

Prospecting Tips

1. Most nephrite deposits form lenses that follow contacts between ultramafic and metasedimentary rocks or ultramafic and felsic rocks.
2. Backtracking of boulders that were dispersed down-ice or downslope may help pinpoint in-situ deposits.
3. Weathered boulders commonly have a rough, buff, brown, gray or white rind, which conceals the green nephrite core.
4. Because nephrite is relatively hard, a hammer blow to a boulder leaves little or no mark, and the hammer bounces back strongly after impact.
5. Rodingites, rocks rich in calc-silicate minerals formed by alteration of mafic rocks near serpentinized ultramafics, may indicate geological conditions favourable for nephrite.



Photo courtesy of Cassiar Jade Contracting Inc.

The 17 ton "Magnificent Boulder" is unearthed in the Dease Lake area.

Whats On the Cover?

The Jade Buddha for Universal Peace (top image) is the world's largest Buddha carved from gemstone quality jade. The Buddha was carved from the 18 ton "Polar Pride" boulder discovered in northern British Columbia (half of it pictured, bottom right).

(Top image) Courtesy of The Great Stupa of Universal Compassion Ltd.

(Bottom right image) Courtesy of Jade West Group of Companies

Where to Buy Bulk Jade for Carving

www.cassiarjadecontracting.com
www.jademine.com

Selected References

Leaming, S.F., 1978. Jade in Canada: Geological Survey of Canada Paper 78-19, 59p.

Leaming, S.F., 1995. Jade in North America. In: Roger Keverne. Editor; Jade: Annes Publishing Limited, London, pp. 298-315.

Leedham, T., 1999. Working with jade: Newsletter, v.18, no.1, Gem and Mineral Federation of Canada, pp. 8-9.

Scott, A., 1996. Jade, a mystical mineral: Equinox, No.89, pp. 64-69.

Simandl, G.J., and Gunning D.F., 2000. Dimension and ornamental stone in British Columbia. In: Natural Stone in Canada, Roc Magnina, pp. 47-51.

Simandl, G.J., and Makepeace, K., 2004. Jade (Nephrite) in British Columbia, Canada. In: 37th Forum on the Geology of Industrial Minerals, British Columbia Ministry of Energy, Mines, and Petroleum Resources, British Columbia Geological Survey Paper 2004-2, pp. 287-388.

Simandl, G.J., Riveros, C.P., and Schiarizza, P., 2000. Nephrite (Jade) Deposits, Mount Ogden Area, Central British Columbia. In: Geological Fieldwork 1999, British Columbia Ministry of Energy, Mines, and Petroleum Resources, British Columbia Geological Survey Paper 2000-1, pp. 339-348.

MINFILE database:

www.empr.gov.bc.ca/Mining/Geoscience/MINFILE

Jade occurrences in B.C.:

www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Jade

For More Information

George J. Simandl

British Columbia Geological Survey
Victoria, B.C.

Phone: (250) 952-0413

E-mail: george.simandl@gov.bc.ca



Jade in British Columbia

British Columbia Geological Survey
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"B.C.'s Provincial Gemstone"



Ministry of
Energy and Mines

What is Jade?

Jade is a commercial term for green, white, black, or yellow-brown jadeite and nephrite. Jadeite is a rock that consists of the mineral jadeite (a sodium-rich, high pressure pyroxene), whereas nephrite consists of amphibole minerals (tremolite-actinolite) in which prismatic to needle-like crystals are arranged in randomly oriented bundles. All of the known jade deposits in B.C. are nephrite. Both types of jade are commonly associated with serpentinites, although nephrite may also be found in dolomitic host rocks.

Geology and Origin

Nephrite is documented at over fifty sites in British Columbia's MINFILE database. It is a metamorphic or metasomatic product of ultramafic (high magnesium and iron, relatively low silica content) rock that is commonly called serpentinite, in contact with metasedimentary or felsic igneous rocks.

Nephrite is found in the Cache Creek, Bridge River, and Slide Mountain geological terranes, which are largely of oceanic affinity. Regional faults in these terranes may indicate where ultramafic rocks are exposed.

Deposits are commonly lens-shaped. Nephrite in boulder fields, talus, and placers also forms commercial deposits.

Nephrite forms by metamorphism or metasomatism under very high pressures and modest temperatures. Blueschist or eclogite-grade metamorphic rocks may point to a nephrite-forming environment; such rocks are found in the Bridge River, Pinchi Lake, Dease Lake, and Jennings River areas.

Jade occurrences are documented in the B.C. Geological Survey Branch's MINFILE database, which is available on the Ministry's website at:
www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Jade

