# Rosemount<sup>™</sup> Natural Gas Chromatographs Bureau of Land Management (BLM) 43 CFR 3175 - Gas Measurement



#### **CHALLENGE**

Gas producers are required to comply with the Bureau of Land Management's (BLM) 43 CFR 3175 regulations. These regulations establish minimum standards for accurate measurement and proper reporting of all gas removed or sold from Federal and Indian (except the Osage Tribe) leases, units, Unit Participating Areas (PAs), and areas subject to Communitization Agreements (CAs).

The BLM rule provides a system for production accountability by operators, lessees, purchasers, and transporters. This rule establishes overall gas measurement performance standards and includes, among other things, requirements for the hardware and software related to gas metering equipment, reporting, and recordkeeping. The BLM rule also identifies certain specific acts of noncompliance that may result in an immediate assessment and provides a process for the BLM to consider variances from the requirements of this rule.

### **OUR SOLUTION**

The Emerson Rosemount 370XA and 770XA online gas chromatographs (GCs) reduce BTU measurement errors often found with spot samplers. The GC's online sampling means an individual no longer needs to frequently travel to the Facility Measurement Point (FMP) to pull a sample; saving man hours and travel costs.

The 370XA and 700XA offer fully pre-engineered custody transfer applications that provide accurate and repeatable measurement analysis for the heating value of natural gas. ( $\S\S3175.118$ ).

# WHAT IF...

- ...you could ensure BLM regulatory compliance and accurate measurement?
- ...you could reduce measurement errors while reducing costs of complying with 40 CFR 3175?
- ... you could focus on production rather than gathering samples?

#### Standard Measurement Ranges C6+ C9+

| Methane         | 65 to 100 mole % | — |
|-----------------|------------------|---|
| Ethane          | 0 to 20 mole %   |   |
| Propane         | 0 to 10 mole %   |   |
| N-Butane        | 0 to 5 mole %    |   |
| Iso-Butane      | 0 to 5 mole %    |   |
| N-Pentane       | 0 to 1 mole %    |   |
| Iso-Pentane     | 0 to 1 mole %    |   |
| Hexanes (C6+**) | 0 to 0.7 mole %  |   |
| Nitrogen        | 0 to 20 mole %   |   |
| Carbon Dioxide  | 0 to 20 mole %   |   |
| Hexanes         | 0 to 1 mole %    |   |
| Heptanes (**)   | 0 to 1 mole %    |   |
| Octanes (**)    | 0 to 0.5 mole %  |   |
| Nonane (**)     | 0 to 0.5 mole %  | _ |
|                 |                  |   |

<sup>(\*)</sup> C9+ analysis only

For more information visit:

<u>Emerson.com/RosemountGasAnalysis</u>
or contact your local Emerson sales representative



<sup>(\*\*)</sup> Not included in C9+ analysis results

# Rosemount™ Natural Gas Chromatographs

### **HOW IT WORKS**

The 370XA and 770XA provide analysis per requirements of the Gas Processors Association (GPA). The 370XA is ideal for C6+ while the 770XA is ideal for C9+. They are compact in design, don't require a shelter, offer low utility gas consumption, and operate on 24 Vdc. This makes them perfect for remote locations. Both GCs use Emerson's proprietary MON2020 software that allows complete control of the GC either locally or remotely. They are able to store 88 days of analysis results, over a year of final calibration results, and over 1700 chromatograms. The analysis report provides heating value and relative density.

## Select the Best GC for Your Facility Measurement Point (FMP)

Emerson offers two standard solutions to meet 43 CFR 3175. The 370XA GC is simple to operate and includes a Maintainable Module<sup>™</sup>, a truly cost effective solution for C6+ applications. For applications where C9+ measurement is needed or there is a risk of hydrocarbon liquids, the 700XA C9+ can provide the industry's best performance.



## Rosemount 770XA GC

The 770XA is a full-feature airless oven gas chromatograph that allows you to use the extended analysis applications in a rugged field-mountable enclosure. The 770XA C9+ application includes Hydrocarbon Dew Point (HCDP) calculations that can calculate the HCDP at four different pressures and the cricondentherm, the highest HCDP at any pressure.



## Rosemount 370XA GC

The 370XA provides a four-minute C6+ analysis using a unique Maintainable Module technology that gives the low downtime benefits of module replacement in the field with the cost-effective benefits of component-level repair. The module can be easily replaced in the field in under two hours.

#### **Global Headquarters**

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## Consider it Solved.

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