



September 2, 2026

City Water Works Department
20 2nd Avenue SW
Oelwein, Iowa 50662

Attn: Mr. Herb Doudney, Public Works Director

Re: Oelwein 1942 Well

Dear Herb,

As you know, we have removed the pumping equipment from the 1942 well and found the motor windings to be shorted to ground, requiring replacement. The Goulds 10WALC-4 stage pump is also in need of replacement due to its internal condition and casting deterioration. The 6-inch drop pipe had to be torch-cut due to improper installation from the required thread lubricant/sealant not being used. Without the proper pipe thread sealant, the threads will gall, making the pipe impossible to unthread.

The well was also televised, and we found that approximately 95% of the water supplying the Jordan Aquifer has been sealed off. I am not sure if the Jordan Aquifer is sealing itself off due to sloughing of the formation or if the St. Peter Sandstone, which is not cased and sealed off, is contributing to the issue.

When the well was relined in 2018, the casing was intended to extend through the St. Peter Sandstone to eliminate the issue. I would recommend bailing the well to open up the Jordan Formation. As we remove the accumulated sand, we should be able to determine which formation the material is coming from.

Bailing the sand will be somewhat more challenging due to the larger building. Our intent will be to protect the controls and piping and maintain them in their current condition.

I am not sure how long it will take to bail the well down, but we can discuss the progress after 40 hours of bailing.

A. Oelwein #42 Well Repairs, Replacement, and Development

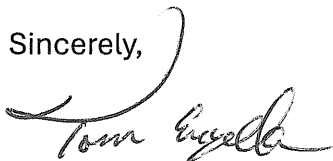
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| 1. Mobilization, loading, unloading equipment, and development | \$ 2,950.00 |
| 2. One Hitachi 150hp., 460-volt, 3600 RPM, 3 phase 8-inch Submersible motor | \$29,886.55 |

3. Goulds 10WALC-4 stage cast iron submersible pump end with stainless steel impellers, stainless steel bowl shaft, lock collets and fasteners \$15,850.00
4. 525 Feet of 6-inch domestic galvanized T & C drop pipe @\$ 74.50 pf \$39,112.50
5. Three 6-inch HD/DI check valves @\$2,145.00ea. \$ 6,435.00
6. One 6-inch schedule 80 handling nipple and coupling \$ 455.00
7. Altitude tubing \$ 393.75
8. Misc. material: 4/0-3M splice kits, stainless steel banding, 2-inch pipe wrap \$ 757.80
9. Televiser well casing and borehole \$ 1,500.00
10. Field labor for 30-ton service rig and field crew to install pumping equipment, flush well monitoring production, water levels, and sand content, record results estimated 32 hours @\$ 395.00 ph \$12,640.00
11. Disinfect well with 5,000-gallons of pH-controlled disinfection solution, surge treatment, allow to stand for 24 hours, flush well, and test \$ 3,215.00
12. Set up bailing discharge equipment, bail sand from well \$375.00 per hour
13. Per Diem - \$160.00 per man per day
14. Estimated freight charges \$ 1,271.16

Herb, we will place sandbags around the perimeter of the cement parking area to capture the majority of the sand so it can be removed and hauled off-site.

If you have any questions, please let me know.

Sincerely,



Tom Engelken, Sales Representative
NORTHWAY WELL & PUMP CO.