



## Development of Liberty Field North Slope, Alaska

**Steve Jones**  
**BP Exploration (Alaska) Inc.**

**Note: AGS meetings will be at the BP Energy Center for 2008-2009.**

**Please check the website ([www.alaskageology.org](http://www.alaskageology.org)) and issues of the AGS newsletter for updates.  
This newsletter promotes the April luncheon talk of the Alaska Geological Society,  
to be held Wednesday, April 22<sup>nd</sup> at the BP Energy Center.**

Liberty is a ~100 million barrel field – one of the largest yet to be developed light oil reservoirs identified on the North Slope.

It is offshore, some ~15 miles East of Prudhoe Bay and ~ 7-10 miles east of Endicott in federal outer continental shelf (OCS) waters. Historically, the only way to go after a field like this was with offshore islands and offshore pipelines, like the Northstar field developed in the late 1990's. With advances in drilling technology, like the ultra, extended reach wells pioneered at Wytch Farm, we can develop fields like Liberty in a very different way.

The ability to drill wells with a longer departure (as much as eight miles from the Liberty drill site) extends the area that can be reached from a single position. The longest well on the North Slope is at Northstar and has a horizontal departure of approximately 22,000 feet. In comparison, the initial wells at Liberty will have horizontal departures of approximately 39,000 feet, and the longest well will have a horizontal departure of approximately 43,000 feet, significantly extending the drilling experience envelope. A purpose-built rig and cutting-edge drilling technology will be required to overcome the challenges to drilling these wells.

New well data and seismic data were acquired in 2008 to aid in the planning of these wells, and these are being incorporated into the subsurface description. The overburden section, though relatively benign with respect to drilling problems, will be drilled at angles > 80 degrees. Formations that pose no risks at lower inclinations can become problematic at such high angles and must be accounted for in the planning.

### **Alaska Geological Society Luncheon**

**Date & Time:** Wednesday, April 22<sup>nd</sup>, 11:30 am – 1:00 pm

**Program:** Liberty Field

**Speaker:** Steve Jones, BP Exploration (Alaska) Inc.

**Place:** BP Energy Center

**Reservations:** Please make your reservation before noon Monday, April 20<sup>th</sup>, 2009.

**Cost:** Seminar only, no meal: Free  
Reserve a box lunch: \$13  
Nonmember: \$15

Reserve a hot lunch: \$20  
Nonmember: \$22

**No reservation:** add \$5 to the above  
(on an "as-available" basis only)

**E-mail reservations:** [vp@alaskageology.org](mailto:vp@alaskageology.org)  
Or phone (907) 230-1672  
(Tom Morahan, AGS VP)

**For more information:** visit the AGS website:

**[www.alaskageology.org](http://www.alaskageology.org)**

## ***About the Author:***



**Steve Jones**

After a 4 year stint as an exploration geologist with BP in the Gulf of Mexico, Steve moved to Alaska as a development geologist. Over a period of 15 years he has worked on many aspects of development, everything from well planning, picking perms and reservoir management to full field models for the Prudhoe Bay and Niakuk fields. Steve is currently well planning geologist for the Liberty Project.

He got his undergraduate degree from the University of Nottingham in the UK, and Ph.D. from Louisiana State University in Baton Rouge.