

## PPS71 Geothermal Memory Gauge

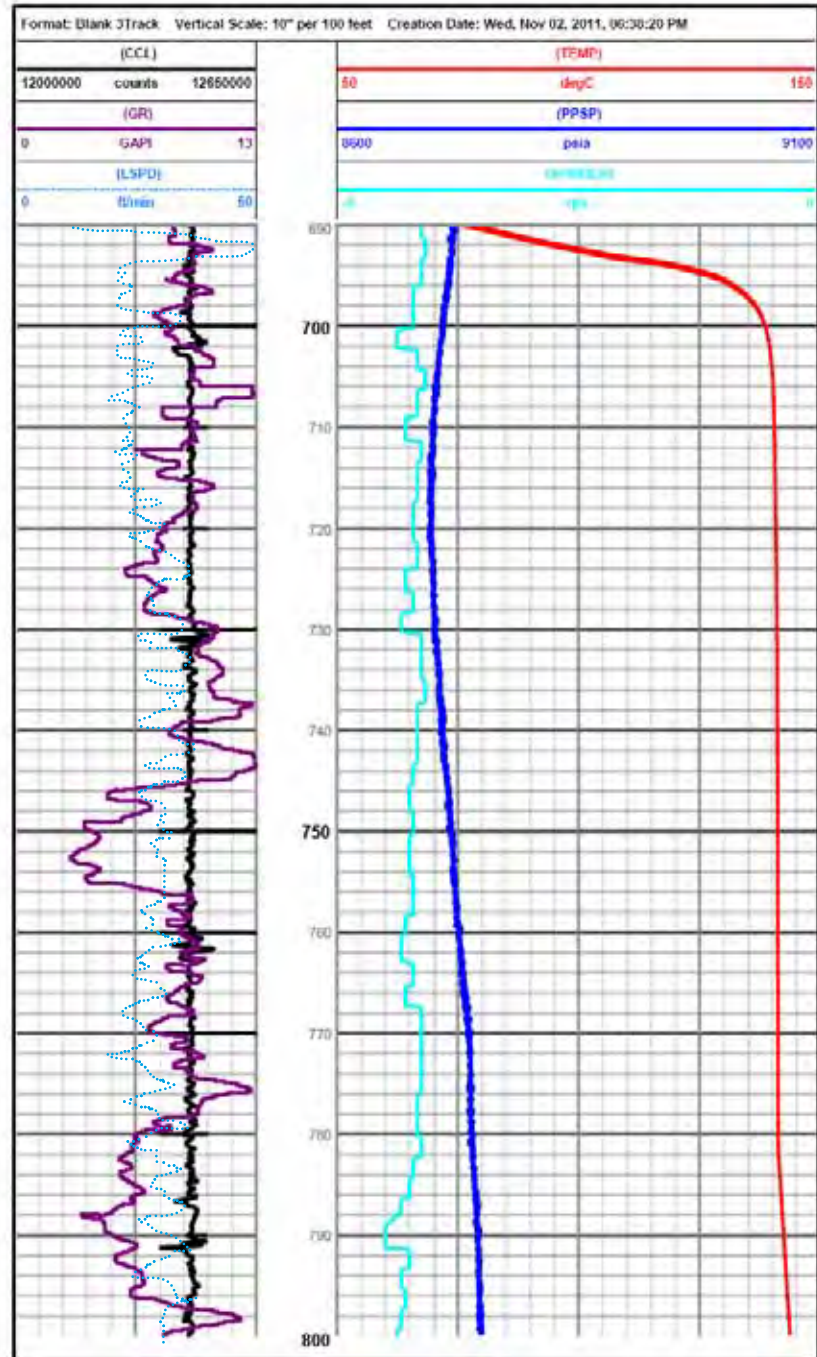
The PPS71 Geothermal Memory Gauge has been designed for extreme, high temperature downhole conditions. The robust electronics combined with vacuum flask technology allow this product to perform at 350°C (662°F).

Combining downhole gamma, rps, collar locator, pressure, and wellbore temperature data with our surface depth time recorder—DepthWatcher—provides customers with the capability to run a single phase profile log at extremely high temperatures.

The simple to use PPS SmartLog software is used for programming, downloading and conducting data processing. All files are in the ASCII data format. The tool can be ordered without the spinner, gamma and CCL in case pressure and temperature are the only signals to be logged.

### APPLICATIONS:

- Geothermal Well Test
- Steam Injection Downhole Profile
- Pressure Build-Up Tests
- Pressure Gradients
- Tubing and Casing Leakage Checking



## Specifications

### Pressure Measurement

Sensor type	Silicon-Sapphire
Pressure range	Up to 18000psi
Error	±0.03% FS
Resolution	0.0003% FS

### Temperature Measurement

Sensor type	RTD (Pt1000, 4-wire)
Temperature range	0 - 350°C (662°F)
Error	±0.5°C
Resolution	0.01°C

### Flow Measurement

Sensor type	Spinner
Spinner range	5 – 7000RPM
Error	±0.5 revolution
Resolution	0.08RPS

### Gamma Measurement

Sensor type	Crystal, NaI
Sensitivity	1.0 count/second/API

### Data Store

Sampling Rate	0.1s – 1.8hrs/per sample
Datasets	Time/Pressure/RTD/Flowrate/CCL
Memory capacity	1million datasets

### Environmental

Gauge temperature rating	350°C (with a flask) (662°F)
Electronics rating	177°C (351°F)
Downhole Time	4 hours at 350°C (662°F) / 6 hours at 300°C (572°F) / 8 hours at 250°C (482°F) / 10 hours at 200°C (392°F) / 12 hours at 180°C (356°F)

### Power supply (without Gamma)

Operation voltage	2.7 – 3.9VDC
Battery	180°C C size Li-battery (5Ahr/3.6V)
Power Consumption	Operation current 5mA, Idle 3mA
Connector	Lemo 6pin with locker

### Power supply (with Gamma)

Operation voltage	5.5 – 7.3VDC
Battery	180°C C size Li-battery (5Ahr/7.2V)
Power Consumption	Operation current 35mA, Idle 3mA
Connector	Lemo 4pin with locker

### Communication

Interface	USB/RS-232 (TTL)
Rate	115200bits/s

### Mechanical and Material

Service	H <sub>2</sub> S
Outside diameter	1.75" (44.5mm) & 1.83" (46.5mm)
Overall length	67" (1702mm) & 82.5" (2095mm)

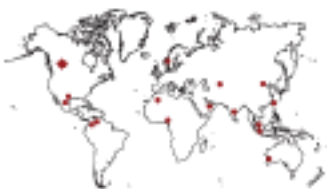
CCL →

Gamma →

Temperature →

Pressure →

Spinner →



## PPS71 Data

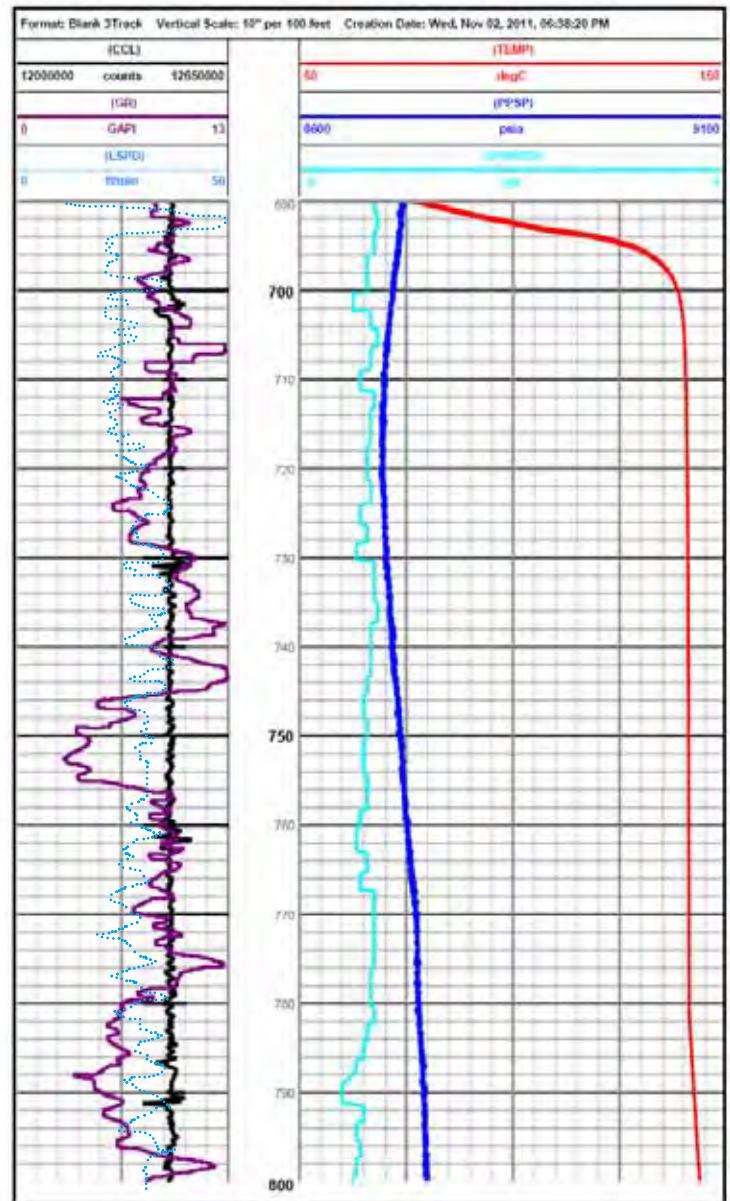
By using SmartLog you can generate logs based on depth that will allow you to create temperature and pressure profiles that can easily open with any commercial logging software. The basic components are:

- DepthWatcher data file
- PPS71 data file
- SmartLog program

**DepthWatcher:** Time, Depth & Speed



**PPS71:** Time, Pressure, Temperature, Gamma, CCL, RPS



**Profile Log:** Depth, Pressure, Temperature, Gamma, CCL & RPS

