Gas Quality and Analysis Data Management

ANALYZEit

ANALYZEit incorporates the Gas Lab function of the measurement process into a single measurement system to increase efficiency between the field, lab and central office. Providing the ability to manage gas analysis data from start to end by scheduling the collection of the gas sample in the field to approving and applying the analysis results to the meter's volume data, ANALYZEit ensures accurate and timely data processing.

Integrating the Lab with the Field and Office

ANALYZEit is a licensed module available for TESTit Server to manage and record the activities associated with collecting and analyzing gas quality. The added functionality provides Gas Labs the ability to initiate requests to the field for a sample by utilizing the scheduling feature. Schedules can be set as recurring or one time, and the Gas Sample form provides the technician the ability to capture the sample tag information within the task. Once the sample is collected and delivered to the lab, the Sample Check-In task allows the lab to verify sample tag information and begin the gas analysis process. Upon the completion of the analysis by the gas chromatograph, the results can be imported directly from the chromatograph interface software by utilizing the .lba file format (tab delimited .txt file), or manually populated into the Analysis form.

The Analysis form allows the user to select the gas constant calculations and the Z method used to calculate the results. The unnormalized mol% are displayed and the components are normalized, if needed, and displayed in the Normalized mol% section. GPM is also calculated and displayed. The last part of the form contains the base and alternate conditions for density, dry and saturated heating value, Wobbe index, compressibility, HCDP at sample and delivery pressures, and cricondentherm temperature and pressure (CCTt and CCTp). Contractual and operational limits provide additional validations to flag analysis values that exceed the allowed variance.
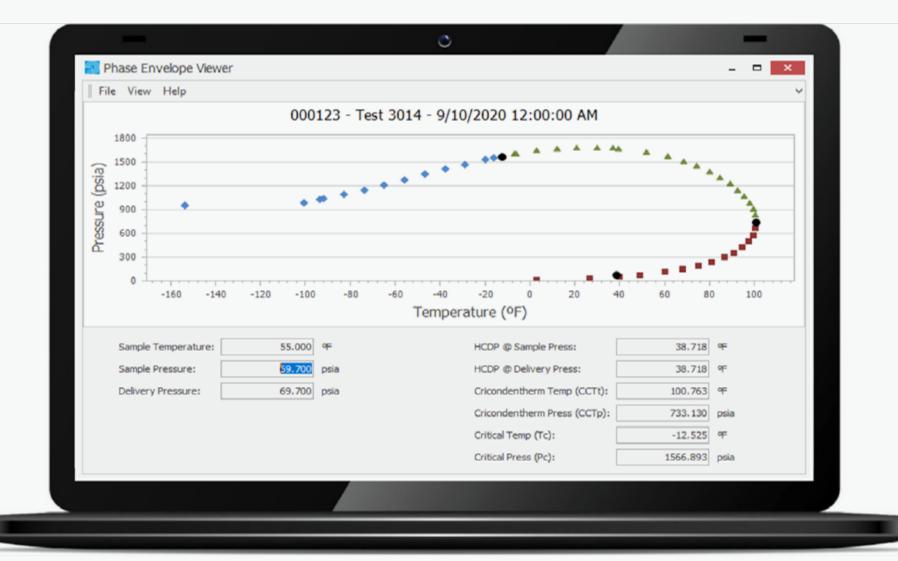
Approval Process

When enabled, the analysis will be sent to the approval queue for review by the Lab Supervisor or Chemist to determine an approved or rejected status. The approval notification feature provides the option to send a status update to a specified email address, contact, or contact type to inform the recipient if task was either rejected or approved. The notification option on rejection can be utilized as a re-sample request, removing the manual process of informing the technician a new sample is required.

FLOWCAL Compatible Data Exports

Export jobs can be scheduled to generate a GQ Source TXT file that can be imported into FLOWCAL and applied to the volume data.

Report and Chart Capabilities

Reports and charts specific to ANALYZEit provide the lab the ability to quickly review and verify gas quality data. The Chromatograph Analysis Tracking Data chart graphically displays a meter's chromatograph analysis data over time to trend variances. The following standard reports are provided:

- Analysis History – Displays the last eight analyses for a given meter in a columnar format.

- Analysis Validations – Linked to the Analysis task by default, this report displays the current analysis data along with historical data for the meter. Any validations that fall outside of the set boundaries will display with asterisks.

- Certificate of Analysis – Used as official documentation of an analysis, this report will only generate for Analysis tasks in which the Sample Taken field is set to "Yes". The Analysis task must be approved.

- HCDP/Liquids Drop Out – This report displays analyses in which the dew point calculation indicates that they may be operating in a liquid phase.

- HCDP Phase Envelope Report - This will run as a second page on the Analysis Validations report if the sample pressure in the task is below the HCDP at delivery pressure. If this condition does not exist for the task, then the HCDP Phase Envelope report must be run from the Reports menu. The HCDP Phase Envelope can be viewed by opening the task and going to View > HCDP Phase Envelope.

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