

Table 19.--Chemical analyses of the lower member of the Quinebaug Formation and of Monson Gneiss.

	1	2	3	4	5	6	7	8	9	10
Sample	P2-324	P2-154	P1-208	P1-212	D2-220	P1-185	C-338	C-710	1871	2071
SiO ₂	50.6	51.4	63.0	73.4	72.0	72.5	46.84	49.28	64.44	73.30
Al ₂ O ₃	22.4	16.3	13.3	12.2	13.7	13.9	18.56	14.45	15.52	13.42
Fe ₂ O ₃	3.6	2.4	3.3	.86	2.3	1.3	3.61	6.03	1.45	1.04
FeO	5.1	8.7	4.1	3.4	1.9	1.3	7.38	7.65	3.96	2.52
MgO	2.8	2.8	4.4	2.5	1.2	.43	6.88	3.76	2.63	.82
CaO	5.9	7.8	5.1	.65	3.7	1.7	11.68	7.67	5.47	3.92
Na ₂ O	3.7	3.1	2.2	1.5	2.4	3.0	1.98	3.51	3.12	3.28
K ₂ O	2.6	2.1	1.7	1.6	.92	3.8	.33	1.81	1.23	.91
H ₂ O-	.08	.09	.15	.09	.06	.09	.07	.03	.12	.04
H ₂ O+	1.6	1.5	1.6	2.5	.93	.91	1.44	.77	.87	.23
TiO ₂	1.2	2.4	.58	.27	.46	.32	.90	3.00	.55	.25
P ₂ O ₅	.25	.60	.11	.06	.16	.17	.10	1.32	.12	.05
MnO	.25	.24	.15	.00	.02	.00	.21	.33	.11	.10
CO ₂	<.05	<.05	<.05	.19	<.05	<.05	.01	.07	.00	.01
Cl									.03	.01
F									.02	.02
S									.04	
BaO									.02	
Sub-total									99.70	99.92
Less O									.04	.01
TOTAL	100.	99.	100.	99.	100.	99.	99.99	99.68	99.66	99.91

CIPW Norm

Q	0.8	4	25	52	45	36		4	24	40
C	3			7	2	2				0.1
Or	15	12	10	10	6	23	2	11	7	5
Ab	31	26	19	13	20	26	17	30	26	28
An	28	24	22	2	17	7	41	18	25	19
Wo		4	1				7	4	0.6	
En	7	7	11	6	3	1	13	9	7	2
Fs	5	10	4	5	0.9	0.8	7	5	5	4
Fo							3			
Fa							2			
Mt	5	4	5	1	3	2	5	9	2	2
Il	2	5	1	0.5	1	0.6	2	6	1	0.5
Ap	0.6	1	0.3	0.1	0.4	0.4	0.2	3	0.3	0.1
Cc				0.4			0.02	0.2		0.02

Mesonorm

Q	7	9	28	46	43	34		9	25	41
C	5	1	1	4	3	3	5	4	2	1
Or	4				2	20				0.7
Ab	31	26	19	12	21	26	16	31	28	30
An	22	20	17	0.7	15	6	26	9	20	17
Bi	17	19	15	14	6	3	3	17	11	7
Act		7	6				33	9	6	
Ed							4			
Hy				6						
Mt	3	3	3	0.8	2	1	4	6	2	1
Ti	2	5	1	0.5	1	0.7	2	6	1	0.5
Ap	0.5	1	0.2	0.1	0.3	0.4	0.2	3	0.2	0.1
Cc				0.4			0.02	0.2		0.2
H ₂ O	9	9	9	14	6	5	8	5	5	1
An	41	43	48	5	42	19	63	23	41	36
An + Ab										

1-6: Quinebaug Formation; for mode, location and description see table 3. Rapid rock analysis by Leonard Shapiro, Project leader. Methods used are those described in U. S. G. S. Bulletin 114-A, supplemented by Atomic Absorption.

7 C-338: Quinebaug Formation; amphibolite; Old Mystic quadrangle (38.2N; 30.6W), Connecticut. Analysis made for R. Goldsmith; Analyst, Dorothy F. Powers.

8 C-710: Monson Gneiss; amphibolite; Niantic quadrangle (45.3N; 18.6W), Connecticut, (Goldsmith, 1967b). Analysis made for R. Goldsmith; Analyst, June W. Goldsmith.

9 1871: Quinebaug Formation; Columbia quadrangle (14.7N; 7W), Connecticut, (Snyder, 1967). Analysis made for G. L. Snyder; Analyst, Paula M. Buschman.

10 2071: Monson Gneiss; biotite-quartz-plagioclase gneiss; Marlborough quadrangle (9N; 30.6W), Connecticut. Analysis made for G. L. Snyder; Analyst, Dorothy F. Powers.

Semiquantitative spectrographic analyses

(Analysts: No. 1-6, Joseph L. Harris, 1966; 7-9, Paul R. Barnett, 1957, 1960; 10, John C. Hamilton, 1962.) *

B	.007	0	0	0	0	0	0	0	0	0
Ba	.05	.03	.02	.02	.015	.05	.003	.07	.03	.02
Be	.0001	.0001	0	0	0	.0005	0	.00015	0	0
Ce	.05	.03	0	0	0	0	0	0	0	0
Co	.003	.005	.003	.001	.0007	0	.003	.0015	.0015	.0007
Cr	.007	.01	.02	0	0	0	.007	.0015	.003	.0007
Cu	.02	.003	.0007	.002	.0007	.0003	.003	.007	.03	.0005
Ga	.002	.0015	.001	.001	.0007	.001	.0015	.0015	.0015	.0015
La	.01	.007	0	0	0	0	0	.003	0	0
Nb	.001	.0015	0	0	0	.0015	0	.0015	0	0
Nd	0	0	-	-	-	-	0	.007	0	-
Ni	.005	.007	.007	0	0	0	.003	.0015	.0015	0
Pb	0	0	0	0	0	.0005	0	.0015	0	.0015
Sc	.003	.002	.002	.001	.001	0	.007	.003	.003	.002
Sr	.03	.05	.02	.003	.02	.015	.03	.07	.03	.02
V	.01	.01	.01	.0015	.007	.0015	.03	.015	.015	.005
Y	.005	.003	.002	.005	.002	.003	.003	.003	.0015	.003
Yb	.0005	.0003	.0002	.0005	.0002	.0003	.0007	.0003	.00015	.0005
Zr	.02	.015	0	.02	.03	.015	.003	.015	.015	.003

Results are reported in percent to the nearest number in the series 1, 0.7, 0.5, 0.3, 0.2, 0.15, and 0.1, etc.; which represent approximate midpoints of interval data on a geometric scale. The assigned interval for semiquantitative results will include the quantitative value about 30 percent of the time.

Elements looked for but not detected: Ag, As, Au, Bi, Cd, Ge, Hf, Hg, In, Li, Mo, Pd, Pt, Re, Sb, Sn, Ta, Te, Th, Tl, U, W, Zn; in samples P2-324, P2-154 and 2071: Pr, Nd, Sm, Eu; in samples C-338, C-710 and 1871: Er, Dy, Gd, Ir, Os, Rh, Ru, Sm.

- Not looked for.