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UNITED STATES GEOLOGICAL SURVEY
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SHEET 1 OF 6

COMPILED BY INYO ELLERSIECK

ANALYTICAL RESULTS FOR STREAM-SEDIMENT GEOCHEMICAL SAMPLES, AMBLER RIVER QUADRANGLE, ALASKA

1978

Chemical analyses by:

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Computer printout from RASS (Rock Analysis Storage System) file by: S. K. McDanal and C. M. McDougal, U.S. Geological Survey.

Sample numbers

Collector	Prefix	Year(s)	Agency
B. Brickley	BY	1974	ADGGS
W. P. Brosgé	BE	1966	USGS
G. R. Eakins	E	1972	ADGGS
I. F. Ellersieck	EK	1976	USGS
R. E. Garland	B, G	1972	ADGGS
S. W. Hackett	SWH	1976	ADGGS
J. T. Larson	R	1972, 1973	ADGGS
C. F. Mayfield	MD	1974, 1976	USGS
G. H. Pessel	PE	1973	ADGGS
H. Reiser	RR	1966	USGS
W. S. Roberts	BR	1972	ADGGS
I. L. Tailleur	TR	1966, 1974, 1976	USGS
J. M. Zdepski	Z	1972, 1973	ADGGS

NOTE: Each sample number contains a prefix denoting the year it was collected, followed by an abbreviation of the collector's name. Samples collected in 1972, and some from 1973, are reported by Garland and others (1973). Most 1973 samples are reported by Garland and others (1975). All samples from 1974 are reported by Pessel (1976). Samples collected in 1966 and 1976 are published here for the first time.

PAN CONCENTRATE SAMPLES

sample	LATITUDE	LONGITUD	map	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR	AA-AU	AA-CU	AA-PB	AA-ZN
76MD63P	67 54 15	156 28 56	P1	>20.00	2.00	2.00	>1.000	>5,000	N	N	70	1,500	<2.0	150	500	300	1,000	N	<50	150	100	100	50	<200	200	N	700	N	>1,000	--	--	--	--
76MD177P	67 52 11	156 19 29	P2	20.00	2.00	1.50	>1.000	>5,000	N	N	70	700	2.0	100	200	200	500	N	<50	150	70	50	500	<200	200	N	200	N	500	--	--	--	--
76MD183P	67 50 44	156 13 50	P3	>20.00	.70	1.50	>1.000	>5,000	N	N	70	200	<2.0	50	700	150	1,000	N	<50	50	70	50	70	<200	200	N	200	N	>1,000	--	--	--	--
76MD228H	67 33 7	158 10 11	P4	15.00	2.00	10.00	>1.000	>5,000	N	N	70	500	50.0	20	300	100	>1,000	15	<50	70	700	20	200	<200	200	100	1,500	N	>1,000	--	--	--	--
76EK394P	67 38 30	158 22 36	P5	>20.00	2.00	1.50	>1.000	2,000	N	N	70	1,000	2.0	100	200	500	>1,000	N	<50	200	50	30	N	<200	200	N	300	N	>1,000	--	--	--	--
76EK403P	67 34 36	158 17 48	P6	20.00	1.00	10.00	>1.000	>5,000	N	N	50	>5,000	30.0	50	100	300	>1,000	50	<50	100	500	30	100	700	200	200	1,500	<500	>1,000	--	--	--	--
76EK539P	67 31 35	156 14 44	P7	>20.00	1.00	5.00	>1.000	>5,000	N	N	50	700	2.0	500	150	700	200	10	<50	700	100	20	N	<200	200	N	150	<500	300	--	--	--	--
76EK604P	67 23 22	156 20 36	P8	20.00	2.00	5.00	>1.000	3,000	N	N	30	3,000	2.0	100	150	70	150	N	<50	100	100	30	N	500	200	N	150	500	500	--	--	--	--
76EK605P	67 22 18	156 14 17	P9	15.00	3.00	7.00	>1.000	2,000	N	N	70	700	2.0	100	100	150	500	N	<50	50	70	50	N	500	300	N	150	<500	500	--	--	--	--
76EK608P	67 25 36	156 30 11	P10	15.00	2.00	10.00	>1.000	3,000	N	N	<20	>5,000	2.0	20	50	50	700	N	<50	20	70	20	20	1,000	200	N	150	<500	500	--	--	--	--
76EK609P	67 28 42	156 32 12	P11	>20.00	3.00	5.00	.300	1,000	5.0	500	50	3,000	2.0	200	50	1,000	200	50	<50	500	70	10	N	<200	100	N	500	1,000	150	--	--	--	--

STREAM SEDIMENT SAMPLES

sample	LATITUDE	LONGITUD	map	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR	AA-AU-P	AA-CU-P	AA-PB-P	AA-ZN-P
76EK101	67 54 35	158 54 44	1	7.00	1.50	.70	.500	1,000	N	N	150	5,000	3.0	20	100	50	50	N	N	70	20	10	N	200	200	N	50	<200	200	N	30	20	120
76EK103	67 54 15	158 49 54	2	7.00	1.50	1.50	.500	700	1.0	N	200	5,000	5.0	20	100	70	50	N	N	70	70	15	N	200	300	N	50	200	200	N	60	30	170
76EK102	67 54 11	158 49 59	3	7.00	1.50	.30	.300	700	1.0	N	150	5,000	3.0	15	70	70	50	N	N	70	50	10	N	200	300	N	50	<200	200	N	55	30	140
76EK100	67 54 10	158 55 18	4	10.00	5.00	10.00	.700	1,000	N	N	150	1,000	3.0	30	100	50	70	N	N	70	30	15	N	200	200	N	30	<200	200	N	25	40	75
76EK99	67 52 32	158 56 49	5	7.00	1.00	1.00	.500	1,000	N	N	200	1,000	3.0	30	70	50	50	<5	<20	70	30	20	N	100	200	N	30	<200	200	N	35	20	180
76EK104	67 52 15	158 54 42	6	7.00	1.50	1.00	.300	2,000	N	N	200	2,000	3.0	30	100	70	50	10	N	100	50	15	N	200	200	N	20	200	200	N	40	30	180
76EK98	67 52 10	158 58 40	7	7.00	1.50	3.00	.500	1,000	N	N	200	500	3.0	30	70	50	50	N	<20	70	50	20	N	100	150	N	30	<200	150	N	30	35	140
76EK374	67 52 59	158 26 12	8	5.00	1.00	1.00	.300	1,000	N	N	100	700	1.0	30	150	20	50	N	<20	70	20	15	N	100	150	N	30	<200	300	N	10	15	80
76EK57	67 48 11	158 18 17	9	3.00	1.50	10.00	.200	700	N	N	100	300	2.0	20	50	15	70	N	<20	50	15	10	N	200	100	N	30	N	500	N	20	25	50
76EK59	67 46 15	158 23 21	10	5.00	1.00	1.00	.300	700	N	N	150	500	2.0	30	50	15	70	N	<20	70	15	15	N	100	100	N	30	N	200	N	15	15	65
76EK76	67 51 28	158 43 59	11	7.00	1.50	1.00	.300	1,000	N	N	150	1,000	2.0	30	70	30	50	<5	<20	70	20	15	N	200	200	N	20	<200	200	N	25	20	110
76EK375	67 52 4	158 44 8	12	5.00	1.00	.50	.500	700	N	N	100	700	2.0	30	100	20	50	N	<20	70	20	15	N	N	150	N	30	N	300	N	15	15	65
76EK163	67 49 5	156 43 27	13	10.00	2.00	5.00	.500	700	N	N	200	2,000	3.0	30	100	100	50	20	<20	70	50	15	N	200	200	N	30	200	100	N	55	30	170
76SWH05	67 46 45	158 54 44	14	3.00	3.00	20.00	.200	500	N	N	<10	200	<1.0	10	70	20	50	N	<20	20	10	5	N	500	100	N	15	N	30	N	10	35	25
76EK376	67 48 55	158 42 12	15	5.00	1.00	.50	.500	700	N	N	100	500	2.0	30	100	20	50	N	<20	70	20	15	N	N	150	N	30	N	300	N	15	15	90
76EK77	67 47 39	158 44 57	16	7.00	1.50	.70	1,000	700	N	N	200	300	2.0	30	70	20	70	N	<20	50	20	15	N	<100	150	N	15	<200	200	N	15	15	70
76EK78	67 47 12	158 48 34	17	5.00	5.00	5.00	.200	1,000	N	N	100	500	2.0	20	50	20	50	N	<20	70	20	15	N	100	100	N	20	N	50	N	30	40	70
76EK79	67 45 28	158 48 15	18	1.50	5.00	20.00	.100	500	N	N	10	70	<1.0	<5	30	<5	<20	N	<20	10	10	<5	N	700	50	N	10	N	20	N	10	65	10
76EK80	67 44 36	158 48 33	19	2.00	2.00	20.00	.100	1,000	N	N	10	70	<1.0	5	30	<5	30	N	<20	10	20	<5	N	500	50	N	10	N	20	N	10	75	25
76EK81	67 43 44	158 47 39	20	5.00	1.50	10.00	.200	700	N	N	100	300	2.0	20	70	20	50	N	<20	50	20	15	N	200	150	N	50	200	70	N	25	30	55
76EK82	67 41 30	158 52 53	21	5.00	1.50	2.00	.300	700	N	N	100	300	2.0	20	70	20	50	N	<20	50	20	15	N	100	150	N	30	<200	100	N	25	25	60
76EK83	67 41 26	158 52 54	22	5.00	1.50	3.00	.200	1,000	N	N	100	300	2.0	20	70	20	50	N	<20	70	20	15	N	100	150	N	50	N	100	N	25	20	65
76EK84	67 41 12	158 56 59	23	7.00	1.50	10.00	.300	1,000	N	N	150	500	2.0	30	50	30	200	N	<20	70	30	15	N	300	150	N	30	N	150	N	30	30	70
76EK359	67 40 22	158 58 24	24	5.00	1.00	.20	.200	700	N	N	100	500	2.0	30	70	30	50	N	<20	70	20	15	N	100	100	N	30	N	200	N	20	15	70
76MD165G	67 39 23	158 58 55	26	10.00	1.50	.50	.500	700	N	N	100	500	3.0	30	100	50	50	N	<20	70	20	15	N	100	150	N	20	<200	300	N	25	15	65
76EK358	67 39 2	158 59 17	27	3.00	1.50	2.00	.300	700	N	N	150	500	2.0	20	50	10	100	N	<20	20	20	10	N	100	50	N	30	N	700	N	25	20	40
76EK356	67 38 58	158 59 8	28	7.00	1.00	.20	.300	700	N	N	100	500	2.0	20	70	50	70	N	<20	70	20	15	N	100	150	N	30	N	150	N	25	15	60
76EK353	67 35 22	158 59 48	29	10.00	1.50	.20	.500	700	N	N	100	700	3.0	30	150	50	50	N	<20	70	30	20	N	100	150	N	70	N	200	N	35	20	80
76EK354	67 25 23	158 59 32	30	10.00	1.50	.20	.500	1,000	N	N	150	500	3.0	50	100	50	70	N	<20	50	30	20	N	100	150	N	30	N	150	N	30	20	65
76EK357	67 39 3	158 58 59	31	10.00	1.50	.15	.500	1,000	N	N	100	500	2.0	30	150	50	50	N	<20	70	20	20	N	100	150	N	30	N	100	N	20	15	75
76MD164Y	67 38 21	158 57 15	32	7.00	1.50	.20	.300	700	N	N	100	300	3.0	30	100	50	50	N	<20	70	20	15	N	100	150	N	20	<200	100	N	25	15	60
76MD164X	67 38 20	158 57 2	33	10.00	1.50	.20	.500	1,000	N	N	150	700	3.0	50	150	100	200	N	<20	100	30	20	N	100	150	N	50	<200	300	N	30	20	75
76EK366	67 37 59	158 53 44	34	7.00	1.50	.20	.300	1,000	N	N	100	300	2.0	30	100	50	100	N	<20	70	20	20	N	<100	100	N	30	N	100	N	25	20	65
76EK360	67 40 45	158 56 12	35	5.00	1.50	1.00	.300	700	N	N	100	500	2.0	30	70	20	50	N	<20	50	20	15	N	<100	100	N	50	N	150	N	20	20	65
76EK362	67 41 26	158 52 0	36	5.00	.70	.50	.500	500	N	N	100	200	2.0	20	50	15	100	N	<20	30	10	10	N	N	100	N	30	N	300	N	10	5	30
76EK58	67 46 11	158 29 12	37	5.00	1.00	.50	.200	700	N	N	100	500	2.0	20	50	10	100	N	<20	50	15	15	N	100	100	N	20	N	70	N	15	20	60
76EK369	67 40 41	158 25 41	38	7.00	1.50	.70	.300	1,500	N	N	150	700	1.5	20	50	20	50	N	<20	70	10	15	N	<100	150	N	20	N	150	N	15	15	60
76EK398	67 39 57	158 27 20	39	10.00	1.00	.70	.700	1,000	N	N	100	500	1.0	30	100	50	70	N	<20	100	20	20	N	N	200	N	50	<200	700	N	20	20	60
76EK368	67 39 39	158 34 24	40	15.00	1.50	.50	.300	1,500	N	N	100	300	1.5	20	50	20	50	N	<20	70	20	10	N	<100	150	N	50	N	500	N	15	10	50
76EK60	67 38 36	158 22 11	41	5.00	1.50	.50	.300	700	1.5	N	100	300	2.0	30	50	15	50	N	<20	70	10	15	N	100	100	N	30	N	100	N	20	15	60
76EK394	67 38 30	158 22 40	42	10.00	.70	.50	.700	300	2.0	N	200	3,000	1.0	10	300	30	100	50	<20	30	50	20	N	100	1,000	N	70	<200	500	N	15	30	30
74MD114X	67 38 4	158 33 17	44	5.00	1.00	.07	.300	500	N	N	10	150	<1.0	15	70	10	20	N	<20	20	<10	10	N	N	70	N	15	N	70	N	--	--	50
74MD113X	67 37 56	158 33 6	45	3.00	1.00	.07	.300	500	N	N	10	150	<1.0	15	50	15	30	N	<20	20	10	10	N	N	70	N	30	N	70	N	--	--	60
76MD226	67 37 32	158 30 29	46	7.00	1.50	.70	.500	700	N	N	200	300	2.0	20	70	50	50	N	<20	70	30	15	N	200	100	N	50	<200	200	N	20	15	50
74MD112X	67 37 32	158 30 29	47	5.00	1.00	.50	.300	500	N	N	30	150	1.0	15	70	20	30	N	<20	30	15	15	N	100	70	N	30	N	70	N	--	--	65
74MD111X	67 36 50	158 28 9	48	2.00	.70	.10	.300	300	N	N	10	100	<1.0	5	30	5	30	N	<20	15	<10	5	N	N	30	N	20	N	200	N	--	--	30
76MD179	67 52 28	156 17 35	48	10.00	2.00	.20	.700	1,000	N	N	150	700	3.0	30	200	70	50	N	<20	100	30	20	N	100	150	N	50	<200	500	N	25	20	90
76EK61	67 38 38	158 21 53	49	5.00	1.50	1.50	.300	700	N	N	70	300	2.0	20	50	15	70	N	<20	70	15	15	N	100	100	N	150	N	50	N	15	20	55
74MD110X	67 35 34	158 25 47	50	5.00	1.00	.20	.300	500	N	N	30	150	<1.0	15	50	10	20	N	<20	20	10	10	N	N	50	N	20	N	100	N	--	--	45
74MD109X	67 33 59	158 26 40	51	3.00	1.00	.10	.300	500	N	N	20	150	<1.0	15	50	10	20	N	<20	20	10	10	N	N	70	N	30	N	150	N	--	--	40
74MD108X	67 33 20	158 27 15	52	5.00	1.00	.10	.300	500	N	N	20	150	<1.0	10	50	10	20	N	N	20	15	10	N	N	70	N	30	N	100	N	--	--	40
74MD107X	67 33 6	158 27 17	53	5.00	1.00	.10	.500	700	N	N	50	200	2.0	15	100	30	30	N	<20	50	15	15	N	N	100	N	20	N	150	N	--	--	70
74MD106X	67 33 3	158 27 6	54	5.00	1.00	.10	.300	300	N	N	20	150	1.0	10	50	15	30	N	<20	20	<10	10	N	N	70	N	20	N	200	N	--	--	40
732158	67 32 39	158 23 48	55	5.00	2.00	.70	.500	500	N	N	70	300	1.0	15	30	20	50	N	N	30	20	15	N	N	100	N	30	N	200	--	15	20	70
732157	67 32 49	158 20 35	56	1.00	.70	2.00	.200	300	N	N	10	150	5.0	5	20	20	50	N	20	10	30	5	<10	N	30	N	30	N	150	--	10	45	40
732140	67 33 43	158 17 43	57	5.00	1.00	.20	.500	500	N	N	30	1,000	7.0	15	50	30	100	30	70	20	100	20	15	N	100	N	50	N	100	--	30	100	90
732139	67 33 48	158 17 3	58	5.00	1.00	.20	.300	1,000	.5	N	50	700	7.0	20	30	50	150	15	50	30	150	15	10	100	200	N	30	<200	200	--	40	55	110
732156	67 34 24	158 15 24	59	5.00	1.00	.50	.200	1,000	1.0	N	50	1,500	7.0	10	30	30	70	30	20	30	300	15	N	100	150	N	15	<200	100	--	40	270	180
76EK62	67 38 14	158 19 56	60	10.00	.70	.50	.200	700	1.5	N	100	1,000	2.0	15	70	50	50	10	<20	70	50	15	N	100	150	N	200	<200	70	N	40	45	90
76EK63	67 38 9	158 19 49	61	5.00	1.00	.50	.200	700	N	N	100	1,000	2.0	20	50	30	50	10	<20	70	50	10	N	<100	150	N	30	<200	70	N	30	45	110
76EK67	67 36 38	158 14 8	62	7.00	1.50	1.00	.200	1,000	2.0	N	100	1,500	5.0	20	50	100	70	50	<20	70	150	10	N	200	200	N	20	1,000	70	N	75	190	100
732155	67 34 44	158 13 35	63	7.00	2.00	1.00	.300	2,000	2.0	N	70	2,000	5.0	30	50	200	70	30	20	70	500	15	15	100	200	N	30	700	150	--	110	270	500
76EK68	67 36 42	158 14 12	64	7.00	1.50	1.00	.200	3,000	N	N	150	500	3.0	30	70	50	150	<5	<20	70	100	15	N	200	150	N	100	<200	150	N	35	65	95
732154	67 35 30	158 10 0	65	3.00	1.00	1.00	.200	500	N	N	30	700	7.0	10	30	20	70	N	70	30	70	10	150	N	150	N	70	N	300	--	15	55	165
76EK69	67 37 50	158 12 44	66	5.00	1.00	1.50	.200	2,000	N	N	100	700	3.0	20	50	15	50	N	<20	50	50	10	N	200	150	N	30	<200	70	N	15	30	75
76EK370	67 43 42	158 20 48	67	5.00	.70	.30	.300	1,000	N	N	100	300	1.5	20	30	10	50	N	<20	50	10	10	N	<100	100	N	20	N	200	N	10	15	50
76EK75	67 38 9	158 0 29	68	5.00	1.50	10.00	.500	1,000	N	N	100	500	3.0	10	50	15	50	N	N	20	50	10	150	200	100	N	50	<200	700	N	10	30	25
732153	67 33 47	158 11 4	69	5.00	1.00	.20	.200	1,000	.5	N	70	1,500	7.0	20	30	30	70	30	50	30	200	10	N	N	150	N	20	N	200	--	30	125	130
732138	67 33 17	158 9 5	70	2.00	.70	.30	.200	500	N	N	30	300	7.0	10	20	10	70	N	50	15	50	5	10	N	70	N	30	N	200	--	10	55	60
732137	67 33 10	158 10 9	71	2.00	.70	.20	.100	500	N	N	30	200	7.0	7	20	10	70	N	70	15	70	7	10	N	50	N	30	N	150	--	5	50	80
732148	67 32 16	158 11 11	74	2.00	10.00	>20.00	.100	500	N	N	<10	100	N	10	30	15	20	N	N	30	20	7	N	300	50	N	15	N	70	--	10	40	25
732144	67 32 20	157 12 29	75	2.00	10.00	>20.00	.100	500	N	N	10	150	1.0	7	30	5	N	N	N	10	30	5	N	200	30	N	15	N	50	--	5	40	10
732143	67 32 20	158 14 32	76	2.00	2.00	2.00	.200	500	N	N	<10	300	7.0	5	20	10	50	N	50	15	50	5	10	N	50	N	30	N	100	--	10	45	65
732142	67 31 58	158 15 11	77	3.00	7.00	>20.00	.200	500	N	N	<10	200	N	10	30	15	N	N	N	30	10	5	N	300	50	N	15	N	30	--	10	45	25
732141	67 31 54	157 15 17	78	5.00	2.00	5.00	.500	500	N	N	70	300	2.0	15	50	30	70	N	20	50	30	10	N	300	150	N	70	N	150	--	20	25	105
732145	67 30 44	158 14 44	79	5.00	.70	.10	.700	300	N	N	70	300	1.0	15	30	20	70	N	20	30	30	15	N	N	100	N	100	N	1,000	--	15	20	50
732146	67 31 9	158 11 48	80	5.00	2.00	20.00	.500	500	N	N	30	300	1.0	15	100	30	20	N	N	50	20	15	N	300	100	N	20	N	100	--	20	30	85
732147	67 31 36	158 9 46	81	5.00	1.00	20.00	.300	500	N	N	50	500	1.0	15	50	30	30	N	N	50	50	15	N	300	100	N	30	N	150	--	10	40	60
732149	67 31 55	158 8 3	82	3.00	2.00	20.00	.300	500	N	N	50	200	1.0	10	50	30	20	N	N	30	30	15	N	200	100	N	20	N	100	--	20	40	65
732151	67 32 11	158 6 17	83	2.00	2.00	20.00	.100	300	N	N	10	150	N	10	30	15	30	N	N	30	10	7	N	300	50	N	20	N	100	--	10	30	50
732150	67 32 30	158 3 56	84	2.00	2.00	20.00	.100	200	N	N	N	70	N	7	30	10	20	N	N	20	N	5	N	300	30	N	10	N	70	--	10	45	20
732152B	67 33 7	158 5 44	85	2.00	10.00	>20.00	.100	500	N	N	<10	70	N	7	30	15	N	N	N	20	10	5	N	200	30	N	10	N	30	--	5	35	20
732152A	67 33 5	158 5 44	85	5.00	.70	2.00	.500	500	N	N	<10	300	3.0	7	10	7	70	N	N	5	30	15	10	100	30	N	50	N	150	--	--	--	--
76EK70	67 34 22	158 5 35	86	3.00	5.00	10.00	.150	1,000	N	N	100	300	1.5	7	50	10	50	N	<20	50	20	10	N	300	70	N	20	N	50	N	25	45	50
76EK74	67 37 19	157 57 2	87	5.00	1.50	3.00	.300	1,000	N	N	100	700	1.0	20	70	50	50	N	<20	30	20	15	N	100	100	N	30	<200	100	N	20	20	60
76EK73	67 34 18	158 0 15	88	10.00	1.50	.50	.500	1,000	N	N	150	1,000	2.0	30	100	70	50	N	<20	70	30	20	N	<100	200	N	50	<200	150	N	45	25	150
76EK71	67 33 2	158 1 29	89	2.00	5.00	20.00	.150	300	N	N	20	70	<1.0	10	50	10	50	N	<20	30	20	5	N	700	30	N	10	N	30	N	10	65	15
76EK72	67 33 37	157 59 23	90	7.00	3.00	10.00	.300	2,000	N	N	100	1,000	2.0	20	70	70	50	N	<20	70	30	20	N	200	200	N	30	<200	150	N	30	30	95
76EK269	67 35 30	157 53 29	91	10.00	1.00	.50	.700	700	N	N	200	300	3.0	30	70	50	70	N	<20	70	20	20	N	<100	150	N	50	<200	300	N	15	10	60
76EK270	67 35 30	157 53 21	92	5.00	.70	1.50	.200	500	N	N	100	500	2.0	20	50	30	100	N	<20	50	20	10	N	<100	100	N	10	<200	50	N	25	15	90
76EK271	67 33 24	157 52 45	93	5.00	1.50	10.00	.150	1,000	N	N	100	500	2.0	20	50	30	50	N	<20	70	30	10	N	<100	150	N	10	N	30	N	25	25	80
76EK272	67 33 38	157 49 50	94	7.00	1.00	1.00	.300	500	N	N	200	700	3.0	30	100	70	50	N	<20	70	30	20	N	<100	200	N	30	N	200	N	40	20	190
76EK273	67 33 8	157 48 19	95	3.00	2.00	10.00	.200	700	N	N	100	500	2.0	15	50	15	50	N	<20	50	20	10	N	<100	150	N	20	N	200	N	10	25	40
732179	67 31 54	157 50 41	96	5.00	5.00	20.00	.500	500	N	N	50	1,000	N	10	150	30	20	N	N	150	10	7	N	100	500	N	20	N	100	--	20	20	50
732176	67 31 40	157 52 54	97	5.00	2.00	10.00	.500	500	N	N	50	200	1.0	20	50	30	N	N	N	30	20	20	N	100	150	N	15	N	100	--	20	25	60
732175	67 31 14	157 54 29	98	5.00	1.00	2.00	.700	1,000	N	N	200	500	2.0	20	50	30	70	N	20	50	20	15	N	N	150	N	50	N	700	--	35	20	60
732174	67 30 6	157 53 4	99	5.00	2.00	.20	.500	500	N	N	70	700	2.0	20	50	30	70	N	50	30	50	10	N	N	100	N	30	N	200	--	20	25	80
732177	67 30 39	157 51 20	100	2.00	1.00	2.00	.500	300	N	N	50	300	2.0	15	30	30	150	N	20	30	20	15	N	N	70	N	30	N	300	--	15	15	35
732178	67 31 23	157 50 31	101	3.00	.70	.50	.500	500	N	N	150	500	2.0	10	30	20	200	N	20	20	20	15	N	N	100	N	50	N	700	--	15	20	115
732169	67 30 3	157 48 47	102	3.00	2.00	2.00	.200	500	N	N	70	300	2.0	10	30	15	50	N	N	15	10	15	N	N	70	N	20	N	200	--	10	10	70
732170	67 28 47	157 32 59	104	5.00	.70	.10	.500	500	N	N	50	700	2.0	10	30	15	100	N	N	30	20	15	N	N	100	N	50	N	200	--			
732172	67 27 7	157 49 50	105	10.00	2.00	.20	.700	1,000	N	N	100	1,000	3.0	30	150	30	70	N	20	50	70	30	N	N	150	N	50	N	200	--	30	35	80
732171	67 28 32	157 49 14	106	3.00	1.00	<.05	.200	200	N	N	70	700	3.0	10	30	30	50	N	N	10	70	20	10	N	70	N	50	N	150	--	20	65	25
732164	67 25 47	157 50 8	107	3.00	7.00	10.00	.200	500	N	N	30	300	1.0	15	50	30	N	N	N	30	30	15	N	100	100	N	50	N	100	--	20	40	55
732163	67 25 27	157 49 0	108	10.00	2.00	.70	.700	1,000	N	N	150	700	3.0	30	150	50	50	N	20	100	50	30	N	N	200	N	50	N	500	--	30	35	125
732165	67 25 50	157 46 54	109	5.00	1.00	.30	.300	500	N	N	100	500	2.0	15	30	20	50	N	N	30	20	15	N	N	100	N	30	N	200	--	15	20	90
732166	67 27 19	157 43 50	110	5.00	1.00	.10	.200	500	N	N	70	700	2.0	20	30	30	70	N	20	30	50	20	N	N	100	N	30	N	200	--	20	25	130
732167	67 28 32	157 42 24	111	5.00	1.00	.10	.200	500	N	N	70	500	2.0	15	30	30	70	N	20	30	30	20	N	N	100	N	30	N	200	--	25	30	190
732168	67 29 57	157 43 45	112	5.00	1.00	.70	.500	500	N	N	150	700	1.0	15	30	30	70	N	N	20	20	15	N	N	70	N	70	N	700	--	15	15	70
732180	67 29 9	157 39 56	113	3.00	.70	.20	.300	500	N	N	50	300	1.0	15	30	20	70	N	N	30	10	15	N	N	70	N	30	N	200	--	15	25	120
76EK304	67 27 28	157 6 17	113	3.00	1.00	.50	.500	700	N	N	100	300	2.0	10	30	20	50	N	<20	20	20	10	N	<100	100	N	50	N	150	N	15	20	40
76EK306	67 27 29	157 36 39	115	5.00	2.00	1.50	.500	700	N	N	100	300	3.0	15	50	7	100	N	<20	15	15	15	N	100	100	N	50	N	10	N	10	15	30
732181	67 27 44	157 38 20	116	3.00	2.00	3.00	.500	300	N	N	70	150	1.0	10	20	7	30	N	N	10	10	10	N	N	70	N	50	N	500	--	5	10	30
732182	67 26 50	157 38 39	117	5.00	1.00	.10	.300	300	N	N	70	700	3.0	15	30	20	30	N	20	15	30	15	10	N	70	N	30	N	150	--	10	20	90
732183	67 25 18	157 40 18	118	5.00	2.00	.20	.500	500	N	N	100	1,000	2.0	15	50	30	70	N	20	30	50	30	N	N	150	N	30	N	300	--	10	30	50
732184	67 24 7	157 36 29	119	3.00	1.00	.20	.300	500	N	N	100	700	2.0	15	30	20	70	N	20	30	30	10	N	N	100	N	30	N	200	--	10	20	65
732185	67 27 44	157 34 40	120	3.00	1.00	1.00	.200	500	N	N	70	300	2.0	15	30	30	70	N	N	20	20	15	N	N	70	N	30	N	150	--	20	30	170
732186	67 27 43	157 31 11	121	3.00	1.00	.10	.200	300	N	N	70	700	2.0	15	30	15	50	N	20	30	20	15	N	N	70	N	30	N	300	--	10	10	80
732188	67 27 50	157 29 44	122	5.00	2.00	.20	.500	500	N	N	50	500	2.0	15	30	30	50	N	20	30	30	15	N	N	100	N	30	N	300	--	20	30	125
732189	67 28 37	157 28 50	123	7.00	2.00	.20	.500	700	N	N	50	1,000	3.0	15	50	30	50	N	20	20	70	30	N	100	150	N	50	N	200	--	20	25	65
732190	67 28 19	157 26 54	124	5.00	2.00	.20	.500	300	N	N	50	1,000	3.0	15	30	30	70	N	20	30	50	30	N	N	150	N	30	N	150	--	20	39	190
732192	67 28 47	157 25 35	125	3.00	1.00	.07	.200	300	N	N	50	700	2.0	30	30	30	70	N	N	30	30	15	N	N	70	N	30	N	150	--	25	30	20
732191	67 28 50	157 24 47	126	2.00	1.00	.10	.500	300	N	N	70	700	2.0	15	30	30	50	N	20	30	30	20	N	N	100	N	30	N	150	--	20	25	170
732193	67 29 35	157 30 39	127	3.00	1.00	2.00	.200	300	N	N	70	300	1.0	10	30	15	50	N	N	20	20	15	N	N	70	N	20	N	150	--	30	20	145
732194	67 29 38	157 30 47	128	5.00	2.00	2.00	.700	500	N	N	100	300	2.0	15	50	20	70	N	20	30	30	20	N	N	100	N	50	N	200	--	10	15	110
732195	67 31 9	157 33 29	129	2.00	.70	.30	.200	300	N	N	100	200	1.0	7	30	15	70	N	N	10	10	7	N	N	70	N	20	N	300	--	10	10	125
76EK302	67 31 2	157 33 47	129	2.00	1.00	.70	.200	500	N	N	100	150	2.0	10	20	5	50	N	<20	20	10	5	N	<100	70	N	30	N	150	N	10	10	25
732196	67 31 15	157 33 29	131	3.00	.70	1.00	.300	500	N	N	50	700	1.0	10	30	20	70	N	N	30	10	10	N	N	100	N	20	N	150	--	20	15	70
76EK301	67 31 5	157 33 45	131	3.00	1.50	1.00	.200	700	N	N	100	1,000	3.0	20	50	30	50	N	<20	50	15	10	N	<100	150	N	30	N	150	N	20	15	60
76EK259	67 33 3	157 41 22	133	7.00	1.00	.50	.500	700	N	N	200	500	2.0	20	50	20	100	N	<20	50	20	15	N	N	100	N	50	N	500	N	10	15	45
76EK260	67 33 8	157 40 47	134	7.00	2.00	5.00	.300	700	N	N	200	500	2.0	20	70	20	100	N	<20	50	20	15	N	100	150	N	50	N	200	N	15	20	50
76EK261	67 33 33	157 41 39	135	1.00	10.00	15.00	.100	700	N	N	N	70	<1.0	N	20	5	50	N	<20	<5	10	N	N	200	30	N	10	N	30	N	5	50	15
76EK258	67 34 23	157 43 1	136	7.00	2.00	10.00	.200	700	N	N	100	500	2.0	20	50	20	100	N	<20	50	20	15	N	100	100	N	50	N	300	N	10	25	35
76EK262	67 37 10	157 49 59	137	5.00	1.50	5.00	.150	700	N	N	100	500	2.0	15	30	20	70	N	<20	30	20	7	N	100	150	N	20	N	30	N	20	20	50
76EK263	67 37 14	157 50 8	138	7.00	1.50	3.00	.200	700	N	N	150	500	2.0	20	50	30	70	N	<20	50	20	15	N	100	150	N	30	N	200	N	20	20	60
LOWER DETECTABLE LIMIT				.05	.02	.05	.002	10	.5	200	10	20	1.0	5	20	5	20	5	10	5	10	5	10	100	10	50	10	200	10	.05	5	5	5
				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	563	1.6	21	81	38	55	--	--	52	30	15	--	156	125	--	35	--	187	--	33	31	90

DISCUSSION

This table incorporates previously published geochemical data from the Alaska Division of Geological and Geophysical Surveys (Garland and others, 1973; Garland and others, 1975; Pessel, 1976), and data from samples collected in 1966 and 1976 by the U.S. Geological Survey. Geochemical analyses from the Cosmos Hills have been reported by Fritts (1969 and 1970), but are not included in this compilation.

Stream-sediment samples were taken from the finest sediment accessible in or on the banks of streams. Pan samples were taken from gravel bars, screened, and panned down to a fist-sized sample. All samples were later sieved, and analyses are of the minus 80 mesh fraction.

Semiquantitative emission spectrographic analyses are reported in the series (. . . 1, 1.5, 2, 3, 5, 7, 10, . . .), which represents the geometric midpoints of intervals with boundaries in the series (. . . 0.83, 1.2, 1.8, 2.6, 3.8, 5.6, 8.3, 12, . . .). Thus, a reported value of seven parts per million (ppm) is between 5.6 and 8.3 ppm, plus or minus the analytical error. Iron, magnesium, calcium, and titanium are reported in percent. All other elements are reported in parts per million.

Elements looked for by the emission spectrographic method but not detected in any samples, along with their lower limits of detection, are: gold .5 ppm; bismuth 10 ppm; cadmium 20 ppm; niobium 20 ppm; and antimony 100 ppm.

In addition to the emission spectrographic method, the atomic absorbtion method was used to analyze copper, lead, and zinc in most samples. Some samples have also ~~been~~ analyzed for gold by this method.

Arithmetic means and standard deviations were computed from published analyses for samples collected in 1972, 1973, and 1974, and from laboratory reports from the U.S. Geological Survey Branch of Exploration Research for samples collected in 1976. Some samples, notably the samples collected in 1966 and the 1973 Pe samples, have not been included in the calculations. These samples are relatively few in number, and their inclusion would not change the reported averages by a significant amount. For duplicate samples collected in 1972, only the published analyses were used.

No mean or standard deviation was computed for elements which had more than about 15 percent of the samples with values below measurable limits. For the rest of the elements, value of N or < were assumed to be equal to the lower limit of the lowest analytical interval for which the element can be measured. Values of > were arbitrarily assumed to be equal to the upper bound of the highest analytical interval for which the element can be measured.

Anomalous values are defined for the purposes of this report as values which are more than two standard deviations above the arithmetic mean of all samples. For elements which had too many values below measurable limits to compute an average or standard deviation, an anomaly threshold was chosen which would include about two percent of the samples.

Continental crustal average concentrations of the elements are taken from Lee and Yao (1970, table 1). These average are from rock analyses and are not meant to represent expected stream-sediment averages.

EXPLANATION OF SYMBOLS

N Not detected.

< Detected, but in lower concentration than limit shown.

> Present in concentration greater than limit shown.

-- Not measured.

___ Anomalous value (see definition above).

REFERENCES

Ellersieck, Inyo, 1978, Stream sediment geochemical sample locations in the Ambler River quadrangle, Alaska: U.S. Geological Survey Open-File Report 78-120B, scale 1:250,000.

Fritts, C. E., 1969, Geology and geochemistry in the southeastern part of the Cosmos Hills, Shungnak D-2 quadrangle, Alaska: Alaska Division of Mines and Geology, Geology Report 37, 35 p.

Fritts, C. E., 1970, Geology and geochemistry of the Cosmos Hills, Ambler River and Shungnak quadrangles, Alaska: Alaska Division of Mines and Geology, Geology Report 39, 69 p.

Garland, R. E., Pessel, G. H., Trible, T. C., and McClintock, W. W., 1973, Geochemical analysis of stream sediment samples from the Ambler River A-1, A-2, A-3, B-1, B-2, B-3, C-1, C-2, and C-3 quadrangles, Alaska: Alaska Division of Geological and Geophysical Surveys Open-File Report no. 39, scale 1:63.360, 4 sheets.

Garland R. E., Pessel, G. H., Trible, T. C., and McClintock, W. W., 1975, Geochemical analyses of stream-sediment and soil samples from Ambler River A-4, A-5, B-4, B-5, C-4, and C-5 quadrangles, Alaska: Alaska Division of Geological and Geophysical Surveys Open-File Report number 38, scale 1:63,360, 2 sheets.

Lee, Tan, and Yao, Chi-lung, 1970, Abundance of chemical elements in the earth's crust and its major tectonic units: International Geology Review, v. 12, no. 7, p. 778-786.

Pessel, G. H., 1976, Geochemistry of stream-sediment samples in southwestern Ambler River quadrangle, Alaska: Alaska Division of Geological and Geophysical Surveys Open-File Report no. 71, scale 1:200,000, 5 sheets.

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