1
00:00:00,050 --> 00:00:04,200
[music] Narrator: The Pine Island Glacier has been called

2
00:00:04,220 --> 00:00:08,390
the weak underbelly of the West Antarctic Ice Sheet. It’s large, thinning rapidly,

3
00:00:08,410 --> 00:00:12,570
and is a major area of focus for researchers concerned with

4
00:00:12,590 --> 00:00:16,610
contributions to sea level rise from shrinking ice sheets and glaciers.

5
00:00:16,630 --> 00:00:20,690
For years satellites and airborne missions have been observing changes

6
00:00:20,710 --> 00:00:24,810
in both the upstream ice flow and the glacier’s floating ice shelf.

7
00:00:24,830 --> 00:00:28,940
One of the major factors affecting the ice is the comparatively

8
00:00:28,960 --> 00:00:33,060
warm water circulating in Pine Island Bay.

9
00:00:33,080 --> 00:00:37,210
This water can eat away at the ice shelf from below.

10
00:00:37,230 --> 00:00:41,290
But until now, we haven't had direct measurements of how warm the water is

11
00:00:41,310 --> 00:00:45,370
or how fast that ice is melting.

12
00:00:45,390 --> 00:00:49,420
After five years of study and preparation, an international team of researchers

13
00:00:49,440 --> 00:00:53,440

has drilled through 500 meters of ice to install a

14
00:00:53,460 --> 00:00:57,620
series of instruments below the ice shelf to measure both ice loss

15
00:00:57,640 --> 00:01:01,800
and the temperature, salinity, and speed of the water.

16
00:01:01,820 --> 00:01:05,810
At one location, they found melt rates of more than

17
00:01:05,830 --> 00:01:09,980
2 inches per day. Scientists will continue to analyze the data

18
00:01:10,000 --> 00:01:14,160
from these instruments to learn more about seasonal changes in the interaction of