



## **BLOCKED CABLES**

### **DISCUSSION**

*A problem common in downhole operations when wirelines are used is wet cables. Wet cables are described as having fluid or gas emitting out of the copper conductor either during downhole operations or when re-heading, which could cause electrical shorts within the cable head termination. This fluid or gas usually enters into the copper strand from migration through the thermoplastic insulation, or occasionally through poorly constructed cable head connections. High downhole pressures and temperatures can add to the possibility of the wireline becoming "charged" with fluid or gas whereby, upon reheading, this condition is evident.*

### **CORRECTIVE ACTION**

*To help minimize this problem, Rochester has developed the blocked cable. This involves applying a high temperature blocking material in the copper strand while the conductors are assembled. This conductor blocking is applied along the entire length of the cable. The blocking material will help deter any fluid or gas from traveling up and down the copper strand and leaking into the cable head termination.*

*Final tests after manufacture include severe water leakage tests on representative sections of finished cable. Rochester's leakage requirements are 20 times tighter than the Navy's military specification requirements for blocked cables.*

*Since the initial introduction of blocked cables by The Rochester Corporation some 30 years ago, the incidents of wet cables have been dramatically reduced, almost to the point of extinction.*

### **ADVANTAGES**

- *Increased flex life of the copper conductors since the blocking material acts as a lubricant.*
- *Insures greater copper conductor quality since the stranding and blocking operations are performed internally at Rochester.*
- *Significantly reduces the possibility of wet cables.*

### **AVAILABILITY**

*Rochester is currently offering blocked conductors in many of its wireline cables. Consult your local Rochester representative for further information.*