

EXPLANATORY NOTES

For more detailed table and a reference list are provided in a booklet that accompanies this map.

No.: Dyke swarm number.

SWARM NAME: A dyke swarm is a set of dykes (emplaced as subvertical sheets) of similar age that typically display a simple linear, fanning, or arcuate geometry. Nevertheless, especially in areas where there are few details concerning ages, a single name has been employed for dykes having more than one trend or age. Swarm names assigned herein or in Ernst et al. (1996) and Ernst and Buchan (2001) are underlined. An asterisk before the swarm name indicates that it is a subset of a broader dyke event. Alternate names for the swarm are in round brackets, (), Obsolete names for the swarm are in square brackets, []. Abbreviations are used to indicate sheet-like dykes (sd) and feeder dykes (fd). In addition, abbreviations identify dyke swarms that are highly deformed (de) and at intermediate to high metamorphic grade (me). The numbers >1, (>1), and (>2) indicate respectively that more than one swarm, possibly more than one swarm, or two swarms are referred to by a single swarm name. In general, swarms in the list are broadly basicic in composition, have mainly diabasic texture, and include metamorphosed equivalents. Several swarms of alkaline lamprophyre that are volatile-enriched equivalents of alkali basaltic rocks (e.g. Rock, 1991, p. 11–12, 122) have been included and labelled as alkaline lamprophyre. Some swarms of nonbasaltic composition are labelled: gabbro/norite, norite, and gabbro+diorite. In swarms in which some dykes have compositions other than basalt, a plus sign (+) precedes the additional composition. The word 'mafic' is used for dyke swarms that are known to be mafic, but have not been confirmed as basaltic in composition.

LAT and LONG: Localities of small swarms and representative localities within large swarms are given in terms of latitude (LAT) and longitude (LONG) to assist the reader in locating the swarms on the map.

AGE: Swarms are listed in approximate chronological order (oldest to youngest), except for very poorly dated swarms, which are compiled alphabetically at the end of the table, and swarms #1 and #85, for which new age information was obtained after the map was compiled. The letter 'T' indicates a standard geological interval with age range assigned on the basis of the Geological Time Chart of Okutlith (2002). Otherwise, ages (in Ma) are established by geological correlation (G), such as crosscutting relationships, by paleomagnetic correlation (M), or by isotopic dating (U = U–Pb; P = Pb–Pb; K = K–Ar; A = Ar–Ar; R = Rb–Sr; S = Sm–Nd; b = baddeleyite; z = zircon). In general, U–Pb ages are the best constrained and are thought, in most cases, to represent the age of dyke emplacement. Age determinations by other methods are commonly less well constrained and may represent age of emplacement or age of metamorphic overprinting. Other abbreviations include dykes (d), sills (s), volcanic rocks (v), and intrusions (i). A question mark indicates that the age or age correlation is uncertain.

RELATED UNIT(S): Related igneous units include volcanic rocks (v), sills (s), intrusions (i), other dyke dykes (d), and ophiolite complexes (o) that are linked to a dyke swarm entity because of a feeder relationship or identical age and geographic proximity. Note that in the case of sills and dykes, some may be significantly younger than the named related unit that they intrude. A question mark indicates uncertainty in the relationship. Only related units whose names are followed by a label (e.g. #2, #40A) are shown on the map. Labels that include a letter (e.g., #40A) do not refer to dyke swarms and hence do not appear in the column 'No.'. Obsolete related unit names are in square brackets, [].

No.	SWARM NAME	LAT (°N)	LONG (°W)	AGE (Ma)	RELATED UNIT(S)
Archean					
1	Ameralik (me; de) (>1) (norite)	64.09	51.57	Uz 3512 ± 7 (norite)	(?) Malene (d) (#2)
2	Malene (me; de)	64.00	51.50	T >2500	(?) Ameralik (d) (#1)
3	Tinnissaq (me; de)	63.56	51.08	T >2500	(?) Ameralik (d) (#1); (?) Nerunuaq (d) (#4)
4	Nerunuaq (Intra-Nuk) (me; de)	63.63	50.90	T >2500; >#5	-
5	Qaqtasiaq (Intra-Nuk) (me; de)	63.73	50.85	T >2500; >#4	-
6	Sarqarigassup Nunā (me; de)	62.71	50.32	T >2500	-
7	Ruston Lake (me)	49.14	89.78	T >2500	-
8	Badouf Lake (mafic) (me; de)	49.83	89.64	T >2500	(s, v)
9	Furur Lake (me)	50.52	89.10	T >2500	-
10	Steep Rock Lake (mafic) (de in part) (>1)	48.90	91.40	T >2500	-
11	Lake of the Woods (me; de)	49.50	94.00	T >2500	-
12	Bell River Complex	49.80	77.63	T >2500	Bell River Complex
13	Sagdlitaa Nunā Metabasite (me; de)	62.65	49.57	T (?) >2500	-
14	Last Lake	62.18	93.68	T (?) >2500	-
15	Saglek (me; de)	58.50	62.75	G 3620–3240	-
16	Tarsartóq (me; de) (>1)	65.16	50.00	U 3482–3462	-
17	Hopedale (me; de)	55.50	59.85	G 3100–2840	-
18	Woman–Confederation Assemblages (de) (>1)	51.15	92.83	G 2975–2699	Woman assemblage (v); Confederation assemblage (v)
19	Patterson Lake–Swarm 1 (de)	62.88	113.05	Uz 2734 ± 2	(?) Chan Formation (d) (#24); (?) Chan Formation (v)
20	Post-Yasinski Group	53.15	76.75	G ca. 2732–2716	-
21	Ege Bay (me)	69.50	76.00	Uz 2717 +16±13	-
22	Post-Duncan Intrusions	53.35	76.75	G ca. 2716–2699	-
23	Stillwater Complex (>norite)	45.39	110.00	Uz 2713–2703	Stillwater Complex (#23A)
24	Chan Formation (me)	62.62	114.32	>2712	Chan Formation (v); (?) Patterson Lake–Swarm 1 (d) (#19)
25	Rowan Lake, dyke (mafic)	51.07	94.11	Uz >2705 ± 8	-
26	Step nduck (sd; me)	62.95	112.25	ca. 2700	-
27	Eastern Lac Seul (mafic) (me; de)	50.30	91.90	G >2692	-
28	Ely Greenstone	47.87	92.00	R 2690 ± 80	Upper Ely Greenstone Member (s, v)
29	Patterson Lake–Swarm 2	62.88	113.05	Uz 2687 ± 1	-
30	Patterson Lake–Swarm 3	62.88	113.05	G 2684–2661	-
31	Oxli Creek Mountains	43.45	108.20	Ub 2679 ± 4	-
32	Newton Lake Formation	47.95	91.75	R 2650 ± 110	(?) Newton Lake Formation (s, v)
33	Post-Kam Group (me)	62.62	114.32	(?) 2642–2620	-
34	Dumbell Island (me; de) (>1)	56.65	61.28	in part Uz 2559 +10±8	-
35	Ptarmigan	58.00	71.30	Uzb 2505 ± 2	-
Proterozoic					
36	Iloreraaq (me; de)	70.08	50.08	T 2500–1600	-
37	Wellington Inlier	69.77	107.00	T 2500–1600; (?) ca. 1700	(?) Hadley Bay (d) (#106)
38	Kisligan Lake (Molson)	54.00	92.50	T 2500–1600; (?) = #88 (U ca. 1880)	(?) Molson (d) (#98)
39	Lac Niquit	60.75	77.30	T 2500–1600	(?) Povungnituk Group (v)
40	Sutton Inlier	54.42	84.75	T 2500–1600	(?) Sutton Inlier (s) (#40A)
41	Mirond Lake (de)	55.16	102.87	Uz 2468 ± 12	-
42	Matachewan [Hearst] (>1)	48.50	82.50	Ub 2473 +16±9; Uz 2446 ± 3	Dolbyberry (v) (#42A); Elise Mountain and Copper Cliff (v) (#42B); Thessalon (v) (#42C); East Bull Lake (v) (#42D); Stréich dyke and other gabbro/norite dykes (Vogel et al., 1998)
43	Mtassiani	52.50	73.50	U ca. 2470	-
44	Kamiak (me in part)	62.30	95.00	U ca. 2450	-
45	Du Chef (me; de)	49.50	74.00	U 2408 ± 3	-
46	Nishuk	56.00	64.70	= #468 (Uz ca. 2332)	Nishuku Complex (v) (#46A); Pallatin Complex (s) (#46B)
47	Kikkertavuk (me and to toward Makovik Province) (>1)	55.00	61.00	Ub 2235 ± 2	-
48	Malley [Conroyville]	64.00	109.50	U ca. 2230	-
49	Ungava (entries 50–52)	-	-	ca. 2230–2210	#50A
50	'Senneterre [Preisac, Abitibi]	48.50	77.25	U 2216 +8±4	Nipissing Diabase (s) (#50A)
51	'Maguire	58.00	73.00	Ub 2229 +35±20	-
52	'Klotz [New Quebec]	60.30	73.00	Uzb 2210 ± 1	-
53	Early E–W (AD1, Igavak, Kuaniic)	61.53	48.50	>#54; T 2500–1600	-
54	MD1 and BN1 (BN1 = norite) (AD2, Igavak, Kuaniic, High Mg–1)	65.00	51.00	Uz 2214 ± 10; >#55; <#53	-
55	MD2 and BN2 (BN2 = norite) (AD3, Igavak, Kuaniic, High Mg–2)	65.30	51.50	2200–1900; >#56; <#54	(?) Kangamiut NNE (d) (#80)
56	MD3 (AD4, Igavak, Kuaniic)	63.30	50.50	2200–1900; <#55	-
57	MacKay (X)	64.00	110.00	U ca. 2210	-
58	Indin NW	64.00	115.00	ca. 2200	-
59	Indin NE	64.00	115.00	ca. 2200	-
60	Dogrib	63.00	113.00	Ub 2190	-
61	Tulemuk–MacQuoid (me and de in northeast)	62.60	98.00	Ub 2190	-
62	Eastler Island, dyke (Simpson Island)	61.75	112.80	K 2170	-
63	Payno River	60.50	71.50	U ca. 2170–2160	-
64	Bicotaesing [Preisac, Abitibi]	48.00	81.30	Uz 2167 ± 2	-
65	Wind River Range	42.80	109.20	2165–1880	-
66	Avayalik (me in part, de in west) (>1)	60.00	64.30	Ub 2142 ± 2; Uz 1834 +7±3	-
67	Napakot (Hebron, Domes) (me in part, de in west) (>1)	58.60	63.00	G >2134 ± 3; K 2480	(?) Tikitagiisagak (d) (#88)
68	Tikitagiisagak	57.24	61.85	Uzb 2121 ± 1.5	-
69	Marathon (>1)	49.50	87.00	Ub 2121 +14±7; 2101 ± 2	-
70	Griffin (fd)	60.83	98.50	= #70A (Ub 2111 ± 1)	Griffin Gabbro [Hurwitz Gabbro] (s) (#70A)
71	Snowy Pass	41.25	107.00	= Snowy Pass (f) (Uz 2092 ± 9)	Snowy Pass (s, i)
72	Cauchon Lake [Molson]	55.50	96.50	Uz 2091 ± 2; Uz 2072 ± 3	-
73	Fort Frances (Kaniobas) (me and de in part)	47.30	95.00	Uz 2076 +5±4	-
74	Lac Esprit N	53.50	77.50	Uz 2069 ± 1	-
75	Lac Esprit NW	53.50	77.50	M ca. 2069	-
76	Minnesota River (Franklin)	44.53	94.88	Ub 2067 ± 1	(?) Fort Frances (d) (#73)
77	Kapusksing (>1)	48.10	82.80	A ca. 2050	-
78	Ilgusutalikuk	57.04	62.10	U ca. 2045 ± 3	-
79	Kangamiut E (norite) (>1)	66.30	51.00	some >dykes >#80A; A 1981 ± 26	(?) BN2 (d) (see #55)
80	Kangamiut NNE (me; de in north) (>1)	65.80	52.50	some >dykes <#79; Uz ca. 2040; A 2528–2021	-
81	Heane [McKinley Point]	62.20	112.40	Ub 2038 ± 3	-
82	Lac de Gras	64.50	110.20	U 2030–2023	-
83	Richmond Gulf	56.20	76.20	G >2025	-
84	Kennedy (Cherry Creek) (>pendotite) (me and de in part)	42.20	105.50	Uz 2011 ± 1 (diabase); 2005 ± 7 (pendotite)	-
85	Pickle Crow	51.50	90.10	A ca. 1880	(?) Molson (d) (#98)
86	Beechey (Bahurst)	66.50	107.00	ca. 2000	-
87	Granite Falls	44.83	95.57	ca. 2000	-
88	Minto	57.30	75.00	Uzb 1998 ± 1	-
89	Watts Group (sd)	61.83	74.08	= Watts Group (s, v) (#89A) of Purtonio ophiolite	Watts Group (s, v) (#89A) of Purtonio ophiolite
90	Post-Thompson Lake Formation	55.23	66.12	= Chance Lake–Retty Lake (Montagnais) (s); Willbob Formation (v)	Chance Lake–Retty Lake (Montagnais) (s); Willbob Formation (v)
91	Post-DTG Suite	60.20	64.50	>DTQ Suite (ca. 1910)	-
92	Inukjuak	58.50	77.50	ca. 1900	Eskimo Formation (v), Persillon Formation (v), and Nasapoka Group (v) (#92A)
93	Wabigoon	49.67	91.75	ca. 1900	-

No.	SWARM NAME	LAT (°N)	LONG (°W)	AGE (Ma)	RELATED UNIT(S)
94	Chipman (me; de)	59.45	105.10	ca. 1895	-
95	Ear Falls	50.80	93.40	M (?) 1900–1700	-
96	Fishtrap Lake	64.93	118.52	ca. 1898	Fishtrap Lake (s; sheet-like intrusions); Bloom Basalt
97	Smallwood Lake	65.60	118.00	ca. 1900–1700	-
98	Molson	55.00	97.50	Uz 1894 ± 2 – 1877 +7±4	Fox River (s) (#98A); (?) Pickle Crow (d) (#95); (?) Kisligan Lake (d) (#38); Setting Lake (s), Thompson Pt (d) (M. Hamilton, pers. comm., 2002)
99	Echo Lake Pluton (de) (d)	54.87	100.97	ca. 1880–1828	-
100	Kazan–Thirty Mile (me and de in part)	62.25	99.80	G >ca. 1832	-
101	Sparrow	61.30	110.00	U 1827 ± 4	-
102	Wantletto Lake (>lamprophyre)	48.26	90.78	K 1800	-
103	North Channel	46.40	83.50	ca. 1800	-
104	Niakok	57.40	61.67	Ub ca. 1775	-
105	McRae Lake	64.00	98.54	Ub ca. 1750	-
106	Hadley Bay	72.00	106.20	Ub ca. 1747	-
107	Cleaver	55.60	118.20	G 1783–1663; >#14	-
108	Ottah (fd)	52.35	71.10	K 1718–1591; S 1710 ± 30	Ottah (s) (#108A)
109	Dease	67.50	119.00	>Narakay (v) (Uz 1663 ± 8)	-
110	Little Grady Island	53.80	56.43	G (?) ca. 1650	-
111	Melville Bugt	73.00	55.00	R 1645 ± 35	-

Mesoproterozoic					
112	PP (Plagioclase–Phyric, MD, MD3b)	61.75	48.60	G 1630–1350	-
113	North West River	53.50	60.60	G 1622–1010	Mealy (d) (#144); (?) Naskapi (s) (#144A)
114	Western Channel Diabase	66.40	117.70	T 1600–1000; <#107 (G 1783–1663)	Western Channel Diabase (s; sheet-like intrusions)
115	Aitkin County	46.40	93.20	T 1600–1000	-
116	Uranium City (Bayerfeldge)	59.60	109.00	K 1490 ± 100	Marin Formation (s)
117	Tobacco Root–Group A	45.39	112.00	Uz ca. 1460	Moyle (Purcell) (s) (#117A); Purcell (v) (#117B)
118	Granite Mountains	42.60	107.50	Uz ca. 1460	-
119	Shabogamo	52.30	66.00	= #119A (Uz 1459 ±23±22)	Shabogamo Gabbro (s) (#119A); Michael Gabbro (sheet-like intrusions) (#120A); Indian Harbour (d) (#120)
120	Indian Harbour	54.45	57.22	= #120A (Uz 1426 ± 6)	Michael Gabbro (sheet-like intrusions) (#120A); Shabogamo Gabbro (s) (#119A)
121	Hart River	64.40	134.40	= #121A (U 1380)	Hart River (s) (#121A); Hart River (v)
122	Nipisso (gabbro/norite)	50.78	65.46	G 1371–1030	-
123	Lac Volant (>norite)	50.78	65.73	Uz 1351 ± 6	-
124	Korok	58.22	64.74	ca. 1350	Korok (sheet-like intrusions)
125	Queensborough	44.57	77.40	1350–1270	Queensborough (o) (#125A)
126	Nukassusotuk (me; de)	56.36	61.23	Uz 1328–1316	(?) Nain Plutonic Suite (i)
127	Lac Arthur	51.10	62.35	ca. 1300	-
128	Schefferville	54.80	66.80	ca. 1300	-
129	Gardar (entries 130–135)	-	-	ca. 1300–1150	Erfkaford Formation (v) (#129A)
130	'Gardar Southeast Greenland	62.00	42.30	1300–1150	-
131	'Gardar Big Feldspar (BFD)	61.40	48.04	G >#132 (ca. 1280)	-
132	'Gardar BD0	60.81	46.51	ca. 1280	Nain–LP (d) (#138) [Buchan et al., 1996b]
133	'Gardar BD1, BD2, BD3 (>1)	61.40	48.50	ca. 1280–1150	(?) Harp (d) (#139)
134	'Gardar Giant Dykes of Tugtutit	60.83	46.31	Ub 1163 ± 2	-
135	'Gardar Giant Dykes of Isortoq	61.00	47.25	(?) ca. 1163	-
136	Belmont Domain (de) (>1)	44.90	77.70	1300–1100	-
137	Nain–HP	56.25	61.40	G >#138; R 1276 ± 23; Ub >1293	-
138	Nain–LP	56.50	61.50	Ub 1280–1277	Gardar BD0 (d) (#132)
139	Harp (Shaplo)	55.00	61.50	Uzb 1273 ± 1	(?) Gardar BD1, BD2, BD3 (d) (#133)
140	Bear River	64.85	134.00	Ub ca. 1270	(?) Mackenzie (d) (#142)
141	Nutak	57.52	61.75	U ca. 1268	-