

True Vapor Pressure of Crude Oils **A Look at Issues and Possibilities**

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Problem Statement

- Vapor pressure is becoming a more critical product characteristic
- Vapor pressure regulations stem from various agencies
 - ✓ Requirements are not consistent on a per agency basis
- Commercial requirements may not mesh with regulatory requirements
- The need for greater certainty in determining the Reid and True Vapor Pressures is apparent



Assessment Of The Problem

- The various methods for determining Vapor Pressure all have issues that need to be addressed
 - ✓ D5191 needs provisions that recognize the unique challenges crude oils present
 - Lack of requirement to rinse the measuring cell
 - Needs provisions for acceptable rinse solvents
 - Undefined time for equilibration
 - ✓ D2879 requires an unacceptable degassing step
 - ✓ D6377 development did not include the range of crude oils that are in commerce today
- The algorithms in AP42 have the same issues relative to the scope of application



Possibility To Establish Certainty

- Today's instruments can measure vapor pressure at temperatures of interest
 - ✓ They can be programmed across a wide temperature range
 - ✓ Eliminates the need for the AP42 correlations
- A standard for TVP determinations is essential
- Regulatory agencies are seeking input to enhance their models to provide a better platform
- Industry organizations have the resources and expertise to refine crude oil measurement



Steps Needed

- Gain consensus that the value derived from establishing True Value Pressure with certainty is worth the effort
- Develop a plan that engages other industry organizations and environmental agencies

