

Appendix A Chance Find Protocol for Fossil Discoveries



Description of the Project

K2 Wind Power Inc. (K2), a partnership between Westbank First Nation and Innergex Renewable Energy Inc., is applying to the British Columbia (BC) Energy Regulator to construct and operate the K2 Wind Project (the Project). The Project is being proposed in response to BC Hydro's 2024 Call-for-Power to acquire approximately 3,000 gigawatt hours per year of clean electricity. K2 is proposing to develop the Project on Pennask Mountain, approximately 40 kilometres west of West Kelowna, BC. The Project is proposed to consist of 28 wind turbines, transmission lines, access roads and a substation, collectively referred to as the Project footprint.

Why are fossil discoveries important?

British Columbia is home to many globally significant fossil sites. Fossils are essential to the understanding of BC's natural history and geology, provide opportunities for scientific discovery and education, and help locate mineral, oil, and gas deposits. Fossils constitute a valuable resource that is administered under the *Land Act* by the BC Fossil Management Office (FMO), Ministry of Tourism, Arts, Culture, and Sport. All fossils on Crown Land are property of the province and may not be sold or removed from the province. Collection of fossils is prohibited without a permit, except for recreational collecting of some common fossil types (e.g., shells, plant fossils). Developers are asked to report any fossils unearthed on their site to FMO or the Royal British Columbia Museum. The following information has been provided to assist you with recognizing fossils that might be present in your area of work.

What kinds of fossils occur in British Columbia?

Fossils are the preserved remains of organisms such as bones, teeth, and shells or impressions of organisms in the rock such as a plant leaf. Trace fossils are preserved biological activity such as dinosaur footprints or tracks and burrows. Fossils range from thousands of years old to hundreds of millions of years old and are often the remains of extinct species. Fossils are the historical record of the evolution and development of life on earth. They are important globally as well as in BC for their scientific, heritage, educational, and economic value. Fossils are primarily found in sedimentary rocks from ancient marine and lake basins in the province. Volcanic rocks, such as ash, also may preserve fossils. The distribution of fossil resources remains poorly understood within BC so there is always a chance that new fossil sites will be encountered. Known fossil site concentrations are found on Vancouver Island, Haida Gwaii, in the Princeton-Merritt-Kamloops area, in southeastern and northeastern BC, and the Central Interior Plateau.

What should you do if you discover fossils?

If fossil sites or fossil remains are encountered during excavation, the following steps must be taken:

1. Suspend work and all forms of ground disturbance in the immediate vicinity of the find and leave all possible fossil material in place.
2. Establish a protective buffer of at least 30 m around the extent of the find area. Demarcate the buffer in a highly visible way (e.g., with "No Work Zone" flagging).
3. Work at that location may not resume until the measures below are implemented.



4. Report your discovery to the site supervisor (Insert name and contact phone number of Site Manager).
5. Site supervisor will photograph the site and fossils using a scale, record the GPS location of where the fossils were found, and note how fossils were found. They then relay this information to FMO (Fossil.Management@gov.bc.ca; 250-356-1432).
6. Depending on the nature of the find, FMO might require:
 - a. Full documentation of the site with information (photographs, fossil information, stratigraphy, site locality information) relayed to FMO
 - b. If the site is significant, a mitigation plan will be developed.
 - c. Work cannot resume in the area of the fossil find until approved by FMO.
7. All images, data and samples collected will be reported to FMO.

What Kind of Fossils might Occur On-site?

Most of the rocks around the Project are igneous volcanic and are unlikely to have any fossils. The exception is sedimentary rocks of the Nicola Group, which include shale, argillite, siltstone, sandstone phyllite and tuff. Locally, conglomerate, limestone, and greenstone also occur. Known fossil sites in the area contain only small microfossils of conodonts (i.e., toothlike elements from an extinct group of jawless vertebrates that are used extensively in biostratigraphy) and ichthyoliths (i.e., small pieces of fish remains, such as scales, denticles or teeth). These are widespread, common fossils. As they are very small, they can rarely be seen in the field.

Regionally, the Nicola Group has produced macrofossils of corals, clams, brachiopods, snails, and ammonoids. If you encounter these types of fossils, please report the discovery to FMO.

The following photographs are examples of fossils that you might see during Project construction.





Coral in Limestone, scale bar marked in centimetres



Brachiopods in Limestone, courtesy of <https://earthsci.org>;
each shell is approximately 1 cm long





Clams in Sandstone, block is approximately 30 cm wide



Ammonite, Quaticum Beach Museum

