

# Medora Corporation

## Water Tank

### USMIPW-LOC1026.000

**Topics:** Potable, ice buildup, stratification/water age, short-circuiting, chlorine



The access hatch during deployment of the GridBee® GS-12 unit

**Customer:** Information is available upon request from Medora Corporation. 866-437-8076 info@medoraco.com

**Overview:** This tank is an elevated single pedestal, welded steel pedisphere. The height of this tank is 110 ft. and diameter is 30 ft. This tank has a capacity of 100,000 gallons. This system meets the potable needs of this community of approximately 789 residents. The water comes from two groundwater wells, each over 400 feet deep and drawing from the Saginaw Formation. Both wells are located within the village limits. The disinfectant of choice in this system is chlorine.

**Conditions / Objectives:** The potable water tank experienced short-circuiting and thermal stratification that resulted in inadequate mixing, uneven age, and inconsistent chlorine levels. This community experiences cold winter temperatures and as such the system was prone to icing problems which required lowering the tank levels to control the icing problems and prevent damage to the tank. The tank is relatively small; height is needed to

maintain adequate water pressure and so it was desired to be kept as full as possible.

**Solution:** One (1) GridBee® GS-12 Mixer  
Deployment Date: 11/ 16/ 2012

**Results:** The community was in the process of renovating and updating the water tank. In this process a decision was made to improve mixing and address the icing problem. Dixon Engineering, a local engineering firm, recommended Medora Corporation as a potential provider for their mixing solution. The GridBee® GS-12 unit was selected to address the problems in this tank. Since the installation the community has been able to keep the tank full during the winter months with no icing problems. The levels of chlorine residual have become more consistent requiring less treatment, thus providing cost savings for the community. Water quality has greatly improved. The city is pleased with the results of the GS-12 installation and is happy to serve as a positive reference.

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