



Spanning the **Globe**

BasinSPAN programs deliver new insights as E & P companies evaluate exploration targets

■ GX Technology pioneered the BasinSPAN approach in 2001 when our first basin-scale seismic data library – GulfSPAN™ – was delivered. Since then, the ION family of companies has completed 17 BasinSPAN programs, validating our belief that oil & gas companies require new insights into how petroleum systems were formed. Unlike traditionally gridded 2D seismic data libraries, SPANs are customized to image over an entire petroleum province, look deep within the geologic section, and identify the areas of highest prospectivity. By using SPANs, geoscientists have the tools to trace the basin-scale history of a petroleum system to determine where source rocks are most prevalent, where sediment fairways are located, and where the most promising migration paths from source to reservoir exist.

■ We approached the Directorate General of Hydrocarbons (DGH) several years ago to discuss the potential for a BasinSPAN program in India. Our challenges were many, not the least of which was the fact that no foreign company had ever arranged a multi-client seismic survey on both operated and non-operated blocks within the same program. However, India was facing its own set of

challenges. Despite a long history of hydrocarbon exploration, India's rapid economic growth had forced it to import nearly two million barrels of oil equivalent (BOE) per day. The DGH took several steps to shrink this import requirement, including inviting outside oil & gas companies to bid on prospective acreage, especially in the under-explored offshore regions. This process has been a brilliant success, doubling the number of foreign E&P firms operating in the country and uncovering three new hydrocarbon basins. It also opened the door to launch IndiaSPAN™.

■ As with all SPAN programs, IndiaSPAN required us to orchestrate a delicate balance among governmental agencies, the national oil company (ONGC), domestic and international E&P companies, and the seismic contractor(s) we would need to acquire the data on our behalf. During 2005, we negotiated the required commercial agreements and in November 2006, announced that acquisition had been completed. IndiaSPAN is one of our largest SPAN programs, comprised of nearly 18,000 km of long-offset, long record-length data. The long offsets and long records, along with a specially designed seismic source, allowed us to




illuminate the basin and rift architecture of the Indian margin. Evidence of frontier petroleum systems was identified in three deepwater areas.

■ IndiaSPAN has alerted the world to the hydrocarbon prospectivity of India and established the foundation for rapidly increasing exploration in frontier and under-explored basins throughout the country. Our work with the DGH and with ONGC helped us to build relationships and awareness into the Indian petroleum sector, which likely played a part in ION being awarded a tender by ONGC for our largest-ever multi-system sale of land seismic technology in late 2006.

■ The end of our BasinSPAN runway is not yet in sight. We are extending our SPAN programs in both West and East Africa as well as the Arctic, and

have begun to put the finishing touches on SPANs in Southeast Asia, South America, and the Northeast Atlantic. We have a lot more running room with SPAN programs, and a lot more value to deliver to our clients as a result.

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// **IndiaSPAN: Ken Williamson, Sujata Venkatraman, Vijay Singh**

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