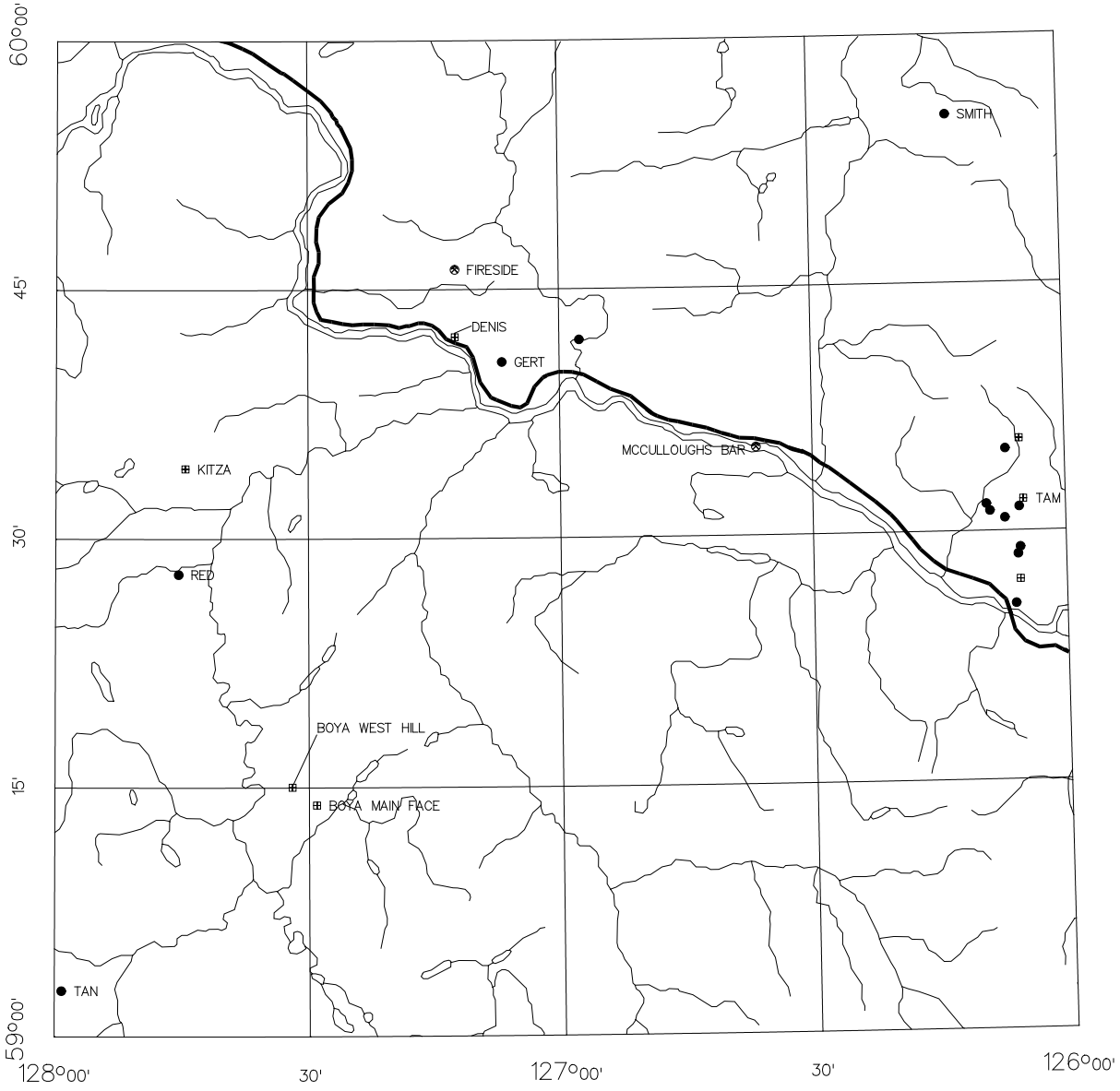
MINFILE
NTS 094M – RABBIT RIVER

Original release date: March 1995
Researched and compiled by: C.J. Rees

The Rabbit River map area, situated 250 kilometres west-northwest of Fort Nelson in north-central British Columbia, contains 23 documented mineral occurrences.

The southeastern corner of the map area is mountainous but northwestwards, towards the Liard Plain, the terrain becomes more subdued and the geology less well exposed. The Alaska Highway follows the Liard River across the northern half of the area.



Most of the map area is northeast of the Northern Rocky Mountain Trench Fault, and is generally underlain by rift-related or platformal continental margin rocks of Ancestral North America. The oldest rocks are the Middle Proterozoic Muskwa Assemblage, exposed in the southeast in the northwestern extremity of the Muskwa Anticlinorium. The rest of the region consists of Upper Proterozoic and Lower to Upper Paleozoic coarse to fine-grained siliciclastics and carbonates, except for a belt of Devono-Mississippian, more basinal shales immediately northeast of the Northern Rocky Mountain Trench Fault. This belt is part of the Kechika Trough, which is known for hosting stratiform barite-lead-zinc

mineralization elsewhere along its length; however, no occurrences of this type are recorded in the Rabbit River area. However, the **Kechika River Barite** (094M 023) is a bedded barite with up to 42 per cent barium.

Nearly half of the mineral occurrences are clustered in one small area north of Liard Hot Springs Provincial Park. They all consist of stratabound, Mississippi Valley-type fluorite, usually with lesser barite, concentrated at the unconformity between Middle Devonian Dunedin Formation limestone and Upper Devonian Besa River Formation shale. Most of the mineralization occurs in lenticular replacement bodies or infillings in breccias at the contact. One of the largest, the **Tam** prospect (094M 005), has an "indicated potential" of 450,000 tonnes grading 36.7 per cent fluorite.

Vein barite occurs in the Fireside area, north of the Alaska Highway. A large, fault-controlled barite vein system was mined by open pit at the **Fireside** property (094M 003), producing 41,071 tonnes in 1985. A similar barite vein occurs 7 kilometres to the south at the **Denis** prospect (094M 019).

The **Gert** (094M 001), **Smith** (094M 008), **Kitza** (094M 018) and **Red** (094M 020) showings are all minor vein-hosted base metal occurrences in Paleozoic sedimentary rocks.

The **Boya Main Face** and **Boya West Hill** prospects (094M 021 and 016) are porphyry-skarn occurrences which are mineralized with tungsten and molybdenum, as well as a number of other metals. The mineralized area is extensive and was tested by diamond drilling, but grades were uniformly low.

Placer gold was discovered and mined in gravel bars in a stretch of the Liard River in the late 1800s. The **McCullough's Bar** showing (094M 015) is located in the main productive area, although apparently not a lot of gold was recovered.

Southwest of the Northern Rocky Mountain Trench Fault are Upper Proterozoic to Lower Paleozoic metasediments of the Cassiar terrane of the Omineca Belt. Only the minor **Tan** (094M 017) base metal showing is documented in this area.

Part of the map area was mapped by the BC Geological Survey in 1996. (See Geoscience Map 1998-10 for details).

SELECTED REGIONAL REFERENCES (NTS 094M- RABBIT RIVER)

Cook, S.J. (1999): Geochemistry of Alkaline Lake Waters of the Northern Kechika Trough, British Columbia. B.C. Ministry of Energy and Mines, Geological Survey Branch, Open File 1999-6.

Ferri, F., Rees, C., Nelson, J. and Legun, A. (1998): Geology of the Northern Kechika Trough, British Columbia (NTS 94L/14, 15; 94M/3, 4, 5, 12, 13; 104P/8, 9, 15 and16); B.C. Ministry of Energy and Mines, Geoscience Map 1998-10, 1:100,000 map.

Ferri, F., Rees, C., Nelson, J. and Legun, A. (1997): Preliminary Geology of the Northern Kechika Trough (94L/14, 15; 94M/3, 4, 5, 6, 12, 13; 104P/8, 9, 15, 16), British Columbia; B.C. Ministry of Employment and Investment, Open File 1997-14, 1:100,000 map.

Ferri, F., Rees, C., Nelson, J. and Legun, A. (1997):Geology of the Northern Kechika Trough (94L/14, 15; 94M/3, 4, 5, 6, 12, 13; 104P/8, 9, 15,16), B.C. Ministry of Employment and Investment, Geological Fieldwork 1996, Paper 1997-1, pages 125-144.

McCammon, J.W. 1972: Fluorite-witherite occurrences near Liard River Hot Springs Provincial Park; B.C. Ministry of Energy, Mines and Petroleum Resources Geology, Exploration and Mining in British Columbia 1972, pages 587-596.

Pell, J. 1992: Fluorspar and Fluorine in British Columbia; B.C. Ministry of Energy, Mines and Petroleum Resources Open File 1992-16, 82 pages.

Gabrielse, H. 1962: Rabbit River, British Columbia; Geological Survey of Canada Map 46-1962, Geological map with marginal notes.