680	41	0.1	0.2		64		3	180	5
3678	65 2 31	147 27 24	56	1930	34	0.2	3.6		346		3	2100	4
3679	65 2 31	147 27 25	41	180	24	<.1	1.0		10		5	80	14

Table 5 (cont.)

Table 6

ROCK SAMPLES
IN PPM (unless specified otherwise)

FAIRBANKS (D-1) QUADRANGLE
ND=not determined

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	Hg	W	As
296	64 53 21	147 16 17	56	6	14	<0.1	<0.1		5	ND	3	10	10
297	64 57 30	147 23 35	49	21	15	<.01	<.1	<1	9	ND	3	5	6
298	64 57 33	147 23 44	72	14	37	<.01	<.1	2	15	ND	2	15	5
310	64 57 31	147 21 31	73	24	83	<.01	<.1	2	26	ND	4	5	10
312	64 57 32	147 22 46	75	15	43	<.01	<.1	3	18	ND	2	5	5
313	64 57 34	147 22 59	103	17	51	<.01	<.1	4	21	ND	2	5	4
314	64 57 41	147 23 5	97	17	49	<.01	<.1	2	19	ND	2	5	5
315	64 57 45	147 23 7	152	27	37	<.01	<.1	3	18	ND	3	5	5
317	64 59 11	147 23 48	75	16	115	<.01	.1	3	39	ND	3	5	5
319	64 59 9	147 26 23	126	7	21	<.01	.2	2	16	ND	55	5	10
311	64 57 30	147 22 23	125	20	45	<.01	<.1	3	21	ND	2	5	8
318	64 58 53	147 22 23	59	35	43	<.01	.2	7	29	31	450	5	5
333	64 59 11	147 19 19	52	12	24		<0.1	3			2	ND	
334	64 57 06	147 27 53	103	14	14		0.3	6			2	10	
335	64 57 06	147 27 53	40	8	7		0.1	3			2	ND	
344	64 57 6	147 27 53	27	8	32		<0.1	6		345	1		
345	64 57 6	147 27 53	45	8	23		<0.1	4					
426	64 57 2	147 27 24	106	15	6	<.1	0.3		5	ND	3	5	>1000
427	64 56 32	147 26 24	84	8	56	<.1	<.1		6	ND	2	5	52
428	64 55 10	147 26 8	71	123	74	3.0	9.4		20	ND	3	5	55
429	64 58 54	147 19 32	96	5	6	<.1	0.3		3	ND	2	5	15
430	64 58 49	147 19 8	108	16	15					ND	2	15	95
431	64 58 49	147 19 8	52	12	98					17	2	5	2
432	64 58 25	147 17 57	47	18	2	<.1	<.1		2	ND	2	5	23
433	64 58 20	147 24 39	44	31	8	<.1	<.1		3	ND	2	5	6
434	64 58 20	147 24 39	50	11	62	<.1	<.1		8	ND	2	5	2
436	64 58 10	147 27 19	45	14	18	<.1	0.1		6	ND	2	5	5
512	64 58 31	147 24 20	57	12	46	0.1	0.1		15		3	20	6
513	64 58 30	147 24 39	62	10	59	0.1	<.1		18		3	5	12
514	64 58 38	147 25 40	66	10	44	0.1	<.1		13		3	5	5
534	64 58 26	147 16 45	67	6	41	<.1	0.1		4	ND	2	5	ND
535	64 57 53	147 16 40	117	2	2	<.1	<.1		2	ND	2	5	ND
541	64 59 43	147 23 9	49	6	18	<.1	<.1		3	ND	2	5	3
542	64 59 23	147 23 32	47	10	70	<.1	<.1		6	ND	185	5	6
543	64 59 20	147 23 51	85	3	2	<.1	<.1		1	ND	3	5	ND
544	64 59 27	147 22 54	63	10	14	<.1	<.1		24	ND	2	5	2

ROCK SAMPLES
IN PPM (unless otherwise specified)

FAIRBANKS (D-1) QUADRANGLE
ND=not determined

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	Hg	W	As
545	64 58 53	147 22 15	190	10	18	<.1	0.1		5	ND	2	5	5
546	64 58 53	147 22 15	46	8	48	<.1	<.1		7	ND	16	5	4
558	64 56 40	147 23 39	62	8	136	<0.1	0.1		42		3	15	>1000
559	64 56 37	147 23 5	6	3	19	0.2	<0.1		6		4	10	72
560	64 56 29	147 22 2	63	7	34	0.1	<0.1		5		3	5	5
725	64 49 44	147 28 5	78	37	53	<.01	.1	5	67				
972	64 58 52	147 16 11	85	11	24	<0.1	<0.1		4		3	5	2
976	64 58 51	147 15 29	114	1	4	<0.1	<0.1		1		7	5	9
986	64 59 0	147 13 37	87	6	19	<0.1	<0.1		3		4	ND	75
1464	64 58 9	147 25 56	74	38	109	.1	<.1	9					
1465	64 58 9	147 25 56	83	21	52	13.3	.9	6					23
1587	64 58 8	147 22 3	10							ND	3	10	5
1588	64 58 32	147 20 26	79	37	69	<0.1	-.1	5	1	16	3	10	3
1589	64 57 11	147 23 43	83	10	316	<0.1	.4	6	<1	14	3	15	7
1590	64 58 44	147 18 22	71	19	110	<0.1	-.1	5	<1	ND	3	10	3
1591	64 58 14	147 17 49	70	3	2	<0.1	-.1	6	<1	ND	3	10	15
2030	64 56 54	147 29 46	137	11	62	<.1	<.1	6	<2		3	3	20
2031	64 56 58	147 29 53	90	8	77	<.1	0.2	22	<2		4		400
2032	64 56 45	147 30 00	66	16	36	<.1	<.1	5	<2		3		210
3122	64 59 34	147 18 24	103	8	19	<.1	<.1		3	20	2		ND
3685	64 58 57	147 20 28	102	6	18	0.2	0.2	5	<1				
3686	64 58 55	147 18 54	146	5	9	0.3	6.7	9	1				
3941	64 58 10	147 23 4	33	37	73	<.1		4					
3942	64 58 11	147 22 55	49	28	43	<.1		4					
3943	64 57 34	147 22 23	82	18	51	<.1		3					
3945	64 58 37	147 22 46	65	17	18	<.1		3					
3947	64 58 15	147 24 23	68	21	11	<.1		3					
3948	64 58 16	147 24 45	57	21	20	<.1		2					
3949	64 57 57	147 25 56	40	36	18	<0.01	-.1	4	-1				
3950	64 58 16	147 25 38	71	14	50	<.1		5					
3951	64 58 6	147 26 59	73	29	47	<.1		4					
3952	64 58 7	147 27 23	65	18	66	<.1		6					
3953	64 57 57	147 27 47	58	12	32	<.1		4					
3954	64 58 15	147 26 0	67	16	58	<.1		-1					
3955	64 58 21	147 25 52	49	21	87	<.1		5					
3956	64 57 53	147 27 13	77	13	60	<.1		-1					

Table 6 (cont.)

ROCK SAMPLES
IN PPM (unless otherwise specified)

FAIRBANKS (D-1) QUADRANGLE
ND=not determined

Sample	Lat(N)	Long(W)	Cu	Pb	Zn	Au	Ag	Mo	Sb	Sn	Hg	W	As
3957	64 57 32	147 26 52	74	18	14	34		5					
3958	64 57 27	147 26 7	23	5	11	<.1		3					
3959	64 57 22	147 26 9	63	17	22	<.1		4					
3960	64 57 38	147 23 49	106	15	36	<0.1		2	<1				
3961	64 58 3	147 28 18	71	24	17	<0.1		1	<1				
3962	64 58 3	147 28 50	95	9	41	<0.1		2	<1				
3964	64 57 12	147 27 29	55	15	39	<0.1		1	<1				
3965	64 57 12	147 25 53	44	8	12	<0.1		1	<1				
3966	64 56 58	147 26 29	81	14	54	<0.1		1	<1				
3967	64 56 58	147 28 38	53	7	41	<0.1		1	<1				
3968	64 57 18	147 21 15	85	11	36	<0.1		2	<1				
3969	64 57 51	147 28 53	84	12	48	<0.1		2	<1				
3970	64 57 22	147 29 17	61	10	35	<0.1		1	<1				
3971	64 57 35	147 28 7	63	29	28	<0.1		1	<1				
3972	64 56 51	147 29 50	60	18	22	0.3		1	<1				
3973	64 58 50	147 18 43	66	17	6	<0.1		1	<1				
3974	64 58 30	147 18 39	84	12	36	<0.1		2	<1				
3975	64 58 28	147 18 50	44	8	17	<0.1		2	<1				
3977	64 58 39	147 18 18	80	17	33	<0.1		2	<1				
3978	64 58 22	147 18 46	93	11	33	<0.1		2	<1				
3979	64 58 9	147 19 37	67	14	42	<0.1		1	<1				
3980	64 58 0	147 20 3	42	135	160	<0.1	1.9	3	10				
3981	64 57 53	147 20 21	66	19	36	<0.1	.1	4	9				
3982	64 58 25	147 19 48	72	18	13	<0.1	-.1	3	49				
3983	64 59 9	147 18 2	65	12	53	<0.1	.1	5	21				
3987	64 59 38	147 21 35	51	10	43	<0.1	-.1	5	-1				
3990	64 58 13	147 20 36	55	10	34	<0.1	-.1	3	-1				
3991	64 58 15	147 20 16	86	19	38	<0.1	.5	2	-1				
3992	64 58 3	147 21 29	87	15	47	0.1	.1	4	-1				
3993	64 58 18	147 22 7	46	11	64	<0.1	-.1	4	-1				
3994	64 57 50	147 22 14	52	4	58	<0.1	-.1	5	-1				
3995	64 58 29	147 22 31	63	20	37	<0.1	-.1	4	-1				
3996	64 57 55	147 25 9	68	19	54	<0.1	-.1	5	-1				

Table 6 (cont.)

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS

Esther Wunnicke — *Commissioner*

Ross G. Schaff — *State Geologist*

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This is a preliminary publication of the Alaska Division of Geological and Geophysical Surveys and has not received final editing and review. The author will appreciate candid comments on the accuracy of the data and will welcome suggestions to improve the report.

ADDENDUM TO Alaska Open-file Report 164 GEOCHEMICAL RECONNAISSANCE OF THE NORTHERN FAIRBANKS D-1 AND SOUTHERN LIVENGOOD A-1 QUADRANGLES, ALASKA; SUMMARY OF DATA ON STREAM-SEDIMENT, PAN-CONCENTRATE, AND ROCK SAMPLES

By
M.D. Albanese

Table 7. Rock descriptions for geochemical samples in the Livengood A-1 Quadrangle, Alaska.

Sample number	Sample type[a]	Rock description (samples correspond to geochemical analyses in table 5)
147	gb	Soil sample in white mica schist and quartzite
165	10' cs	Graphitic schist
166	10' cs	Graphitic schist in micaceous quartzite
167	cc	Shear zone
169	gb	Quartzite and feldspathic quartzite
320	gb	Coarse-grained grit
321	gb	Banded quartzite or calc-schist
323	gb	Quartz-muscovite schist
324	gb	Muscovite-chlorite schist with pegmatitic feldspar-chlorite dike
346	gb	Coarse-grained marble
351	gb	2'-4'-wide white felsic dike
352	gb	Iron-stained quartz breccia
399	gb	Limonitic quartz vein in chlorite-muscovite schist
438	gb	Fine-grained amphibolite
438	gb	Bull quartz
439	gb	Quartz vein in biotite-muscovite-quartz schist
440	gb	8'-wide quartz vein in biotite-muscovite-quartz schist
445	gb	Intrusive rock
496	2' cc	Tensional fracture filled with 2" quartz vein
497	2' cc	Graphitic schist with iron stain
498	gb	Clay gouge, iron-stained schist, and quartz fragments
499	gb	6-9" mineralized quartz vein
500	2' cc	Quartz-rich zone, iron-stained schist, and mylonite
501	3' cc	Crosscutting quartz vein
502	gb	Scorodite-stained quartz vein
503	18" cc	Sheared schist and quartz
504	18" cc	Hanging wall, quartz vein
505	4' cc	Sheared quartz or quartzite layer

[a]cc - chip channel (channel length denoted)
cs - continuous channel sample
gb - grab sample
rc - composite or random chip

Table 7 (cont.)

Sample number	Sample type[a]	Rock description (samples correspond to geochemical analyses in table 5)
539	rc	Calcareous amphibolite with gossan layers
540	rc	Calcareous amphibolite with gossan layers
551	rc	Quartz-feldspathic-muscovite schist
554	rc	Quartz-feldspathic-muscovite schist
555	rc	Limonitic quartz vein
556	rc	Quartz pod with gossan and open space fillings
557	rc	Quartz-feldspathic schist
728	rc	Highly iron-stained dolomitic graphitic schist
729	rc	Limonitic quartz schist interbedded with amphibolite and quartzite
731	rc	Banded calcareous rock with quartz veinlets
739	gb	Altered quartz diorite with quartz-carbonate veins
738	cc	White quartz schist with stockwork veining
807	5' cs	Quartz-muscovite schist
808	5' cs	Quartz-muscovite schist
809	50' cs	Felsic white schist
814	gb	Veinlets in amphibolite
815	cs	Iron-stained felsic schist
812	gb	Quartz schist and felsic schist
813	gb	Felsic schist and quartz-muscovite schist
821	gb	White schist
833	gb	Altered granodiorite
834	3' cs	Quartz vein and stained feldspathic schist
835	3' cs	Quartz vein
839	gb	Graphitic schist
964	gb	Iron-stained quartz vein
1287	gb	Quartz-muscovite-amphibolite schist with sulfides
1401	2' cs	Felsite lens
1402	2' cs	Felsite lens
1491	gb	Iron-stained white quartzite and white muscovite quartz schist
1492	gb	White felsic rock
1493	gb	Light-grey quartzite with pyrite
1580	gb	Intermediate intrusive: quartz monzonite-granodiorite
1581	gb	Intermediate intrusive: quartz monzonite-granodiorite
1582	gb	Intermediate intrusive: quartz monzonite-granodiorite
1583	gb	Quartz-monzonite contact zone
1584	gb	Intermediate intrusive: quartz monzonite granodiorite

Table 7 (cont.)

Sample number	Sample type[a]	Rock description (samples correspond to geochemical analyses in table 5)
1585	gb	Quartz-monzonite contact zone
1586	gb	Quartz-monzonite contact zone
1751	150' rc	White schist and quartz-mica schist
1752	200' rc	White schist and siliceous quartzites
1753	200' rc	White schist and quartz-mica schist
1754	200' rc	Quartz-mica schist
1755	200' rc	Quartz-mica schist and quartzite
1756	200' rc	White schist
1776	50' rc	Green schist
1777	3' cc	Green schist
1778	2' cc	Chlorite-quartz-mica schist, quartzite, and white schist
1779	4' cc	Green schist with coarse garnet
1780	gb	Micaceous calc-silicate marble and greenschist
1781	4' cc	White schist
1782	gb	Shear zone in quartzite and quartz-mica schist
1783	gb	Quartzite and white schist with chalcopyrite, pyrite, and arsenopyrite
1784	gb	White schist
3602	rc	Strongly limonitic white schist
3603	rc	Limonitic felsic schist and quartz schist
3604	rc	Limonitic white schist
3605	rc	White mica schist and quartzite
3606	rc	Garnetiferous quartzite with pyrrotite, chlorite, and muscovite
3607	gb	Limonitic muscovite-schist seam
3608	gb	Bleached garnetiferous muscovite schist with abundant limonite
3654	gb	Banded greenstone
3655	gb	Banded calc-silicate greenstone
3656	gb	Banded calc-silicate greenstone
3657	gb	Limonitic white schist
3658	gb	Limonitic brecciated quartz and greenschist
3659	gb	Altered limonitic nonfoliated rock
3660	rc	White schist
3661	gb	Banded greenstone
3662	gb	White schist
3663	gb	Micaceous greenschist
3665	gb	Rusty white schist
3666	gb	Laminated greenstone

Table 7 (cont.)

Sample number	Sample type[a]	Rock description (samples correspond to geochemical analyses in table 5)
3667	gb	Rusty white schist with quartz veins
3668	gb	Rusty white schist with quartz veins
3669	gb	Rusty white schist with quartz veins
3670	rc	White schist and quartz-mica schist
3671	rc	Actinolite schist
3672	rc	White schist
3673	rc	White schist with quartz veins
3674	gb	White schist and white quartzite
3675	rc	White schist and white quartzite
3676	gb	White schist
3677	gb	White schist and quartz
3678	gb	Siliceous rusty breccia
3679	gb	Feldspathic quartzite

Table 8. Rock descriptions for geochemical samples in the Fairbanks D-1 Quadrangle, Alaska.

Sample number	Sample type[a]	Rock description (samples correspond to geochemical analyses in table 6)
296	rc	Biotite-rich siliceous rock
297	gb	Medium- to coarse-grained biotite quartz monzonite
298	gb	Coarse-grained porphyritic biotite granite
310	gb	Medium- to coarse-grained quartz monzonite
312	gb	Porphyritic quartz monzonite
313	rc	Porphyritic biotite granite
314	rc	Porphyritic biotite granite
315	rc	Medium- to coarse-grained porphyritic granite
317	rc	Iron-stained biotite schist
311	gb	Medium- to coarse-grained biotite quartz monzonite
318	gb	Calc-amphibolite

[a]cc - chip channel (channel length denoted)
cs - continuous channel sample
gb - grab sample
rc - composite or random chip

Table 8 (cont.)

Sample number	Sample type[a]	Rock description (samples correspond to geochemical analyses in table 6)
333	gb	Porphyritic quartz monzonite
334	gb	Quartz breccia
335	gb	Intrusive breccia with pyrite
344	gb	Biotite hornfels
345	gb	Calc-amphibolite
426	gb	Altered quartz-rich rock (hornfels?)
427	rc	Feldspathic schist
428	gb	Altered limonitic quartzite
429	gb	Quartz-filled breccia
430	gb	Coarse-grained granite
431	gb	Calcareous amphibolite
432	gb	Altered quartz-rich granite
433	gb	Porphyritic felsic intrusive
434	rc	Feldspathic biotite schist
436	gb	White mica-biotite-quartz schist
512	rc	Calc-amphibolite, marble, greenschist, muscovite schist
513	rc	Amphibolite, hornfels, feldspathic biotite schist
514	rc	Calc-amphibolite and hornfels
534	rc	Quartzo-feldspathic biotite schist
535	rc	Limonitic quartz boulder
541	rc	Hornfels in quartz-monzonite-dike contact zone
542	rc	Hornfels and calc-amphibolite
543	rc	Quartz boulders
544	rc	Limonitic amphibolite, coarse-grained marble, hornfels
545	rc	Amphibolitic calc-schist
546	rc	Felsic schist and calc-amphibolite
558	gb	Limonitic muscovite schist, locally brecciated
559	gb	Strongly limonitic vuggy quartz and limonitic schist with visible pyrite
560	gb	Strongly limonitic vuggy quartz and limonitic schist with visible pyrite
725	gb	Calc-schist
972	gb	Silicified quartzite
976	rc	Bull quartz with limonite staining
986	gb	Brecciated rock
1464	gb	Porphyritic quartz monzonite
1465	gb	Porphyritic quartz monzonite
1587	gb	Porphyritic granodiorite

Table 8 (cont.)

Sample number	Sample type[a]	Rock description (samples correspond to geochemical analyses in table 6)
1588	gb	Tan mica schist near contact
1589	gb	Porphyritic quartz monzonite
1590	gb	Quartz monzonite
1591	gb	Gray schist and quartzite
2030	gb	Porphyritic quartz monzonite
2031	gb	Porphyritic quartz monzonite
2032	gb	Porphyritic quartz monzonite
3122	gb	Quartz vein and contact zone near granite
3685	gb	Silicified quartzite
3686	gb	Silica breccia
3941	gb	Porphyritic granodiorite
3942	gb	Aplite dike
3943	gb	Porphyritic granodiorite
3945	gb	Porphyritic quartz monzonite
3947	gb	Aplite dike
3948	gb	Porphyritic quartz monzonite
3949	gb	Aplite dike
3950	gb	Porphyritic quartz monzonite
3951	gb	Porphyritic quartz monzonite
3952	gb	Porphyritic quartz monzonite
3953	gb	Porphyritic quartz monzonite
3954	gb	Porphyritic quartz monzonite
3955	gb	Porphyritic quartz monzonite
3956	gb	Porphyritic quartz monzonite
3957	gb	Porphyritic quartz monzonite
3958	gb	Aplite dike
3959	gb	Porphyritic quartz monzonite
3960	gb	Porphyritic quartz monzonite
3961	gb	Aplite dike
3962	gb	Porphyritic quartz monzonite
3964	gb	Porphyritic quartz monzonite
3965	gb	Aplite dike
3966	gb	Porphyritic quartz monzonite
3967	gb	Porphyritic quartz monzonite
3968	gb	Porphyritic quartz monzonite
3969	gb	Porphyritic quartz monzonite

Table 8 (cont.)

Sample number	Sample type[a]	Rock description (samples correspond to geochemical analyses in table 6)
3970	gb	Porphyritic quartz monzonite
3971	gb	Porphyritic quartz monzonite
3972	gb	Porphyritic quartz monzonite
3973	gb	Aplite dike
3974	gb	Porphyritic quartz monzonite
3975	gb	Aplite dike
3977	gb	Porphyritic quartz monzonite
3978	gb	Porphyritic quartz monzonite
3979	gb	Porphyritic quartz monzonite
3980	gb	Aplite dike with sulfides
3981	gb	Porphyritic quartz monzonite
3982	gb	Porphyritic quartz monzonite
3983	gb	Porphyritic quartz monzonite
3987	gb	Porphyritic granodiorite
3990	gb	Porphyritic quartz monzonite
3991	gb	Porphyritic quartz monzonite
3992	gb	Porphyritic quartz monzonite
3993	gb	Porphyritic quartz monzonite
3994	gb	Porphyritic quartz monzonite
3995	gb	Porphyritic quartz monzonite
3996	gb	Porphyritic quartz monzonite