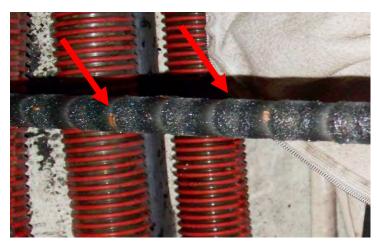


Case Study: Longwall Emulsion System







Bailey Mine, CONSOL Energy Inc. Pennsylvania, USA January 2009

APPLICATION: 13-H LW Emulsion System operating with new shields.

PROBLEM: Ferrous Metal Contamination prematurely wearing the systems components, seals, pumps, connectors, hoses, valves, pistons etc. The most damaging contamination ferrous metal under 10 microns is flowing through the traditional filters.

The ferrous metal is also compromising the media filtration integrity by cutting holes in it (referred to as worm holing and channeling the fluid).

SOLUTION: Install magnetic filters (25RT36T375) inside the disposable return line filters (inside/out flow) that will filter down both ferrous and non ferrous contamination to submicron levels and significantly reduce the worm holing and channeling.

RESULTS: The adjacent photos show the amount of ferrous and non ferrous contamination trapped on the magnetic filter rod after only 4 days of operations. Removal of this contamination will extend the components life, reduce emulsion loss and increase up-time.

The OEI magnetic filter is easily cleaned and the trapped contamination can be analyzed for component wear identification allowing predictive maintenance planning. For further information contact our office or visit our website www.OneEyeIndustries.com.

