



Dutch  
Metrology  
Institute

# Fact Sheet Proficiency Test

## Gas analysis: Composition of Refinery Gas



This international PT scheme provides you to evaluate the analytical performances of your laboratory. This PT is suitable for international standards (e.g.: ASTM D1945, GPA2261, GPA2286, ISO 6974, ISO 17023, DIN 51666, EN 15984) and all in house methods for typically refinery (heating) gas composition measurements.

### Contact details:

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### Refinery Gas composition range:

Component	Range (% mol/mol)	Component	Range (% mol/mol)
CH <sub>4</sub>	10 - 13	n-C <sub>5</sub> H <sub>12</sub>	0.5 - 1.0
C <sub>2</sub> H <sub>6</sub>	1.5 - 2.5	n-C <sub>6</sub> H <sub>14</sub>	0.01 - 0.1
C <sub>3</sub> H <sub>8</sub>	0.4 - 0.6	CO	1 - 4
H <sub>2</sub>	7 - 8	CO <sub>2</sub>	0.4 - 0.8
n-C <sub>4</sub> H <sub>10</sub>	0.8 - 4.2	N <sub>2</sub>	60 - 80 (Balance)
iso-C <sub>5</sub> H <sub>12</sub>	0.5 - 1.0		

The samples will be supplied in an aluminium cylinder (DIN-5 or DIN-1 valve connection) with a water capacity of 5 L with a nominal pressure of about 1.0 MPa (circa 10 bar). Samples will be prepared by Scott Specialty Gases Netherlands B.V..

### Reference laboratory:

VSL, the Dutch National Metrology institute (traceability of the reference values to international measurement standards is guaranteed).

### Estimate number of participants:

Typical number of participants: 12-15.

### Measurements protocol:

Will be provided by e-mail after shipment of the cylinders, participants have two weeks to perform the analysis.

### Evaluation:

Evaluation by  $E_n$  value based on reference values determined by VSL.

All participants will receive a report of the interlaboratory comparison within four weeks after ending the comparison cycle.

### Accreditation:

The organisation of this Proficiency Test is in accordance with the requirements of ISO/IEC-17043. Accreditation is granted by RvA, registration number R006.

### Confidentiality statement:

"VSL keeps all data regarding the performance of individual participants, or groups of participants, strictly confidential. Data is protected accordingly and stored in areas on networks with restricted access. The relationship between results and the laboratories that submitted them will never be disclosed. Only the laboratory is granted access to its performance through the assigned code number."

### Fee & Schedule:

The frequency is once a year. Contact us for specific schedule and fee details.

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### Requirement 5.9 ISO/IEC 17025:

*Assuring quality of testing and calibration results:* The laboratory will have quality control procedures for monitoring test validity and calibrations undertaken. This monitoring will be planned and validated and may include the following: *participation in interlaboratory comparisons or proficiency-testing programmes.*