

City of Bushton Well Constructed At Affordable Cost

These days, a new well can be very expensive at \$200,000 to \$300,000 in some cases. However recently I have been very interested in the progress being made in a small community that has a knack of getting things done for a fraction of the cost that others might pay. A new well that will supply the water needs of the town for under \$100,000 not even \$50,000. But this town has a new well for \$32,000 to meet the current and future customer water needs for the city's 160 service connections.

To accomplish this it takes a do-it-yourself type of person at the helm. That describes Jerry Huff, City



Jerry explains the concrete form system used on the sidewalls of new well building.



Manager at Bushton, KS. Bushton is located in Rice County, between Ellsworth and Great Bend in central Kansas.

Jerry wears many hats including water superintendent, sewer operator, sanitation worker, mechanic, road superintendent, and equipment operator along with a few others. He has been, to say the least, a one-man show over the last 30 years with help only from the occasional part-time or the traditional city summer helper. City residents and council members just have to love this guy. Working for a city has been at times compared to working on the farm or ranch but more complicated when you add local politics. Most seem to enjoy the city work and the variety of work that comes with the job but I haven't heard much positive input about the political part. Dealing with local politics doesn't seem to bother Jerry much.

I have always admired Jerry's ability to get things done and always for a fraction of the cost of what others might pay by doing the work himself. Over the years I have seen several projects he has constructed including the last new city well. Other projects are a customized hydronic heating system for the new fire station and several specialized tools and other equipment for various city tasks. Whether the need is for new Christmas decorations a new piece of equipment or new water well, he has taken it on as a challenge and always finds a way to get it done at a fraction of the cost. The city of Bushton comes out a winner. Bushton does have one advantage that some may not have the support and assistance of a local metal

fabrication manufacturing plant whose owner has served on the city council and as mayor.

Needed: one new well

The recent new water well project came about after the city was down to only one well due to contamination from nitrates and radium. When the need arose the city set began planning for a new source. They moved a water right from an existing contaminated well to an area previously developed that was known to have good water quality. Jerry began by working together with Clarke Well Service and KDHE on some of the details. It hit a snag, as KDHE required an engineer's stamp on the plans before they could be submitted to KDHE for approval. This problem was pondered over and the city did not want to go the conventional route due to the cost. Eventually the answer came in a small town type of way from a prominent

The building is small but adequate to house the well and keep the piping from freezing.



Well house for the new well at Bushton – simple yet adequate.

structure. I know people who have constructed their homes using this system; they are very pleased with the method. The

KAN STEP community center in Burns, KS is of similar construction. The exterior was finished with metal siding; the interior is painted wallboard. Neither is fancy but both are very adequate for the job.

The project took two years from planning to finish at a cost of less than \$32,000. No money was borrowed. The project was funded using only internal city funds. The new well will produce at the rate of 100 gpm into the distribution system. The water quality is a bit on the hard side like most Kansas groundwater but of good quality otherwise. The Total Hardness is 310 mg/l; Chlorides are 42 mg/l; Iron is less than .01 mg/l; Manganese is less than .001mg/l; Nitrates are 3.8 mg/l; Sulfates are 18 mg/l.

Bushton's original water system dates backed to the 1930s with cast iron mains and a 50,000 gallon tea pot type water tower that was so typical of that era. Most of the original system is still in use today. The town of Bushton was originally formed in 1887 and named Bushton after the thick bushes that grew in the area. The town grew thanks to those early settlers who worked hard to bring a railroad through Bushton.



Local resident Duane Gish and City Councilman Dan Wimmer Work the concrete in the forms while Jerry Huff operates the tractor.

local resident who had a friend in the engineering circle who was a licensed engineer and willing to review and stamp the specifications. After input from KDHE a few changes were made and some specifications that were not included on the first drawings were added. Once the additional KDHE specifications were added, the plans were approved and the city proceeded with the project.

Clarke Well Service of Great Bend, KS drilled the well. Once the well construction was completed the building to house the new well and piping were constructed around it by Jerry; several local residents provided assistance. The building is small but adequate to house the well and keep the piping from freezing. The construction method was concrete reinforced with rebar using the styrofoam stackable form system. This system makes a strong, well-insulated

Consider attending the conference

I want to encourage everyone to attend the upcoming KRWA Annual Conference & Exhibition at Century II Convention Center in Wichita, March 26 – 28. The program is reprinted in this issue of *The Lifeline*. If you've never attended, I hope you will because this is the greatest event there is for water and wastewater systems. And a good time is promised as well.

Jon Steele has been employed by KRWA as a Circuit Rider since 1995. Jon is certified as a water and wastewater operator. He has more than twenty-five years experience in public works, construction and industrial arts.

