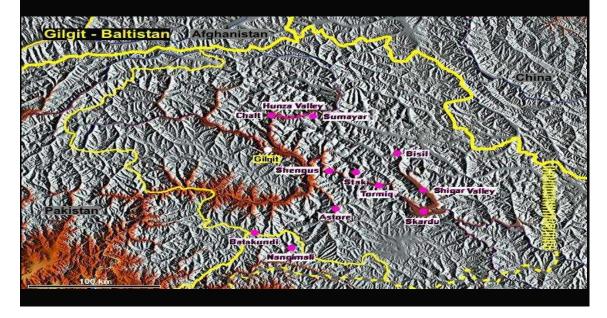
## **Northern Pakistan**

Minerals of Northern Pakistan



By Northern Pakistan we are basically referring to the territory of Gilgit - Baltistan. This area borders on both Afghanistan as well as China.



Gemstones and minerals have been produced in this region of Pakistan for nearly 40 years. Mountainous regions are geologically active areas that expose a greater amount of rock outcrops and give prospectors an advantage in locating gem and mineral deposits. They also give rise to numerous logistical problems, some of which are extreme. This region has the greatest vertical differences found anywhere in the world as well as the world's seven highest peaks. At Nanga Parbat, in Astore, the mountain peak is more than 20,000 feet above the valley floor.

Tourmaline, aquamarine, topaz, garnet and apatite come from granitic pegmatite deposits, while emeralds, rubies and sapphires come from metamorphic and hydrothermal deposits that tend to be regional and cover a larger area.

As you can imagine prospecting in such a region with near vertical cliffs that can rise up over 1000m from the valley floor is a nightmare - mining a deposit is even worse. At such elevations pockets can remain frozen all the time, internal combustion engines do not operate and the air pressure is too low for pneumatic tools - that combined with a short mining season all add to the dificulties.

As such most gem mines are operated by small groups of artisan miners using the most basic of tools and methods