



CLEAN OIL  
BRIGHT IDEAS

# Hydraulic Oil Copper Stripping Machine

## CJC™ Application Study

Application Study  
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2002

### CUSTOMER

Mine: **Minera El Tesoro-Sierra Gorda**  
Antofagasta, Chile.

### THE SYSTEM

Copper Stripping Machine.  
**Brand:** Wenmec.  
Hydraulic System.  
**Oil Volume:** 3200 litres. Oil ISO VG 46.

### THE PROBLEM

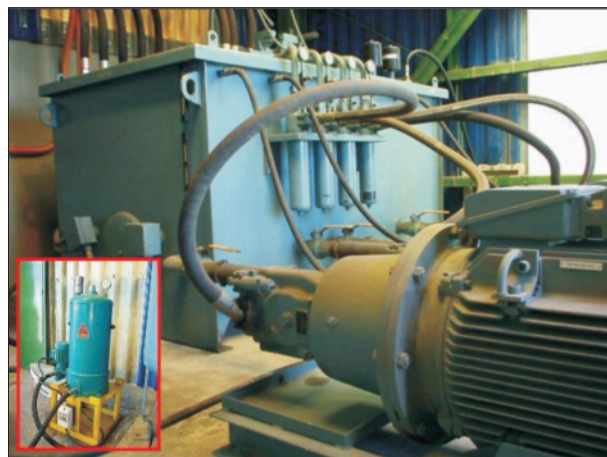
Wenmec recommends the maximum contamination level in the hydraulic system to be ISO 14/11. Higher contamination severely reduces lifetime of hydraulic components and oil and it is well known that 80% of all failures in hydraulic systems are due to contamination of the oil. The contamination seen in sample No 1 will have a dramatic effect on the reliability of the hydraulic system. A stripping machine operates as most other oil systems in mines 24 hours a day and the stoppage time directly relates to lost production at extremely high costs.

### THE SOLUTION

**CJC™ Fine Filter HDU 27/54 P** with a **CJC™ Filter Insert B 27/27**. The dirt holding capacity is 8 litres. The filtration degree is 3 micron abs. The material of the filter element is cellulose. The pump capacity is 600 ltr./h.

### THE RESULT

After only 2 months of operation the cleanliness level is well below what is recommended by the equipment manufacturer Wenmec. With the achieved level it is predicted to result in a 8-10 times extended lifetime of system components and oil.



### THE RESULT

|                                 | 2-5<br>µm | 5-15<br>µm | 15-25<br>µm | 25-50<br>µm | 50-100<br>µm | > 100<br>µm | ISO      |
|---------------------------------|-----------|------------|-------------|-------------|--------------|-------------|----------|
| Lab. Ingelube<br>26.02.02 *):   |           |            |             |             |              |             |          |
| Used oil                        | 25,645    | 763        | 49          | 15          | 1            | 0           | 22/17/13 |
| New oil                         | 26,397    | 473        | 10          | 10          | 2            | 0           | 22/15/12 |
| In run                          | 1,306     | 15         | 4           | 4           | 0            | 0           | 18/12/10 |
|                                 | 2<br>µm   | 5<br>µm    | 15<br>µm    | 25<br>µm    | 50<br>µm     | 100<br>µm   | ISO      |
| Lab. El Tesoro<br>17.04.02 **): |           |            |             |             |              |             |          |
| In run                          | 4,550     | 1,530      | 220         | 50          | 10           | 0           | 13/11/8  |

\*) Measure in 1 ml. (Multiply x 100)

\*\*) Measure in 100 ml.

### COMMENTS

**The Inspector Carlos Baez:**

*"Like we also experienced in our crusher lubrication system the results of the CJC™ Fine Filters are brilliant".*