## Northway Well and Pump Co.

4895 8th Avenue Marion, Iowa 52302

May 16, 2024

Water Works Department 20 2<sup>nd</sup> Avenue SW Oelwein, Iowa 50662-2241

Attn: Mr. Herb Doudney, Public Works Director

Re: 59 Well

Dear Herb.

The following information is in regards to our findings of the 1959 well. The last time the equipment was removed was in August 2018 which at that time we installed a new submersible pump and motor, along with 525 feet of drop pipe. At that time, the pump had holes deteriorated through just as this pump does. The motor does have winding resistance along with 35% of thrust bearing wear and it looks like eight sections of pipe will need to be replaced. Both cast iron pump and pipe show signs of electrolysis that appear to be causing the metal deterioration.

Also, we televised the well in 2018 and found the well to be filled in to 1184 feet. At this point the well is being supplied only by the Prairie Du Chien Aquifer. The Jordan Sandstone formation ranges in depth from 1250 to 1417 feet. If you did not have any water level or quality issues, there may not be any concerns. The well at this point is 65 years old so televising the casing every 10 years or so would be recommended.

A. Oelwein 1959 Well Pumping Equipment and Associated Cost

1.	One WS 600-1000-5 stage stainless steel pump designed for					
	600gpm at 510 feet of TDH			\$	7,332.50	
2.	One 100hp., 460-volt, 3450rpm, 3 phase submersible motor			\$17,987.55		
3.	168 Feet of 6" Domestic galvanized T & C drop pipe	@\$	58.90pf	\$	9,895.20	
4.	Two 6" DI HD check valves	@\$1	,895.00ea.	\$	3,790.00	
5.	540 Feet of altitude tubing			\$	486.00	
6.	Misc. material 3M electrical splice kits, 2" pipe wrap, stainless steel					
	Banding, 6" handling nipple and coupling			\$	1,250.00	

7. Field labor to remove and replace pumping equipment, flush well And test estimate 48 hours

@\$ 365.00ph

\$17,520.00

8. Disinfect well, flush and test Total estimated cost for above

\$ 1,800.00 \$60,061.25

Herb, if you have any questions, please let me know.

Tom Engelken, Sales Representative