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Low Life

They'll always need plumbers, Mike's Dad said. He said it so often, sometimes it seemed like the only thing he'd ever said. When Mike talked about going to college, the answer was, "They'll always need plumbers." When he went to college, it was the same. But he didn't listen. He wanted to travel, go places nobody had ever seen before. You couldn't do that by fixing toilets.

College turned out to be too many books, and too few new worlds. He dropped out after two years. He'd barely stepped off the bus with no idea what to do next, when there it came again.

"They'll always need plumbers."

So he gave up and became a plumber.

"Good choice, son," said his Dad for a change. "Don' matter where you are, Poughkeepsie or Pluto, you'll have a job."

Which was how it happened that when Mike shipped out for a moon of Jupiter, he went as a master plumber. He didn't go looking for new worlds. By that point, he just wanted to leave the old one behind. He almost didn't get the job because his psych profile said his wife had just left him. Personnel was worried about what they called his "stability." They would have been a lot more worried if they'd known that he'd loved her enough to let her take everything the two of them had, and then she even took his dog. Why else would he be shipping out to Jupiter?

But the biggest problem with being a plumber was that you had to deal with the same shit everywhere. His boss, for instance.

"Mike," she was saying, "ever since you've arrived, we've been having problems with contamination."

It didn't help that she had straight, floppy black hair, kind of like his wife — his ex-wife.

"The Station hired a master plumber," she continued, "precisely to avoid this kind of problem. We're trying to find *native* life here on Europa, not *E. coli*, you know."

“Yes, ma’am.”

“So what’s the problem? Why can’t you get a handle on this?”

“I —”

“I’m not a master plumber, but even I know that there has to be a leak in tertiary treatment somewhere, which is letting contamination through.”

“Yes, ma’am.”

“Look, are you taking this seriously enough?”

“I —”

“It’s costing the Station thousands of dollars to sterilize every pint of waste so that we don’t contaminate the whole damn moon. By next week, I want to hear that you’ve found the problem and dealt with it. I’m not having my Department be the one hemorrhaging red ink every time the Section Heads meet.”

“Ma’am, we should do a full genome scan —”

“For a couple thousand *more* dollars? For dead-common *E. coli*? Are you nuts?”

“No, ma’am. It could be a dangerous mutant. It —”

“Nobody’s sick, so it can’t be too awful. I am not spending thousands of dollars on a gold-plated study of sewage. And that’s final.”

“Yes, ma’am.”

A pretty typical talk with a boss, as these things went. He said, “Yes, ma’am,” (or, “sir”) and at the end he still had a job. They never seemed to want to know what he thought was wrong, which, given that he was the guy standing in the crap, might be worth knowing.

Although, this particular time, the only thing he knew was that he didn’t actually know anything. Sure, the test strips said it was *E. coli*. But test strips weren’t known for their intelligence. They probed for a tiny segment of DNA, and that was all. They said nothing about how good the match was. They said nothing about all the rest of the DNA. And the rest was obviously very far from normal *E. coli* because the contamination was worst right *after* the sterilizer. On Europa, that was a clear-topped tank at the surface, which exposed the Station’s water to the hard radiation up there. That killed everything. It even disintegrated the exposed equipment in a matter of months, which had to be replaced. And yet that was where the test strips showed the contamination.

Mike was so frustrated nobody wanted to find out what was really happening that he’d even tried looking at a sample under a microscope himself. That didn’t cost anything, but it didn’t help either. All he could see was that there were rod-shaped bacteria in there. They could be anything. You could never tell much about bacteria by looking at them.

On the other hand, everybody who did know how to study the damn things, didn’t. Nobody came all the way out to Europa to study *E. coli*, not even if it survived after every bolt and pipe was completely chlorine washed and steam-cleaned. As far as everyone else was concerned — “everyone” being his boss — every time the test strips came up positive, all it meant was that Mike was a failure.

It was lunch time. He wasn't hungry after that little chat with the boss, but if he didn't eat, he might find himself talking to a counselor. The scientists could skip meals and work late, but plain workers were supposed to lead "balanced" lives or management wanted to know the reason why. His crew was all sitting together at one table in the canteen as usual, since doing anything else meant sitting at a table full of scientists or secretaries. Almost everyone was there. Blonde, chubby Jessica, the craggy-faced old guy, and, of course, Artie Ahearn. The guy who'd assumed he was going to be foreman until Mike was hired over him. The one free chair would have to be next to him. He was a gangling, red-haired fellow with, at this point, ketchup all over one side of his mouth.

He interrupted his chewing to say,

"That was the boss lady pagin' you again, Mikey."

"Yup."

"Seems to want to see a lot of you," said the guy with a grin.

Mike wondered whether to tell him what he looked like, grinning with his mouth full. But being foreman meant that there was lots of stuff Mike couldn't do. At least, that's what it meant to him.

"You take care of your work, Hernie, and I'll take care of mine," he said instead. He knew Ahearn hated being called "Hernie."

"Hey, mate, I thought you said we're all in this together." The man grinned again.

He tended to go back to his Australian roots when he was madder than usual.

"Well, we will be," said Mike. "We'll all be in the same ship headed back to Earth if this contamination problem isn't sorted out. Which might not be such a bad thing."

"It's nothin to do with me," said Ahearn immediately. "It started three months ago."

That was when Mike arrived. The guy never missed a chance to point that out.

"The rest of us," Ahearn was going on, "worked with an old hand here for months at first. You learn all sorta tips and tricks."

Mike felt like saying, *"Aw. You're depressed you couldn't spend more time with me, teaching me how to keep shit out of drinking water. I'm touched."* But he managed to keep his mouth shut long enough for someone else to start talking, and the moment passed. One of these days it might not.

"Might just be the Station getting old," said the veteran of many space stations, practically right back to the first one ever built.

"Old!" piped up Jessica. "This one was built five years ago! And it's not like we've been slouches, maintaining it."

She'd been there right from the start, and nobody was going to tell her she'd been doing a bad job, no matter how many stations he'd worked on.

"You can take care of it like the family jewels," the veteran argued. "That's not the point. It's the hard radiation. The seals give out. You shoulda seen the

moon base after two years. Dust everywhere.”

“I still say we oughta look at what changed three months ago,” Ahearn said again. “New policies, all that stuff.”

“Christ on a bike, Artie,” said Jessica. “You keep tryin to pin it to three months. Three months ago is when we started *finding* it. Nobody knows when it started. What changed three months ago was that Mike had us looking in places we didn’t check before.”

“Maybe messin with the system is what gave us the contamination. Have you thought of that? I mean, sure, management likes to hear rosy scenarios, but we’re tryin to solve a problem here.”

Jessica stared at her plate for a second. When she looked up, she stared just as fixedly at Ahearn.

“Well, here’s another thing to think of. We’ve chlorinated, like, five times since we found the stuff. It keeps reappearing. Almost like someone’s putting it there.”

“What are you sayin?” demanded Ahearn.

“I’m not sayin any more than you are with your ‘three months’ all the time.”

Mike could see Ahearn get livid. Literally. His red complexion went white around his mouth, and his lips peeled back from his teeth in a vicious grin.

“You sure work hard at tryin to get the easy jobs.” His glance flicked at Mike.

Jessica carefully separated out the recyclables and the dishes on her brown tray, even though she hadn’t eaten all of her lunch.

She stood up.

“You got ketchup all over your face, Hernie,” she said.

He touched his face before he could stop himself, and Mike almost laughed.

Jessica was all the way across the canteen and cleaning off her tray before anyone said anything.

Mike leaned back in his chair and looked at the man, who was using his napkin for the first time.

“Artie Ahearn,” he said, being all formal to tell him that this was his foreman speaking and not pushover Mikey. “You said it yourself. I think we’re in this together. So when I give out the scut work, I give some to everybody, including me. But I could do the assignments the way they do them back on Earth. Based on length of service as a journeyman.” Ahearn was the most recent hire on Mike’s crew, except for Mike himself, who hadn’t been a mere journeyman in years.

The man got whiter around the mouth, but didn’t say anything.

Mike didn’t say anything either. He was busy wondering just how far Hernia-boy was willing to go to make him look bad. And if it was far enough to be actual sabotage, he’d better start watching his back with every ounce of smarts that he had, because Ahearn was always damn good at what he did. There was a reason why he thought he was going to be the next foreman.

Sabotage made a lot of sense, now that Jessica had mentioned it. It was probably the only thing that could explain the way the stuff kept showing up where

it shouldn't. He ought to have thought of it himself, except he never did. He always assumed people would treat him the way he treated them ... and then wound up wondering why he was shipping out to Jupiter with one suitcase to his name.

Of course, if he was going to start being suspicious, to be fair he had to be suspicious of everybody. Including, for instance Jessica. She had a face like a cherub, and had shown him all over the Station when he arrived. She was always helpful. She didn't look like a plumber, which was also nice. And she was carrying a difficult past, just like him. There was something to do with her family and a stepfather she didn't talk about.

But a pleasant manner didn't mean a thing. It wouldn't be the first time he'd been successfully lied to. And everybody who wound up here, in the Foreignest of Legions, had something they were leaving behind. Even Ahearn. His personnel record had one line noting that his wife had died in a traffic accident.

What it came down to, thought Mike, was that he just didn't know. If it was accidental contamination, he had no idea how it was happening. If it was sabotage, he knew even less. Except that in that case, there were ways to find out more.

He set the whole crew to sterilizing everything one more time. The water system would have to be shut down and flushed. There were groans everywhere. There were even groans over the PA system.

Then, by himself, when he was sure nobody was watching, he rigged up three of the tiny robot cams normally used to inspect blocked pipes. If somebody really was contaminating the pipes on purpose, that somebody was going to jail.

"What are the robocams for?" Jessica asked the next day.

Mike said nothing. He didn't have any quick excuse handy. He hadn't realized he was going to need one.

She started looking embarrassed.

"Uh, it's no big deal. I was just curious. I happened to notice that you were in the pipe closet when I was on my way to my dorm. Um"

She trailed off, looked at the floor, and then at a console near the wall.

Mike's first thought was, *Why the hell is she following me around, keeping an eye on me?* His second thought was that she wouldn't be letting him know she'd noticed if she had a guilty conscience.

"Anyway," she continued, "I just wondered if Ahearn is supposed to be doing a surface check. 'Cuz he's up there."

"Checking the outside of the sterilizer tanks, you mean?"

She nodded.

Mike went over to the terminal by the wall, and called up his duty rosters.

"I thought so. He's supposed to be doing that two weeks from now."

He stared at the console and thought. He could call the man's suit radio and ask what the hell he was doing, but if he was up to no good, the direct approach wouldn't achieve anything and it would let him know he was being watched.

If Hernia-boy was taking secret trips to the surface, and somehow introducing contaminants into the sterilizer tanks from the outside, that would explain a lot. Mike had better get himself up there immediately and follow Ahearns footsteps, testing for *E. coli* the whole way, before the hard radiation had time to disintegrate everything to its component atoms.

“Okay,” said Mike. “His suit coordinates say he was at tank four.” He opened a cabinet and pulled out a completely new test kit. “We just sterilized everything. Let’s go see what we find. I’d like you to be there to document everything I do.”

Jessica acquired a look of grim, uncherubic satisfaction.

“You really don’t like the guy, do you?” said Mike as they walked toward tank four.

She blushed furiously and didn’t say anything. Gradually the red receded, although she still had a suffused, fixed look. It was funny, thought Mike, how that look marked a blush even on people who didn’t turn visibly red, such as black people like himself. It was almost as if the mind’s eye could detect infrared.

She finally spoke, now that she had a hold of herself and was almost back to her normal pink.

“It’s not that at all. I’m just trying to help.”

“Hey, don’t get me wrong. I think you’re far from alone when it comes to Ahearn.”

“Yeah. Right.” She still looked furious, and she was turning red again. “I’m probably alone in him propositioning me though, first chance he got.”

“Say, what?”

“Just what I said.”

“That’s against every rule in the book. If you want to complain about him, I’ll back you all the way. *And* I’ll read him the riot act.”

Jessica grinned without any humor.

“You don’t like the fellow much either, eh?”

Mike skipped a beat, then said,

“It’s not that at all. I’m just trying to help.”

Her smile became genuine for a heartbeat, and vanished.

“What I really want is to turn him into mincemeat myself. But he just grins down at me from up near the ceiling, and acts like I’m nobody.”

They’d reached tank four, and Mike knelt down to open the kit and start the testing procedure. He told her to turn on her comm’s camera, and sat back while the test strips took their minute to show a reaction.

“You know,” he said, “he may have hit on you, but he can’t stand you. You have achieved that.”

Jessica glanced at him, surprised, and smiled as she looked away. This time the smile stayed there.

Then the kit beeped, and Mike pulled out the test strip, and they both stared. Positive.

“Okay. Out to the surface. Double quick. Before every trace of the stuff degrades. Where’s Hernia-boy?” Mike checked his whereabouts. “In the suit storage room. So he’s down and out. Let’s go.”

Following the exact path Ahearn had taken, they reached a spot right at the edge of the top side of tank four where the infrared signature of escaping heat gave off a faint glow on the scanner, indicating a breach in the tank’s hull. And all around the leak, trampled into the dirty surface ice, were still traces of *E. coli*.

Mike stood in the boss’s office, feeling jumpy. It wasn’t the first time he’d had to report on a firing offense, but it always made him feel bad. By way of easing into it, he said Ahearn had taken an unscheduled trip to the surface.

“Yes,” said the boss. “He just reported to me, barely half an hour ago that there was a leak up there.”

“He did?” *Why in hell was he reporting something that would allow the sabotage to be traced to him?* And why wasn’t the boss wondering that it hadn’t been reported to Mike, as it normally should have been?

“Did he also mention that after he’d been there, *E. coli* contamination showed up in tank four, and around the hull breach?”

“What?”

Mike explained exactly what he’d done.

The boss pushed a button on her intercomm.

“Mr. Ahearn? Come to my office, please. As quickly as is compatible with safety.”

That was space-speak for “Get your butt in here instantly.”

He appeared in less than a minute by the wall clock, looking worried.

The boss said without any preamble,

“Apparently, there was something you overlooked in your earlier report. *E. coli* contamination followed your activities. Can you explain that?”

“What! What’re you sayin, m-Ma’am?” demanded Ahearn.

“Contamination was found in tank four, after you were busy with it at the surface. And a subsequent check of the surface found contamination there, too. Careless work,” she said, narrow-eyed. “You could have at least not spilled it all over everywhere.”

“But, but I didn’t! I was up there checkin for leaks. Old Jim mentioned leaks at lunch, and that area around tank four has been lookin strange to me for weeks – something about the way the ice there looks, grayer, or something – so I thought I’d go up and check. And there *was* a damn leak. I didn’t do anything but look for it. I didn’t spill anything. I didn’t do anything but look for it!”

Suddenly he turned on Mike.

“And I suppose you found all this contamination.”

The next thing he was going to say hit Mike like a brick. *I bet you put it there.* Of course. This was the man’s frame. Why hadn’t he thought of that? But what Hernia-boy didn’t know was that Jessica had documented every step Mike took.

“Well, good for you,” said Ahearn. “Now all you gotta do is find out who did it, because it wasn’t me.”

“And who do you suggest?” said Mike. “Nobody’s been up there in days, except you. The tanks were sterilized yesterday, and minutes after you’re up there, *E. coli* shows up.”

“How should I know who did it? If I was going to do something like that, I sure as hell wouldn’t sign out a suit, all legal and proper, and then do it while I had the transponder and locator going full blast.”

True, thought Mike. That didn’t make a lot of sense. Besides, now if anyone pointed out that there was no record of Mike being up there, it would be proof of guilt rather than innocence.

“You want to find out who did it, go test every arse on the Station.”

“That wouldn’t be any use, Mr. Ahearn.” The boss didn’t look like she believed a word he said. “The test strips ID it as one of the commonest strains. Everybody on this Station probably has it. Including you.”

“It wasn’t me, I tell you! Hell, he’s just throwin this out, trying to see what’ll stick to the wall. Where’s the container I’m supposed to have carried the stuff around in? Where’s the new water ice where I supposedly spilled everything? Huh? Where is it?” He turned on Mike again. “He’s just tryin to put it on me to save his own job.”

Hernia-boy. Always the charmer, thought Mike. But some of what he said was true: finding him together with *E. coli* was not the same as finding him causing it.

Although it sure felt like a “beyond a reasonable doubt” situation.

But it didn’t feel like a frame. If it was one, then why wasn’t Hernie framing? He was just yelling that it wasn’t him with the desperate conviction of a man without an alibi. It would make a lot more sense to have an elaborate lie ready, if he was really guilty.

It wasn’t fair to fire someone just because he couldn’t prove he was innocent.

“Ma’am,” said Mike, “he does have a point. It looks bad, but there isn’t any proof. We should make sure we know what we’re dealing with, one hundred percent, before taking other steps.”

“We do know what we’re dealing with,” said the boss. “*E. coli* in the sterilizer. And I, for one, have had enough of dealing with it. I’ll need your signature and thumbscan, Mike, on the form stating the facts in the case.”

But Mike was no longer happy with the facts in the case. One of his workers was on the line, and there were too many things that didn’t fit, especially the fact that Ahearn was just making helpless assertions nobody would believe.

Mike departed from the policy of a lifetime.

“No, ma’am,” he said. “I’m sorry, but I can’t do that until we actually have all the facts in the case. I feel very strongly that we must have proof before one of my crew gets terminated.”

“Mike Warner, are you seriously telling me you want this Department to pay thousands of credits for the microarray scans Station Enforcement will require to prove exact matches between this contamination and whatever they find after searching Mr. Ahearn’s effects? All just to reach the obvious conclusion?”

“When it’s obvious, I’ll sign the forms. Right now, I think Ahearn has valid objections.”

“Mike, with all the extra costs of the contamination – which has happened on your watch, I might add – this Department is so over budget, I’ll be lucky if I don’t wind up having a little chat with the Head of Support Services in Geneva. Scans will push us right over the edge. If it was actually necessary, I wouldn’t hesitate, of course, but this is just a waste.”

Mike looked at his feet, set his mouth, and replied.

“Ma’am, unless we have proof, I’ll support Mr. Ahearn if he applies to the union for legal representation to sue for wrongful dismissal.”

There was silence. The boss stared at him. Out of the corner of his eye, he could see Hernie staring at him with his mouth open. It didn’t improve his looks.

The boss’s eyes narrowed. Always a bad sign.

“Well, if you feel that strongly about it, that’s your right, of course. However, the whole Department will have to economise to make up for the added costs. There won’t be enough money for any discretionary items. Like private quarters for upper-level staff.” She was looking at Mike. “You’re sure you feel all that expense is necessary?”

Mike looked at his boots again. Man, she sure didn’t want to talk to anyone in Geneva. ... And he sure didn’t want to lose his one little bit of privacy for the sake of Hernie “Charming” Ahearn On the other hand, he did want to be able to face himself in the mirror. He tried to think fast.

“How about if I tried to make the case a bit more solid before we have to spend money on lab work? Enforcement would want us to prove that the contaminant, and what’s on the space suit boots, and whatever they decide needs testing in his personal stuff is all the exact same thing. I’ve actually done a couple of full microarray genome scans –”

The boss interrupted, looking incredulous,

“And when –. Oh, wait, they take you through that in the advanced certification for work on space stations, don’t they? Part of the versatility training, I believe.”

“Yes, ma’am. It was just one of the simple kits, where we had to add Solution A to Solution B, and that kind of thing. But I could look it up to remind myself exactly how to do it, and try to take a look. It would tell us whether there’s enough of a match to pay a tech for the official version. I assume the cost of the tech is the most expensive part?”

“It won’t save much on hourly wages, unless you do it on your own time.”

“I’ll do that, ma’am,” he said, feeling tired. “I’ll do it on my own time.”

“You know, Mike, you’ve been pushing for a full scan since day one. Tell me this whole thing isn’t an elaborate set-up to get what you want.”

“No, ma’am.” He was pretty sure she’d actually made a joke there, but it was hard to know with her.

“Well, one more thing then. Why should I believe your results? Aren’t you an interested party?”

“Because I’d believe them. Ma’am.” Ahearn spoke suddenly.

“Mrm,” she muttered in noncommittal assent. Then she took a breath that was louder than it needed to be. She pushed another button on her intercom. Soon she was talking to the law.

“All right,” she said, pushing the disconnect button, “they’ve impounded the suit he used. You’ll be wearing a legalcam once you take samples from it and until you get me your results. An officer will be here momentarily to attach a cam to you, too, Mr. Ahearn, following the usual procedure.”

She pushed another button.

“Hang on a second, Mike, and I’ll see if I can’t get us a spare microarray from one of the bigger labs. That way there won’t be any real expense at all, and we won’t have to worry about economising.” She smiled thinly.

It was the first time Mike had ever seen her extend herself to help. Was this her way of saying she saw his point?

“So?” said Jessica, pouncing on Mike before he even reached the canteen.

“So, I’m gonna eat dinner,” he said, a bit surprised.

“I mean so what’s going to happen with Ahearn?”

“Oh. Nothing yet. First we have to show he’s guilty.”

“Show he’s — ! I don’t get it.”

Mike explained.

“And,” he wound up, “I get to spend all night trying to remember how to do this stuff.”

Jessica looked glum.

“We’re never going to get rid of him, are we?”

“We may not.”

She looked glummer.

“I haven’t had anything to eat since breakfast,” he said. “If you want to watch me eat, we can discuss what to do about Hernie as far as you’re concerned.”

She trailed after him, not looking too thrilled.

“I, uh, didn’t mean you *had* to. Whatever works for you.”

She started getting redder, until she was the color of one of the better class of tomatoes.

“Whatever works,” he repeated a bit desperately, wondering what to say to keep himself out of trouble.

“It’s,” she said, looking at the floor and the walls and far down the hallway, “it’s not that. It’s I’d ... like ... to go to the canteen. I just don’t want to waste the time talking about Hernia-boy.”

Mike stared at her for a second. Then he remembered that his w— ex-wife always had said that he was slow.

He had no idea what to say next. *How long have you felt that way?* No. *I’m glad to hear it?* Also not. *What do you want to do about it?* Definitely not. Although he’d really like to know.

She was still bright red, but as she looked at him looking at her, she started to smile.

That, he could deal with. He started to smile back.

“I guess you’re going to be pretty busy with all this stuff the next few days, huh?” she said.

Busy? He liked the sound of--wait, she didn’t mean that stuff, she meant the Ahearn stuff. He’d forgotten all about the Ahearn stuff. Life was really asking a bit much of him, if he was supposed to waste time on that now.

“I could probably help,” she said. “I mean, I do know how to read directions, and I took the basic Station certification. We did some lab work in that for advanced water quality testing.”

“Jessica,” he said, beaming “that’s really nice of you.” That was the one thing that could make messing with microarrays bearable. That was Or was she just trying to get close enough to the samples to make sure they gave the results she wanted? Couldn’t be. Or could it? “Uh, look, I’m not sure how to say this, but, given how you feel about Hernie, are you sure you want to help?”

She started to glower.

“How’m I supposed to take that?” she said. “If you mean, do I want to help Ahearn, then no, of course not. If you mean, will I try to fake the results instead of helping, well, then,”— for someone with such a cherubic face, she had quite a glower —“I do know the difference between doing what’s right and doing what I want, you know.”

“Jessica, I —. They’ll probably make you wear a legalcam.”

“Right. So?”

The hour was nearing midnight. Even the graduate students had left the lab where Mike and Jessica had been allowed to work. The samples were still waiting. Jessica began flowcharting protocols. Mike was still plowing through old

files from his courses, then checking twenty screens' worth of instructions. He remembered too clearly why it was that he'd dropped out of college.

Then, a couple of hours after that, they finally had their first result, taken from the sterilizer tank. They both leaned in toward the computer screen – and Mike realized he was too tired to even notice the feel of her at first. Man, Ahearn was really going to have a lot to answer for when he was finally done with this nonsense. Which should be soon now.

The results scrolled up.

They matched nothing. Absolutely nothing. Not *E. coli*, not eagles, and not earwigs. Not any living thing. Mike groaned.

"Oh, hell," muttered Jessica. "We screwed up somewhere." After a minute, she said, "Well, come on. We have to re-do it. The sooner we get started, the sooner we'll be done."

"You have got to be kidding."

"Do you want the answer or don't you?"

"I want the answer, all right. I just don't want to do the work to get it."

"Yeah." She grinned a bit. "I know just how you feel."

An hour later – they were getting better at it with practice – the results scrolled up again. This time they'd tried the sample off the space suit boots. But again, the results matched nothing in the world. Except they did match the previous ones.

"Mike, look at that. It says there's a hundred percent match between the two samples. But no match to anything else. How is that possible?"

How indeed?

"The only way to do that is if we got a real result the first time, and the same one second time around. If it was a mistake, we couldn't get the exact same mistake twice."

"What are we looking at here? The water tank or the stuff off his boots?"

"Both. Number one was water, number two was boots." Then he had a dreadful thought. What if the samples had somehow been switched, and they'd been working on distilled water or something the whole time? Although that should have led to no data rather than bad data. He found some of the regular test strips and dipped those in.

They came up positive for *E. coli*.

Either they were wrong or the microarray that looked at the whole genome was wrong. The microarray couldn't be wrong. The test strips were being fooled by ... by what?

By a one-in-ten-billion chance match with a tiny little stretch of DNA. By life that was right off scale, hiding in plain sight because it was camouflaged by a cheap test strip. Hiding in plain sight out on the surface where everyone knew nothing could survive, instead of being deep in the ocean where everyone was looking for it.

He looked at Jessica. She looked at him.

"What's that expression of yours? Christ on a bike. We've found life on Eu-

ropa. Now all we have to do is find a scientist who's willing to listen to a couple of plumbers."

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