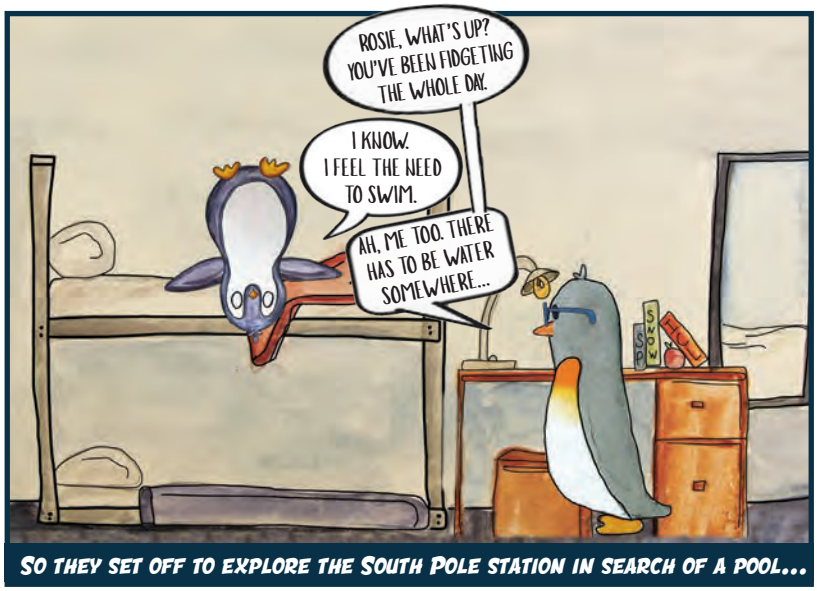
ADVENTURES WITH ROSIE & GIBBS

the lost penguins

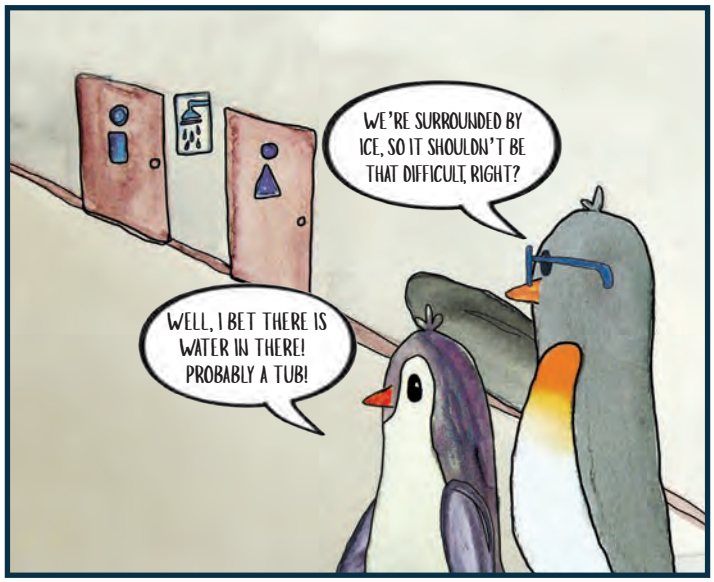
IceCube

ADVENTURE 4: IN SEARCH OF WATER AT THE SOUTH POLE STATION

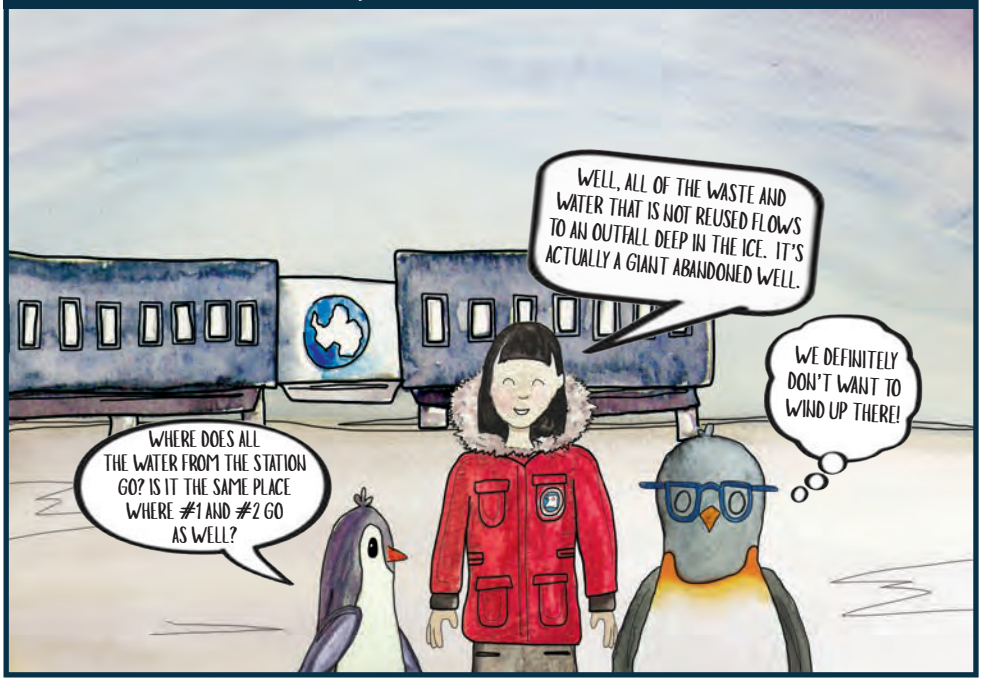
NOVEMBER 2018



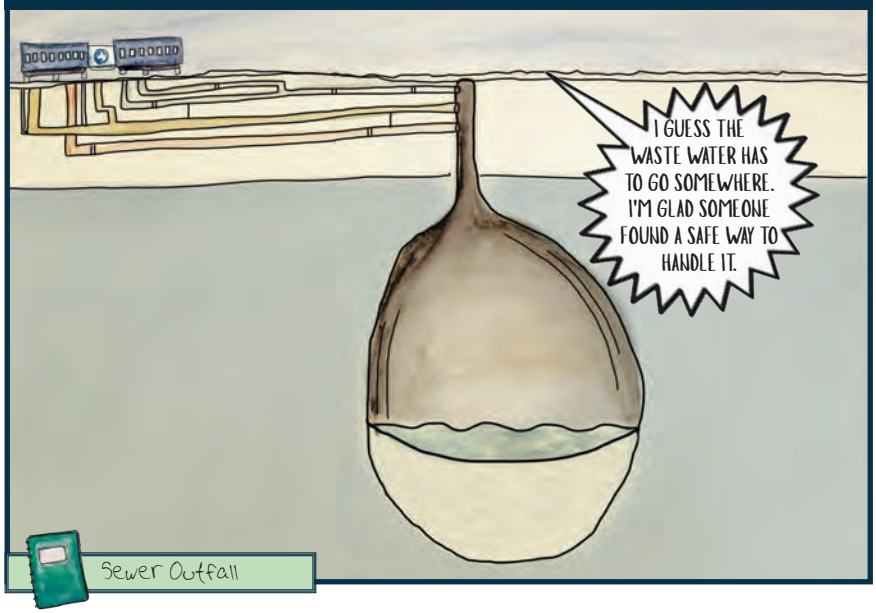
SO THEY SET OFF TO EXPLORE THE SOUTH POLE STATION IN SEARCH OF A POOL...

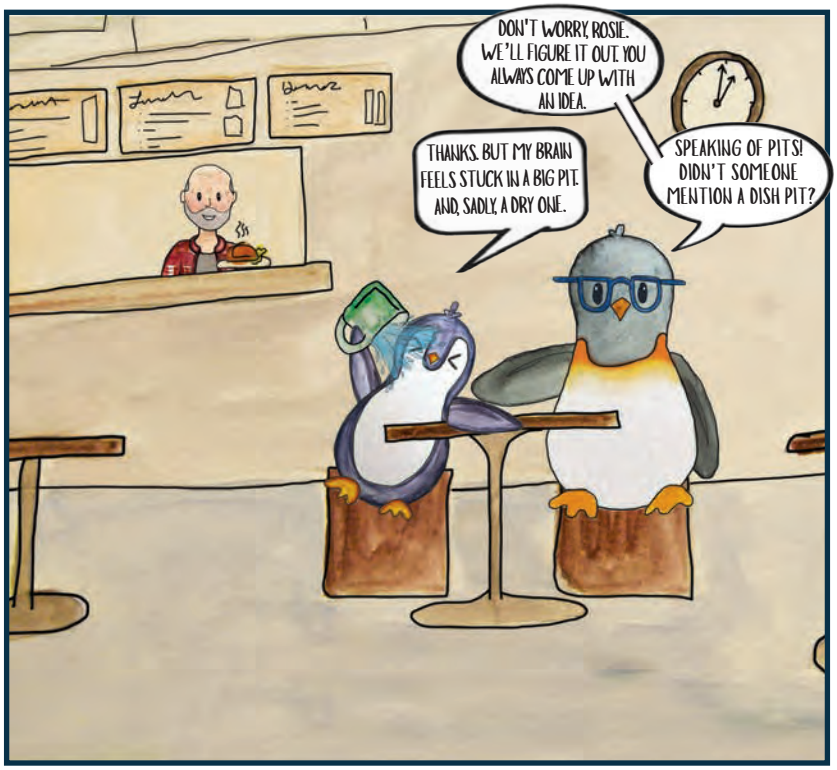


THEY DECIDE TO FOLLOW THE PIPES, HOPING TO FIND WHERE ALL THE STATION'S WATER ENDS UP.

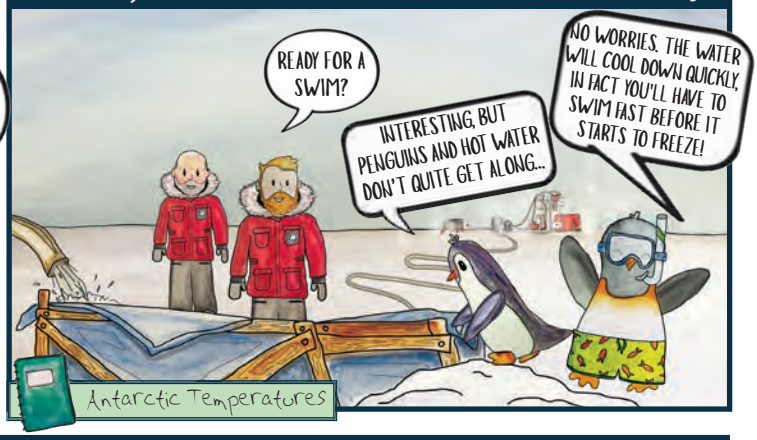


THE BURIED WELL ISN'T THEIR ANSWER, BUT OUR PENGUINS DON'T QUIT JUST YET. THEY HEAD TO THE GREENHOUSE. PLANTS NEED WATER, TOO.





ROSIE AND GIBBS ARE FILLED WITH EXCITEMENT WHEN THEY SEE WHAT LOOKS LIKE A POOL, UNTIL THEY REALIZE THE DRILLING USES EXTREMELY HOT WATER!



THANKS TO THE WINTEROVERS, ROSIE AND GIBBS WERE ABLE TO GO FOR A SWIM HUNDREDS OF MILES AWAY FROM THE OCEAN.

Rosie's Discoveries

Sewer outfall

All of the waste water at the pole, including water from the showers, toilets, and kitchen, flows in pipes to giant, old, dry wells in the ice. There the waste is frozen.

Hydroponic farming

The garden at the South Pole has no soil; instead, they set the plant's roots into mineral-enriched water, which allows the plants to grow. Volunteers from the station help grow things like greens or tomatoes that cannot be frozen and shipped to the Pole like other foods.

IceCube drill

IceCubers used a hot-water drill to make deep holes in the dark ice to build the IceCube detector. After the holes were melted, the DOMS were strung all the way down to the bottom of the water-filled holes.

Antarctic temperatures

It turns out that Antarctica is not only the coldest place on earth but also the driest. No wonder we had a hard time finding water. Temperatures can range anywhere from -83°C to- 12°C. Wow!

Water at the South Pole Station

First, I was surprised not to find water at the station, but it makes sense now. After all, we're living in a desert, in a frozen desert! Even in Summer, everything is frozen. Melting ice and keeping it liquid is not an easy thing! I've learned that they use the heat provided by the electric power generator plant to melt the ice for the water used at the station. The water is actually too pure for the people to drink so they add minerals to it! How cool is that!

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