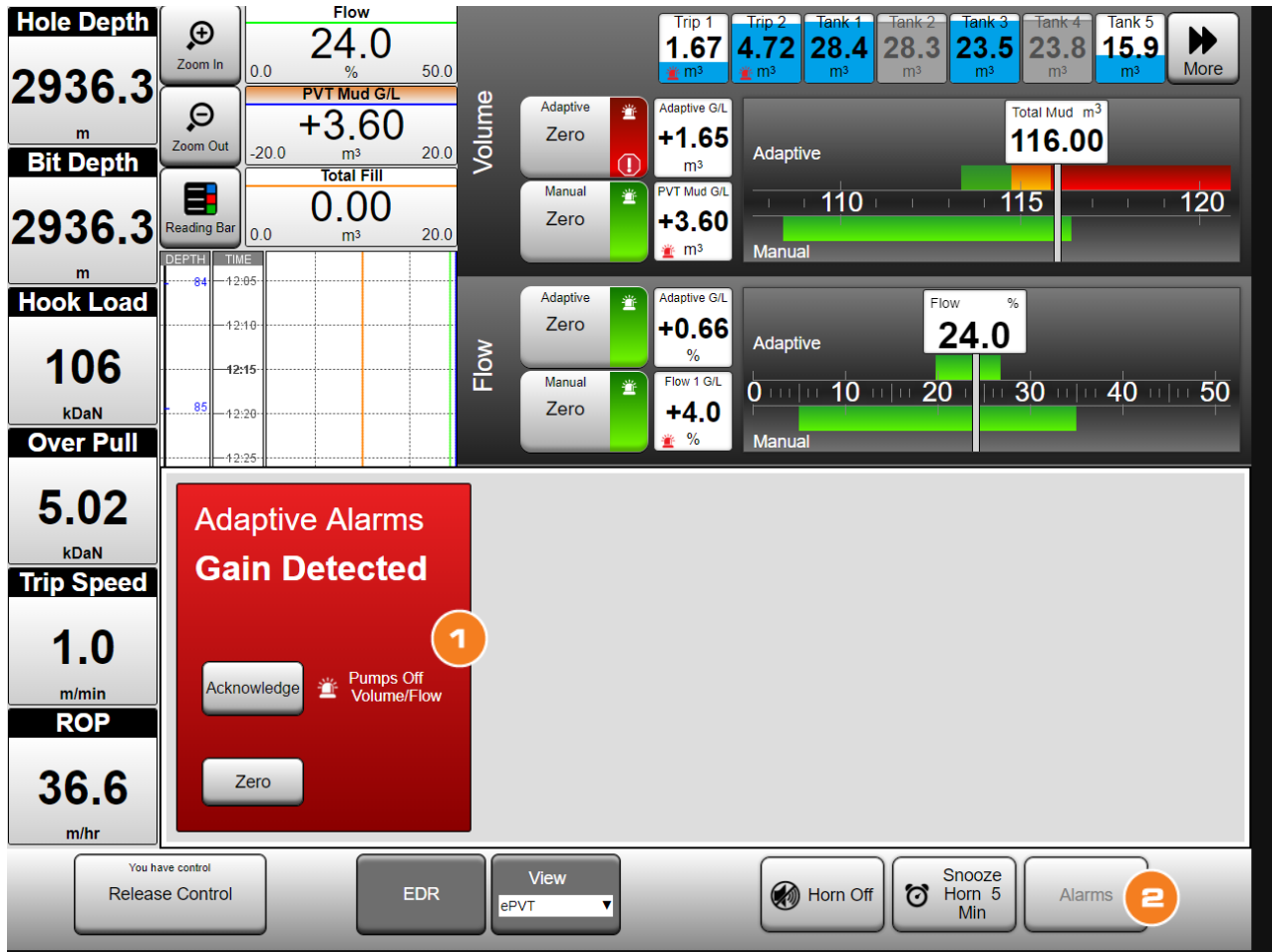
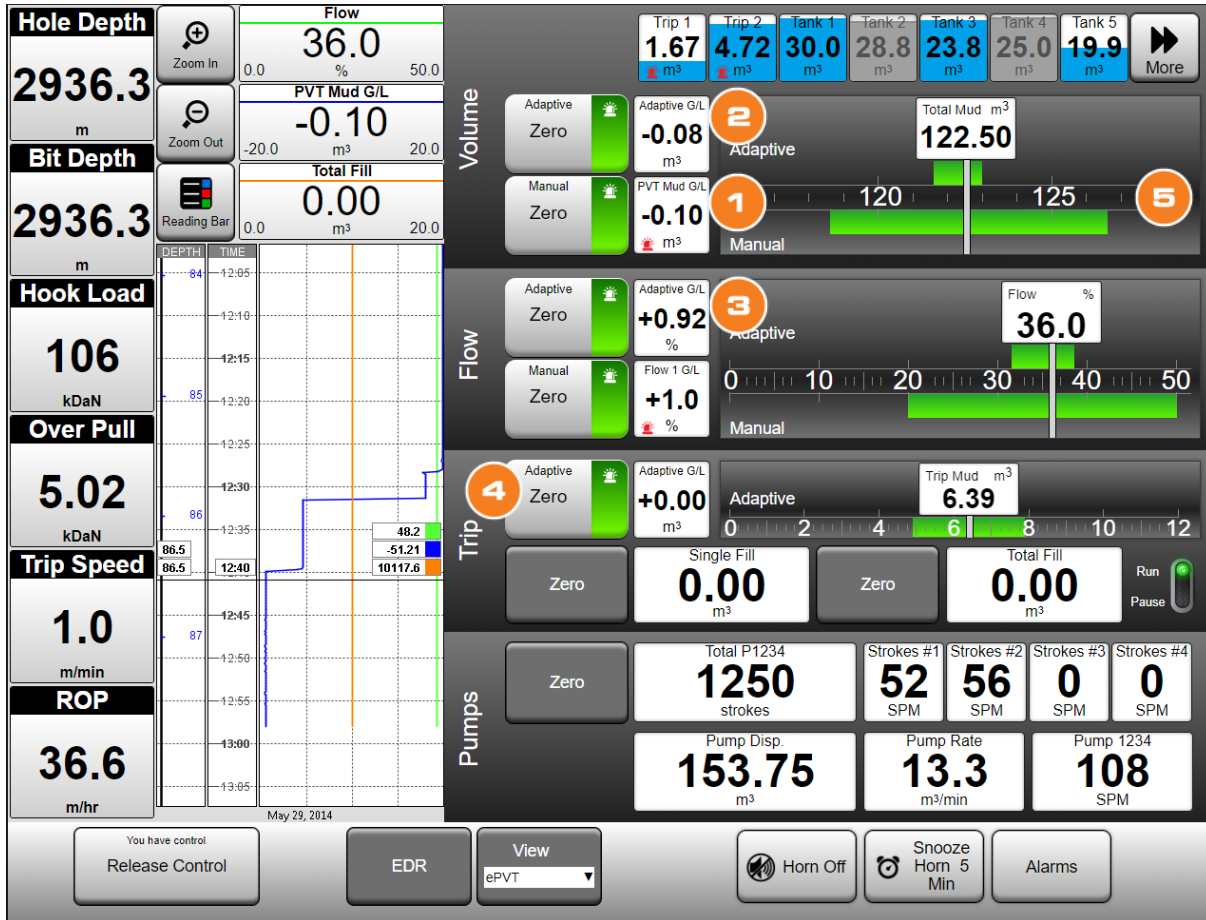


After you've approved the PVT Smart Alarm charge in the Pason Billings System (PBS), Smart Alarms:

- Monitor pit volume, flow, and trip volume for advance warning of gains and losses.
- Significantly reduce nuisance alarms.
- Appear on Rig Displays, DHCs, and trailer workstations as "Smart".
- Are controlled from the PVT (on the Rig Display) or the EDR (on a Rig Display or DHC).



- 1 Smart Alarm Pop-up**
 - Appears when an alarm is triggered.
 - Shows the alarm type and enables the user to acknowledge the alarm or zero the smart gain/losses associated with it (see 4 on the next page).
- 2 Alarms Menu**
 - View the alarm log or disable Smart Alarms.



- 1 Manual Gain/Loss**
 - The change in mud volume (or flow) since the last time the zero button was pushed.
 - Users can set alarm bounds on this value.
 - Available on Total Volume, Flow, and Trip Volume.
- 2 Smart Gain/Loss**
 - An unexpected change in mud volume (or flow) that Smart Alarms can't account for. If a gain or loss is expected (for example when pumps are turned off), this number remains close to zero.
 - The alarm bounds are automatically set by Smart Alarms.
 - Available on Total Volume, Flow, and Trip Volume.
- 3 Smart Flow**
 - Can toggle on/off. This is convenient for rigs that can't reliably measure flow and still want to use Smart Alarms.
 - Enable/Disable toggle accessed by selecting Smart Flow G/L box
- 4 Smart Zero**
 - You can zero Smart Gain/Loss values like any other gain/loss.
 - Zero resets Gain/Loss and Smart Alarm bounds
- 5 Alarm Gauges**
 - For each alarm top row shows the Smart Alarm and the bottom row shows the manual (user-set) alarm.
 - Smart Alarms bounds automatically change with rig activity. Manual bounds don't.
 - Smart Alarm colors will change from green (good) to yellow (warning) to red (alarm).