



GEOLOGICAL SURVEY OF CANADA
 DEPARTMENT OF MINES AND TECHNICAL SURVEYS
 MAPO1045A-M3
METALLOGENIC MAP
MOLYBDENUM IN CANADA
 SCALE: 1 INCH TO 120 MILES = 180,000
 METERS 0 100 200 300 400
 KILOMETERS 0 100 200 300 400

EXPLANATORY NOTES

PURPOSE AND SCOPE OF MAP

The main purpose of this map is to show the locations of known molybdenum occurrences in Canada and to permit the relating of this information to the main geological features of the country. In other words, the map is an attempt to indicate "metalogenic provinces" for molybdenum in Canada, so far as present knowledge allows. The information may also be useful in selecting promising areas for molybdenum prospecting and in planning field work. A fairly comprehensive selection of the literature relating to the geology of molybdenum deposits is listed in the accompanying list of localities.

Because of the difficulty of showing data on areal geology on this map, it is printed on fairly transparent paper and on the same scale as the Geological Map of Canada (1045A, price 50 cents). The information may be made by superimposing this map on Map 1045A. Diagrams may also be compared with the Tectonic Map of Canada, although the two are not on the same scale. The tectonic map is published jointly by the Geological Survey of America and the Geological Association of Canada, and is available from the Geological Society of America, 419 West 117th Street, New York 20, N.Y., at \$1.50 (U.S.A.).

The information shown on this map is based on the plotting of nearly 800 occurrences of molybdenum in Canada. In some areas where a molybdenum mineral has been discovered, in some areas the occurrences are so closely grouped that it is not possible to show them individually on a map of this scale; these areas are shown diagrammatically. The information is complete up to mid-1958 and it is believed to be accurate, however, errors may exist as many of the occurrences were not visited. Many of the occurrences are probably of scientific interest only, but their positions are useful in illustrating the distribution of molybdenum.

In addition to the occurrences shown, molybdenite has been reported from the Foxe Basin area of Northwest Territories, but the information available is too vague for plotting.

CLASSIFICATION

Molybdenite is almost the only molybdenum mineral found in Canadian deposits. Thin films of "molybdic ochre" or other weathering products have been described from some localities, but for the present purpose these may be ignored.

Molybdenite is widespread, and occurs in deposits of many different types. In this classification, emphasis has been laid on types that are most likely to prove of economic importance. In many cases types overlap, and in some, it is difficult to decide how to classify an individual deposit.

The most important class of molybdenite deposits, both numerically and, at the present time, economically, is the vein type. Molybdenite-bearing veins vary considerably in mineralogical composition and form. The simplest types are quartz veins carrying molybdenite as the sole, or chief, sulphide. An important example of these is the deposit of the Canadian National Railway in Lacorne township, Quebec, at present the only producing molybdenite mine in the country. Other examples are widespread, in rocks of several geological ages. More complex molybdenite-bearing veins are found in a large sub-province in northwestern Quebec and Ontario. These are largely of interest as gold deposits; the molybdenite generally being a minor accessory. Still more complex types carry base-metal sulphides with minor molybdenite; many of the occurrences in British Columbia are of this type, e.g., the cobalt-copper-arsenic-molybdenum veins in the Hazelton area.

Dissemination of molybdenite with or without other sulphides form a less abundant class than those mentioned above, but may have considerable economic potential.

Another class of molybdenite-bearing deposits is divisible into two main types. In the Grenville province in Quebec and Ontario, molybdenite occurs with pyrite and/or pyrrhotite in pyroxene-schistose rocks apparently produced from crystalline limestone by the action of intrusive granite and granite pegmatites, or by the metamorphism of impure sedimentary limestones. A few such deposits have in the past been worked for molybdenum under conditions of wartime emergency and one or two are currently being explored.

The other type in this class comprises garnet-dioctahide "skarn" carrying molybdenite with greater or lesser amounts of copper minerals. Examples are the Kennalton and Sapples molybdenite properties in British Columbia and the deposits of the Whitehorse copper belt in Yukon Territory.

Examples of the pegmatitic type are numerous, but so far have been of minor economic significance. One or two examples of this class have been worked for short periods in the Grenville province in Quebec and Ontario. Pegmatitic deposits are widespread, particularly in the Canadian Shield.

The remaining deposits have been grouped under "Other types" as the information regarding them is not sufficient to permit allocation to a definite category. Many of these are minor occurrences of molybdenite in sulphide ores of unspecified origin.

In many areas it has been necessary to group deposits of several types. Also, in areas shown as belonging to a particular type, there invariably occur a few deposits of another type. For example, in the Grenville province both pegmatitic and metasomatic types are present, but the latter are by far the more abundant and characteristic.

FAVOURABLE AREAS

The widespread occurrence of molybdenite in deposits of many different types and in rocks of several geological ages makes it difficult to specify definite areas as being favourable for the discovery of additional economic occurrences of molybdenite. The possibilities of finding or developing an economic deposit are, perhaps, greater in the areas where numerous occurrences of the more favourable classes have already been found, but this is not necessarily so. Apart from these specific areas, certain broad areas appear more likely than others to contain molybdenum deposits. In Quebec and Ontario the areas containing altered sedimentary or volcanic rocks (particularly limestone) within the Grenville province may be regarded as especially favourable for the occurrence of deposits of the pegmatitic or pyroxenitic types. Elsewhere in the Canadian Shield it is noteworthy that molybdenite deposits, and many other metalliferous deposits, are at or near the contacts of sedimentary and volcanic rocks with granitic rocks. Relatively very few occur in exclusively granitic terranes.

In the Appalachian region, especially in the Maritime Provinces including Newfoundland, molybdenite deposits are associated with the border zones of Palaeozoic granitic masses; these zones provide favourable areas or loci for further prospecting.

The pattern in the Cordillera region is less amenable to analysis, and, at the present time, attention should be paid to known areas of concentration. Another favourable district appears to be the north-central part of British Columbia near the Prince Rupert branch of the Canadian National Railway and along the coast. However, consideration of this district as a favourable one may to some extent be due to its accessibility.

SOURCES OF INFORMATION

The data used in preparing this map were obtained from various publications of the Geological Survey of Canada, the Mines Branch, and the various provincial departments of mines. Additional and recent information has been obtained from the files of the Geological Survey of Canada and the Mineral Resources Division, Department of Mines and Technical Surveys.

REFERENCES

Selected references are listed separately to aid persons desiring further information on a specific occurrence or area. Only the principal literature has been cited, especially for areas containing many deposits. For those occurrences not described in publications, the list of localities includes the name and address of the company concerned. The Geological Survey of Canada cannot supply publications other than its own, nor can it supply unpublished information.

LEGEND

OCURRENCES OF THE VEIN TYPE

Single occurrence

Area containing occurrences

OCURRENCES OF THE DISSEMINATED TYPE

Single occurrence

Area containing occurrences

OCURRENCES OF THE METAMORPHIC AND METASOMATIC TYPES

Single occurrence

Area containing occurrences

OCURRENCES OF THE PEGMATITIC TYPE

Single occurrence

Area containing occurrences

OCURRENCES OF OTHER TYPES

Minor molybdenite in sulphide ores

Miscellaneous, or type not known

Area containing occurrences of two or more types

Metalogenic data compiled by F. M. Viles, 1958
 Cartography by the Geological Survey of Canada, 1959

LOCALITIES

1. Mount Filton occurrence, Richardson Mtns. Ref. 1, p. 10
2. Whitehorse district. Ref. 2, p. 42-53
3. Bowell River occurrence, Teslin district. Refs. 3, p. 12; 4, p. 24
4. Steele (Wolf) Creek occurrence, Ref. 5, p. 28, 42
5. Adams occurrence, Rocky Hollow district. Ref. 6, p. 49
6. Bennett Lake occurrence, Ref. 6, p. 49, 7, p. 125
7. White Pass Tunnel occurrence, Ref. 8, p. 114
8. Engineer occurrence, Ref. 9, p. 52
9. Barrington River occurrence, Telegraph Creek district, American Mts.-Climax Int. Ref. 10, p. 10
10. McConnell Creek, Cassiar district. Ref. 10, p. 64
11. Croydon and Porphyry Creek groups, Alton Lake area. Ref. 11, pp. 33-39
12. Dawson Creek and Johnny Mountain occurrences, Stuart River. Refs. 12, p. 58A; 13, p. 49
13. Stewart area, Portland Canal (4 occurrences). Refs. 14, p. 9; 15, pp. 33, 30-41
14. Fitzgerald occurrence, Mezzadin Lake. Refs. 6, p. 51; 14, p. 91
15. Alice Arm district (5 occurrences). Refs. 6, p. 51; 7, p. 124; 14, pp. 61-67, 91-11, pp. 37-38, 85-86
16. Terrace area, Skeena River (8 occurrences). Refs. 14, pp. 93-94; 17, pp. 157-173; 23-24, 36; 18, pp. 33-43, 47
17. New Hazelton area (6 occurrences). Refs. 14, pp. 81-82; 17, pp. 69-70; 19, pp. 44-47, 50-52; 20, pp. 7-14, 20-23, 25-26
18. Thom prospect, Suswaw River. Ref. 14, p. 82
19. Glacier Gulch, near Smithers. Ref. 16, p. 12
20. Butte occurrence, Mineral Hill. Ref. 21, 1927, pp. 138-139
21. Grubstake group. Ref. 21, 1929, p. 175
22. Emma and North Star claims, Kitimat Arm. Ref. 14, p. 83
23. Marlin prospect, Banks Island. Ref. 21, 1929, p. 75
24. Butte occurrence, Princess Royal Island. Ref. 6, p. 12
25. Hidden Lake occurrence, James Island. Ref. 21, 1929, p. 67
26. Endako area (3 occurrences). Refs. 14, pp. 11-16; 17, pp. 163-166; 22, pp. 29-30
27. Radio Gold Mines Ltd., Babine Lake. Ref. 17, pp. 156, 161; 22, pp. 136, 162
28. Shas (Grizzly) Mountain, Stuart Lake area. Ref. 23, p. 11
29. Black Cat and Wild Cat occurrences, Corcoran Creek. Ref. 21, 1934, p. 198
30. Columbia Tungsten Co. Ltd., Hardcastle Creek. Ref. 21, 1938, pp. 135-138
31. Merkel prospect, Bella Coola area. Ref. 14, p. 79
32. Snowbird prospect, Bella Coola area. Ref. 14, p. 79
33. Heino prospect, Bella Coola area. Refs. 7, p. 124; 14, p. 79
34. Goodspeed property, Ouzina area. Ref. 14, p. 95
35. Nimpkish Copper group, Nimpkish Lake. Ref. 21, 1939, pp. 381-383; 24, p. 27
36. Zeballos area (3 occurrences). Refs. 26, pp. 20-21; 28, p. 48
37. Badwell Sound area (4 occurrences). Refs. 14, p. 96; 28, p. 25; 29, pp. 30, 31
38. Brown claims, Albert Edward Peak. Ref. 27, pp. 73-74
39. Fanny Bay occurrence. Ref. 5, p. 14; p. 95
40. Cowichan Lake area (2 occurrences). Refs. 6, pp. 47-48; 9, p. 51; 14, pp. 27-28, 94; 21, 1918, p. 239
41. Thistle claim, near Ladysmith. Ref. 30, pp. 125-128
42. Sooke Peninsula occurrences. Refs. 21, 1948, pp. 162-170; 1961, p. 200
43. Grayson-Otto occurrences, Knight Inlet. Refs. 6, p. 125; 14, p. 85
44. Cortis Island-Somora Island area (4 occurrences). Refs. 14, pp. 85-86; 21, 1922, p. 241
45. Northern Texada Island (2 occurrences). Refs. 9, p. 51; 31, pp. 44-47
46. Jarvis Inlet area (5 occurrences). Refs. 7, p. 125; 14, pp. 47-50, 85-86
47. Sakinaw Lake occurrences, Sechart peninsula. Ref. 32, p. 40
48. Clowhom River occurrences. Refs. 9, p. 52; 14, p. 85
49. Howe Sound-Pitt River area (10 occurrences). Refs. 6, pp. 38-39, 48, 52; 9, p. 52; 14, pp. 39-41, 84-85; 21, 1929, p. 396; 35, p. 117
50. Slave Lake area. Ref. 6, p. 51; 14, p. 90
51. Spuzum Creek-Harrison Lake area (3 occurrences). Refs. 6, pp. 48, 52; 9, p. 51; 14, p. 90
52. Franklin Arm, Chitko Lake. Refs. 6, p. 49; 14, p. 90
53. Hi Do Gold deposit, Taseko Lake area. Ref. 21, 1937, p. 16
54. Taylor's deposit, Taseko Lake. Ref. 34, p. 89
55. Bridge River area (2 occurrences). Refs. 6, p. 49; 14, p. 81
56. Texas Creek area (2 occurrences). Refs. 6, p. 34; 14, p. 84
57. Gold Ridge and Frances, Sallus Creek. Ref. 21, 1935, pp. 12-13F
58. Red Lake area (3 occurrences). Refs. 14, p. 83; 37, pp. 80-81
59. Marlin property. Ref. 14, p. 81
60. Highland Valley area (4 occurrences). Refs. 6, p. 51; 14, pp. 66-67; 37, pp. 116-117; 122-124
61. Pearson occurrences, Shump Lake. Ref. 14, p. 83
62. Balfour occurrence, near Knutville. Ref. 14, p. 82
63. Vernon area (5 occurrences). Refs. 6, pp. 33, 52; 14, pp. 28-33, 95
64. Hope area (6 occurrences). Refs. 6, p. 48; 7, p. 126; 14, pp. 88-89; 21, 1919, pp. 286-287
65. Skagit River area (5 occurrences). Refs. 6, pp. 48, 52; 21, 1927, p. 211; 38, pp. 102-104; 39, pp. 30-41
66. Tulemen area (5 occurrences). Refs. 6, pp. 44, 51; 7, p. 127; 14, pp. 80, 82; 40, pp. 162-163; 39, p. 114
67. Okanagan Lake area (3 occurrences). Refs. 14, p. 90; 36, p. 110; 41, p. 42
68. Carli area, Westcliffe River (3 occurrences). Refs. 6, p. 49; 14, p. 81; 21, 1923, p. 184; 47, p. 129
69. Keremeos area (1 occurrence). Refs. 14, pp. 90, 92; 21, 1929, p. 248C
70. Camp McKinley area, near Bridesville (2 occurrences). Refs. 7, p. 127; 14, p. 81
71. Greenwood-Farron area (2 occurrences). Refs. 7, p. 127; 14, p. 16; 20; 21, 1923, p. 179; 1925, p. 123; 43, p. 138
72. Pilot and Uta claims, Lightning Peak area. Ref. 44, p. 115
73. Rosland area (6 occurrences). Refs. 6, pp. 46-47; 14, p. 90; 45, pp. 141-144, 146-149, 153-159
74. Salmio area (10 occurrences). Refs. 6, pp. 36, 50; 9, pp. 54-55; 14, pp. 51-57; 47, 48; 78; 46; pp. 85-88
75. Kootenay River, near Nelson. Ref. 6, p. 50; 9, p. 55
76. Boss (Timothy) Mountain, Lac la Hache area. Ref. 14, pp. 34-47
77. North Thompson River area (4 occurrences). Refs. 14, pp. 20-28, 33-34; 47, pp. 150-153
78. Cotton Belt, Grace Mountain. Ref. 6, p. 50
79. Hard Pan and Sterling groups. Refs. 14, pp. 70-73; 21, 1932, p. 181A
80. White Pass, near Glacier Station. Ref. 7, p. 125
81. Trout Lake area (3 occurrences). Refs. 9, p. 54; 14, p. 83
82. Garney and Foss claims, Durcan River. Refs. 6, p. 31; 14, p. 84
83. Nakusp area, Arrow Lake (2 occurrences). Refs. 6, p. 46; 7, p. 128; 14, p. 87
84. Roseberry area (2 occurrences). Refs. 14, p. 86; 21, 1942, p. 77
85. Peg Leg, Fry Creek. Ref. 14, p. 88; 21, 1926, p. 280
86. Pegay claim, near Riondel. Ref. 21, 1924, p. 139
87. Gray Creek prospects (2 occurrences). Refs. 14, pp. 50-51; 21, 1918, p. 159
88. Kimberley area (2 occurrences). Refs. 6, p. 33; 14, p. 80
89. Eldorado mine, Fort Radium. Ref. 48, pp. 22, 24, 36
90. Yellowknife-Beaufort region (8 occurrences). Refs. 48, pp. 11, 18-19, 36; 50, pp. 78-78, 85-86
91. Matthews Lake Sheet occurrence. Ref. 51, p. 45
92. Rag group, Stark Lake. Ref. 52, p. 65
93. International Tungsten Mines Ltd., Outpost Island. Ref. 50, pp. 236-240
94. Robb property. Ref. 53, p. 4
95. Term Point, Rankin Inlet. Ref. 54, p. 44C
96. Andrew Lake area. Ref. 55
97. Goldfields-Tazin Lake area (7 occurrences). Refs. 52, p. 104; 56, pp. 81, 107-109
98. Black Lake-Charlebois Lake area (3 occurrences). Ref. 52, pp. 106-109, 112, 57, p. 29
99. Holgar occurrence, Cree Lake area. Ref. 58, p. 13
100. Foster Lake area. Ref. 59, p. 36
101. Moose Point, Lac la Ronge. Ref. 60
102. Pelican Lake occurrence. Ref. 61, p. 49
103. Fin Flon-Cranberry Portage area (5 occurrences). Refs. 62, pp. 66-69; 63, pp. 30-31
104. Barrington Lake Copper Mines. Ref. 64, pp. 15-16
105. Footprint Lake, Ullman Lake area. Ref. 65, p. 5
106. Pukatawagan Lake occurrence. Ref. 66, p. 90
107. Wintering Lake area (3 occurrences). Ref. 67, pp. 25-26
108. Hors Lake area (3 occurrences). Refs. 6, p. 50; 68, pp. 38, 92, 112-113; 69, p. 112
109. Echaminah River. Ref. 6, p. 56
110. Little Pigeon Lake. Ref. 7, p. 126
111. Gorman Lake occurrence. Ref. 7, p. 14
112. Wainipigow River area (3 occurrences). Refs. 6, p. 56; 72, p. 19
113. Rice Lake-Garner Lake area (4 occurrences). Refs. 6, p. 56; 73, p. 11
114. Lac du Bois and Shallow Lake deposits. Ref. 74, p. 99
115. Faton Lake area (3 occurrences). Refs. 6, p. 54; 75, pp. 130-131
116. Shol Lake area (3 occurrences). Refs. 6, p. 115; 77, p. 299
117. Oliver claims, Setting Net Lake. Ref. 77, pp. 78-81
118. Hornblende Lake occurrence. Ref. 78, p. 17
119. Red Lake area. Ref. 79, p. 45
120. Corless Patricia Gold Mines, Corless township. Ref. 80, p. 25
121. Lang Lake occurrence. Ref. 81, p. 18
122. Connell-Williams-Streit group, Westway Lake. Ref. 81, p. 22
123. Carpenter Lake occurrence. Ref. 82, p. 30
124. P. Dusing claims, English River. Ref. 83, p. 39
125. Cameron property, near Minaki. Ref. 82, p. 118
126. Sultana Gold Mine. Ref. 78, p. 299
127. Gold Panter Mine. Ref. 84, pp. 80-81
128. Ouhell occurrence, Redvers township. Ref. 101
129. Lac Seul occurrence. Ref. 6, p. 115
130. Echo and Webb townships (3 occurrences). Refs. 6, p. 77; 76, pp. 297-298; 82, p. 33
131. Contact Bay, Wabigoon Lake. Ref. 76, p. 313
132. Upper Manitou Lake area (2 occurrences). Refs. 6, p. 77; 76, p. 304
133. Lower Manitou Lake area (2 occurrences). Refs. 9, p. 49; 76, p. 310; 86, p. 17
134. Bear Pass, Rainy Lake. Refs. 6, p. 117; 76, p. 309
135. Mine Centre occurrence. Ref. 6, p. 117
136. Crow Rock-Turtle Lake occurrence. Ref. 87, p. 10
137. Sheep Rock Lake. Ref. 76, p. 312
138. Ignace occurrence (4 occurrences). Refs. 76, p. 299; 86, pp. 6-7; 9
139. Young Lake, Shurgeon Lake area. Ref. 89
140. Harvey and Saganaw Lake occurrences. Refs. 6, p. 24; 25, 28
141. Tamarack Lake. Refs. 6, p. 106; 76, p. 312; 91, p. 194
142. Tunnel Lake occurrence. Ref. 8, p. 191
143. Lac des Mille Lacs. Ref. 9, p. 56
144. Shebandwan Lake, Hagey and Haines townships. Ref. 92
145. Young Water property, Conroy township. Refs. 6, p. 107; 76, p. 295
146. Jacques township. Ref. 93, pp. 10, 64
147. McTavish township. Ref. 6, p. 106; 93, p. 10
148. Shurgeon River occurrences (2 occurrences). Ref. 94, p. 78, 86-91
149. Dream Lake area (4 occurrences). Ref. 95, pp. 18, 27
150. Researve Lake area. Ref. 96, pp. 27-28
151. Nakina Molybdenum, Burrows Lake. Ref. 6, p. 107
152. Longlac occurrence. Ref. 76, p. 302
153. Pine Lake occurrence, Chapman township. Ref. 91, p. 197
154. White Otter Lake occurrence. Ref. 97, p. 3
155. Hornepayne occurrence. Ref. 97, p. 3
156. Schreiber area (6 occurrences). Refs. 6, p. 106; 76, p. 289; 96, pp. 1, 7, 11, 14-15, 20-22; 99, pp. 36-40
157. Heron Bay area. Ref. 100
158. Playter Harbour occurrence. Ref. 101
159. Terrace Cove deposit. Refs. 6, pp. 108-9; 9, p. 22; 76, p. 312
160. Michipicoten area (3 occurrences). Refs. 104, p. 182; 105, p. 19
161. Oba occurrence. Refs. 6, p. 112; 106, p. 308
162. Folyvet occurrence. Ref. 102, p. 125
163. Goulets Iron Range. Ref. 102, p. 23
164. Gaudette township occurrence. Refs. 104, p. 182; 105, p. 19
165. Women River area (4 occurrences). Refs. 105, pp. 68-70; 107, pp. 75-76; 106, p. 27; 108, p. 51; 110, p. 22
166. Gogama area (4 occurrences). Refs. 107, p. 68; 111, pp. 25, 152, 112, 113
167. Matchewan area (3 occurrences). Refs. 111, p. 74; 113, p. 635
168. West Dome Lake Mine. Ref. 114, p. 53
169. Duke Molybdenite Mining Syndicate, near Meace.
170. Playter, Richard and Beatty townships (6 occurrences). Refs. 6, p. 119; 76, p. 286; 115, p. 20
171. Kirkland Lake area (25 occurrences). Refs. 6, pp. 104-111; 76, p. 299; 113, pp. 635-637; 115, pp. 20, 21
172. Net Lake occurrence, Strathroy township. Ref. 6, pp. 81-82; 76, p. 308
173. Roberts and Frackel townships. Refs. 6, p. 106; 100
174. Heas township. Ref. 117, p. 67
175. Murray Mine, Sudbury area. Ref. 118, pp. 24-25
176. Worthington Mine and Vermilion River occurrences. Refs. 76, pp. 297, 313
177. Whiskey Lake occurrence. Ref. 119, p. 17
178. Laville property, Kirkpatrick township. Ref. 100
179. Manby Island, Lake Nipissing. Ref. 120, p. 44
180. Garrow township. Ref. 76, p. 296
181. Talon township. Refs. 6, p. 81; 9, p. 48
182. Loutch township. Ref. 121, p. 42
183. Spencer and Ryerson townships. Refs. 6, p. 117; 101, p. 112
184. Parry Sound area (4 occurrences). Refs. 6, p. 117; 76, p. 295; 122, p. 48
185. Bracebridge area. Refs. 6, p. 116; 76, p. 305-307
186. Digby, Laxton, Somerville and Luffenburgh townships (7 occurrences). Refs. 6, pp. 72-73, 100-101, 99, pp. 38-40; 76, pp. 298-302
187. Glamorgan township (3 occurrences). Refs. 6, pp. 65, 113; 123, pp. 64-65
188. Stanhope township. Ref. 101
189. Monmouth, Cardiff, Faraday and Herschel townships (30 occurrences). Refs. 6, p. 7, 78, 124, 125
190. Montserrat, Dunganon, Raglan, Lyndoch townships (12 occurrences). Refs. 6, p. 7, 78, 124, 125
191. Renfrew area (40 occurrences). Refs. 6, p. 7, 9, 76, 124, 126
192. Aisy township. Ref. 6, p. 116
193. Burns township. Ref. 124, p. 82
194. Miller township. Ref. 6, p. 69; 9, pp. 44-45; 76, p. 305
195. Olden township (5 occurrences). Refs. 6, pp. 56, 112; 127, pp. 59-67
196. Kaledale, Kennebec, Sheffield, Hinchinbrooke and Portland townships (13 occurrences). Refs. 6, pp. 78-80, 115-116; 7, p. 117; 9, pp. 43-44; 76, p. 311; 121, p. 87
197. North Crosby township. Refs. 9, p. 45; 76, pp. 308-309
198. March township. Refs. 9, p. 44; 76, p. 304
199. Waltham township. Ref. 125, pp. 104-105
200. Gaitneau-Routac area (30 occurrences). Refs. 6, p. 7, 74, 101
201. Moss Mine Quyon. Ref. 6, pp. 150-152; 129, p. 64
202. McGregor Lake, Templeton township. Ref. 6, p. 158
203. Maniwak-Baskatong area (13 occurrences). Refs. 6, pp. 134-137, 157, 158; 9, p. 30; 99, pp. 129-131
204. Lamarche deposit, Campbell township. Ref. 100
205. Cheffuk claims, Marchand township. Ref. 100
206. St. Jerome occurrence. Ref. 9, p. 22
207. Oak area, Rare Metal Mining Co. Ltd.
208. Celleron and Carqueville townships. Ref. 130, pp. 26-27
209. Perron township. Ref. 130, p. 70
210. La Reine township. Ref. 130, p. 419
211. Rivier and Laurin townships. Ref. 52, pp. 34-35; 130, pp. 419-420
212. Beattie Mine, Duparquet township. Ref. 130, p. 96
213. Noranda area (11 occurrences). Refs. 113, pp. 783-786; 130, p. 122; 131, pp. 16-18
214. Pineshale-La Corne area (18 occurrences). Refs. 6, pp. 123-127, 129-131; 9, pp. 32-35; 113, pp. 845-852; 130, pp. 415-417
215. Fredmont township. Ref. 132, p. 88
216. Tibermont township (2 occurrences). Ref. 133, pp. 49-50, 50-55
217. Louvrouville township. Ref. 134, p. 97
218. Cairé township. Ref. 6, p. 161
219. Montbellard township (4 occurrences). Refs. 6, p. 161; 130, p. 303
220. Lavertochère township. Ref. 130, p. 311
221. Ossawa and Bachelor Lakes occurrences. Ref. 135, p. 58
222. Opemiska Mines Ltd. Ref. 130, p. 430-441
223. Mackenzie township. Ref. 136, p. 64
224. Barry township. Ref. 130, p. 45
225. Landry township. Ref. 137, pp. 32-33
226. Suzor township. Ref. 137, pp. 24-35
227. Malhiot township. Ref. 101
228. Hackett township. Ref. 138, p. 37
229. Montbouch and Chavigny townships. Refs. 6, p. 161; 130, p. 446; 139, p. 28
230. Portland area. Ref. 52, p. 153
231. Harvey Hill, Leeds township. Ref. 6, p. 159
232. Theford and Caribou Mine occurrences. Ref. 6, p. 159; 140, p. 14
233. Beauvef occurrence. Ref. 141, pp. 84-85
234. Gauthier and Dorval townships. Ref. 130, p. 400
235. Callières township. Ref. 142
236. Metapetchouan township. Ref. 6, p. 131
237. Dufferin township. Ref. 143, p. 84-85
238. Pallister township. Ref. 144, p. 85
239. Bergeron township. Ref. 145, p. 86
240. Boullanne Mine, Baie des Mille Vaches
241. Rochonville township. Ref. 146, pp. 81-82
242. Rochonville township. Ref. 147, p. 27
243. Quetchu Bay. Refs. 6, pp. 131-132; 9, pp. 23-24, 26
244. Washikui Harbour. Ref. 9, p. 25
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