

Increasing Specific Capacity through Well Rehabilitation

Rockford, Illinois



Layne uses a Smeal R36 Pump Service Rig to complete a well rehabilitation project for the City of Rockford, Illinois.

Key Project Areas

Water Supply

Well Rehabilitation

Pump Installation

The City of Rockford, Illinois, needed to rehabilitate 11 of its 15 base wells due to a loss of specific capacity. For example, Well 42 had lost almost 60% of its capacity.

Well 42 was originally constructed by Layne in 1991 to target the Galesville and Mt. Simon Sandstone formations with a total depth of 1,500 ft. The well's original specific capacity was 17.9 gpm per foot of drawdown. Prior to the rehabilitation, the well's specific capacity had dropped to 10.1 gpm per foot of drawdown.

Before developing a rehabilitation program, Layne analyzed the historical data. Based upon our analysis we rehabilitated the well with block shot shooting, Borebalst™ II, bailing, and over pumping.

The specific capacity of this well improved to 19.2 gpm per foot of drawdown at the conclusion of the project. A 300 HP submersible pumping assembly was installed, which is now producing 2,400 gpm.

