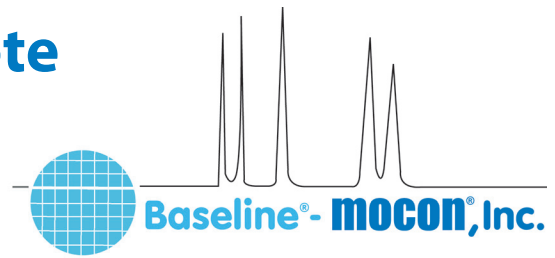


# PetroAlert™ 8900GC Application Note

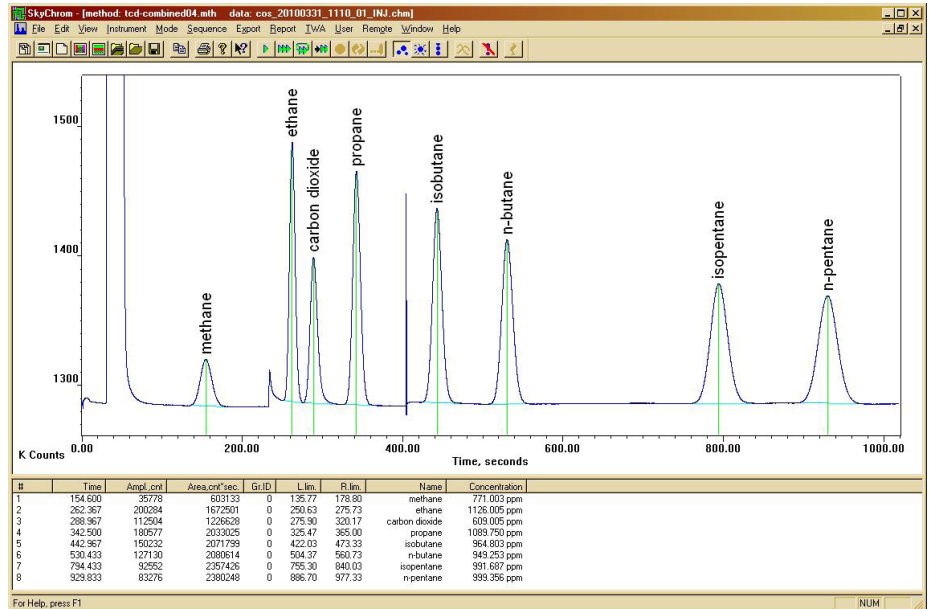
## C1 - C5 with Carbon Dioxide



### Analyzer

The PetroAlert Model 8900 combines the selectivity of gas chromatography with the sensitivity, broad dynamic range, and hydrocarbon selectivity of a thermal conductivity detector (TCD) providing fast analysis of C1-C5 hydrocarbons and Carbon Dioxide required in Mud Logging for Oil & Gas exploration.

The PetroAlert Model 8900 uses a dual column configuration with timed backflush to vent which is used to strip off moisture and C6+ hydrocarbons. A pre-cut column is used in series with the analytical column. At sample injection a fixed sample volume is carried to the pre-cut column. Backflush of the pre-cut column is timed from sample injection so that only C1-C5 hydrocarbons are eluted from the pre-cut column to the analytical column. C6+ hydrocarbons on the pre-cut column are then vented. Then a third column is used in conjunction with a second 10-port valve for individual analysis of methane. C1-C5 hydrocarbons are separated on the analytical column and elute to the thermal conductivity detector (TCD) for analysis.



### Application

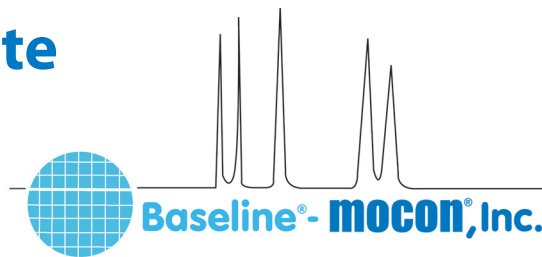
- Measurement of C1-C5 and carbon dioxide for oil & gas exploration

### Features

- Analysis of C1-C5 Hydrocarbons and Carbon Dioxide for Gas Referencing
- Automatic baseline adjustment for long-term stability
- Automatic calibration to a known standard
- Analog output ranges are user selectable
- Multipoint sampling options
- RS-232 and optional LAN

# PetroAlert™ 8900GC Application Note

## C1 - C5 with Carbon Dioxide



### Specifications

**Analysis Time:** <300 seconds through Propane, <800 seconds through Pentane

**Detector:** TCD

**Column:** Packed

**Oven Temperature:** 80 °C, Nominal

**Nitrogen, 30cc/min, Nominal**

**Lower Detection Limit:** <50ppm

**Accuracy:** ±5% (relative) within dynamic range.

**Precision:** 2% of Measured Value

**Span Drift (24HR):** <2% of Full-scale

**Sample Flow Rate:** 250-500cc/min, typical

#### Output:

**Analog:** (1) 0-20ma or 4-20ma loop power supplied, isolated. Selectable for: gas concentration, unintegrated detector signal. Options for up to 20 additional programmable 0-20ma, 4-20ma or voltage outputs: 0-1V, 0-5V, or 0-10V.

**Digital:** RS-232, optional Local Area Network

**Relays:** (5) User programmable relays for concentration and diagnostic alarms (1A @ 30Vdc). Options for up to 32 additional relays available.

**Inputs:** Optional digital input board for 3 contact closure inputs. Supports start analysis, start calibration, and analyze calibration gas sample.

This application note is an only an example based on customer or market specifications. These parameters are variable and therefore do not reflect all of the versatility and options of Series 8900 GC. Please contact Baseline regarding your specific application

A021.5

P.O. Box 649, 19661 Highway 36 • Lyons, CO 80540

P: 1.800.321.4665 • 1.303.823.6661 F: 303.823.5151 E: Sales@BaselineIndustries.com