

SpectraSensors H₂S Analyzers

Accurate measurement for natural gas quality

Question If two analyzers show different readings in the same pipeline, who wins the dispute?

Answer The analyzer that demonstrates the best measurement accuracy and is traceable to primary references will have the greatest degree of credibility.



There is a saying in the natural gas industry, “If you have one analyzer you have a measurement, if you have two analyzers, you have an argument.” Sometimes, there can be a dispute when two different companies use different analyzer brands. The readings can be 2 ppm (parts per million) apart and that can mean a lot if one party is reading 5 and the other is reading 3. In fact, it can result in a very costly shut-in.

Customers choose TDL analyzers not only for the fastest response and the lowest maintenance available, but also for the most accurate measurements. SpectraSensors H₂S analyzers are calibrated using “Dual NIST traceable” reference materials – a product developed for us by Air Liquide Specialty Gases. A common industry method for producing H₂S mixtures is to dilute H₂S down to 4 ppm and analyze it in the lab. But that process has accuracy risks, even if done with NIST reference standards, because there is no second check of the actual concentration and no indication of long-term stability. The Air Liquide dual-certification process, which employs gravimetric and analytical procedures, both with full NIST traceability, requires

these two independent methods come to the same result and agree within close statistical boundaries. When these two independent processes agree with one another, there is high confidence in the certified H₂S concentration, and we have the required unbroken chain of comparisons within our measurements all the way back to NIST.

Air Liquide makes high-accuracy reference material for verifying the SpectraSensors’ analyzer accuracy in the field. SpectraSensors Validation Materials (SSVM’s) are available to our customers and service partners and with 4 and 16 ppmv H₂S in a background of CH₄ or N₂. The SSVM has Dual NIST Traceability; that’s ±1% traceable to NIST Class I weights and overlapping ±2% Confirming Lab Analysis.

The links provided will connect you to the document that shows the part numbers available from Air Liquide, as well as their designated contact person in the US, DeNeece Tippie. She will help you find the right person in your region and make sure you get the SSVM’s for field validation of SpectraSensors H₂S Analyzers.



Click for Air Liquide reference information.



Click to read the article on metrology published in Midstream Business.



Sam Miller
Director, Product Marketing & Marcom
smiller@spectrasensors.com