

Lecture on “Seismic Attributes-Adding values to 3D interpretation” by Mr. Satinder Chopra at Mumbai

SPG Mumbai chapter organized a talk on “Seismic Attributes- Adding value to 3D Seismic Interpretation” by Mr. Satinder Chopra on 5th March, 2013. Mr. Chopra, an Ex-ONGCian is presently Chief Geophysicist (Reservoir) with Arcis Corporation, Calgary, Canada. In last 27 years he has been actively involved in routine seismic data processing, interactive interpretation, special processing, evolving different seismic attributes viz coherence, curvature ,texture, AVO, VSP processing and frequency enhancement of seismic data.

Mr. Chopra along with Mr. Kurt J. Murfurt has done extensive work in developing the curvature attributes, which are second order derivatives and can enhance subtle information that may be difficult to see using first-order derivatives such as the dip magnitude and the dip-azimuth attributes. As a result, these attributes form an integral part of most seismic interpretation projects and add substantial values to interpretation with little extra effort (time and cost).

In his talk he stressed that curvature attributes require foot print free/minimized data. He further elaborated the methods for foot print removal techniques. The 5D interpolation technique which involves azimuth and time for interpolation of traces is the best solution. The other methods like Kx-Ky filtering in time domain helps in minimizing foot prints to great extent. The median filtering application is to be taken with pinch of salt which may have implication on seismic amplitudes. The structure oriented filtering may give optimal results. He showed many case studies and examples from Africa and Middle East. The talk generated lot of interest and the interaction session stretched beyond schedule time. In reply to a question about the role of shear waves in understanding reservoirs by Shri G C Katiyar he insisted that the P-wave should be explored in fullest extent with all available attributes which many times resolve many of the problems including fracture orientation. In case any further details are required one should go for shear wave exploration whose nature is not fully understood till today.



Shri GC Katiyar,President,Mumbai chapter,welcoming Mr. Satinder Chopra and Mr. Satinder Chopra delivering the talk.