

6. PERA has compared the PERA EOS model with an alternative EOS model presented in the Expert Report by Dr. Aaron Zick. The Zick 11-component pseudoized EOS model gives fairly accurate predictions for much of the PVT data, except:

- Erroneous type of phase boundary (bubblepoint instead of dewpoint) for both Pencor samples.
- Erroneous near-critical liquid volumes of both Pencor samples.
- 1-2% overestimation of single phase densities for all samples.
- 3-5% overestimation of the stock tank oil volume (*i.e.* too little shrinkage) for *all* samples using the laboratory 4-stage separation process.

The PERA EOS model does not experience any of the shortcomings listed above and, with more accurate single-phase density predictions, and unbiased stock tank oil volume predictions ($\pm 2\%$) for the laboratory 4-stage separation process.

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