



# MUNICIPAL WELL & PUMP

A Division of Midwest Well Services, Inc.

May 8, 2026

City of Dodgeville  
Attn: Brian Shultz  
100 E. Fountain St.  
Dodgeville, WI 53533

## **Re: Well #8 Pump Pull inspection report/televising report**

Brian,

We have pulled the oil-lubricated pump assembly at Well #8 and completed an inspection of the pump, shafting, oil tube, discharge head, and stuffing box. The following report outlines our inspection findings and recommendations.

### **Well #8 Pump Assembly**

We pulled a 12-stage 10LB Peerless bowl assembly pump with 6" column pipe, 1-1/2" carbon steel shafting, and 2-1/2" oil tube set at 400'.

### **Inspection Findings**

#### **Column Pipe**

The total length of 6" column pipe is 400'. From our initial inspection, one 20' section will need to be replaced due to the faces being heavily pitted from corrosion.

The top 6" x 10" spool piece will also need to be replaced because of corrosion throughout the threads.

I would recommend sandblasting and epoxy coating all remaining pipe prior to reinstalling.

#### **Line Shaft, Oil Tube, and Bearings**

The line shaft is 1-1/2" carbon steel. One 1-1/2" x 20' shaft will need to be replaced, along with the head shaft and motor shaft. The remaining 19 shafts are in good condition and can be flipped and reused.

The assembly included eighty-two 2-1/2" x 5' oil tubes. Forty-three of these tubes will need to be replaced due to deep pitting throughout the faces. The remaining thirty-nine tubes should be sandblasted and epoxy coated prior to reuse.

The top tube connecting to the discharge head and the bottom tube adapter connecting to the bowl assembly will also need to be replaced because of wear and corrosion.

The bronze oil tube bearings were inspected, and twenty-four bearings will need replacement because they are out of tolerance due to age and normal wear.

#### **Bowl Assembly and Motor**

The existing bowl assembly is a Peerless 10LB 13-stage pump. If this bowl assembly is intended for long-term operation, I would recommend replacement due to the age and condition of the bowl castings. The castings are becoming soft externally, and I do not feel the assembly would reliably last another 10+ years. If the pump is only intended for short-term use, I would recommend rebuilding the bowl assembly with new bearings and wear rings.

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The existing 75 HP VHS motor is currently being inspected. At this time, it is assumed to be in good condition and suitable for refurbishment.

### **Discharge Head and Oil Box**

The discharge head is in good condition and can be sandblasted and primed for reinstall.

The oil tube tensioner will need to be replaced due to wear.

These repairs are recommended if the pump assembly will remain in long-term service. If it will be reinstalled for short-term use only, some repairs may not be necessary. We can discuss these options further after you review the report.

For long-term operation, I would recommend replacing the oil-lubricated pump assembly with either a submersible or water-lubricated line shaft pump. The oil lubrication system increases the rate of biofilm growth, which contributes to plugging and water quality issues.

Additionally, if lowering the pump is being considered in the future, it would be significantly more cost-effective to purchase materials for either of these alternative systems, especially a submersible pump assembly.

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## **Well Televising Report**

After reviewing the televising video, the 14" casing appears to contain a significant amount of scale buildup. I did not observe any evidence of holes in the casing or cascading water entering through the casing wall.

I would recommend brushing the casing and re-televising the well to better confirm the overall condition.

The static water level is approximately 257', which is about 5' below the casing. Within this interval, there was no visible evidence of cascading water. However, cascading water may occur during pumping cycles as the well draws down. This well experiences significant drawdown, so this remains a real possibility.

The rock formation generally appears to have good structural integrity. From approximately 252' to 267', the formation appears somewhat loose, but I do not believe this should create operational issues. Below 267', no sloughing or bridging was observed throughout the open hole.

There does appear to be a significant buildup of iron bacteria, biofilm, or other organic material coating the rock formation beginning below the static water level at 257'. In my opinion, this buildup has contributed to the well's decline in performance over the past 20 years.

If left untreated, the biofilm will continue to grow and likely further reduce well efficiency. To restore performance and manage the buildup, I recommend rehabilitating the well by air shocking it with compressed nitrogen to clean the borehole, followed by a chemical treatment to break down and remove the biofilm and iron. This approach would be similar to the rehabilitation completed on Well #6.

If you would like to explore this option further, please let me know.

The rehabilitation may also help reduce some of the iron buildup that caused restrictions within the pump assembly in the short term. Unfortunately, due to the chemistry of the water, iron fouling will always remain an ongoing issue.

Because of this, my recommendation would be to inspect and pull the pump assembly more frequently rather than waiting another twenty years between pulls.

Please see pricing below:

Item #	Item Description	Quantity	Units	Unit Price	Extended Price
1	Pull 6" x 410' x 2.5" oil tube and shafting	1.00	LSUM	\$ 9,240.00	\$ 9,240.00
2	Inspect Pump Assembly	1.00	LSUM	3,190.00	3,190.00
3	Reinstall and Flush off 6" x 410' x 2.5" oil tube and shafting	1.00	LSUM	9,780.00	9,780.00
4	Televis Well	1.00	LSUM	1,200.00	1,200.00
5	Shop: Assemble tubes, head, and pump, tighten couplings	1.00	LSUM	3,370.00	3,370.00
6	6" column pipe	1.00	LSUM	1,130.00	1,130.00
7	6" couplings	9.00	EA	102.00	918.00
8	2.5" x 5' oil tubes	43.00	EA	134.00	5,762.00
9	2.5x1.5 bronze oil tube bearings	24.00	EA	106.00	2,544.00
10	1.5" shafting, including motor shaft and head shaft	1.00	LSUM	2,250.00	2,250.00
11	6" black widow spiders	1.00	LSUM	360.00	360.00
12	SP10M 11 stage bowl assembly	1.00	LSUM	15,980.00	
13	Sandblast and epoxy coat column pipe and oil tube	400.00	FT	24.00	9,600.00
14	60hp motor refurb	1.00	EST	4,000.00	4,000.00
15	Peerless pump rebuild	1.00	EST	8,500.00	8,500.00
16				-	-
17				-	-
18				-	-
19				-	-
20				-	-
21				-	-
22				-	-
<b>Total Project Proposal</b>					<b>\$ 61,844.00</b>

- Freight is not included
- Pricing can only be guaranteed for 30 days

Please review the above findings and recommendations. If you have any questions, feel free to contact me at any time. Thank you again for your continued trust in Municipal Well and Pump.

Sincerely,

*Ross Griffin*

Project Manager  
Municipal Well & Pump  
563-543-5803