Mumbai Chapter Organises a Technical Session in association with BG Group and Accentus Exploration Pvt Ltd

Mumbai Chapter of Society of Petroleum Geophysicists India in association with BG Group India conducted a technical session on 24th August, 2013 at The Beatles Hotel, Powai, Mumbai. Three technical lectures were presented during the session by Shri Asit Kumar and Shri Sumit Mishra from BG Group India, and Shri D.M. Nathaniel from Accentus Exploration Pvt. Ltd., New Delhi. Shri P.K. Bhowmick, ED-COED, Basin Manager, WOB, ONGC, Mumbai, Shri Goutam Ghosh, Vice-President Exploration, BG India and senior geoscientists from ONGC, BG India, CGG, RIL, PGS were present on the occasion. More than sixty SPG/APG members from Mumbai / Navi Mumbai attended the technical session. The session was coordinated by Shri Basant Kumar, ONGC and was quite interactive. During the opening remark Shri P.K. Bhowmick became nostalgic and reminded the young professionals the importance of manual contouring and attributes. He opined that the manual contouring is the most accurate interpolation techniques till date. Shri Goutam Ghosh lauded the role of professional societies in knowledge/experience sharing which help in finding the new reserves by the petroleum industry.

Shri Asit Kumar, BG Group India presented the first lecture of technical session on ***"Gridding Algorithms: In the Light of Geo-spatial Analysis"***. Most popular gridding algorithms in the petroleum industry and their potential use in specific situations to create an effective grid was the subject of his presentation. A great variety of interpolation techniques exist in mathematics, each with its own merit, depending on data density; data distribution; and spatial variability. A prior examination of each of these elements may assist in choosing the most appropriate technique for the problem at hand. His lecture will help the geoscientists involved in generating and interpreting gridded contour maps for prospect mapping and reservoir modeling. Great care must be taken when using gridded maps because once data is contoured, the resultant map is considered to be a true representation of the surface with only minor errors. This is a poor assumption and therefore cautioned the interpreters. He showed that vastly different structure maps can be produced by different 2D/3D gridding/ interpolation techniques in case of limited sample/well data. Structure uncertainty due to gridding interpolation is often ignored.

Shri Sumit Mishra from BG Group India presented second lecture of the session on ***"Describing the Spatial Trend of Sedimentary Facies using Geostatistical Techniques"***. **He discussed** different techniques of estimation process to recreate facies architecture. Predicting

The Glimpses of the Programme

Shri Basant Kumar, CG(S), ONGCwelcoming all the participants.

Shri P.K. Bhowmick ED-COED, Basin Manager, WOB, ONGC welcomed by Shri U.G. Marathe,

Shri Gautam Ghosh Vice President, Exploration, BG India welcomed by Shri S. Chandrasekhar, GM (GP)-Vice President, Mumbai Chapter

Opening remarks by Shri P.K. Bhowmick ED-COED, Basin Manager, ONGC

Shri Gautam Ghosh VP-Exploration, BG India lauding the role played by professional societies

Dr. S. Viswanathan, GGM (GP), ONGC, concluding the session by presenting summary.

facies distribution away from the well is a geostatistical estimation process that reproduces the true geological heterogeneity to describe the inherent uncertainty in three dimensions. Correct heterogeneity gives realistic flow patterns and the possibility to obtain unbiased forecasts from reservoir simulators. In reservoir characterization facies should be classified based on their storage and flow capacity for fluids. Generally the flow capacity and storage capacity of rocks depends on its depositional pattern, environment, textures and associations with other lithologies. All these characterizations are done at the well location to a reasonable confidence depending on the data available. His lecture will help the geoscientists working in reservoir charactersation, optimized field development portfolio analysis, volumetric risk assessment, uncertainty analysis and improved fluid recovery processes

The third and last lecture of the technical session was presented by Shri D.M. Nathaniel on ***"Deepwater Kerala Margin: The Dash of Concepts and Technology for Oil-Gas"***. He presented a brief account of hydrocarbon find in basins associated with volcanism world over and was optimistic of hydrocarbon presence in Kerala Basin. **Kerala Deepwater Basin is a part of passive volcanic rifted margin, which is defined as sedimentary margin significantly affected by flood basalt volcanism. Analysis of exploration r**esume of Kerala Basin recognized two schools of thought:(a) basin with all the essentials for a working petroleum system under the consideration that it is the southern extension of prolific petroliferous Bombay Basin; (b) basin lacked significant riverine input unlike Bombay Basin and thereby less productive for exploration. He opined that these two schools of thought considered the Tertiary as the only objective and over-looked the significance of the Mesozoics, which contributed 54% of recoverable hydrocarbon reserves world over.Studies of tight-fit plate tectonic reconstructions on India-Madagascar separation, different enhancements of satellite and shipborne gravity-magnetics and modern long offset 2D seismic data emphasizes that the sub-basalt Mesozoic stratigraphy merits due consideration as the principal exploration target.

His lecture attracted a lot of discussion and interaction amongst the audiences and Mr. Nathaniel concluded his talk with "No basin is dry basin"

The programme ended with concluding remarks, feedback and vote of thanks. All the speakers, ONGC, sponsor of the programme-BG India and all the members of SPG/APG/Professionals working in various companies were acknowledged by executive body of the chapter. The members were also requested to contribute articles for journal of the society-Geohorizons. Geoscientists were also requested to accelerate the membership drive SPG India.