

Structural Traps VI: Treatise of Petroleum Geology Atlas of Oil and Gas Fields

Compiled by **Norman H. Foster and Edward A. Beaumont**, 1992. Published by the American Association of Petroleum Geologists. ISBN 0-89181-588-0. \$24.

Review by **Christopher G. Kendall**

This volume is the sixth in the treatise series and focuses on structural traps from a variety of settings - including seven fields from the North Sea, one from the Aegean, one from the Red Sea, one from Eastern Australia, one from Brazil, another from Venezuela, and one from central Kansas in the United States. As the preface explains, this atlas is like the others in that it is intended to help exploration geologists become more competent in understanding of ways in which oil and gas are trapped while at the same time providing a reference to the petroleum geology of hydrocarbon fields and the basins in which they occur. The description of all of the fields in this study follows the outline used before in the atlases - namely location of the fields in question; their history during prediscovey, discovery, and postdiscovery; the method of discovery; the structure in terms of tectonic history; regional structure; local structure; the stratigraphy; the trap type in terms of a general description; the reservoir or reservoirs; the source of the petroleum in the reservoir; and exploration of concepts used in the discovery of the field.

This particular volume contains the description of the series of hydrocarbon fields found in structural traps, which have a strong component of stratigraphic control. Most of the fields described in this volume are in traps associated with block faulting - namely the Comorant, Draugen, Gullfaks, Piper, Ramadan, and Rio Itaunas fields. Three of the fields are associated with anticlinal traps formed as a result to salt movement, while one could easily be described as the stratigraphic trap - namely the Silver Springs/Renlin Field. In contrast, the Cahoj field trap is an anticlinal trap while the Prinos field is in a large faulted rollover anticlinal associated with a listric fault. The Rosorio field is trapped by faulted anticline.

The quality of the papers in this book are possibly better than many of the previous treatise. The editors have clearly become more used to imposing their choice of style on the authors while at the same time the authors are using earlier Atlases to be more aware of what is expected of them. The illustrations are excellent and extremely complete and include location maps, frequent displays of seismic across the fields, structural maps, photomicrographs, cores, block diagrams showing depositional settings, thermal and burial history curves, photomicrographs showing petrographic relationships, etc. The book is extremely well put together and undoubtedly meets the purpose of the editors and the authors. Anyone who has a need to have a feeling for the structural style of fields in the North Sea should acquire this text. Similarly, anyone wishing to have a feeling for fields associated with block faulting or extension associated with anticlinal faulting will also find this book helpful, be they reservoir engineer, exploration geologist, or geophysicist. I suspect that many of us when we were starting our geological career would have given our right hand to have had access to the descriptive works that have been assembled within this series.

I enjoyed reading this book and I think that those of you who are faced with plays associated with extensional tectonics may find this an extremely useful volume. I am pleased to have it on my shelf.