

Cementing Program

4-1/2" Production Casing Continued

- B. Once the first stage cement is in place (Figure 1), drop the **EXTERNAL CASING PACKER / DV TOOL ACTUATION DEVICE** (a.k.a. Ball, Bomb, Plug, Dart) .
- C. With guidance from the tool manufacturers representative, set the external casing packer and open the DV tool.
- D. Circulate one complete circulation through the DV tool to ensure any residual cement from the first stage is removed from the annulus above the combination tool.
- E. Pump the second stage cement into position followed by the **SECOND STAGE FOLLOWING PLUG**. Displace cement and plug with drilling fluid. The **SECOND STAGE FOLLOWING PLUG** will close the DV tool ports when the cement is in place

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JUL 05 1994

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