

**AAPG Annual Convention
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Technical and Operational Accomplishments of ODP Leg 204

Ocean Drilling Program (ODP) Leg 204 was dedicated to the study and characterization of gas hydrate deposits on the Oregon continental margin at Hydrate Ridge. This was only the second ODP leg to focus on natural gas hydrates, and therefore every effort was made to provide the appropriate tools and sensors to characterize these deposits in situ, as well as to determine the physical, geochemical, thermal and microbiological properties of samples recovered by - coring.

Whereas the Ocean Drilling Program is funded primarily by the U.S. National Science Foundation (NSF) and its international partners, external funding for this cruise was provided by the U.S. Department of Energy/National Energy Technology Laboratory (DOE/NETL) and by the European Commission (EC). This enabled the deployment of a wide range of specialized sensors and sampling/measurement systems onboard the R/V JOIDES Resolution during ODP Leg 204.

These measurement and sampling systems included several Logging-While-Drilling (LWD) tools, improved systems to measure downhole temperature and in situ pore pressure dissipation, the use of infrared thermal imaging to rapidly identify the presence of gas hydrate in cores immediately after their recovery on deck, and the successful use of three distinct pressure coring systems (ODP Pressure Core Sampler, HYACE Rotary Corer, and Fugro Pressure Corer) to recover samples of natural gas hydrate at near in situ pressures for shipboard and shorebased studies. Additional studies are being conducted onshore to evaluate the geiatric changes in natural samples of gas hydrate under controlled storage conditions.