



## HEAVY ROAD MACHINERY RESULTS

# PH<sub>2</sub>OENIX™ MEMBRANE PURIFIER IMPACT STORIES

### PORTABLE DRILL HYDRAULIC SYSTEM FLUSH

A local road equipment rental service had one of its rented hydraulic drill rigs returned to it with a damaged hydraulic oil reservoir. The reservoir had a hole knocked into its top potentially from a piece of construction material dropping on it. When this happened it opened the hydraulic system up to the elements and rain water leaked in causing significant buildup of water in the oil and also damage to the hydraulic system itself.

Once water enters the system it may require several oil changes to remove it from both the oil reservoir and the hydraulic cylinders, hoses and components.

Rather than spend money on replacing the oil a Phoenix Membrane Oil Dehydrator and Purifier was rented and connected to the hydraulic reservoir kidney loop. As the oil cleared up the cylinders on the drill were cycled to push contaminated oil back to the reservoir so the Phoenix could eventually flush out the entire system.

After several cleanups and cycles of the system water was reduced from above 400 ppm down to below saturation. The Phoenix also helped flush the system of contaminated particulate with iso codes stabilizing around 17/15/14.

During the rental period the Phoenix required no attention by operators and it ran 24/7 until the hydraulic system was completely flushed out saving both replacement and disposal cost of the oil.

Results of the Phoenix can be seen in figure 2 to the right.



Figure 1: Phoenix on Hydraulic Drill Rig



Figure 2: Phoenix Field Results