

PROPERTY OF CAMERON IRON WORKS, INC.

DRILLING CONTROL CONSOLES

Hydraulic fluid, presently used in the drilling consoles, is being changed by engineering.

The present hydraulic fluid used is Marvel Mystery Oil Top Cylinder Lubricant stocked under Cameron Iron Works Part Number 667172-70. This oil has a flash point of 140°F and a pour point of -60°F.

The new hydraulic fluid to be used is Transformer Oil and is stocked at Cameron Iron Works, Houston West Belt Plant under CIW P/N 3141-10 and is Shell Oil Company Diala A Oil or Diala AX Oil. This oil has a flash point of 298°F and a pour point of -58°F.

There are three other engineering approved major suppliers of Transformer Oil:

	Exxon	Conoco	Gulf
	<u>Univolt 60 or N61</u>	<u>Transformer Oil</u>	<u>Transcrest H</u>
Flash Point	320°F	295°F	295°F
Pour Point	-68°F	-65°F	-55°F

Any of the above listed oils are acceptable and should be used to replace the Marvel Mystery Oil now used.

Transformer Oil is compatible with Mystery Oil and they can be mixed but to maximize the flash point rating of the Transformer Oil, it is suggested to purge, as well as possible, the Mystery Oil from the system and refill with Transformer Oil.

All new units will be delivered with Transformer Oil. Existing units may be purged at the discretion of the district managers.