

TABLE 2

MAP NUMBER	NYAC						LATE CRETACEOUS-EARLY TERTIARY PLUTONS						PROBABLE EARLY TERTIARY PLUTONS						PYROXENE-BEARING PLUTONS						MAFIC PLUTONS				
	1	4	5	6	8	10	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28a	28b	29						
OXIDES																													
SiO <sub>2</sub>	63.37	76.32	75.71	64.72	61.71	64.10	72.00	68.30	69.45	68.30	63.00	68.20	60.60	57.40	66.67	62.30	64.70	71.30	54.40	56.09	42.30	40.40	51.67						
Al <sub>2</sub> O <sub>3</sub>	17.36	12.27	12.72	15.51	17.38	16.20	15.10	15.30	15.36	16.30	16.00	16.80	17.60	16.90	14.95	15.20	14.70	14.90	16.70	17.28	22.00	20.80	19.42						
Fe <sub>2</sub> O <sub>3</sub>	2.30	0.54	0.14	1.57	0.61	1.90	0.60	2.10	0.68	0.20	1.90	1.50	3.20	3.60	0.71	1.40	0.80	0.40	2.30	1.85	7.70	6.80	0.84						
FeO	2.06	1.38	1.50	2.67	4.24	2.80	1.10	1.40	2.03	1.60	2.80	1.00	1.90	3.30	3.80	3.50	5.10	1.60	6.00	4.32	4.40	6.10	5.83						
MgO	1.38	0.25	0.08	2.53	2.36	2.40	0.17	1.10	0.63	1.20	2.20	0.17	1.60	3.00	1.38	3.80	1.70	1.30	5.10	4.24	3.90	5.60	4.52						
CaO	3.54	0.81	0.90	4.22	5.01	3.80	1.10	2.80	1.78	3.00	4.10	0.76	3.60	4.60	3.03	4.30	3.50	3.00	8.10	7.48	16.00	14.80	9.60						
Na <sub>2</sub> O	4.16	3.54	4.15	3.38	4.14	3.60	4.50	4.20	4.33	3.90	3.50	5.50	5.00	5.00	3.55	3.50	3.20	4.20	3.40	3.74	1.20	1.20	3.04						
K <sub>2</sub> O	3.38	4.50	4.52	3.27	2.55	3.60	4.70	4.00	4.84	4.40	3.80	5.70	6.00	4.50	4.07	3.60	3.10	1.40	1.90	1.49	0.26	0.58	0.75						
H <sub>2</sub> O+	0.15	0.08	0.10	0.08	0.01	0.93	0.46		0.02	0.40	1.00	0.42	0.34	0.93	0.11	0.74	1.10	1.90	0.72	0.56	1.80	1.90	0.15						
H <sub>2</sub> O-	0.42	0.39	0.43	0.66	0.72				0.20						0.78	0.29		0.01		0.50	0.22	1.20	1.52						
TiO <sub>2</sub>	0.53	0.18	0.15	0.67	0.79	0.64	0.07	0.44	0.45	0.42	0.61	0.22	0.54	0.66	0.75	0.81	1.00	0.30	1.00	1.09	0.78	1.40	1.48						
P <sub>2</sub> O <sub>5</sub>	0.21	0.04		0.29	0.24	0.32	0.04	0.12	0.04	0.11	0.31	0.03	0.20	0.42	0.16	0.27	0.28	0.10	0.35	0.41		0.32	0.37						
MnO	0.09	0.05	0.03	0.10	0.10	0.08	0.04	0.04	0.05	0.02	0.11	0.07	0.12	0.14	0.07	0.08	0.12		0.16	0.09	0.18	0.08	0.14						
CO <sub>2</sub>	0.76			0.05	0.02	0.05	0.21		0.01	0.05	0.60	0.05	0.05	0.18		0.02	0.50	0.01	0.05	0.79	0.04	0.02	0.81						
BaO	0.27								0.07											0.04									
Total	99.98	100.35	100.43	99.72	99.88	100.40	100.09	99.80	99.94	99.90	99.93	100.40	100.70	100.60	100.03	99.80	99.80	100.40	100.10	99.97	100.80	101.20	100.14						
ANALYST	2	1	1	4	4	6	6	5	3	6	6	6	6	6	1	8	6	7	6	3	7	7	4						
CIPW NORM																													
Quartz	18.55	35.56	31.38	19.80	11.96	17.42	25.22	21.66	20.04	20.06	17.30	12.51	0.88		20.21	13.24	23.08	32.36	2.76	8.21			4.14						
Corundum	2.51	0.20			0.35		1.19			0.05	0.81	0.39					1.55	1.28											
Orthoclase	20.01	26.52	26.62	19.39	15.09	21.18	27.75	23.68	28.62	26.03	22.47	33.54	35.19	26.43	24.07	21.38	18.36	8.24	11.21	8.86	1.53	3.43	4.43						
Albite	35.26	29.87	35.00	28.70	35.08	30.35	38.04	35.61	36.67	33.03	29.64	46.35	42.00	42.04	30.06	29.76	27.13	35.39	28.72	31.85	9.65	5.39	25.73						
Anorthite	11.90	3.75	2.72	17.55	21.34	16.38	3.87	11.10	8.19	13.86	14.53	3.25	7.80	10.31	12.85	15.21	12.40	14.11	24.65	26.12	53.57	49.66	37.13						
Diopside			1.52	1.00	1.54			1.59	0.38				6.50	6.80	0.97	3.49			10.48	2.88	19.71	17.16	2.42						
Hypersthene	4.62	2.50	1.84	8.54	11.29	8.61	1.91	2.19	3.90	5.11	8.29	0.78	1.10	3.83	8.24	11.93	11.53	5.33	15.32	14.03			17.90						
Olivine														1.85							0.85	6.58							
Magnetite	3.34	0.78	0.20	2.29	0.89	2.74	0.87	3.05	0.99	0.29	2.76	2.17	4.61	5.19	1.03	2.04	1.16	0.58	3.33	2.70	11.10	9.86	1.22						
Ilmenite	1.01	0.34	0.28	1.28	1.50	1.21	0.13	0.84	0.86	0.80	1.16	0.42	1.02	1.25	1.43	1.55	1.90	0.57	1.90	2.08	1.47	2.66	2.81						
Apatite	0.50	0.94		0.69	0.57	0.76	0.10	0.29	0.10	0.26	0.74	0.07	0.47	0.99	0.38	0.64	0.67	0.24	0.83	0.98		0.76	0.88						
Calcite	1.73			0.11	0.05	0.11	0.48		0.02	0.11	1.37	0.11	0.11	0.41		0.05	1.14	0.02	0.11	1.81	0.09	0.05	1.84						
Rutile																													
Nepheline																					0.24	2.58							

MAP NUMBER	MAFIC PLUTONS (cont.)			MISCELLANEOUS PLUTONS					
	30	31	32	34	35	36	37	38	39
OXIDES									
SiO <sub>2</sub>	45.40	42.60	41.20	75.43	66.40	71.40	64.40	60.29	47.70
Al <sub>2</sub> O <sub>3</sub>	15.90	15.60	18.70	14.25	15.50	15.40	14.40	16.68	16.40
Fe <sub>2</sub> O <sub>3</sub>	3.40	6.30	6.70	0.50	1.70	0.90	2.60	1.37	1.30
FeO	5.60	6.10	6.20		1.20	1.00	1.90	3.83	4.10
MgO	9.20	8.60	6.70	0.07	1.30	0.93	1.90	3.00	11.40
CaO	13.70	16.20	15.30	0.40	1.40	1.80	3.20	3.57	14.20
Na <sub>2</sub> O	1.50	1.20	1.40	4.84	5.60	4.80	5.10	5.00	1.40
K <sub>2</sub> O	0.86	0.41	0.45	3.85	4.20	2.60	5.00	1.90	0.06
H <sub>2</sub> O+				0.05	0.95	1.00	0.54	0.50	3.20
H <sub>2</sub> O-				0.25	0.24	0.24		1.88	
TiO <sub>2</sub>	0.96	1.30	1.20	0.08	0.38	0.30	0.40	0.67	0.32
P <sub>2</sub> O <sub>5</sub>	0.12	0.06	0.09	0.06	0.21	0.12	0.26	0.23	0.02
MnO	0.15	0.16	0.21	0.03	0.07	0.04	0.12	0.11	1.20
CO <sub>2</sub>				0.02	0.30	0.18	0.05	0.61	0.05
BaO				0.11	0.27			0.27	
Total	96.80	98.50	98.20	99.94	99.60	100.50	99.90	99.91	99.90
ANALYST	5	5	5	3	8	6	6	2	6
CIPW NORM									
Quartz				31.76	14.19	28.68	9.02	11.71	
Corundum				1.51	0.50	2.11		1.70	
Orthoclase	5.25	2.46	2.71	22.78	24.99	15.29	29.59	11.29	0.35
Albite	12.38	3.45	3.81	41.00	47.72	40.43	43.21	42.56	11.82
Anorthite	35.24	36.51	44.23	1.67	3.70	6.98	1.64	12.92	38.18
Diopside	27.25	35.42	25.90				9.71		25.13
Hypersthene				0.18	3.56	2.97	1.05	12.55	9.12
Olivine	12.21	6.54	6.45						9.57
Magnetite	5.09	9.27	9.90		2.48	1.30	3.78	2.00	1.88
Ilmenite	1.88	2.51	2.32	0.06	0.73	0.57	0.76	1.28	0.61
Apatite	0.29	0.14	0.22	0.14	0.50	0.28	0.62	0.55	0.05
Calcite				0.05	0.69	0.41	0.11	1.40	0.11
Rutile				0.05					
Nepheline	0.40	3.71	4.47						

ANALYSTS

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CHEMICAL DATA

SOME PLUTONIC ROCKS OF SOUTHWESTERN ALASKA

by  
Frederic H. Wilson

1977

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey standards and nomenclature.

WILSON, PLUTONIC ROCKS, SOUTHWESTERN ALASKA