

LEGEND

NOTE: Map units uncoloured appear on Map 1213A only.

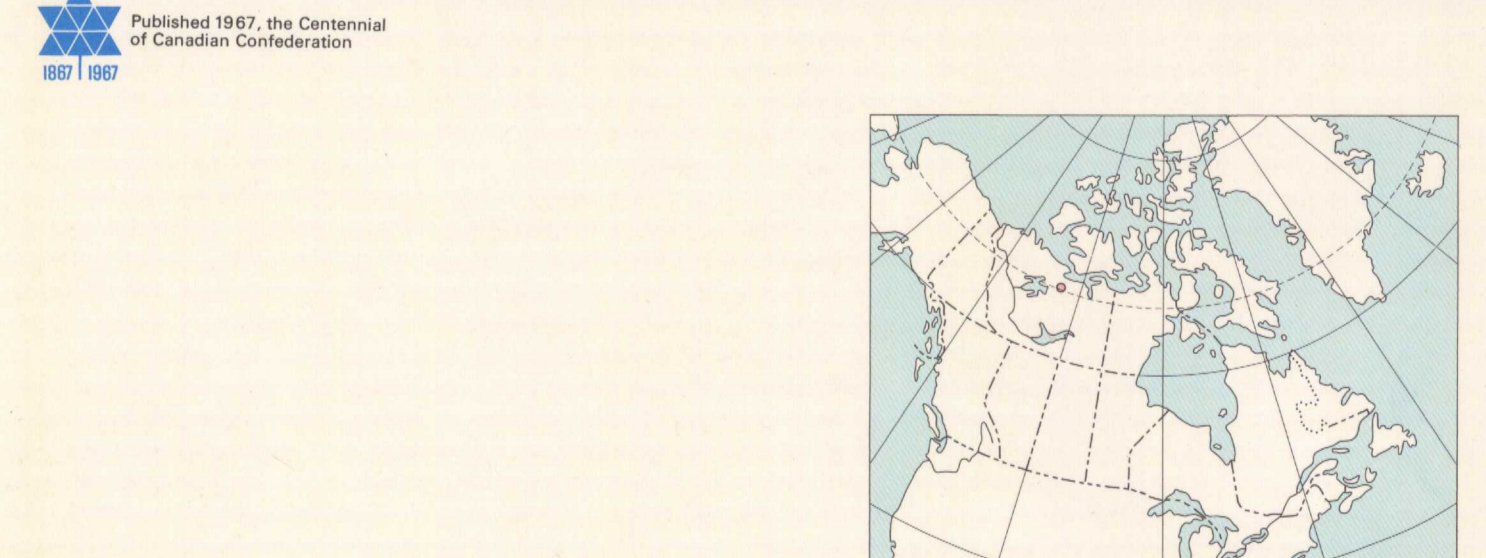
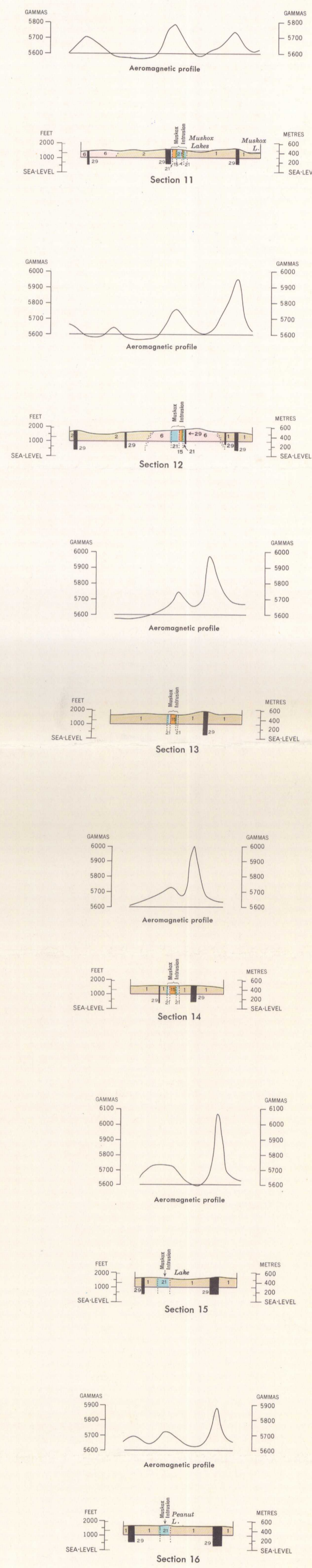
- 29 Diabase dykes, generally quartz diabase, in places granophytic. 29 interpreted from aeromagnetic survey.
- MUSKOX INTRUSION (11-28)
- 28 Intrusive (breccia fragments of 6, 7 and 1 included in granophyre)
- 27 Granophyre
- 26 Mafic granophyre
- GABBROIC UNITS
- 25 Granophytic gabbro
- 24 Granophyre-bearing gabbro. In places contains up to 15% Fe-Ti oxides
- 23 Anorthositic gabbro (olivine-bearing)
- 22 22a, gabbro; 22b, gabbro and melanogabbro (interlayered)
- 21 Bronzite gabbro (in feeder and marginal zones)
- 20 Olivine gabbro
- PHYROXENIC UNITS
- 19 Picritic websterite
- 18 18a, feldspathic websterite; 18b, feldspathic websterite and melanogabbro (interlayered in approximately equal amounts)
- 17 17a, websterite orthopyroxene paired layers. Orthopyroxene forms basal part (feldspathic); 17b, websterite. Basal part generally olive clinopyroxene 18a
- 16 16a, olive clinopyroxene (olivine content 25-50%); 16b, olive clinopyroxene (olivine content 6-25%)
- OLIVINE-RICH UNITS
- 15 Picrite (in feeder and marginal zones)
- 14 Troctolite peridotite (alternating thin olivine-rich layers and feldspathic layers with variable pyroxene content)
- 13 Feldspathic peridotite (serpentinized)
- 12 Peridotite, serpentinized
- 11 Dunite, serpentinized
- COPPERMINE RIVER SERIES (10)
- 10 Basalt
- HORNBY BAY GROUP (9-8)
- 9 Dolomite
- 8 Sandstone; minor conglomerates
- GRANITIC ROCKS
- 7 Granite
- 6 Gneissoidite
- 5 Quartz-biotite-sillitoid gneiss with paragneiss bands
- METAVOLCANIC ROCKS
- 4 Siltite volcanic rocks
- 3 Greenschist amphibolite
- METASEDIMENTARY ROCKS
- 2 Paragneiss with granitic bands
- 1 Quartz-mica schist, quartzite; minor granophytic dykes; 1a, dolomite

COMPOSITION OF MAP UNITS IN MUSKOX INTRUSION

The rocks of the Muskox Intrusion formed by crystallization differentiation of essentially one magma and therefore have the same general age. Their order of crystallization is almost exactly their sequence of occurrence from bottom to top in the intrusion. The table below gives the typical mineral constitution of the map units shown in the legend. It does not include extreme variations that may occur locally in each unit.

Map Unit	Rock Name	PRIMARY MINERALS										SECONDARY MINERALS (from olivine)				
		Olivine	Orthopyroxene	Clinopyroxene	Biotite	Hornblende	Plagioclase	K-Feldspar	Quartz	Chromite	Magnetite and ilmenite	Actinolite	Serpentine	Pyroxene	Maghemite	
27	Granophyre	-	-	-	2.5	0.2	5-15	30-50	20-25	-	0.2-1.0	0.1-0.2	-	-	-	
26	Mafic granophyre	-	-	-	5-15	1.2	10-20	15-30	10-25	-	2-5	0.1-0.2	-	-	-	
25	Granophytic gabbro	-	0.5-1	5-20	0.5-2.0	15-30	20-40	10-15	5-15	-	2-4	0.1-0.2	-	-		
24	Granophyre-bearing gabbro	-	0.5-1	10-20	0.5-2.0	15-30	20-40	10-15	5-15	-	2-4	0.1-0.2	-	-		
23	Anorthositic gabbro	5-15	-	-	-	-	45-75	-	-	-	0.1	-	-	3-12		
22a	Gabbro	5-20	20-35	0.1-0.2	0.2	45-55	0.1-0.3	0.5-0.8	-	0.1-0.3	0.1-0.2	-	-	-		
21	Bronzite gabbro	0-10	15-30	20-30	1.5	-	30-40	0.3	0.5	-	0.5-2.0	0.2-0.3	0.5	0.5		
20	Olivine gabbro	5-15	0.5	40-55	-	-	35-50	-	-	-	1-2	0.5	-	-		
19	Picritic websterite	5-25	10-20	30-50	0.5-2.0	-	15-30	0.1-0.5	0.5-0.8	0.5-1.0	-	0.5	2-10	0.2-0.3		
18a, b	Feldspathic websterite	5-25	10-20	30-50	0.5-2.0	-	15-30	0.1-0.5	0.5-0.8	0.5-1.0	-	0.5	2-10	0.2-0.3		
17a, b	Melanogabbro	5-20	40-50	0.1-0.5	-	-	25-35	0.5-1.0	0.5-1.0	-	0.1-0.2	-	-	-		
16a, b	Websterite	15-40	60-75	0.1-0.5	-	-	1.5	0.1-0.2	-	0.1-0.2	0.1-0.2	-	-	-		
15a	Orthopyroxene	70-80	5-15	0.1-0.5	-	-	10-15	0.1-0.2	-	0.1-0.2	0.1-0.2	-	-	-		
14a	Olivine clinopyroxene	5-20	0.5	50-85	-	-	0.5	-	-	0.5-1.0	0.1-0.2	-	1-10	0.2-0.3		
14b	Picrite	25-50	10-20	10-20	3-8	-	15-30	-	-	0.5-2.0	0.1-0.2	-	2-20	1.5		
14	Troctolite peridotite	40-60	1-5	1.2	0.1	-	20-40	-	-	0.2-0.3	0.1-0.2	-	20-70	0.2		
13	Feldspathic peridotite	50-70	5-10	10-25	0.1-0.5	-	10-20	-	-	1.3	0.2-0.3	-	35-60	3-10		
12	Peridotite	65-90	5-10	10-20	0.1-0.5	-	5-15	-	-	1.3	0.2-0.3	-	50-70	3-15		
11	Dunite	85-95	1.5	1.5	0.2-0.3	-	2-10	-	-	1.3	0.2-0.3	-	80-90	3-15		

NOTES: \* Generally contains 5-15% ilmenite.  
b Includes some apatite and inverted pyroxene



MAP 1214A  
GEOLOGY  
MUSKOX INTRUSION  
SOUTH SHEET  
DISTRICT OF MACKENZIE  
Scale 1:63,360  
1 inch = 1 mile  
Kilometers 0 1 2 3 4 5

NOT TO BE TAKEN FROM LIBRARY  
NE PAS SURNER DE LA BIBLIOTHEQUE

66 01/4	66 01/5	66 01/6	66 01/7
66 01/8	66 01/9	66 01/10	66 01/11
66 01/12	66 01/13	66 01/14	66 01/15
66 01/16	66 01/17	66 01/18	66 01/19
66 01/20	66 01/21	66 01/22	66 01/23
66 01/24	66 01/25	66 01/26	66 01/27

LIBRARY  
JAN 25 1967  
GEOLOGICAL SURVEY

N.W.T. Muskox Intrusion, (South Sheet)  
1:63,360  
Map 1214A

1214

1214 A