# METHANE FROM FLARING TOOLKIT



## Composition: Laboratory Analysis

Uncategorized > Composition: Laboratory Analysis

#### **Summary**

Laboratory based analytical methods involve analysing a sample that is extracted from a flare system via a manual or automatic sampling system.

#### **How it Works**

Most oil and gas operating facilities have a laboratory based on-site to analyse all types of samples extracted from the process.

There is a wide range of reasons for laboratory analysis of samples. The first is the lack of on-line analytical systems, the second is verification of an existing on-line analysis method and a third could be to satisfy regulatory or operating agreement requirements.

Samples can be taken daily, weekly or monthly, they can be analysed on-site as stated or they could be required to be sent to an independent laboratory for more specialist analysis.

Results are then recorded in the Laboratory Information System (LIMS) as per the required analysis frequency.

Laboratory analysis is widely used in the Oil and Gas Industry.

#### Advantages

High accuracy

Low uncertainty

#### Limitations

- Periodic update (daily, weekly, monthly)
- Equipment costs
- Logistic costs

#### Go Deeper

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#### Case study

No case study available at this time.

### Do I know the gas composition?



Composition: Spectrometry (GC - MS)



Composition: On-Line



Composition: Specific Gravity Analyser (Relative Density)



Composition: Wobbe Index Analyser (Calorimeter)



