

## Kinetico's "Magic Water" Helps Put Out a "Fire"

What does a Fire Chief do when the town's fire trucks are showing signs of premature rusting and corrosion? After evaluating potential causes of this problem, Chief John Phillips from the Auburn Township, Ohio Fire Department called Kinetico to come to the rescue and see if their water could be the culprit. Chief Phillips knew the fire station's water was undrinkable, but wondered if their water could be causing the department's biggest investments to lose years of useful life.



Each time a fire truck is used to fight a fire, it's brought back to the station to be washed. The firemen would spend a great deal of time maintaining the fire trucks after each use to keep them in top condition. Over time, they started noticing peeling paint, rust, and corrosion on the aluminum fixtures. The community invests approximately \$350K per fire truck, and when they begin to show signs of premature degradation, it becomes a matter of concern. They have had to replace several aluminum fittings on the fire trucks, as the corrosion made them inoperable.

"This is when we asked for help from Kinetico," said Chief Phillips. "They tested our water in their laboratory and determined that there was a high level of total dissolved solids in the water." The analysis showed that the water had significant amounts of calcium, sodium, and chlorides. This water was very close to brackish water found near the ocean. It was unexpected that such high levels of these minerals could be found more than 400 miles away from the nearest ocean!

Aluminum begins corroding when its protective film is worn off, and the bare aluminum is exposed. When the aluminum on the fire trucks was exposed to the high chloride levels in the Auburn Fire Department's water, it was likely causing this corrosion.

"Kinetico was able to come up with a customized solution to decrease the dissolved solids content of the water, while making sure it is non-corrosive and drinkable again," stated Chief Phillips. "The most obvious benefit was that the firemen could rinse off the trucks without having to dry them, as they would naturally dry spot-free!" This led the firemen to call their Kinetico water "magic water." It makes washing the trucks easy, and it saves time. The overall labor expense dropped, and since less time is required for cleaning, the trucks could be back in service a lot quicker. Lastly, the corrosion on the fire trucks has been brought to a halt, and their investment in them is safe.

Finally, the Auburn Fire Department is saving approximately \$1200 per year on bottled water, as they are able to drink water from the tap. The drinking water savings, combined with the extended life of their fire trucks and reduced cleaning expense, have made their Kinetico equipment a great investment.

