

Lake Baikal

- 1▶ Crescent-shaped Lake Baikal, in Siberia, is only the ninth largest lake in area at 395 miles (620 kilometers) in length and 46 miles (74 kilometers) in width, yet it is easily the largest body of fresh water in the world. It holds one-fifth of the world's fresh water, which is more than the total of all the water in the five Great Lakes, a group of lakes located on the border between Canada and the United States. It holds so much fresh water despite its less-than-impressive area because it is by far the world's deepest lake. The average depth of the lake is 1,312 feet (400 meters) below sea level, and the Olkhon Crevice, the lowest known point of the lake, is more than 5,250 feet (1,600 meters) deep.
- 2▶ Lake Baikal, which today is located near the center of the Asian peninsula, is most likely the world's oldest lake. It began forming 25 million years ago as Asia started splitting apart in a series of great faults. The Baikal Valley dropped away, eventually filling with water and creating the deepest of the world's lakes. Underneath the lake, below a sediment layer of 4.3 miles (7 kilometers), the earth's crust continues to separate at a rate of about 2 centimeters per year. The fault zone also has continual seismic activity with the regular recording of earthquakes every 3 to 4 years. The lake is singular among large high-latitude lakes due to the fact that its sediments have not been scoured clean by any continental ice sheets that flowed over the area, giving researchers a very specific record of climactic changes over the previous 250,000 years.
- 3▶ Surrounded by mountains, this large body of freshwater is located in a region where average temperatures range from below freezing in the winter to a cool 14 degrees Celsius (57 degrees Fahrenheit) in the summer months. Before convenient modes of transportation around and across the lake became common, those who were daring could cross the lake on foot during the deep winter freezes. However, these adventurous travelers put themselves at great risk for frostbite and hypothermia, since the large, flat open expanse of the lake allowed the cold wind to blow unhindered across its surface.
- 4▶ At the turn of the twentieth century, the Trans-Siberian Railroad was completed, which opened up travel to and around the lake. As more people came into contact with the lake, its potential as a commercially profitable resource was explored. This led a variety of investors, ranging from those interested in tourism and environmental preservation to those looking to develop new energy resources, to survey the area and introduce a wide range of commercial opportunities into the region. As a result, today the area has been developed to include hotels, resorts, and trails. In addition, although prior proposals to exploit the region for fossil fuel and nuclear energy sources have been largely restricted to preserve the natural beauty of the area, many predict that it is only a matter of time before large corporations will be permitted to fully utilize the abundant natural resources of the lake valley.
- 5▶ A number of environmental concerns have been raised as development of the Lake Baikal area progresses. One such concern involved the Bayalsk Pulp and Paper Mill, constructed in 1966. Because it was built right on the shoreline, it discharged chemical waste directly into the lake. Decades of protest from area residents had little effect in changing the conditions of the plant. Though it closed in 2008 due to lack of revenue, and with a promise from the owner that the plant would never reopen, it in fact resumed production in 2010, with support from the federal government, which created legislation permitting the mill operation, despite its polluting of the lake.
- 6▶ Residents and concerned environmentalists had more luck with the proposed oil pipeline that a major Russian corporation planned to route through the Lake Baikal Valley. Environmental activists and concerned local citizens worked together to keep the pipeline out of the valley. These groups pointed out that the consistent seismic activity in the area could cause a catastrophic oil spill that would be capable of destroying the ecological balance of the region. However, in spite of the numerous public protests, it was not until the government stepped in and requested that the oil company reroute the pipeline that the corporation agreed to honor the wishes of the protestors. Ultimately, the pipeline was diverted completely away from the federal and public natural reserves that surround Lake Baikal.

1. What is stated in paragraph 1 about the shape of Lake Baikal?

- (A) It is wider than it is long.
- (B) It is circular in shape.
- (C) Its width is one-half of its length.
- (D) It is shaped like a new moon.

5. Paragraph 3 states that Lake Baikal

- (A) is protected from the weather by mountains
- (B) never gets cooler than 14 degrees Celsius
- (C) is frozen enough to walk on in the summer
- (D) was dangerous to cross in the winter