As the search for petroleum resources become more extreme in terms of depth, pressure, and temperature (HPHT drilling), wellbore circulating temperature prediction becomes a very crucial process. It has implications for flow assurance (wax, hydrates and viscosity), stress analysis, drilling tool temperature tolerance, completion fluid density, cementing, and other variables. Predicting circulating temperature in deepwater wells is further complicated by the presence of risers and choke/kill/boost lines.

Pegasus Vertex, Inc. is leading the way with CTEMP, software that predicts wellbore circulating temperature for drilling/circulating operations. CTEMP addresses the transient heat transfer between wellbore and sea water/rock formation. Its interactive on-screen graphic results provide operation guidelines for expensive HPHT drilling operations.
Features

- Transient heat transfer model
- Land and offshore wells
- 15 flow paths
- Directional well with survey data
- 10 formation layers
- Multiple cased, open holes and pipes
- Pumping schedule
- 5 cased holes, 10 open holes, 20 pipe sizes and 3 inner strings
- Bingham Plastic, Power Law, and Herschel Buckley rheology models
- Temperature profiles
- Cooling effects of the tank
- Influence of wind speed and sea current
- Wellbore schematic with color visualization
- Microsoft Word® report
- US oil field, SI and customized units

System Requirements

- Microsoft Windows® 10
- Microsoft Windows® 8/8.1
- Microsoft Windows® 7
- Microsoft Office® 2010 or later
- Dual core processor, 1.4 GHz or faster
- 4 GB RAM
- 200 MB of free disk space for installation
- 1,280 x 768 display resolution