

ENERGY

IHS Petra® Directional Well Module

Plan, analyze and display horizontal & directional wells.

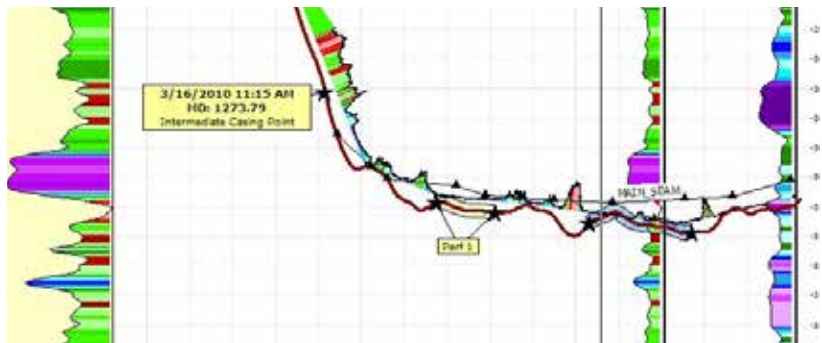
The IHS Petra integrated Directional Well Module provides an interface to improve your horizontal and directional drilling workflows. With Petra, you can:

- Enhance gridded surfaces with repeated tops along horizontal wellbores
- Quickly plan wells and load drilling data
- Analyze horizontal well performance and post results
- And much more

Iterative Planning Workflow

Petra's Directional Well Module features an easy-to-use Well Planning wizard to guide you through the steps of planning a well. The iterative planning workflow allows you to perfect your well design before finalizing it by placing your well's surface, landing and bottom hole locations based on entered coordinates, other wells, or by clicking on the integrated map view.

Depths of the landing and bottom hole locations can be manually entered or automatically calculated from one or more gridded surfaces, enabling you to easily design wells within your required geological parameters. As an added advantage, all planned wells are stored in the Petra database for future data loads and analyses.



Petra's Directional Well Module showing a horizontal well, two vertical offset wells, shaded digital log data, tops & event data.

Easily View Horizontal Wells

The Vertical Section Plane view allows you to view your well in the Profile View with just one click. It rescales to fit the horizontal well automatically, eliminating the need for time-consuming trial-and-error rescaling.

Contour Grid Display

Gridded surfaces can be displayed in the Profile View, to aid quality control and well performance analysis.

Drag-and-Drop Depth Adjustments

Easily drag-and-drop to change the depths being viewed in the Profile View. Quickly rescale the window to view a new depth of interest and highlight the features you are interested in analyzing.

Post Log Curves

Digital log curves can be displayed in the Profile View and posted in both a vertical and horizontal track, or along the horizontal borepath in question. Petra has a variety of options to help you better understand your digital curve data:

- **Color Fill:** In addition to being able to select the curve color, you can also select a color fill to highlight zones of interest. The color fill can be solid or shaded, based on the values of the logs.
- **Curve Cut-Offs:** A cut-off value can be applied to the color fill to highlight only the high or low values.
- **Cross-Over Fills:** Highlight hydrocarbon zones with Petra's cross-over color fills.

Display Multiple Formation Tops

Select formation tops from Petra's database and arrange multiple sources of tops in a hierarchy to ensure that data is always available in the Profile View. For example, you can show tops that you or a coworker have picked, and in the event of missing tops, Petra can fill in the gaps with high-quality tops from the IHS database.

Pick Repeat Formation Tops

The Directional Well Module allows you to easily pick repeated formation tops along your horizontal wellbore. You also have the ability to pick extrapolated tops above and below your wellbore to guide your formations, even when you have not penetrated the boundaries of your target formation.

Quickly Re-Grid Surfaces

Once you have picked repeated tops along your horizontal wells, quickly re-grid the formation tops using Petra's shortcut functionality. Quality checking has never been this fast and easy!

View Well Events

Events are a newer data type in the Directional Well Module. You can now post and use any data or information collected during the drilling of the well along the well path. For example, zones of high gas kicks can be highlighted and annotated, casing points can be noted, and rig events tracked. All data stored as events are stored in the Petra database, and are always available and ready for future use.

Integrate with the 3D Visualization Module

Petra's Directional Well Module includes a quick link to the 3D Visualization Module, enabling you to quickly focus in on your current wells for 3D analysis and viewing.

Create Professional Prints and Outputs

Petra's powerful printing capabilities let you easily produce stunning graphical outputs either on paper or digitally. Impress your colleagues and managers with your Petra maps and analyses.

Display Overlays

The Map window in the Directional Well Module includes the ability to open any saved overlay from the Map Module. Save time by using your existing overlays for well planning and analysis.

For more information www.ihsmarket.com

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User Forum

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