

THE APPLICATION OF STATE-OF-THE-ART PETROLEUM TECHNOLOGY TO SHALE OIL REFINING.
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Shale oil offers one of the most promising near term options for providing transportation fuels from non-petroleum domestic resources. The unusually high nitrogen content of shale oil however, presents a significant problem in refining this synthetic fuel to specification products. Under contract to the Department of Energy, Chevron Research Company has successfully applied state-of-the-art hydroprocessing technology to shale oil refining. In addition, Chevron has estimated the economics of hydro-processing shale oil to a variety of product slates. A summary of the technical and economic results of that program will be presented. In a larger scale effort, the Department of Energy and the Department of Defense have a joint program for refining 100,000 barrels of shale oil at an existing Sohio refinery. The status and some results of this program will also be presented. The results of this on-going work indicates that refining of shale oil will be expensive. Consequently, an expanded D.O.E. shale oil refining program is being developed to assure that the cost of refining shale oil is not an impediment to commercialization of the shale resource. The goals of this program will be outlined.