

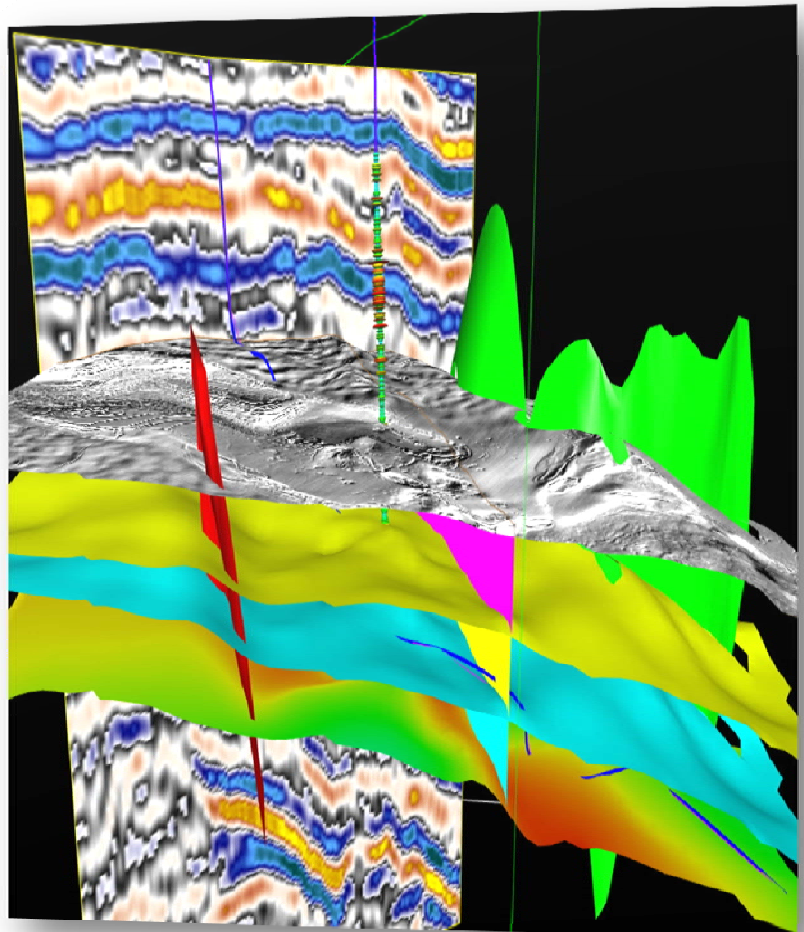
Recons new Drill Target Identifier and real time workflows provide fast and efficient well planning and monitoring.

Problem definition.

Conventional well planning solutions spread the well planning, Interpretation While Drilling, and geological modelling workflows across multiple applications and data management modules . This makes it difficult to integrate new data when real time predictive well planning and operational decisions need to be made. Recons new integrated Drill target Identification (DTI) tool and real time data update facility finally brings all the tools together into one 3D geological interpretation environment.

Identifying the target.

Data and understanding are your two greatest assets. Geologists depend on bringing all the available data together to provide a greater understanding of the field. This full picture allows you to make better decisions and understand the initial risks when planning the well trajectory, a task that is even more important when considering horizontal wells. Dramatic improvements in well bore placement and assessments of the reservoir potential is made when combined with Recon (AGM's advanced 3D geological modelling package) by incorporating data from a variety of sources into a 3D visualization environment; this gives the geologist the best geological context to make the best possible drilling decisions.

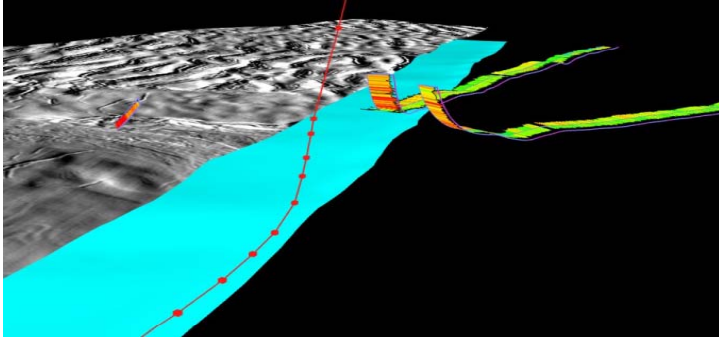


“Recon 40 closing the loop between well planning and interpretation while drilling”.

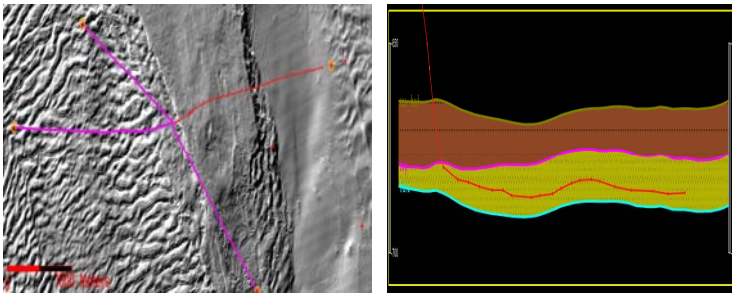
Integrate data from a variety of sources to give you the best decision making capability.



Focus on Geology



Plan a well interactively and simultaneously in 3D, Map, and Cross Section views on multiple data types.



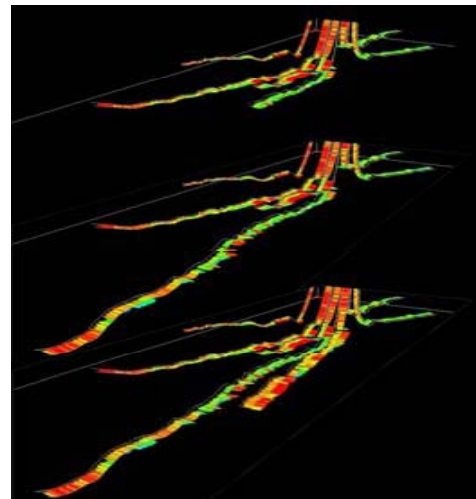
Logging while drilling - Real Time Data Update.

Well plans created using static geological interpretation and modelling tools rarely match the real geology encountered during drilling. Recon's plug-in to Open Spirit, together with its dynamic link to OpenWorks and SeisWorks, allow real time updates at the click of a button as drilling proceeds. It is now possible to monitor the well plan execution and update the geological model with new data; all within the Recon 3D environment. In conjunction with the cross-section and basemap views this gives you the most comprehensive view of the subsurface. This enables you to change the interpretation on the fly, see the impact of interpretation changes, visualize the risks, and make necessary changes to the well trajectory.

Recon 4.0 will save you time and money. Your model can be updated immediately and automatically in real time allowing the well to be designed and adjusted using the most accurate understanding of the subsurface.

Planning the well - Design Simultaneously with the DTI Tool.

The new Drill Target Identifier, in combination with Recon's Cascade functionality, mean it is possible to interactively digitize a well plan in Map, Cross Section, and 3D views simultaneously. Digitization can be made on any data type, so for example the entry point could be based on a geo-referenced shallow hazards image in Map View, the path digitized in 3D on an interpreted horizon avoiding deep hazards, and further digitized within a tight zone of interest following a regional trend in Cross Section. Changes in any of the windows will be simultaneously seen in all views so the implications of any trajectory nodes can be seen. The newly generated points can be quickly saved as a directional survey to provide to the drilling engineer.



3D Recon collage of time steps showing LWD data updates accessed from OpenWorks