

Crude Oil Assay and the Importance of Proper Dehydration

Crude oil distillation can be a complex and time-consuming process. Many times, clients can become frustrated that laboratory turnaround times are taking longer than desired. If the laboratory that they've chosen to process the analysis doesn't have the proper equipment necessary for crude oil dehydration, it may result in less capacity, longer turnaround times, and potentially, poorer-quality results.

As required by ASTM D2982, crude oil must not contain more than 0.3% water. If it does, it may yield poor-quality results, such as uneven boiling and bumping, formation of azeotropes, and unstable vapor temperature.

There are different forms in which water can exist in crude:



- Some water is heavier than most crude oils, and this free-water can form a separate phase
- Water that is emulsified in the crude oil cannot be separated by filtration.
- Water may be bound in crude oil by the presence of polar compounds, salts, and other impurities.

The best systems will remove all of the water from crude oil to ensure the most accurate results in crude oil distillation. And while not many laboratories can boast this type of process, SPL can.

SPL uses state-of-the-art equipment to dehydrate and distill crude oil, streamlining both processes. Their dehydration unit separates all types of water that may be contained in crude oil (in compliance with ASTM D2892), yielding truer-quality results. And the automated distillation system for performing ASTM D2892 and ASTM D5236 speeds improves turnaround times, increases capacity, and ensures accuracy.

For the best crude oil assay services, contact our technical experts today at **877-775-5227**, or visit **www.spl-inc.com** to learn more.