

# Emergency assistance, new operator training goes to work

**I**t's been nine months since the KDHE-sponsored On-Site Emergency Assistance program became available. This new program's goal is to assist systems that lose their only certified operator. Operated by KRWA, KDHE provides notice of any system that the agency determines to be a candidate project. Background information is provided to KRWA by KDHE. It then is KRWA's responsibility to contact the system and be on-site within

no logs of residuals. Bacteriological samples were also past due. City officials were generally not aware of the ramifications of not complying with drinking water regs. With Mayor Mary Lou Jansen at his side, Jim took chlorine residuals

council members. KDHE was also concerned that the city put forth a serious effort to obtain a person interested in maintaining the system and obtaining the required certification.

Subsequently, the city hired Mike Carroll as operator, and

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**When their operator recently resigned, the city notified Vickie Wessel at KDHE of the departure.**

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Greg Duryea  
Tech Assistant



24 hours to provide needed assistance and training to ensure that the city or water district maintains an adequate and safe water supply to its customers. As of October 1, 2004, KRWA is working with 10 systems under this program.

## No operator, now what?

The City of Emmett, located in Pottawatomie County northwest of Topeka, has been one of the candidate projects for the On-Site Emergency Assistance program. When their operator recently resigned, the city notified Vickie Wessel at KDHE of the departure. Vickie works in KDHE's operator certification section. She is in charge of KDHE's new On-Site Emergency Assistance program. Vickie contacted KRWA to request help for the City of Emmett. Jim Jackson, KRWA Technical Assistant, was at the city within several hours.

Arriving at Emmett, Jim found that chlorine residuals were not being taken. In fact, there were

and checked on wells to make sure the system was functioning properly.

Within a week, the city hired a new operator. Jim returned to the city and worked with that operator, providing information on chlorine residual testing and record-keeping requirements. Training was also provided on bacteriological sampling and the importance of collecting the samples on time. A week later, Jim returned to assist with the bacteriological sampling to make sure the operator was aware of proper sampling procedures.

## On, then off track

Thanks to the help Emmett received, it appeared the city was overcoming some of the challenges of operating their water system. However, in less than a month, the new operator decided this was not the job for her. The second operator left the position. Again the city called KDHE for help because they had no operator. KRWA again sent Jim Jackson to Emmett to make sure procedures were being met and to work training a new operator. Jim explained the severity of the situation to

assumed responsibility for collecting samples. KRWA has provided training for Mike on testing for chlorine residuals using the DPD test kit. Associated reports were also



*One of the culprits disrupting the well's production was this nine-foot pack of tree roots.*

explained to him and are now being maintained.

While work is going okay in early November, Mike will undoubtedly have many more

questions. Attending training will help – but most important to Mike and the City of Emmett is the "on-site" training that this unique program will provide.

**New challenge: well failure**

Just when Emmett's water system seemed to be overcoming some of its challenges, another problem was discovered. Production from one of the city's wells dropped to only a few gallons per minute. Terry Alexander of Alexander Pump & Services, Inc., St. Marys, Kan., was contacted to review the well production. An inspection revealed tree roots growing into the well casing. A nine-foot pack of tree roots was removed from the casing. However, more were found lower in the casing. The pump could not be pulled because of the second pack of tree roots. Eventually, Alexander was successful in removing the remaining tree roots. It was an anxious time for city officials because it assumed that a new well would be needed. A camera

was lowered into the well to have a better inspection of the casing. Finally the well was super-chlorinated and eventually put back on line.

During this near crisis, the city was able to maintain water production because it had an additional well. KRWA's Jim Jackson also visited with a neighboring rural water district to help determine if an

from \$350,000 to nearly \$1 million. The council has yet to make any decision on those improvements.

While there will continue to be challenges for Emmett's water and wastewater utilities, the city and its users have been well-served by the On-Site Emergency Assistance program. The city has not made the nightly news show nor has there

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**The recent difficulties have also opened many other discussion topics with city officials as they consider longer-term improvements to the city's water system.**

emergency connection was possible. KRWA General Manager Elmer Ronnebaum attended a city council meeting to explain funding options; the Dept. of Commerce also attended that meeting. Ideas ranged from an "all new water system" to improving a water source with price tags ranging

been a banner headline "City of Emmett without water." Asking for help when help was needed prevented bigger problems. The recent difficulties have also opened many other discussion topics with city officials as they consider longer-term improvements to the city's water system.



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## CITY OF EMMETT'S WELL PLUGGED WITH TREE ROOTS

Recently, water production from one of two water wells in Emmett, Kan., a small northeastern Kansas town, continued to drop. The pumping rate went down from only a few gallons per minute to pumping air.

Because of the decreased production, the city contacted Alexander Pump & Service, Inc. of St. Marys, Kan. It was quickly discovered that the well casing had been invaded by tree roots.

After Alexander Pump and Service completed their work, the well production had increased back to 18 gallons per minute, the original capacity of the well.



Above, a medium-sized root is wrapped around the 5-inch well casing. Because this casing had only been spot welded at a section joint (see below), the roots were able to grow into the well. The plug of tree roots was removed from the well.



The problem was remedied after the well was cleaned and an eight-inch PVC casing was placed on the outside of the original well casing and grouted to prevent any further incursion of roots.



Photos courtesy of Alexander Pump & Service, Inc. St. Marys, Kan.

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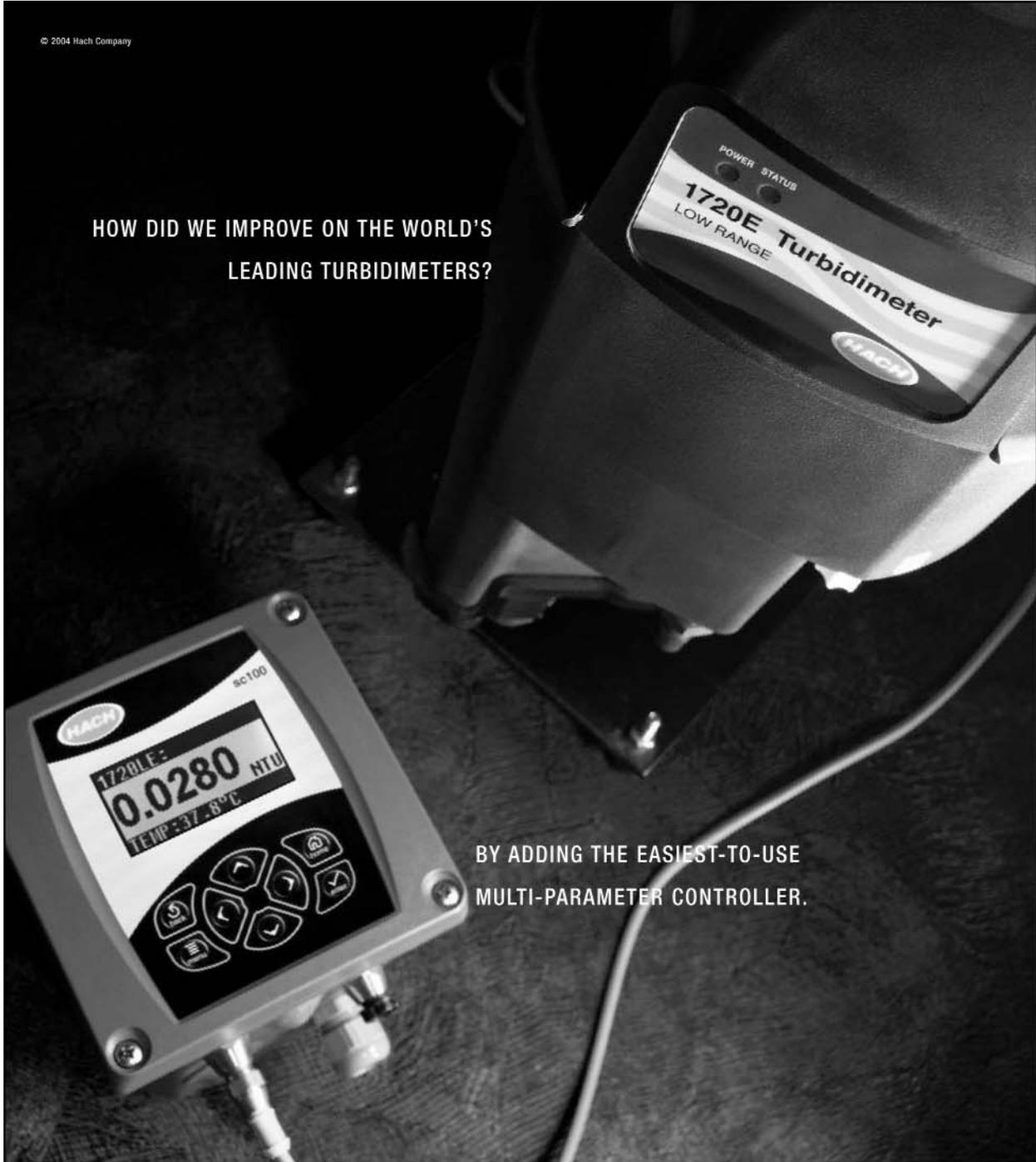
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