

# SUNOCO FELDA AND WEST SUNOCO FELDA FIELDS HENDRY, COLLIER AND LEE COUNTIES, FLORIDA

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## ABSTRACT

The Sunoco Felda and West Sunoco Felda fields of South Florida yield hydrocarbons from subtle algal-rudist banks within the Sunniland Formation of Lower Cretaceous age. These banks developed on an east-west trending terrace which interrupts the relatively uniform regional south dip. Between the banks there are nonproductive sags.

The Sunniland Formation lies between a thin anhydrite stringer above and the massive Punta Gorda Anhydrite below. The Sunniland can be subdivided into five separate depositional units. Sunoco Felda produces mainly from Unit 3 which is composed of phylloid algal plates, gastropods, miliolids, intraclasts and a variety of bioclastic debris. Deposition was in a protected, shallow water environment. Erect-growing algae constructed algal meadows which formed a rock type with good porosity and permeability.

West Felda field, four miles west of Sunoco Felda, has a different faunal makeup and had a different environment of deposition. West Felda was more normal marine, had a higher energy level, and produces mainly from Unit 2. Rudists and fragmented rudists, red algae, *Orbitolina* and bioclastic debris make up the main faunal components in the producing intervals. The rock type formed at West Felda has higher porosities and permeabilities than at Sunoco Felda. This resulted from the higher energy level which produced mainly a high percentage framework rock with vugs.

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