

# VAPOR TESTING



## YOUR VAPOR RECOVERY SOLUTIONS COMPANY

With increasing regulations, it is more important than ever to be proactive in managing your vapor emissions. OTA will partner with you to:

### Detect

Let our seasoned environmental testing coordinator help you identify the most accurate and appropriate method for your process. (Simulation, GWR, Direct Measurement)

### Determine

OTA's experienced field technicians will also collect a vapor and/or liquid sample to determine the composition and value of those lost resources. This provides you with pertinent information to determine your air permitting strategy and vapor recovery solutions.

### Comply

With our elite line of vapor recovery units, vapor towers, and combustors, OTA will match the most economical vapor solution to your specific needs while maintaining compliance with environmental regulations.

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# TESTING DETAILS



## Simulation

A liquid oil sample is collected directly from the separator's sample port or site glass and sample remains under the conditions of the process separator (temperature/pressure). The flash gas rate and volume created from the pressurized oil entering atmospheric conditions in a storage tank is simulated with industry accepted and government approved software: E&P Tank (Greatly reduces testing discrepancies by controlling field operational conditions)

## Gas-To-Water Ratio (GWR)

Produced water is collected directly from the separator under pressure and flashed in a laboratory setting to simulate storage tank conditions. EPA mandates emissions from produced water facilities be reported and managed accordingly.

## Direct Measurement

By actually metering the real-time flow of vapors, an owner/operator is able to see the peaks and valleys of one's emissions volume. This allows the owner/operator to properly size the VRU or control device and effectively handle the dynamic nature of produced liquids.

## Quality of Assessment

Before testing can occur, a client is asked to complete a questionnaire designed to assess each testing location's characteristics. OTA also offers a pre-test site inspection service to identify and correct issues that may affect test integrity, and ultimately Quad O compliance.

## The OTA tank vapor report provided to the client includes:

- ◆ Comprehensive data analysis that includes: flash gas and/or liquid composition, BTU content, VOCs, specific gravity, vapor flow (MSCFD), estimated economical assessment of emitted vapor, and more.
- ◆ In addition, each test type includes:

### Simulation

- ◆ Peng-Robinson EOS (best suited for modeling upstream operation emissions)
- ◆ Calculated GOR
- ◆ C10+ Analysis (includes HAPs, specific gravity, mole weight)
- ◆ API Gravity/RVP (oil)

### Gas-To-Water Ratio (GWR)

- ◆ Single stage flash (measured flash gas)
- ◆ C10+ Analysis (includes HAPs)
- ◆ Benzene (lb/hr, tpy)
- ◆ Actual measurement of produced water emissions

### Direct Measurement

- ◆ Graph depicting vapor flow every 10 seconds over a 24hr period
- ◆ Flow rates (Minimum, Average, Maximum)
- ◆ C6+, C7+, or C10+ Analysis

- ◆ With the information provided in OTA's emissions test report(s), you can make an informed decision and properly size a VRU or control device to achieve Quad O compliance.

## Representative Sampling

Are you in a hurry to meet emission testing compliance deadlines? Interested in saving some money? Ask us about this strategy!

