

4046 QUINPLEX® SYNTHETIC FOOD GRADE OIL
MARQUETTE WATER FILTRATION PLANT, Marquette, Michigan
Atlas Copco Air Compressors • SIC 9199 General Government

CUSTOMER PROFILE

Marquette Water Filtration Plant was built in 1997. At the time of completion it was one of a very select few in the world to offer Microfiltration with onsite Chlorine generation. This process starts with one of the finest surface water sources in the world, Lake Superior. To ensure the water is safe, untreated lake water is filtered through a state of the art filtration process using membranes developed by US Filter/MEMCOR. The City of Marquette received national recognition for use of this water treatment technology. Microfiltration utilizes hollow membranes which have pores that measure 0.2 microns which the water is pulled through for filtration. Then the membranes are rewetted and purged via air pressure at 90 PSI to return larger particulate back out as service water flushes the membranes to ensure cleanliness.

Average production of this facility is 3.5 million gallons per day, with a peak of 6.6 million gallons in the Summer months.

Chlorine is produced on site via electrolyzing saltwater. This is the only facility in the state to accomplish this as of the printing of this report.

APPLICATION

The Marquette facility, under the operation of Chief Operator Jim MacDonald, utilizes three Atlas Copco GA 30 air compressors to facilitate a receiver pressure of 135 PSI.

LE SOLUTION

Lubrication Engineers products were introduced to the



Cutaway of micro filters

Marquette Water Filtration Plant shortly after it was built.

To maintain their exceptional standards, Lubrication Consultant Greg Klang, recommended LE's 4046 QUINPLEX® Synthetic Food Grade Oil. 4046 is NSF and USDA H1 rated for food processing equipment. It contains LE's proprietary

additive, QUINPLEX and an anti-microbial agent. 4046 has superior low temperature performance characteristics.

CUSTOMER COST SAVINGS

Some thought oil drain intervals may be compromised by the H1 product; however, LEAP (Lubrication Engineers Analysis Program) confirmed drain intervals of 8,000 hours of service! High pressures demanded by the system did not phase LE's 4046. Filter changes are done at 4,000 hours with no operating problems whatsoever.

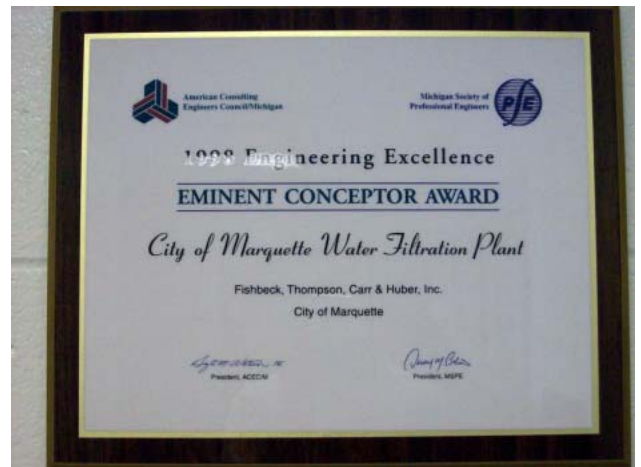


OTHER PRODUCTS USED

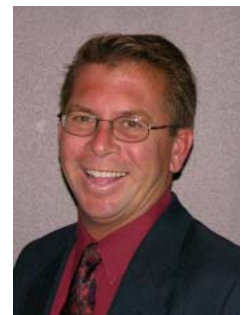
1275 ALMAPLEX® Industrial Lubricant is used in all grease applications throughout the plant with great results due to its exceptional resistance to moisture.

An Oil Safe pump unit has greatly improved the ease of lubricant handling and housekeeping.

Jim MacDonald states, ***“As we move toward the next expansion, LE will be a part of our team.”***



We would like to thank Chief Operator, Jim MacDonald and LE Lubrication Consultant, Greg Klang for the information provided to prepare this report.



Greg Klang