CJC ™ Application Study

Drilling Machine in Copper Mine

OIL FILTRATION SYSTEM

INDUSTRY

Application Studie written by:
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CUSTOMER

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THE SYSTEM

A Drilltech drilling machine for the copper production site with a hydraulic system of 900 litres ISO VG 46 oil.

THE PROBLEM

The cleanliness level of the hydraulic system in the drilling machine was 2 ½ times above the recommended level, for economical and reliable operation of the machine. The contamination also had a destructive effect on the additives and entailed a great number of problems as brittleness of ball bearings, increased fatigue wear, corrosion due to sulphuric acid and hydrogen sulphide, decrease of viscosity and increase of the TAN value. All the above lead to increased wear and decreased lifetime on both system components and oil

THE SOLUTION

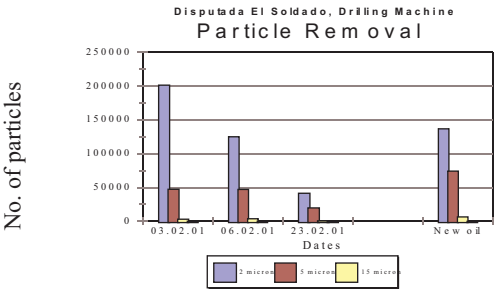
A **CJC™ Fine Filter, type HDU 27/27 PH** was installed off-line on the system tank. The Fine Filter is equipped with a CJC™ Filter element, type B 27/27, 3 micron abs. with a dirt holding cap. of 4 litres.

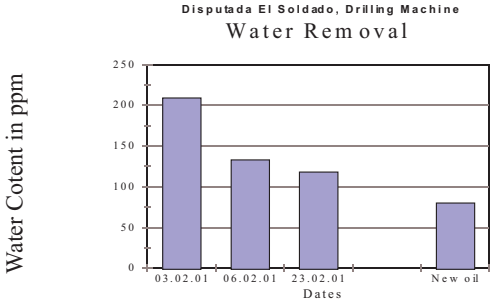
THE RESULT

Before installation of the filter the number of particles >2 micron measured in 100 ml of oil was as high as 201.000 and the water level 209 ppm . After 15 days of continuous operation of the filter the particle amount decreased to 41.000 particles per 100 ml of oil corresponding to ISO class 16/15/10 and 118 ppm of water. The oil is today cleaner than both new oil supplied by oil companies and recommended cleanliness classes for the hydraulic systems.

The Drilltech drilling machine

The installation of the CJC ™ Fine Filter





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