

GSA Data Repository Item # 8601

Title of article Blueschists and associated rocks in eastern Jamaica
and their significance for Cretaceous plate-margin development in the northern
Caribbean

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see Bulletin v. 97, p. 48 - 60

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TABLE I ROCK ANALYSES OF MT. HIBERNIA SCHISTS

	UH 13	UH 17	UH* 36a	UH 65	UH 112	UH 182	UH 186g	MR* 6	MR* 65.1	GM* 1	GM* 10
SiO ₂	47.2	52.50	37.31	47.1	43.0	48.4	47.2	66.41	47.76	47.30	40.83
TiO ₂	1.14	1.73	0.40	0.97	1.06	0.96	0.50	0.21	1.02	1.79	1.48
Al ₂ O ₃	15.3	13.1	6.66	14.0	14.2	13.8	10.9	3.78	14.19	13.82	13.44
FeO**	10.53	12.51	10.23	10.26	10.08	11.43	9.54	10.04	9.27	12.71	12.34
MnO	0.18	0.26	0.16	0.16	0.21	0.11	0.22	0.22	0.15	0.21	0.21
MgO	8.07	6.25	26.69	11.7	9.93	9.91	12.5	2.50	8.76	6.19	7.02
CaO	12.0	9.56	4.26	9.47	11.3	2.62	15.2	1.65	11.18	9.76	8.55
Na ₂ O	2.57	3.05	0.0	1.97	1.66	1.20	1.02	1.02	2.78	3.41	3.16
K ₂ O	0.16	0.16	0.0	0.10	0.15	4.30	0.06	0.02	0.03	0.09	0.16
P ₂ O ₅	0.11	0.14	0.0	0.09	0.09	0.07	0.05	0.75	0.05	0.11	0.09
LOI	4.03	2.17	n.d.	4.48	2.78	4.62	4.69	n.d.	n.d.	2.50	2.8
TOTAL	102.46	102.82	86.05	101.44	94.58	98.69	102.94	87.71	96.22	99.30	99.45

UH 13 Crossite-act-relict px-pumpellyite sphene schist

UH 17 " " " " "

UH 36a Trace crossite-act-relict px-?chlorite schist

UH 65 Act-relict px-albite-?chlorite schist

UH 112 Act-albite-epdote schist

UH 182 Fine grained hematite-quartz-?riebeckite meta-sediment

UH 186g Meta-volcanic clast in meta-conglomerate

MR 6 Riebeckite-stilpnomelane-quartz meta-chert

MR 65.1 Act-relict px-albite-clinozoisite schist

GM 1 Crossite-act-relict px-pumpellyite-sphene schist

GM 10 " " " " "

* Analysis by XRF; all others by wet methods.

** Total iron calculated as FeO.

TABLE 1 (CONTINUED)

	GM 32	BM 105	BM 110	BM 113	BM 122c	BM 131a	BM 202	BM 224a	BM 227c
SiO ₂	55.0	32.1	47.8	44.1	33.0	49.0	49.4	53.8	50.0
TiO ₂	1.13	0.36	0.82	0.94	0.50	2.12	0.80	0.83	0.79
Al ₂ O ₃	11.6	6.77	14.1	13.6	10.3	13.6	15.6	18.1	14.7
FeO**	8.78	6.59	10.17	10.44	10.62	14.40	9.00	8.31	10.89
MnO	0.26	0.18	0.19	0.20	0.21	0.30	0.20	0.19	0.24
MgO	5.75	7.56	10.9	7.00	16.2	4.32	4.58	3.58	6.80
CaO	8.05	23.2	7.97	11.1	12.0	7.99	8.32	6.50	11.2
Na ₂ O	3.06	0.32	2.29	2.86	0.23	4.15	3.29	3.76	2.36
K ₂ O	0.28	0.06	0.80	0.11	0.07	0.24	0.82	1.28	0.10
P ₂ O ₅	0.16	0.12	0.09	0.08	0.04	0.24	0.14	0.47	0.08
LOI	4.32	21.23	3.71	1.32	13.67	1.02	5.63	2.46	2.14
TOTAL	99.36	99.23	99.97	92.91	98.02	99.00	98.78	100.30	100.51

GM 32 Albite-actinolite-chlorite schist
 BM 105 Chlorite-quartz-calcite meta-sediment
 BM 110 Act-relict px-clinozoisite-chlorite schist
 BM 113 Act-epidote-albite-quartz-sphene schist
 BM 122c Impure calcareous epidote bearing schist
 BM 131a Albite-act-epidote schist
 BM 202 Banded chlorite-albite metasediment
 BM 224a Albite-act - quartz schist
 BM 227c Fine grained actinolite-chlorite-sphene schist

TABLE 2 ROCK ANALYSES OF WESTPHALIA SCHISTS

	BM 031b	BM 080a	BM 165.1c	BM 168	BM 185	BM 186	BM 208	BM 210	AWK 227	GB 6 *
SiO ₂	45.7	65.6	56.9	61.8	51.0	53.8	46.8	42.4	51.88	48.35
TiO ₂	0.70	0.85	0.81	0.76	0.97	0.83	0.80	0.76	1.80	0.87
Al ₂ O ₃	15.2	16.7	17.5	16.3	17.5	18.1	15.7	15.0	14.35	19.03
FeO**	8.50	5.80	7.44	6.07	9.65	8.31	7.16	7.56	13.38	8.99
MnO	0.20	0.10	0.14	0.14	0.3	0.19	0.19	0.25	0.29	0.23
MgO	6.08	0.90	1.76	2.56	5.37	3.58	2.04	2.27	4.37	5.62
CaO	6.66	1.06	7.55	4.90	5.88	6.60	11.1	11.5	8.41	7.15
Na ₂ O	4.71	3.97	4.29	2.54	3.47	3.76	4.68	4.58	3.67	4.49
K ₂ O	1.40	4.75	3.08	2.44	1.62	1.28	1.48	1.34	0.17	0.81
P ₂ O ₅	0.2	0.33	0.33	0.16	0.31	0.47	0.31	0.31	0.19	0.14
LOI	1.80	1.74	3.11	2.20	2.22	2.46	9.19	9.73	n.d.	1.31
TOTAL	92.09	102.44	103.74	100.54	99.34	100.30	100.25	96.34	100.00	98.00

BM031 Hornblende-epidote-quartz schist
 BM080a Muscovite-quartz schist
 BM1651c Banded quartz-plagioclase-epidote schist
 BM168 Biotite-garnet-plagioclase-quartz schist
 BM185 Hornblende-epidote-quartz schist
 BM186 Hornblende-biotite-plag.-epidote schist
 BM208 Quartz-plag.-biotite-calcite schist
 BM210 Green biotite-quartz-chlorite-calcite schist
 AWK227 Biotite-garnet-quartz schist (analysis from Lewis and Gunn 1972)
 BG 6 Hornblende-quartz-epidote schist, Green Bay

*Analysis by XRF; all others by wet methods

**Total iron calculated as FeO

TABLE 3 MICROPROBE ANALYSES OF AMPHIBOLES FROM ZONE A, UNION HILL AREA

	GM1			UH17
	a	b	c	
SiO ₂	54.72	57.25	51.05	53.02
Al ₂ O ₃	6.40	6.88	3.57	7.61
TiO ₂	0.12	0.09	0.20	0.14
Fe ₂ O ₃	9.54	8.28	14.42	7.15
FeO	12.88	13.40	12.08	16.74
MnO	0.12	0.15	0.30	0.30
MgO	7.37	6.82	8.03	5.58
CaO	3.86	2.49	8.84	1.65
Na ₂ O	4.41	5.38	0.86	6.45
K ₂ O	0.11	0.12	0.25	0.07
Total	99.53	101.33	99.6	98.71

Number of ions in unit cell

Si	7.76	8.00	7.95	8.00	7.44	8.00	7.70	8.00
Al	0.24		0.05		0.56		0.30	
Al	0.83		1.08		0.05		1.00	
Ti	0.01		0.02		0.09		0.02	
Fe ³⁺	0.77	3.71	0.86	3.87	1.58	4.97	0.78	5.08
Fe ²⁺	0.53		1.56		1.47		2.03	
Mg	0.01		0.02		0.04		0.04	
Mn	1.56		1.41		1.74		1.21	
Ca	0.59		0.37		1.38		0.26	
Na	1.22	1.83	0.72	1.10	0.24	1.67	1.81	2.07
K	0.02		0.01		0.05		0.0	

TABLE 3 (CONTINUED)

	MR8		MR10	MR26.7	MR26.9
	a	b			
SiO ₂	53.8	55.1	52.9	52.1	53.9
Al ₂ O ₃	7.5	6.3	6.6	3.9	2.8
TiO ₂	0.1	---	0.1	0.1	---
Fe ₂ O ₃	7.12	7.82	9.64	13.6	14.72
FeO	16.4	12.06	11.71	9.2	12.57
MnO	0.1	0.1	0.1	0.4	0.5
MgO	5.1	7.6	8.2	9.1	7.1
CaO	1.9	2.9	3.0	9.5	3.2
Na ₂ O	6.1	6.6	4.7	1.4	6.3
K ₂ O	0.1	0.1	0.1	0.2	0.1
Total	98.22	98.58	97.05	99.5	101.19

Number of ions in unit cell

Si	7.81	8.00	7.86	8.00	7.68	8.00	7.50	8.00	7.72	8.00
Al	0.19		0.14		0.32		0.50		0.28	
Al	1.09		0.92		0.91		0.16		0.19	
Ti	0.05		0.0		0.05		0.04		0.0	
Fe ³⁺	0.78	5.02	0.84	4.83	1.05	5.21	1.47	4.78	1.59	4.82
Fe ²⁺	1.99		1.44		1.42		1.11		1.51	
Mg	0.01		0.01		0.01		0.05		0.06	
Mn	1.10		1.62		1.77		1.95		1.47	
Ca	0.30		0.44		0.47		1.47		0.49	
Na	1.72	2.04	0.91	1.36	0.66	1.14	0.10	1.58	1.75	2.26
K	0.02		0.01		0.01		0.01		0.02	

TABLE 4 MICROPROBE ANALYSES OF SOME RELICT AUGITE IN ROCKS OF ZONE A,
UNION HILL AREA

	MR 8			MR 39		
	a	b	c	a	b	
SiO ₂	51.7	50.8	52.0	53.2	52.2	
TiO ₂	0.7	0.8	0.7	0.5	0.7	
Al ₂ O ₃	1.8	2.3	2.3	3.0	3.4	
FeO*	15.9	14.0	11.6	4.3	4.6	
MgO	12.8	13.6	14.6	16.9	16.2	
MnO	0.4	0.3	0.3	0.1	0.0	
CaO	17.6	17.9	18.3	22.0	25.4	
Na ₂ O	0.2	0.1	0.3	0.2	0.1	
K ₂ O	0.0	0.0	0.0	0.0	0.0	
TOTAL	100.9	99.8	100.1	100.2	102.6	
Number of ions in unit cell						
Si	1.9439	1.9245	1.9414	1.9367	1.8781	
Al	0.0570	2.000	0.0755	2.000	0.0633	0.1219
Al	0.0233		0.0262		0.0416	
Ti	0.0206		0.0230		0.0182	
Fe	0.5025		0.4443		0.3632	
Mg	0.7177	2.0063	0.7683	2.0063	0.8132	2.0032
Mn	0.0118		0.0109		0.0087	
Ca	0.7134		0.0724		0.7323	
Na	0.0122		0.0080		0.0247	
K	0.0014		0.0014		0.0013	

*Total Fe calculated as FeO

TABLE 4 (CONTINUED)

	<u>MR 39.4</u>		<u>GM 1</u>	<u>UH 17</u>
	<u>a</u>	<u>b</u>		
SiO ₂	52.3	52.3	50.5	51.2
TiO ₂	0.5	0.5	0.6	0.7
Al ₂ O ₃	2.8	2.6	3.2	2.2
FeO*	6.0	7.3	13.5	15.6
MgO	16.6	15.1	14.4	13.9
MnO	0.1	0.1	0.3	0.3
CaO	21.6	20.9	16.8	16.6
Na ₂ O	0.4	0.6	0.8	0.5
K ₂ O	0.0	0.0	0.0	0.0
TOTAL	100.3	99.4	100.1	101.0
Number of ions in unit cell				
Si	1.9178	2.000	1.9408	2.000
Al	0.0822		0.0592	2.000
Al	0.0395		0.0526	0.0975
Ti	0.0139		0.0145	0.0448
Fe	0.1834		0.2279	0.0165
Mg	0.9050	2.0215	0.8344	2.0120
Mn	0.0035		0.0042	0.8073
Ca	0.8486		0.8326	2.0098
Na	0.0269		0.0451	0.7801
K	0.0007		0.0007	2.0073
				0.0095
				0.6694
				0.0167
				0.0009

*Total Fe calculated as FeO