

Russian team reaches Antarctic lake

After a decade of drilling Russian scientists claim to have reached Lake Vostok, sealed 3km beneath the Antarctic ice sheet for millions of years.

It is the first time a breakthrough has been made into one of the more than 300 sub-glacial lakes known to exist in Antarctica

Lake Ellsworth

British Antarctic Survey expected to begin drilling Nov 2012



Lake Whillans

U.S. team expected to break through late 2012

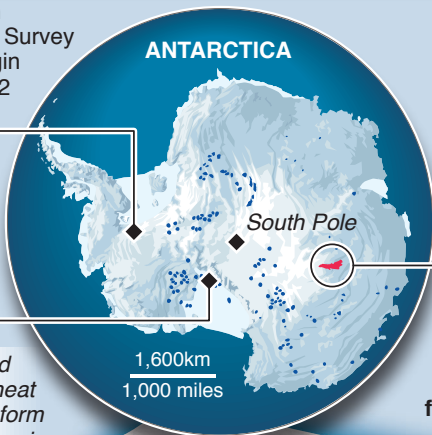


Lakes kept liquid by geothermal heat and pressure – form part of vast dynamic hydrological network under ice sheet

Bore hole: Filled with kerosene to keep from freezing over.
Heated drill tip used for final few metres to prevent contamination

■ Samples from overlying ice layers reveal 400,000-year environmental record with microbes present throughout core

■ Vostok considered to be good model for ecosystems that might exist under surfaces of icy moons of Jupiter or Saturn



Feb 4, Lake Vostok: Drill contacts lake water at depth of 3,769m



At 15,000 sq km and over 800m deep in places, Vostok is similar in size to Lakes Ontario or Baikal

Vostok sealed off from air and light for between 15 and 34 million years

