

A whole new level of plastic in water

Researchers find nanoparticles in bottled products in far greater amounts than previously expected.

By CORINNE PURTILL AND SUSANNE RUST

It seems anywhere scientists look for plastic, they find it: from the ice in Antarctica to the first bowel movement produced by newborn babies.

Now, researchers are finding that the amount of microscopic plastics floating in bottled drinking water is far greater than initially believed.

Using sophisticated imaging technology, scientists at Columbia University's Lamont-Doherty laboratory examined water samples from three popular brands (they won't say which ones) and found hundreds of thousands of bits of plastic per liter of water.

Ninety percent of those plastics were small enough to qualify as nanoplastics: microscopic flecks so small that they can be absorbed into human cells and tissue, as well as cross the blood-brain barrier.

The research, which was published Monday in the journal Proceedings of the National Academy of Sciences, raises new concerns about the potentially harmful health effects — and prevalence — of nanoplastics. The researchers found that the quantity of such particles was 10 to 100 times greater than previously estimated.

"For a long time before this study, I actually thought that what was inside bottled water [in terms of] nanoplastics was just a few hundred PET particles," said Naixin Qian, a Columbia chemistry graduate student and the study's lead author. "It turns out to be much more than that." PET, or polyethylene terephthalate, is a type of clear plastic that is commonly used for single-use water bottles.

Microplastics — particles that range from 1 micrometer to 5 millimeters in size — have been documented in bottled and tap water for several years. But the identification of [See **Plastics**, A7]

Pope seeks ban on surrogacy
Francis calls the practice "despicable," asserting that it commercializes pregnancy and exploits women. **PERSPECTIVES, A2**

A setback for Mars mission
Federal budget could cap spending on JPL project to bring pieces of the Red Planet to Earth. **CALIFORNIA, B1**

A dull start to awards season
Despite a galaxy of stars in attendance, the Golden Globe Awards turned out to be dud. **CALENDAR, E1**

Weather
Mostly sunny.
L.A. Basin: 64/43. **B6**

Printed with soy inks on partially recycled paper.

7 85944 00200 5



CHRISTINA HOUSE Los Angeles Times



National Transportation Safety Board

FEDERAL transportation safety inspector John Lovell, above, examines the fuselage plug area of Alaska Airlines Flight 1282 that blew out Friday while en route from Portland, Ore., to Ontario. Both United and Alaska grounded their fleets of Boeing 737 Max 9 commercial airplanes and canceled flights in the aftermath.

Like a recurring nightmare in the West Bank

Repeated Israeli raids that tear up streets and destroy homes in Jenin, a center of resistance, seem intended to make the city uninhabitable

By NABIH BULOS

JENIN, West Bank — When the raids come, a lot of things happen at once in this Palestinian refugee camp in the occupied West Bank.

Residents shout and round up family members. Many flee on foot, while some speed to safety in cars, honking to rouse others before gunning the engine. Instead of a call to prayer, mosque loudspeakers crackle with warnings of another Israeli army incursion. Then there's the bass-clef rumble of the D9 bulldozer. That's the sound 33-year-old Issa Hweil listens for.

He knows it's the prelude to a bout of destruction that will turn the camp's roads into a churned-up swamp of mud, cracked asphalt and broken pipes.

The morning after one [See **Jenin**, A4]



MARCUS YAM Los Angeles Times

A MAN tries to jump across a muddy street a day after Israeli forces conducted a raid last month in Jenin, West Bank. Soldiers use bulldozers to rip up the roads.

Is Trump — or any ex-president — immune from the law?

By DAVID G. SAVAGE AND SARAH D. WIRE

WASHINGTON — There's a beloved American axiom as old as the nation that "no one is above the law — not even the president."

Every generation or so, that gets tested in the courts, and it's about to happen again.

This week, former President Trump will ask a Washington appellate court —

and soon after, probably, the Supreme Court — to rule in effect that, well, sometimes a president should be above the law.

Trump is the nation's first former chief executive to be charged with a crime, but he argues that an ex-president is immune from prosecution for "official actions" undertaken while in the White House.

Trump was indicted on charges of conspiring to obstruct the official certifica-

tion of Joe Biden's election victory and seeking to defraud Americans of their rightful votes. Trump is charged with four federal felonies and has pleaded not guilty to all charges.

The Justice Department has long maintained that a sitting president cannot be charged with a crime while in office. Impeachment is the only remedy for removing a sitting president who breaks the law.

But there is no clear pre-

cedent on whether a former president may be prosecuted for what he did while in the White House.

The outcome of Trump's case could affect all future presidents, potentially subjecting them to prosecution from political rivals who come later.

A ruling in favor of Trump could also upend one of the most internationally admired aspects of the U.S. democratic system: the peaceful transition of gov-

ernment from one political party to another.

Here's a look at the legal stakes raised by Trump's immunity claim.

Has the Supreme Court ever shielded a president or ex-president from a criminal case?

No. The best recent example is President Nixon and the Watergate affair.

In 1974, the court unanimously rejected Nixon's [See **President**, A10]

What exactly is a door plug?

We answer this and other questions raised by the Alaska Airlines jet blowout. **BUSINESS, A6**

United finds loose bolts on planes

Boeing Max 9 jets are grounded as inspectors examine door plugs. Flight 'black box' erased.

By MATT HAMILTON AND JEREMY CHILDS

United Airlines investigators found loose bolts and other door plug installation issues when investigating their fleet of Boeing 737 Max 9s — potential clues to indicate how the same piece of fuselage blew out on a recent Alaska Airlines flight.

Both United and Alaska have grounded their fleets of the commercial airplanes and canceled hundreds of flights in the aftermath of the incident, which occurred on Alaska Airlines Flight 1282 from Portland International Airport to Ontario on Friday night.

The aircraft had reached about 16,000 feet elevation when the cabin underwent "explosive decompression," according to Jennifer Homendy, chair of the National Transportation Safety Board, and the door plug burst off the side of the plane.

Among revelations at a Sunday night news conference, the NTSB chief said the door plug the agency had been searching for had been found by a Portland, Ore., teacher in his backyard.

"Thank you, Bob," Homendy said.

The teacher, referred to only by his first name, contacted the NTSB via email and sent two photos of the piece of fuselage, which was described as a 63-pound piece of the plane that is yellow-green in color on one side and white on the other. Two cellphones that plummeted from the aircraft also were found in the vicinity.

In addition, Homendy said that before Friday's midair incident, the plane had been restricted from long flights over water because of a warning light that had gone off at least three times in the last month, possibly indicating a pressurization problem on the aircraft.

"We don't know that there was any correlation" between the warning lights and what happened during Friday night's flight, Homendy said. [See **Planes**, A10]



Subscribers get more in the app.

Download now to experience all of The Times.

