

# 6402 MONOLEC® R & O COMPRESSOR / TURBINE OIL

CITY OF REDDING, California

U.S. Motors Vertical Turbine Pumps • SIC 4952 Sewerage Systems

**SAVES \$3,820 ANNUALLY ON ONE PUMP**

**CUSTOMER TESTIMONIAL**

## **CUSTOMER PROFILE**

The City of Redding is located in Northern California. They operate two water treatment plants. The Foothill Water Treatment Plant operates pump station No. 1, which was erected in 1939.

## **APPLICATION**

The Foothills WWTP uses five U.S. Motors vertical turbine pumps to provide water from the Sacramento River, five miles away, to process drinking water for the City of Redding, CA. These pumps operate year round on an alternating basis of 8 to 10 hours each.

## **AREA OF INTEREST**

The local LE Representative presented the LE ZAP Energy Savings Program, explaining to Mike Robertson, Chief Plant Superintendent, and Mike Conner, Working Foreman, how LE's 6402 MONOLEC® R & O Compressor / Turbine Oil can save energy and lower operating costs.

## **LE SOLUTION**

Both gentlemen were very

interested in lowering energy consumption and saving money, and although they were experiencing no problem areas with the commercial grade lubricant they were using, they agreed to test one of the U.S. Motors vertical turbine pumps.

## **CUSTOMER COST SAVINGS**

The maintenance personnel and a city electrician took amperage readings on the pump while it was still using the commercial grade lubricant. The amperage draw was 112.26 amps. The unit was drained and refilled with LE's 6402 MONOLEC R & O Compressor / Turbine Oil. LE's 6402 contains MONOLEC®, LE's exclusive wear-reducing additive. It offers excellent oxidation resistance, does not emulsify with water, and protects against corrosive wear. This long lasting lubricant is nonfoaming. **Amperage draw was then measured using LE's 6402 and it had dropped to 107.46 amps – a reduction of 4.8 amps.**

The following formula is used to find the cost of a unit's electrical consumption. This is the same formula used by the local utility company.

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.Volts x Amperes Saved x 1.73\* = kW Savings  
kW Savings x Hours of Operation Per Year = Annual kWh Savings  
Annual kWh Savings x Electrical Rate = Annual Electrical Savings  
\*Conversion Factor for a 3-Phase Power Source

$$\begin{aligned}2.300 \times 4.8 \times 1.73 &= 19.1 \\19.1 \times 4,000 &= 76,400.00 \\76,400.00 \times \$0.05 &= \$3,820\end{aligned}$$

**LE's MONOLEC® R & O COMPRESSOR / TURBINE OIL SAVES \$3,820  
ELECTRICAL ENERGY CONSUMPTION ANNUALLY ON ONE PUMP**

***OTHER LE PRODUCTS USED***

- 605 & 607 ALMASOL® Vari-Purpose Gear Lubricant
- 1275 ALMA PLEX® Industrial Lubricant
- 3751-3752 ALMAGARD® Vari-Purpose Lubricant
- 4701 MONOLEC® Industrial Lubricant
- 5100 PYROSHIELD®
- 6120 MONOLEC® Hydraulic Oil
- 6403, 6404, 6405 MONOLEC® R & O Compressor / Turbine Oil
- 8800 MONOLEC ULTRA® Engine Oil
- 9102 SYNTEMP® Synthetic Lubricant.

In 1997 due to pressure from the Purchasing Department, the Foothill Water Treatment Plant switched to a commercial grade lubricant. In a very short period of time, two failures occurred in pumps using the commercial grade lubricant. The cost to repair each was in excess of \$5,000.00. These failures were attributed to the use of the commercial grade lubricant. The Foothills Water Treatment Plant once again is using LE's 6402 MONOLEC R & O Compressor / Turbine Oil for the trouble-free operation they experienced from 1992 to 1997.

We wish to thank Mike Robertson, Plant Superintendent; Mike Connors, Working Foreman and the local LE Representative for the information provided to prepare this report.