

Prospecting Tips

- 1 Most nephrite deposits occur along or near the contacts between ultramafic and metasedimentary rocks.
- 2 In situ deposits may be marked by downslope, down ice, or downstream accumulation of nephrite boulders. Follow-up of nephrite boulder trains and fans is a good prospecting method.
- 3 Nephrite boulders have a rough, either buff, brown, gray or white weathering surface, which renders nephrite difficult to identify. A hammer blow to a nephrite boulder leaves little or no mark and the hammer springs back with unexpected intensity due to its toughness.
- 4 Large boulders may be test drilled or sawn to identify those with economic promise.
- 5 Rodingite (white rock) in bedrock or boulders may indicate favourable geological conditions for nephrite.



Jade boulder from the Kutcho Creek deposit, with Kirk Makepeace, Jade West Group of Companies

JADE

The provincial gemstone of British Columbia



BRITISH
COLUMBIA



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MINFILE database:

www.em.gov.bc.ca/mining/geolsurv/minfile

JADE

in
B.C.



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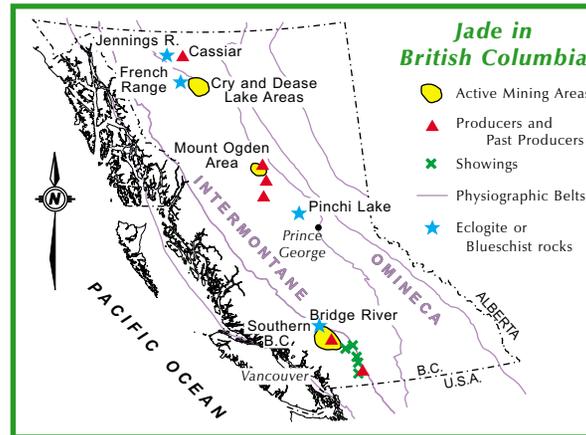
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What Is Jade?

Jade is a commercial term encompassing green, white, black or yellow-brown jadeite and nephrite. Jadeite is a rock that consists essentially of jadeite (sodium-rich, high-pressure pyroxene), whereas nephrite consists of prismatic to acicular amphiboles of the tremolite-actinolite series forming bundles that are randomly oriented and interlocked. All of the known jade deposits in B.C. are of the nephrite variety.



Jade has been used since Neolithic times for jewelry and tool making. Today, the best material is used as gemstones. Large quantities are used for carving and ornamental stone or for table tops. Industrial grade material is used for tile making.



Geology And Origin

Nephrite occurs at over fifty sites in British Columbia in bedrock, boulder fields and talus. The bedrock occurrences are typically lens shaped and occur at or near contacts of mafic-ultramafic rocks (mainly serpentinite) with metasedimentary or igneous felsic rocks.

Nephrite formed by metasomatic exchange between ultramafic and silica-bearing rocks within the Mississippian to Jurassic age oceanic Cache Creek and Slide Mountain terranes of B.C.

High pressure blueschist or eclogite grade metamorphic rocks, favourable for jadeite exploration, are found in the Bridge River, Pinchi Lake, Dease Lake and Jennings River areas of B.C.

Known jade mineral occurrences are documented in the B.C. Geological Survey Branch's MINFILE database which is available on the Ministry's website at:

www.em.gov.bc.ca/mining/geolsurv/minfile

Ornamental & Gemstone Market

The world jade market is estimated at 300 tonnes per year, with three quarters of this originating in British Columbia. The price of raw jade varies from less than \$10 to \$100 per kilogram depending on quality and quantity.

The best B.C. nephrite is bought by local artists and transformed into artwork which is in demand internationally. The largest sculpture made of B.C. nephrite is probably the Buddha commissioned for the Wat Dhammongkol Monastery in Bangkok. It was carved from a 32 tonne nephrite boulder. This transaction was worth about \$350,000 to the Jade West Group of Companies.

Dimension Stone

Industrial grade jade has been stockpiled in B.C. in anticipation of serving the growing natural-stone tile market. Jade tiles have great market potential in new, upscale residential and commercial building applications.



Jade sampling, Cry Lake area