

Technical Talks organized by SPG-North East Chapter



The SPG –NE Chapter arranged a talk on **“RGB Colour mapping of Spectral component in Seismic data Interpretation”** By Dr.J.V.S.S.N Murty, DGM(GP) on Date :20.06.11.The brief of the talk was as follows.

“The detection of subsurface features often relies on the frequency content within the 3D seismic data. The wavelet response at different frequencies varies within the 3D seismic data depending on the local geological variations. Many geologic characteristics which are believed to be below seismic resolution will become quite visible when the signal is decomposed into its frequency components and mapped into appropriate colour palette for viewing. In general, three frequency components are chosen and blended/mapped to generate Red Green Blue (RGB) volume. In hardware colour blending, frequency values are directly mapped to R G B and the hardware mixes the colours to generate the view. This kind of blending introduces very high frequency details of the surface features as small variations in data values result in large differences in colour and sometimes may appear as noise. When the frequencies are used to generate weighted volume and viewed using gradational colour palette, the features are better highlighted within which high frequency variations are superposed. Real data examples shown brought out the richness of structure and relative ease by which objects can be visually separated in such volumes”.

The talk was attended by Basin Manager Dr.B.S.Josyulu along with the other officers and SPG members of A & A A Basin, ONGC, Jorhat. An intensive interactive session had taken place after the concluding of the talk along with special comments by Dr.B.S.Josyulu on the topic.

The talk was attended by Mr.Y.M.S.Reddy,ED- Head E&D,Dehradun, Basin Manager Dr.B.S.Josululu and other officers and SPG members of A & A A Basin,ONGC,Jorhat.The talk was concluded with intensive discussion on the topic along with the special technical comments by Mr.Y.M.S.Reddy and Dr.B.S.Josululu .

The SPG –NE Chapter organized a talk on **Seismic Imaging Analysis in Thrust Fold Belts** By Mr.T.R.Murali Mohan, DGM(GP) on 15.06.11.The brief of the talk was as follows.



“Seismic acquisition and processing in thrust belt areas represent challenging tasks in geophysics. Rough topography, geological complexity and sharp velocity variations increase the difficulties of recording seismic data of good quality and decrease the possibility of obtaining satisfactory imaging. The difficulties with the land data from thrust fold belts can be seen as those arising from surface, near surface and subsurface. The issues in the surface and near surface manifest in the

form of static corrections and the issues in the subsurface concern with imaging. Hence, successful imaging in thrust fold belts greatly depends upon how accurately these issues are attended. Tomographic inversion of first break arrival times provide more accurate near surface velocity model. In addition, Wave equation datuming using the so derived velocity model can satisfactorily address the surface and near surface issues. Floating datum processing and migration to topography too can be attempted. Depth imaging can accurately account the chaotic ray bending in the sub-thrust regions. Though an accurate interval velocity model is needed for this, depth imaging can still be used qualitatively”.

The talk was concluded with intensive discussion on the topic along with the special technical comments by Mr.Y.M.S.Reddy and Dr. B S Josyulu.