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DEPARTMENT OF
WATER RESOURCES

CITY OF REUBENS WATER WELLS

The Original Reubens Well: Designated as Well No. 1

The old city well was drilled early in the 1900's , I am not sure of the year but have information that it was 1915. It replaced several hand dug wells in various places around town.

I have no knowledge of the existence of a reservoir for holding a supply of water for the town at that time, but there must have been one as the town had a network of wooden mains to carry water to the various areas.

Then, in the early thirtys, during the administration of Franklin Roosevelt Reubens got a W P A Project to upgrade the water system. With this federal project the city replaced the wooden mains with cast iron pipe, increased the size of the system to encompass the whole town which had been growing somewhat since the installation of the first system. The well was deepened to a depth of 467 feet and a new reservoir made of redwood and having a holding capacity of 30,000 gallons, 65 feet high and standing upon the hill just above the well was erected. The system was serviced by A pump jack powered by electricity. Wooden rods ran from the jack to the foot valve at the bottom of the well. At the start, the pump would deliver about 11 gallons per minute, but in the years that I was involved with this system it seemed that the best we could get from it was some 8 gallons per minute. It was very difficult to keep up with the town's needs in the 1950's and early 60's. Although the citizens were aware that the system was woefully inadequate the city council was always in trouble because of frequent water shortages.

This Well No. 1 was re-drilled two or three times I have been told and all of them had to deal with and all failed to correct a serious flaw in the well. At 120 feet from the surface, the first drill that went down to that depth hit a sloping rock structure which skewed the bit into softer material and left a rock point jutting a few inches into the hole. With that situation no drill could bore through the hard rock, but all would slide around it. This situation caused many problems through the years as it caused the pump rods to rub the side of the pipe as it bent around this point. The rod would wear thin and eventually break and the well would have to be pulled again, as the old timers called it.

It wasn't until some time in the 1970's that we were able to find a submersible pump that we could get down the hole past the bend and would deliver the volume of water we wanted.

The well has since been fitted with a submersible pump with a pumping capacity of 33 gallons per minute which is a good pump for either regular supply or as a standby source.

When this pump was installed we included an air line so we could monitor the draw-down . There was an old timer in town who had worked on the system many times through the years and when he heard that we intended to put in a pump that would move 33 gallons per minute he told us we were crazy, that we would pump the well dry in a day. We told him and a few other doubters that we have to try it as we need the capacity, and no one really knows what the well will bear as it has never been tried beyond 11 gallons per minute at it's best..

When we got the new submersible in the well and working, councilman Tom Symmes and I pumped it out on the ground to flush it thoroughly. We monitored the draw-down and watched with growing disappointment as the well dropped steadily some 8 feet. We shut it down for the day and next day we found that it had gained back the loss and was full again. We again ran it down to an 8 foot drop, but this time we kept pumping and found that it would not drop beyond 8 feet. It always filled again after a short rest and we pumped and monitored the drop for several days and the well now would hold at 4 feet below full. The well had been idle for several years since the installation of the new reservoir and we decided that the reason for the big drop when we first started pumping was caused by it lying idle. The vein opened again and the water flowed. We then decided to give it the acid test. We began with a full head of water and pumped for a full 72 hours. The well dropped the usual 4 feet and wouldn't budge beyond that, and as long as we had the air line in the hole every time we monitored the result was the same. It will always drop 4 feet, but no more. This well holds at a level of 90 feet of water.

THE RAILROAD WELL: Designated Well No. 2

In the mid- 50's The Reubens City Council, realizing that the city well could not be depended upon to supply the rising needs of the population, and knowing that the Northern Pacific Railroad Company had an excellent

well some 720 feet deep and a 70 gallons per minute capacity submersible pump. And knowing further that their need for water from this well had dropped significantly since they had replaced the steam locomotives with new diesel ones we approached them about leasing the well or purchasing water from them.

They were happy to help us and at the same time have the opportunity to be rid of the expense of pump and well upkeep. As a result they gave us a 99 year lease on the well for One dollar.

We built a connecting main from the well to our nearest existing city main near The Grain elevator on N. E. Main Street. With the submersible pump we could pump the water backward and into the reservoir and our pressure was much better when we were pumping.

Sometime in the late 1960's or early 1970's we decided that the old wooden reservoir could no longer serve the purpose. We then proceeded to build a new metal reservoir of 50,000 gallons capacity on the highest hill adjacent to town..

This system will deliver approximately 55 gallons into the reservoir per minute and has essentially solved the water problems for the past 20 years and hopefully well into the future.

We have tested the Railroad Well with the air line and found that that at 70 gallons per minute withdrawal we could lower the water level only some 2 feet or so and then it could not be lowered further. We pumped this well for 72 hours continuously and could not lower it beyond the 2 feet drop. This well, much like well No. 1 holds to a level of between 90 and 92 feet of water.

Bill Thomason

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