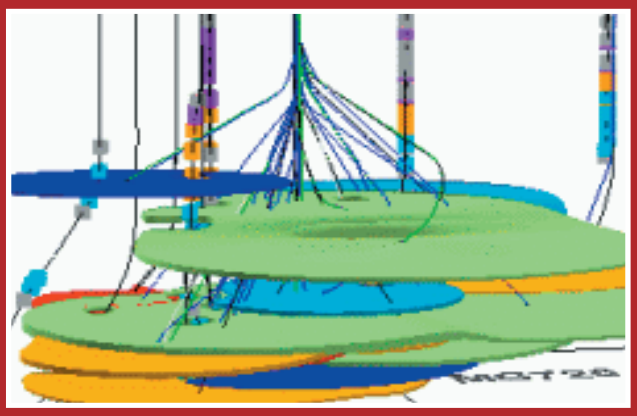
GOM³

July 2007 Monthly Newsletter

Paleontological Data in *GOM³*

In last month's quarterly functionality update of *GOM³,* we broadly improved the paleontological data from the Minerals Management Service. This included new data added by MMS, our exploitation of their major paleo data clean-up paleo data and information added by ESA.



Paleo observations, colored by series (purple=Pleistocene, orange=Pliocene, blue=Miocene), along the wells of the Mars field.

MMS has completed a long process of cleaning and standardizing fossil names and geologic ages, radically increasing the utility of the ~100,000 observations for correlation and mapping. Standardization of fossil names, previously determined by ESA, now comes directly from MMS, which has access to more complete individual sample records and reference materials built from the entire collection of paleo data.

The MMS clean-up allowed us to make two big improvements. First, we modified our paleo dialog box to allow selection of fossils by System, Subsystem, Series, Subseries and Stage. Second, with fossil names standardized by MMS, we focused this spring on updating our contribution of absolute ages of extinction for fossils in the MMS paleo database.

Based on public sources, including the biostratigraphic charts from Shell, Texaco and PDI, we assigned absolute ages of extinction to fossils for more than 95% of the samples. The 5% we were not able to assign are almost exclusively in the very oldest part of the section (overwhelmingly in the Mesozoic and some in the very lowest Tertiary). We also added stage top dates. Both these features allow extraction of, for instance, all paleo samples between 9.5 and 11 million years before present.

Providing absolute ages of extinction liberates users from the MMS-defined absolute age boundaries for divisions of the stratigraphic column. It will also assist our users to bridge MMS' transition from its existing stratigraphic column to the "new" column, developed in cooperation with companies and professional societies.

Full standardization of fossil names will also assist *GOM³* users who also work with the database provided by our 3rd Party Partner, Paleo Data Inc. (PDI). Merging and comparing these two key data sources gives our users flexibility and power that could be achieved previously only through extensive "hand" processing of the data.

In addition to mapping and analyzing MMS and PDI paleo in *GOM³*'s ArcMap component, paleo from both sources may be added to our ~1,000 3-D GIS models on all producing fields in the GOM. Our 3-D module supports on-the-fly mapping of paleo surfaces and introducing them to the 3-D scene with reservoir, well, completion and seismic data.

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GOM³ Calendar

Western Sale 204
August 22, 2007

2007 End User Conference
October 25, 2007