What is thermokarst?

Thermokarst describes an erosional process that occurs when permafrost has excess ice, and the features formed when ground ice thaws (p1, p2). The thermokarst process occurs when the active layer depth increases due to changes in the thermal equilibrium at the ground surface melting ground ice that was previously insulated. Thermokarst can result from subsidence or erosion. Subsidence generally occurs in flat areas where the ground collapses as ice thaws forming shallow depressions and ponds. Erosion affects slopes, and will consciously carry water and sediment away from the exposure which keeps fresh ice exposed and the process continues. (p1).

This process may be caused by a local disturbance, or by warming on a regional or global scale. (b1)

Thermokarst features describe the topographic depressions that are caused by the thermokarst process. These depressions lead to the formation of thermokarst lakes, and expanding streams. Thermokarst lakes, also called thaw lakes, that grow as ground ice around and beneath them melts. (p2, B1). The thawing of ice wedges leads to the development of pools of water connected by short straight drainges called beaded streams . beaded streams occur at the intersection of melting ice wedges. Oriented lakes are a thing.