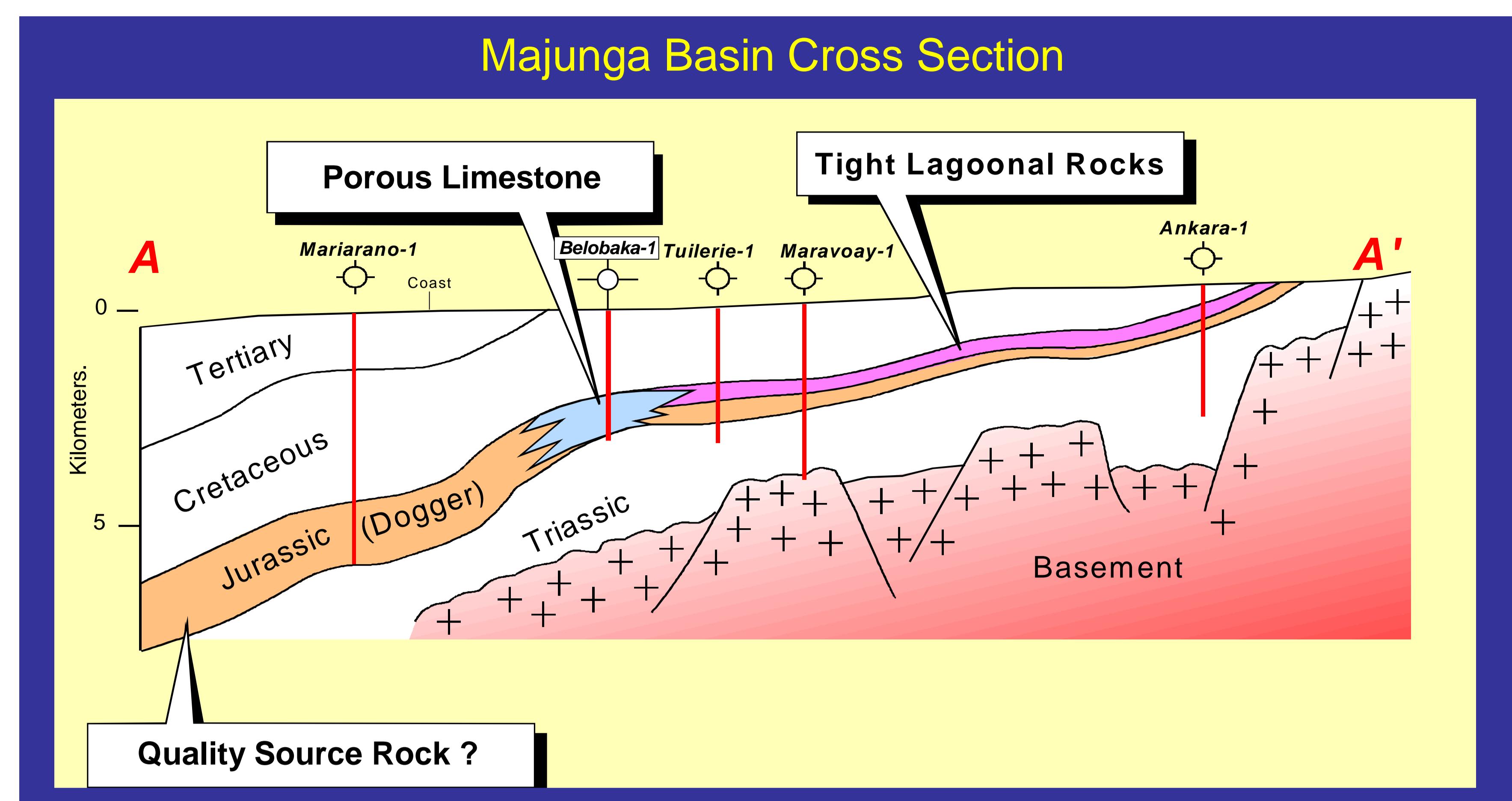
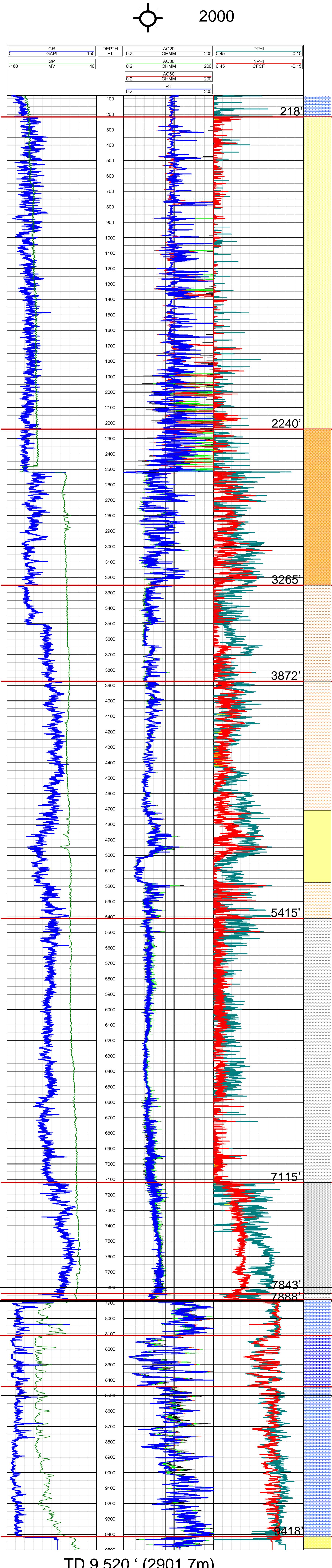


# Drilling Results: Belobaka 1

## Hunt Belobaka 1



### Drilling Results- Belobaka 1

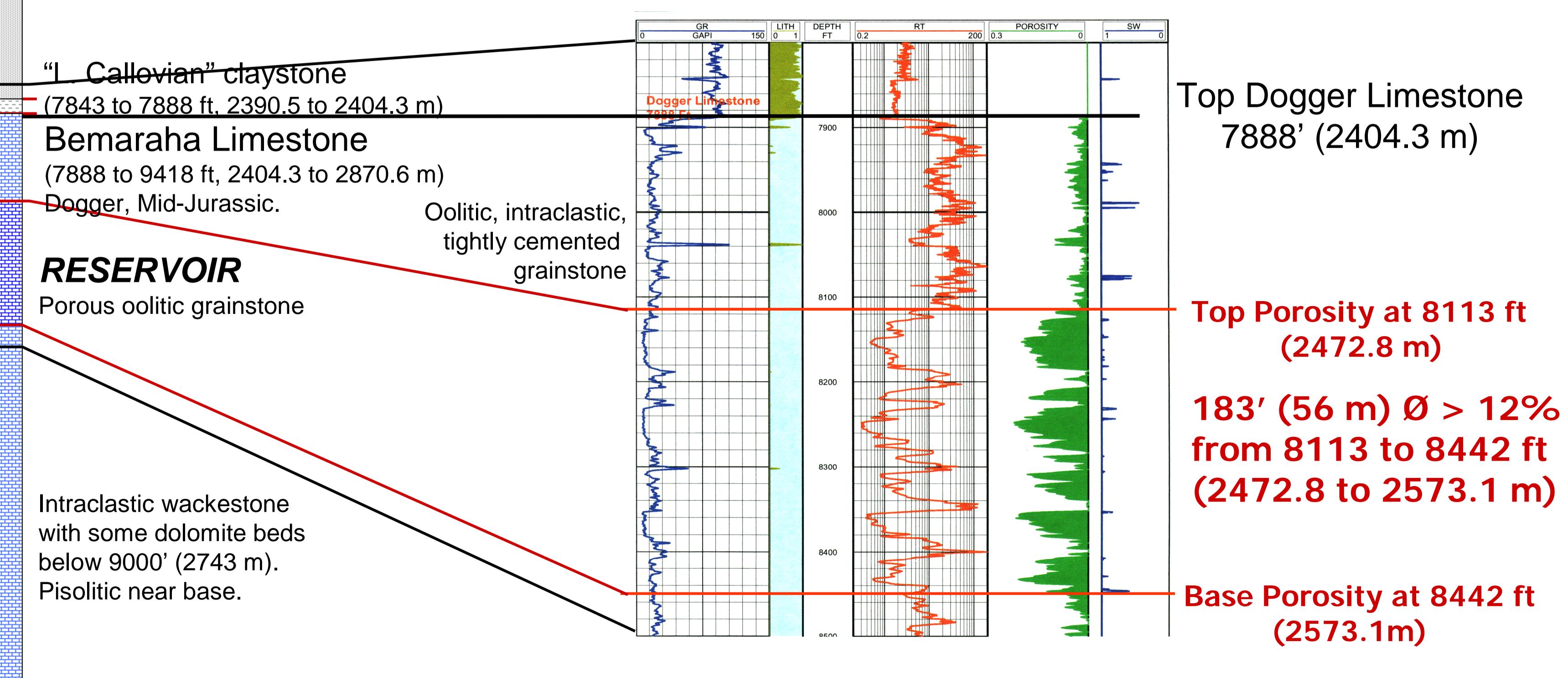
No four-way structural closures or fault traps were identified in the basin at the Dogger or shallower horizons. However, a large stratigraphic trap was delineated corresponding to the area of high amplitude and low acoustic impedance along the paleo-shelf edge of the mid-Jurassic Dogger section, the Bemaraha Limestone. The Hunt Belobaka 1 well was drilled to test this potential porosity trap, spudding on August 16, 2000, and reaching TD of 9,520 ft (2901.7 m) on September 21, 2000.

The well spudded in Danian or Maastrichtian limestone. Below 218 ft (66.4 m) is 7,670 ft (2,338 m) of Cretaceous age clastic rocks, both continental and marine. The upper 2,000 ft (610 m) is dominated by poorly consolidated sandstone with interbedded claystone of probable deltaic to nearshore marine origin. The claystone increases downward and becomes 100% of the section between 5,400 and 7,115 ft (1,646 to 2,168.8 m), where it is a slightly overpressured plastic shale that forms an excellent seal for any underlying traps. Between 7,115 ft (1,646 m) and the Bemaraha Limestone at 7,888 ft (2,404.3 m), the rock is mostly glauconitic siltstone with minor marl and sandstone layers.

The Bemaraha (Dogger) Limestone was the objective of the well. The top part of the limestone is oolitic and intraclastic grainstone, tightly cemented by sparry calcite. Between 8,113 to 8,442 ft (2,472.8 to 2,573.1 m), however, there are beds of poorly cemented oolites with a net thickness of 183 ft (56 m) of reservoir quality rock, with porosity in excess of 12% that reaches as high as 22%. Below the porous oolitic grainstones, the lower Bemaraha is again tightly cemented, composed mostly of intraclast wackestone with some low porosity dolomite beds below 9,000 ft (2,743 m) and some apparent pisolithic beds near the base. Below the limestone are sandstone, siltstone, and claystone believed to be the Isalo Formation.

No oil shows were observed, although minor fluorescence was present continuously from 5,300 ft (1,615 m), and the porous oolite section showed brown staining. Total gas was quite low throughout the well, and the Bemaraha reservoir was filled with salt water. Although excellent porosity was encountered, validating the seismic model, the absence of trapped hydrocarbons suggests either poor quality source rocks occur downdip in the basin or, more likely, the lack of an effective seal updip in the carbonate platform facies. If a stratigraphic trap does exist in the platform margin oolites, it is most likely located along depositional strike toward the structurally higher basin margins.

### Belobaka 1 Upper Dogger Limestone



Rock descriptions are from the wellsite geologic report by Dr. Joseph "Fritz" Fischer.