

# Refinery gas analysis

## Application Note

Energy & Fuels

### Authors

Agilent Technologies, Inc.

### Introduction

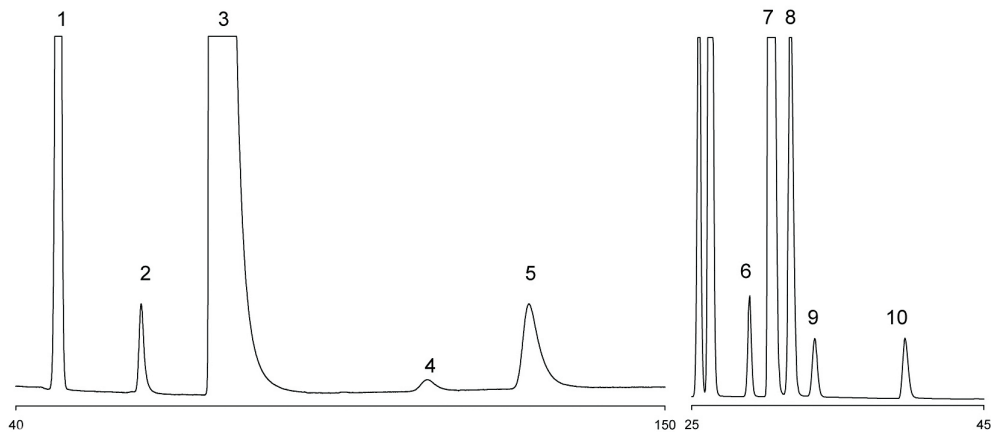
The Agilent Micro-GC solution is used for the analyses of refinery gas and related products. The analysis shown is a hydrocarbon type sample in nitrogen. Four independent GC channels analyze the sample in less than 150 seconds. The analysis includes permanent gases, hydrogen sulfide and all individual saturated and unsaturated hydrocarbons up to C5. Heavier hydrocarbons are reported either as individual components or as groups.



**Agilent Technologies**

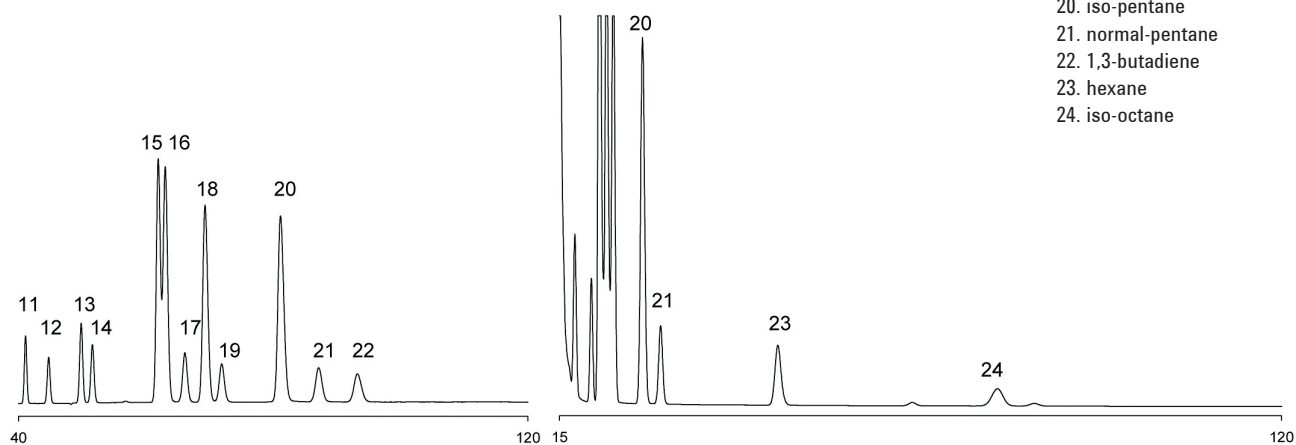
## Peak identification

1. hydrogen
2. oxygen
3. nitrogen
4. methane
5. carbon monoxide
6. carbon dioxide
7. ethylene
8. ethane
9. acetylene
10. hydrogen sulfide
11. propane
12. propylene
13. iso-butane
14. normal-butane
15. trans-2-butene
16. 1-butene
17. iso-butene
18. cis-2-butene
19. neo-pentane
20. iso-pentane
21. normal-pentane
22. 1,3-butadiene
23. hexane
24. iso-octane



Channel 1. Permanent gases

Channel 2. C<sub>2</sub> hydrocarbons, CO<sub>2</sub> and H<sub>2</sub>S



Channel 3. C<sub>3</sub> up to C<sub>5</sub> hydrocarbons

Channel 4. C<sub>5</sub> and heavier hydrocarbons

[www.agilent.com/chem](http://www.agilent.com/chem)

This information is subject to change without notice.

© Agilent Technologies, Inc. 2011

Printed in the USA

31 October, 2011

First published prior to 11 May, 2010

A01786



**Agilent Technologies**