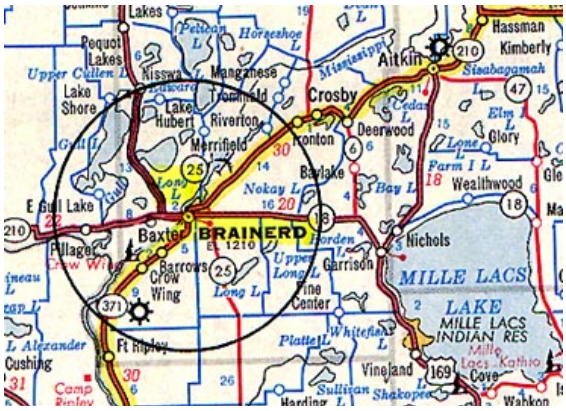
# Brainerd, Minnesota's Mysterious Lake Water That Won't Freeze






Brainerd, Minnesota, population 19,000, is north of Minneapolis and only about
90 miles south of the perpetual winter "icebox" of the United States, International Falls.
There are 450 lakes within 30 minutes of North Long Lake in Brainerd. All have always frozen
over each winter between mid-November and mid-April - *except* the west bay of North Long Lake
beginning in the winter of 2001-2002. So far testing has not confirmed what is warming
the half-mile hole surrounded by 18-inch-thick ice.

**January 31, 2003 Brainerd, Minnesota -** Two years ago, chiropractor Tom Holbrook watched steam rising in huge billowing clouds from the lake behind his house in Brainerd, Minnesota. "Beautiful," he thought, "but absolutely eerie." Tom has lived on the west bay of North Long Lake for twelve years and is chairman of the North Long Lake Association's Board. He and the other 30,000 residents in Brainerd and nearby Baxter north of Minneapolis expect the lake each winter to turn to thick ice between mid-November and mid-April. There are 450 lakes within 30 minutes of North Long Lake and people drive their trucks, cars, 4-wheelers and snowmobiles over the ice from lake to lake for fun and to ice fish.

That's how the first shock came in December 2001 when a fisherman set out in his 4-wheeler to do some night ice fishing and ended up dead in a hole of water that was not supposed to be there. Right after that, fifteen more people drove their snowmobiles into the same water hole. Fortunately, all of them were pulled out alive. But word quickly spread to stay away from the west bay of North Long Lake.

A year later in November 2002, Tom Holbrook and his neighbors could not believe the water hole showed up again.

Brainerd, Minnesota's North Long Lake and the hole of water
in the west bay that has not frozen over in the winters of 2001-2002 and 2002-2003.
The hole averages one-half mile long by 400 feet wide. Its depth is 24 feet. All of North Long Lake
covers 5998 acres and is 97 feet at its deepest point. There are currently 571 homes and cabins on the lake
including seven campgrounds or resorts, but no industries that release heated waste water.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## Interviews:

**Tom Holbrook, Doctor of Chiropractic and Chairman of the Board, North Long Lake Association, where he has been a resident since 1991:** "When that happened last year, we all thought it was just a freak of nature. We had some theories and everything, but when it re-occurred this year in the exact same spot I mean, we're talking on a 6,000 square foot, six mile long lake we're talking in the same identical half mile by 400-foot-wide stretch of open water in the ice. So, it's really puzzled us all.

It's just astonishing to look out there. If you walked out in Minnesota on a 20 degree below morning with a glass of water in your hand and threw it in the air, it will freeze before it hits the ground. You can leave a banana outside in 20 below weather for ten minutes and you can pound a nail with it.

It should be 18 inches to as much as 3 feet of ice right now in the middle of January. To see no ice is just extremely puzzling.

AND IT MUST BE KIND OF EERIE.

It's very eerie.

Much like, it reminds me of some of the hot springs you would see out in Yellowstone (National Park) this time of year the steam just coming up sometimes it will be 100 feet in the air, the steam. It's an enormous plume it actually looks like a cloud that has settled right on the ice. It's very eerie.

We've had theories from volcanoes to thermal hot springs to geysers to theories such as sunspots. We've had people suggesting such as space ships. We've had the crop circle crowds. We've had everything from springs that have developed to high ground water. We've even had a theory, someone just sent me a theory that we have the Long Necked Monster out there.

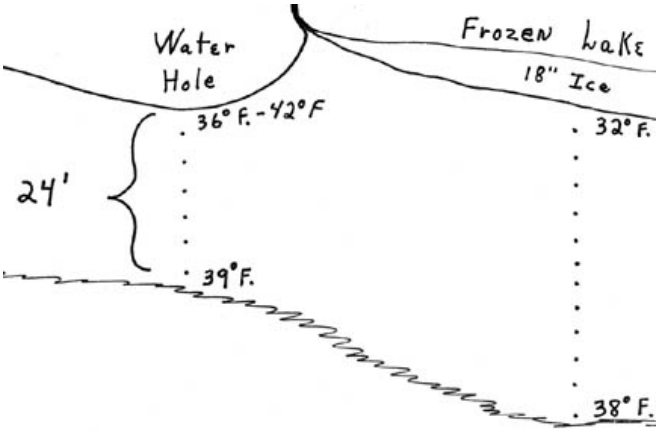
THE LOCH NESS MONSTER?

They actually sent a computerized image to me of this aerial view of our lake superimposed obviously digitally on the Loch Ness Monster in this hole. It really was hilarious."

## Diver Confirms Warm Temperatures and Very Still Water in the Hole

Todd Matthies from Minnesota School of Diving in Brainerd
dove into the water hole to take temperatures, test circulation with dyes
and to collect water samples for chemistry and microbe tests.
Photograph © 2003 by Steve Coles, *Daily Dispatch*.

On January 8, Todd Matthies from the Minnesota School of Diving, entered the water hole to take temperatures from the top down 24 feet to the bottom. In some spots, the temperatures remained the same 39 degrees F. from the bottom to the top. In other spots the range was from 39 degrees F. on the bottom to about 40 degrees or warmer on top. The warm temperatures were a surprise. The rest of the lake that had 18-inch-thick ice measured 32 degrees F. at the surface, which is normal. That means the water hole is several degrees warmer than the rest of the lake. What is heating that half mile stretch of water in the west bay?




Tom Holbrook, Todd Matthies and others drilled holes in the ice right up to the
water hole on January 8, 2003, to test the ice thickness in the west bay. Fifty feet from the open water,
the ice was 18 inches thick. Temperatures in the water hole's 24-foot-depth were warmer at the surface
than the rest of the normal lake water under ice. Illustration by Linda Moulton Howe.

Bill Matthies, owner of the Minnesota School of Diving, talked to me this week about another discovery when his son, Todd, dove to collect data for a Brainerd water lab.

**Bill Matthies, Owner, Minnesota School of Diving since 1959, Brainerd, Minnesota:** "The other thing we did was check the bottom to see if there was any irregularity. And the other mission we had was we went down with squeeze bottles with dye in it and we would squeeze the dye out into the water to try to see if there were any currents, to follow the dye moving to see if there would be a sporing or upwelling or a current from some place.

Then, we had our underwater videocamera and we videotaped the dive. From what Todd told me, the dye just hung there. He didn't see any current and he was on both ends and in the middle."

## Chemist Studies Water Collected by Diver

When chemist Alan Cizubar, Chief Executive Officer of AW Research Labs in Brainerd, studied water samples from the dive and compared them to samples collected from other parts of North Long Lake, the only differences were the higher temperatures, a bit higher iron content and a greener color.

**Alan Cizubar, Chief Executive Officer, AW Research Labs, Brainerd, Minnesota:** "One of the unique things is we see a color change. We see pretty normal color on the bottom, away from the hole about 2/10th of a mile away from the hole. But as we get closer to the hole, the water turns green. It's not chlorophyll. It's not an algae. It appears there is something in the water that's absorbing blue light, so we're only getting reflections of blue and green. That's one of the other questions we haven't figured out yet why we see that? Other than that, all the parameters come up pretty normal with anticipated ranges.

Diver Todd Matthies collecting samples and temperatures in the water hole which appeared greener in color compared to other North Long Lake water. Photograph © 2003 by Steve Coles, *Daily Dispatch*.

WHAT DO YOU SPECULATE COULD BE RESPONSIBLE FOR THE GREEN COLOR?

Well, it's some kind of a compound that is absorbing the blue light. That's what I'm thinking. If you take the water out in a bottle, it's perfectly clear, looks good enough to drink.

We have Nature Vision that has provided underwater cameras and they see that it looks greener than what they are used to seeing with systems they have tested and sold. I think it's a little greener.

YOU HAVE DEFINITELY RULED OUT ALGAE?

Yes. Are we seeing bacteria? We're doing some further testing right now to define that. We know what's keeping it open and that's a thermal gradient- it's heat that's keeping it open. But why it can do it and how it can keep generating that thermal gradient level when it's like 15 degrees F. below above on the lake and the wind is blowing at 20 mph and how it can continue to stay open is a pretty neat phenomenon. So that's what we have to understand: how is that, where is that heat coming from?

IF THOSE OF US LISTENING WERE THERE AT THE LAKE, WE WOULD SEE THAT THERE WAS AT LEAST 18 INCHES THICKNESS OF AN ICE CRUST ON THE LAKE EXCEPT WHERE THIS HOLE IS?

That's correct. One researcher who came up from Iowa said, 'This is a lot more strange than I anticipated it would be!'"

Diving team on January 8, 2003 drilling ice next to water hole to test thickness. Twenty feet from the open water, the ice was six to eight inches thick. Fifty feet away, the ice was 18 inches thick. Photograph © 2003 by Steve Coles, *Daily Dispatch*.

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**Credits**