



HydraWash™

DESCRIPTION/APPLICATION:

The HydraWash™ system was developed to enable plugging a well without performing a section milling operation. The HydraWash™ system consists of a HydraWash™ tool, disconnect and a HydraWash™ Cement Stinger which are run as one system into the well. The HydraWash™ tool is used to wash and clean out debris in the annulus behind a perforated casing. The HydraWash™ tool is converted into a HydraWash™ Cement Stinger after washing to enable placement of plugging material in the well's entire cross section and hence, establishing a reliable barrier in the well for P&A or sidetrack purposes.

The HydraWash™ tool ensures optimum conditions in the casing annulus prior to placing the plugging material in the cross section. To prevent surging the well while running in hole, the HydraWash™ tool has incorporated several large bypass conduits that will divert the mud from below the tool to above the tools opposing cups. These channels also allow the usage of annulus or drillpipe activated TCP guns below the tool.

After completing the washing sequence and having placed spacer fluid in the annulus, the HydraWash™ tool is disconnected by a ball drop mechanism and left in the well below the perforated section. Here it acts as a base for the upcoming plugging operation. After disconnecting, the upper part of the HydraWash™ tool converts into a large ID HydraWash™ Cement Stinger used to place the plugging material.

OPERATION:

The HydraWash™ system is connected to TCP guns and the workstring. When running in hole, full circulation through the HydraWash™ tool is possible. After completing the TCP operation, the washing feature is activated by dropping a ball that diverts flow between the cups. The perforated interval is thoroughly washed as per a detailed HydraWell washing procedure until desired annulus cleanout has been achieved. A larger ball is then dropped to activate the hydraulic release system that separates the HydraWash™ tool from the Cement Stinger. The plugging material can now be pumped per the operational procedure.

FEATURES/BENEFITS:

- One trip plugging system
- No milling required
- Field proven
- Allows for circulation while tripping in and out
- Simple design and operation
- Base for plugging material
- Available for all casing sizes



**Patent Pending