

Memorandum

To: File

From: John Sheldon

cc:

Date: December 14, 2011

C-FER File: R025000

Subject: Changes in PC-PUMP® v3.22

Message:

C-FER is pleased to announce the release of a minor update to PC-PUMP. The new version of PC-PUMP addresses several bugs identified by users, incorporates two new minor features that increase the software's usability and offers the option to purchase a Spanish Language Module. PC-PUMP v3.22 has the following additions over PC-PUMP v3.21:

- We are excited to announce that PC-PUMP is now available in Spanish. By purchasing the Language Module with the PC-PUMP Maintenance Plan, Spanish users can now work with PC-PUMP in the Spanish language.
- Based on feedback from users, the "Charts" tab in the *Wellbore Geometry* window has been updated to display the pump seating depth and perforation depth in the "Plan View" chart and the "Vertical Section" chart.
- To improve the usability of the pump charts, located in the *Pump Selection* window, the static friction torque value has been added to the "Torque vs. Differential Pressure" chart. Previously, that chart displayed only the estimated hydraulic torque (based on the rated differential pressure and the rated displacement of the selected pump) and the total torque (the sum of the hydraulic torque and the static pump friction torque).

C-FER welcomes all comments and suggestions on PC-PUMP. If you see any issues with the program or have a suggestion for a new feature that would enhance the software, please feel free to contact C-FER through the feedback feature located on the navigation bar in PC-PUMP or by email at pcpump@cfertech.com.