

# P5 Cells for Overburden Studies

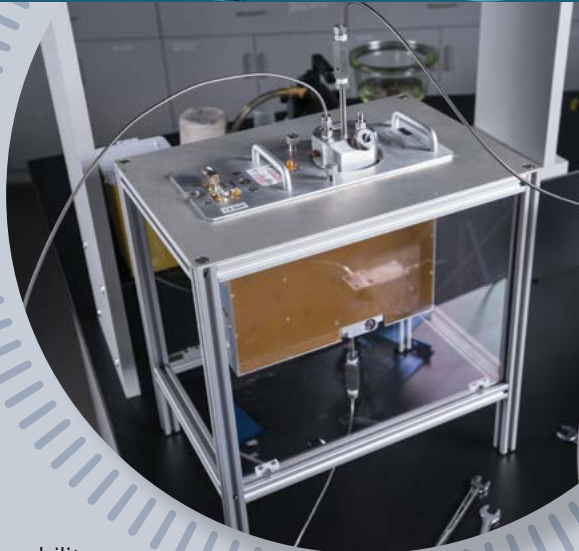


## Make Overburden Studies Routine

Nuclear Magnetic Resonance (NMR) is a valuable tool for both routine core analysis and SCAL. Most measurements are made at ambient temperature and pressure, but it is becoming increasingly important to carry out measurements at as close to reservoir conditions as possible. To do this, an NMR-compatible core holder is needed, but existing designs have severe limitations on either sample handling or NMR performance.

The **P5 Cells** remove these limitations and allow users to carry out NMR measurements at reservoir conditions. Designed and built with a focus on usability and performance, the cells allow users to pressurise samples with up to 5,000 psi of confining pressure. The **P5 Cells**, unique to the **GeoSpec** range of NMR rock core analysers, use state-of-the-art materials to allow the NMR coil to be closer to the sample while maintaining the performance of the **GeoSpec**.

The **P5 Cells** take full advantage of the industry leading performance of the **GeoSpec** range of instruments, as the only pressure vessels specifically designed with **Q-Sense** technology. **Q-Sense** delivers short echo spacings and high signal-to-noise ratios, leading to improved measurement of fluids in smaller pores, maximising the **P5 cell's** ability to perform measurements on tight rocks from unconventional reservoirs.



*P5 Cell in its benchtop stand*

### Unique features of the P5 Cell:

- Can be held at pressure outside the instrument
- Allows quick loading/unloading of samples through the twist-lock lid
- Low background signals for effective measurements on low volume samples such as shales
- Multiple levels of safety protection
- NMR coil embedded in the cell - allowing faster and more accurate measurements



# P5 Cells for Overburden Studies



No longer does one sample monopolise the NMR instrument for days or weeks. The **P5 Cells** allow the sample to be pressurised both inside and outside the instrument. Pressurised samples can be inserted and removed from the instrument without depressurising, eliminating pressure cycling issues. The cells are designed with pressure fittings at the top and bottom, allowing users to perform pressure flow studies.

The safety of the user is our highest priority. The **P5 Cell** is an industry first; its secondary containment system provides unprecedented protection in a pressurised environment. Each cell is CE certified and tested to ensure the highest quality and safety standards are met.

Specification	P5 - 1"/53		P5-1.5"/53		P5-1"/75		P5-1.5"/75	
Rock Plug size	Diameter	Length	Diameter	Length	Diameter	Length	Diameter	Length
	1.0"	Up to 2"	1.5"	Up to 2"	1.0"	Up to 2"	1.5"	Up to 3"
Maximum Working Pressure	5,000 psi		2,500 psi		5,000 psi		5,000 psi	
Maximum working temperature	100° C		100° C		100° C		100° C	
Safety features	Main pressure component tested to three times rated pressure; Secondary containment; Integrated burst disc and pressure gauge; Drop (shock) protector; CE certified							

## P5 Overburden System includes:

- P5 Cell
- Bench stand
- NMR isolation fittings
- Flow pressure fittings
- O-ring replacement kit

*Note: System does NOT include pressurisation or flow apparatus.*

The **P5 Cell** is designed to work with 2MHz and 12MHz systems in the GeoSpec range of products

### Oxford Instruments Industrial Analysis

For more information:  
[industrial@oxinst.com](mailto:industrial@oxinst.com)

[www.oxford-instruments.com/rockcore](http://www.oxford-instruments.com/rockcore)

### Green Imaging Technologies

For more information:  
[info@greenimaging.com](mailto:info@greenimaging.com)  
[www.greenimaging.com](http://www.greenimaging.com)

**UK**  
 Tubney Woods, Abingdon  
 Oxfordshire, OX13 5QX, UK  
**Tel:** +44 (0) 1865 393 374  
**Fax:** +44 (0) 1865 393 333

**USA**  
 300 Baker Avenue,  
 Suite 150 Concord,  
 MA, 01742, USA  
**Tel:** +1 978 369 9933  
**Fax:** +1 978 369 8287

**China**  
 Floor 1, Building 60,  
 No. 461 HongCao Road,  
 Shanghai, 200233, PRC, China  
**Tel:** +86 21 6073 2925  
**Fax:** +86 21 6360 8535

**Canada**  
 520 Brookside Drive, Suite B,  
 Fredericton, NB, E3A 8V2, Canada

**Toll Free:** +1 888 944 8462  
**Tel:** +1 506 458 9992  
**Fax:** +1 506 458 9615



*The Business of Science®*



This publication is the copyright of Oxford Instruments plc and provides outline information only, which (unless agreed by the company in writing) may not be used, applied or reproduced for any purpose or form part of any order or contract or regarded as the representation relating to the products or services concerned. Oxford Instruments' policy is one of continued improvement. The company reserves the right to alter, without notice the specification, design or conditions of supply of any product or service. Oxford Instruments acknowledges all trademarks and registrations. © Oxford Instruments plc, 2015. All rights reserved. Ref: P5PC-07-15