

Table 2. Major oxide and trace element determinations and CIPW normative mineralogy for selected igneous rocks from Sleetmute C-7, D-7, and D-8 quadrangles, Alaska (Localities shown with circle on sheet 1.)

Bundtzen, Harris, Miller, Layer, and Laird

Map no. Field no. Rock type	1 91BT109 ^a Basaltic Porphyry (TKvmt)	2 91BT113 ^a Granite Porphyry (TKgp)	3 91GL51 ^b Diorite (TKgd)	4 91GL31 ^b Basaltic Andesite (TKvm)	5 91BT40 ^b Granite Andesite (TKgp)	6 91HA3 ^b Course Vitric Tuff (TKgrt)	7 91BT41 ^b Granite Andesite (TKgp)	8 90HA4 ^b Basaltic Andesite (TKvm)	9 90HA6 ^b Basaltic Andesite (TKgvm)	10 90IA7 ^b Basaltic Porphyry (TKdt)	11 90BT49 ^b Latite Tuff (TKdt)	12 90BT60 ^b Basaltic Andesite (TKvm)	13 90BT61 ^b Basaltic Andesite (TKgvm)	14 90BT63 ^a Basaltic Andesite Porphyry (TKpvm)	15 91BT73 ^a Basaltic Andesite (TKdt)	16 91BT119 ^a Basaltic Andesite (TKvm)	17 92BT120 ^a Basaltic Andesite (TKvvt)	18 90BT35B ^a Basaltic Andesite Tuff (TKdt)	19 90BT81 ^b Granodiorite (TKss)	20 91BT101 ^a Basaltic Andesite (TKvm)	21 90BT83 ^b Latite Tuff (TKdt)	22 90BT70 ^b Granodiorite Porphyry (TKssp)	23 90HA27 ^b Vitric Lithic Tuff (TKgrt)	24 90BT85B ^b Andesite (TKdt)	25 90BT121 ^b Granodiorite Porphyry (TKssp)	26 90BT109 ^a Latite Tuff (TKvt)	27 90BT108 ^b Latite (TKvt)	28 90BT107 ^b Latite (TKvt)	
SiO ₂	54.40	77.20	58.30	54.29	73.07	75.00	59.83	56.60	59.20	68.00	70.06	56.27	57.70	62.20	58.40	61.40	62.00	65.45	56.09	56.09	65.77	73.71	62.19	62.19	64.25	64.50	64.10	63.94	
Al ₂ O ₃	14.50	12.00	13.90	14.12	14.30	12.70	17.48	15.10	16.00	13.60	14.19	15.62	15.40	14.70	16.30	15.80	14.77	15.80	14.72	15.14	14.72	15.14	13.92	16.56	14.86	15.60	16.04	16.18	
Fe ₂ O ₃	3.91	0.56	2.06	2.44	0.82	0.93	2.64	2.28	2.01	1.75	1.93	2.47	2.55	2.34	2.73	2.65	2.09	0.82	2.96	2.80	2.80	1.60	2.39	1.28	2.73	1.81	2.25		
FeO	4.20	<10	4.90	5.38	0.51	1.10	3.37	5.10	5.00	2.30	1.09	4.46	4.20	4.40	2.90	1.50	3.60	3.28	4.30	4.02	4.02	2.90	0.16	3.67	3.00	3.30	3.61	3.67	
MgO	5.78	0.14	6.32	8.07	0.17	0.66	3.08	5.98	3.03	0.83	0.91	5.66	5.11	1.12	3.84	1.85	1.46	2.10	4.80	4.56	4.56	2.44	0.51	1.62	2.29	1.24	1.36	1.52	
CaO	8.40	0.40	6.61	7.57	1.44	1.51	4.97	6.53	5.36	2.47	2.51	6.26	5.83	3.65	6.84	4.04	4.04	2.88	6.44	5.89	5.89	3.32	1.14	4.17	2.84	3.00	2.88	3.67	
Na ₂ O	2.11	3.05	2.63	2.91	3.42	2.30	3.88	2.72	3.04	3.38	2.40	3.11	2.52	3.94	2.94	3.68	4.45	2.79	2.59	2.83	2.83	3.14	3.63	4.11	3.17	4.07	3.97	3.84	
K ₂ O	1.72	4.96	1.69	0.71	4.60	3.22	3.27	1.79	2.76	3.83	2.62	1.99	2.21	3.18	2.04	3.05	2.11	3.29	1.90	2.31	2.31	3.45	2.82	3.00	3.39	3.60	3.55	3.56	
TiO ₂	0.96	0.20	0.60	0.73	0.07	0.40	0.88	1.14	1.37	0.73	0.52	1.05	1.06	1.21	0.75	1.03	0.94	0.66	1.31	1.10	1.10	0.78	0.11	0.99	0.75	0.86	0.90	0.94	
MnO	0.12	0.02	0.15	0.16	0.01	0.03	0.05	0.13	0.12	0.06	0.04	0.10	0.12	0.11	0.09	0.09	0.11	0.06	0.12	0.13	0.13	0.04	0.01	0.05	0.08	0.09	0.04	0.05	
P ₂ O ₅	0.25	0.04	0.16	0.23	0.12	0.10	0.38	0.24	0.33	0.23	0.16	0.28	0.22	0.34	0.23	0.24	0.24	0.28	0.28	0.35	0.35	0.28	0.13	0.32	0.29	0.24	0.31	0.32	
LOI	2.47	1.23	2.08	1.10	0.65	1.77	0.24	2.70	1.77	2.40	1.66	1.44	1.93	2.85	2.08	1.90	2.54	2.70	3.23	4.14	4.14	1.83	2.10	1.26	2.52	0.77	1.43	0.64	
TOTAL	98.82	99.80	99.40	97.71	99.18	99.72	100.07	100.31	99.99	99.51	98.16	98.71	98.85	100.04	99.14	100.63	99.38	99.08	99.23	98.94	98.94	100.69	99.03	100.33	98.72	100.00	100.00	100.58	
Trace Elements (in ppm)																													
Cr	249	<10	507	NA	NA	41	NA	384	101	29	NA	343	NA	349	<10	174	38	32	NA	194	NA	NA	NA	NA	NA	26	NA	NA	
Rb	62	158	51	NA	NA	94	NA	86	94	147	NA	65	NA	85	178	69	106	158	NA	44	NA	NA	NA	NA	NA	125	NA	NA	
Sr	533	40	418	NA	NA	237	NA	359	332	178	NA	309	NA	348	232	571	291	327	NA	355	NA	NA	NA	NA	NA	246	NA	NA	
Y	19	23	15	NA	NA	<10	NA	17	33	46	NA	33	NA	27	68	10	34	52	NA	38	NA	NA	NA	NA	NA	26	NA	NA	
Zr	129	171	142	NA	NA	144	NA	222	286	366	NA	291	NA	266	380	136	296	341	NA	262	NA	NA	NA	NA	NA	414	NA	NA	
Nb	21	21	20	NA	NA	20	NA	18	21	18	NA	<10	NA	18	20	25	39	40	NA	31	NA	NA	NA	NA	NA	27	NA	NA	
Ba	1,530	1,820	1,620	NA	NA	1,900	NA	799	1,060	1,490	NA	900	NA	916	1,450	1,790	1,220	1,410	NA	882	NA	NA	NA	NA	NA	1,500	NA	NA	
CIPW Norms (weight/percent) ^c																													
Quartz	11.77	40.10	12.91	6.62	32.98	46.02	9.63	10.83	14.07	27.66	41.49	10.24	8.91	14.29	17.62	14.76	18.32	17.07	27.16	13.54	12.89	23.29	40.21	15.10	23.47	18.36	18.60	17.13	
Corundum	0.00	1.00	0.00	0.00	1.39	2.99	0.00	0.00	0.00	0.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	0.89	3.23	0.00	1.57	0.13	1.19	0.10		
Orthoclase	10.60	29.73	10.32	19.45	27.60	19.45	23.35	16.70	15.87	13.34	12.15	13.54	16.70	13.54	12.46	12.46	12.93	20.03	11.75	14.34	20.69	21.52	17.97	20.90	21.52	21.37	21.13		
Albite	18.62	26.18	22.99	24.67	29.39	19.89	33.01	23.74	26.34	29.50	21.07	24.51	27.09	22.11	34.47	25.71	32.08	39.04	24.32	22.94	31.69	35.24	27.98	34.83	34.22	32.64	32.64		
Anorthite	26.09	1.75	21.83	23.37	6.46	6.99	20.73	24.45	22.38	11.36	23.36	23.54	25.07	13.48	26.11	18.12	17.53	12.84	25.66	21.68	14.86	4.96	18.12	12.72	13.47	12.49	16.19		
Diopside	12.48	0.00	8.85	10.17	0.00	0.00	1.26	5.92	2.17	0.50	0.00	6.00	1.24	2.75	2.49	5.90	0.71	1.35	0.00	4.70	5.28	0.00	0.00	0.00	0.00	0.00	0.00		
Olivine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Hypersthene	12.73	0.35	19.25	22.18	0.65	2.44	10.08	18.77	12.74	3.97	2.35	15.68	17.17	16.50	6.54	9.42	4.42	7.11	9.35	14.34	12.75	9.27	1.31	7.39	9.74	6.01	7.58	7.57	
Magnetite	5.22	0.57	2.28	3.54	1.12	1.20	3.31	2.57	2.17	2.24	2.57	3.14	2.79	3.61	5.21	2.54	2.35	3.78	4.84	1.88	0.97	2.92	1.44	3.48	2.08	2.70	2.70		
Ilmenite	1.90	0.22	1.18	1.39	0.14	0.78	1.68	2.22	1.63	1.43	1.03	2.66	2.06	2.10	1.47	2.02	1.85	1.17	2.60	1.50	1.65	0.20	1.49	1.65	1.74	1.79	1.79		
Apatite	0.60	0.09	0.38	0.53	0.28	0.24	0.89	0.57	0.78	0.38	0.55	0.50	0.67	0.53	0.81	0.55	0.58	0.68	0.66	0.68	0.85	0.70	0.70	0.56	0.73	0.74	0.74		
TOTAL	100.01	99.99	99.99	96.67	100.01	100.00	100.02	99.99	100.01	99.99	100.00	100.00	100.10	100.02	100.01	99.99	100.02	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.01	100.01	100.00	100.00	
Differentiation Index ^c	40.99	96.01	46.22	58.86	89.97	85.36	62.06	45.4																					