



HydraHemera™

DESCRIPTION/APPLICATION:

The HydraHemera™ system was developed to enable plugging a well across multiple annuli without performing a section milling operation. The system consists of two components, a HydraHemera™ Jetting Tool and a HydraHemera™ Cementing Tool. The HydraHemera™ Jetting Tool is used to wash and clean out debris in the annuli behind perforated casings. It features jet nozzles which are positioned at irregular angles and engineered for optimum configuration and exit velocity. The jets penetrate and clean thoroughly behind multiple perforated casings. The HydraHemera™ Jetting Tool ensures optimum conditions in the casing annuli prior to placing the plugging material in the cross section. Debris, old mud, barite and old cuttings are replaced by clean mud.

Using a ball drop mechanism after jetting, the HydraHemera™ Cementing Tool is activated, and combined with the HydraArchimedes™ tool enable placing plugging material in the entire cross section of multiple annuli, and hence, establishing a proper barrier in the well for P&A or sidetrack purposes.

OPERATION:

After completing a perforating run with big hole charges in the target zone, the HydraHemera™ system is run in hole to the top of the perforated section. The HydraHemera™ Bull Nose allows for circulation while running in hole. A ball is dropped which activates the cleaning nozzles. Clean mud is pumped which exits the HydraHemera™ as high energy jets, thoroughly cleaning behind up to two casing strings. A second ball drop activates the cementing nozzles in the HydraHemera™ Cementing Tool, which feature flow area optimized for cement. Cement is pumped while rotating the assembly, and the cement is placed efficiently into the intermediate and outer annuli utilizing the HydraArchimedes™ tool.

FEATURES/BENEFITS:

- One trip plugging system
- No milling required
- Allows full flow when tripping in and out
- Simple design and operation
- Ideal for cleaning single and multiple annuli
- Available for all casing sizes



**Patent Pending