

VI. EXPLORATION AND LEASING

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The general public became aware of the recent interest in petroleum exploration along the Midcontinent trend in northern Wisconsin in the fall of 1983. At that time, oil and gas leases were first recorded in Register of Deeds Offices in Bayfield, Ashland, and Iron Counties. Corporate interest in the petroleum potential of this area extends at least as far back as 1972, but it was the recent leasing activity that drew the public's attention to the possibility of oil and gas reserves in the state. Leasing and seismic evaluation programs have occurred along the Midcontinent trend in Kansas, Iowa, and Minnesota, as well as in Wisconsin, but the focus of this discussion is on the northwestern counties of Wisconsin from Lake Superior southwestward.

SEISMIC EVALUATION

Seismic programs onshore and in the Great Lakes have been an important part of the recent play along the trend. To date, only 1984 data are available for onshore seismic work but 1985 data are due to be released. In 1984 onshore seismic crews accounted for more than 1,500 line-miles of seismic data with 365 line-miles in Wisconsin, just under 1,100 line-miles in Iowa, and the remainder in Minnesota. Much of the data is available for purchase; other proprietary data are known to have been collected for confidential evaluation.

In the summer of 1985, Grant-Norpac, Inc., conducted seismic lines in the Great Lakes. A total of over 1,140 line-miles was acquired on Lake Superior, with 625 line-miles acquired in Lake Michigan using the M/V Mai. Nearly 200 line-miles of data in Wisconsin are about evenly divided between the Lake Superior and Lake Michigan. In addition to the seismic data, gravity and magnetic information has also been collected.

WISCONSIN LEASING ACTIVITY

A review of mineral leasing records for 1983 to 1985 shows nearly 700,000 acres of land have been leased in Wisconsin for purposes of oil and gas exploration and development. Table 1 lists leaseholders by county and acreage held (see also fig. 1). These data were compiled by D. Harkin, University of Wisconsin Extension Department of Agricultural Economics, on the basis of public records available in county register of deeds offices.

The leasing activity was typically carried forward by broker companies acting on behalf of corporate clients. For example, C.E. Beck and Associates handled most of the lease acquisitions for Amoco Production Company. For a short time, there was some local concern and confusion with leasing by brokers because this is not a typical practice for metallic minerals leasing--the only other comparable activity commonly understood by landowners in the region. The leases offered by the brokers or companies are quite uniform in their principal provisions. Generally the leases include no signing bonuses, acreage rental payments of \$1 per acre per year, primary lease terms of 10 years, and a one-eighth royalty upon production. The limited variation in lease offerings and the restricted financial terms offered reflect the high risk nature of petroleum exploration in the truly frontier hydrocarbon province known as the Midcontinent trend.

These basic leases were offered to private and public landowners. The major public landowners in northwestern Wisconsin are the counties with their extensive holdings of county forest lands. Although these larger blocks of land

Table 1. Lease holders by county and acreage held for petroleum exploration in Wisconsin, 1983-1985

<u>Lease- holder</u>									
<u>County</u>	<u>Amoco</u>	<u>Benchmark Resources</u>	<u>Texaco</u>	<u>Chevron</u>	<u>Hunt Oil</u>	<u>Beard Oil</u>	<u>Conquest Exploration</u>	<u>T.O. Higgins</u>	<u>Totals</u>
Ashland	28,391	6,954	1,196			740			37,281
Barron					3,696				3,696
Bayfield	104,311	9,225	14,553					601	128,690
Burnett		122,450			1,841		6,107		130,398
Douglas	1,397	290,080	7,843				4,448		303,358
Iron	845	1,540							2,385
Pierce		1,062	4,169	22,455			4,706		32,392
Polk		6,913			1,169	2,161	14,601		24,844
Sawyer		5,433							5,433
St. Croix			2,215				18,110		20,325
Washburn		2,218					6,568		8,786
<u>Totals</u>	<u>139,944</u>	<u>445,875</u>	<u>29,566</u>	<u>22,455</u>	<u>6,706</u>	<u>2,901</u>	<u>54,540</u>	<u>601</u>	<u>697,588</u>

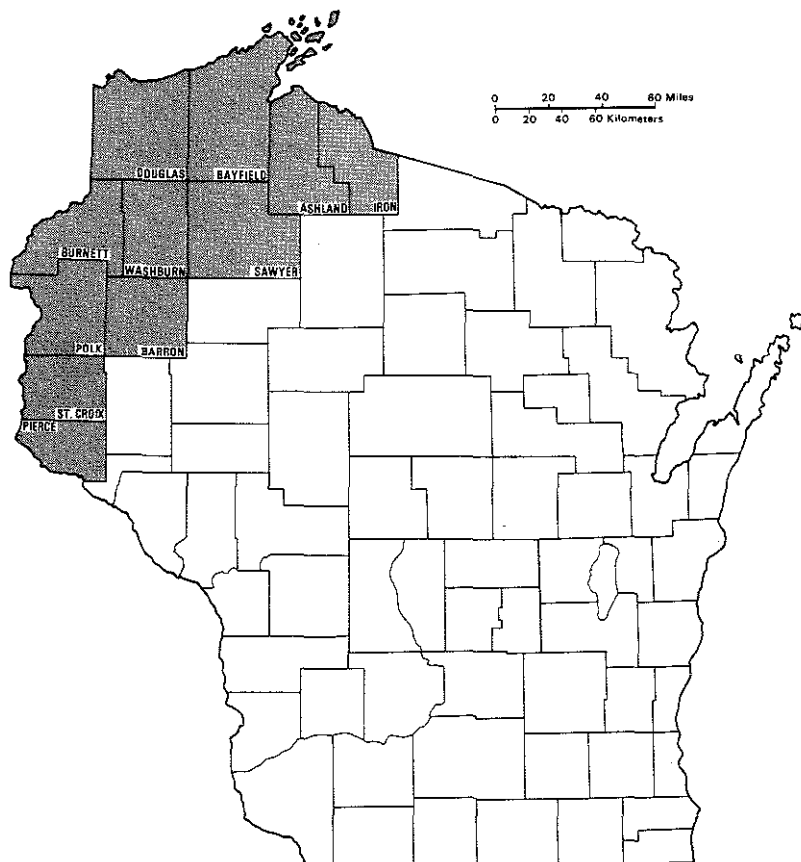


Figure 1. Wisconsin counties in which oil and gas exploration leases have been taken.

would appear to provide the counties with some bargaining advantages, the actual signed leases vary only in minor ways from the standard leases signed by private landholders. Some counties attempted to hold competitive lease offerings, but these competitive sales were hurriedly put together and were ineffective because there was only a single bidder. This lack of competition reflects the different perspectives among companies concerning the acreage having the best hydrocarbon potential and their unwillingness to compete head-on in such unproven terrane. Should the petroleum potential of the Midcontinent trend ever be demonstrated, the competitive character of leasehold acquisitions will be much more evident.

REGULATORY RESPONSE TO PETROLEUM INTEREST

County forest lands, although owned by the counties, are managed jointly by the State of Wisconsin (specifically, the Department of Natural Resources) and the county government's forestry department. Mineral leases on county forest lands must be approved by the Department of Natural Resources (DNR); lease offerings to counties brought the DNR into the petroleum leasing picture, which led to the development by DNR personnel of a model oil and gas lease. The model lease was designed not only to meet the legal requirements of the county forest statutes, but also to guide county governments in identifying those elements of a mineral lease that would be particularly important to the public-land manager. The model lease was developed in partial cooperation with a petroleum company to insure that its basic elements were consistent with common industry practice and understanding.

In early 1984 the DNR also initiated the process leading to the adoption of NR 134, Wisconsin administrative code, regulations for oil and gas exploration. Following metallic mineral regulations, the petroleum regulations are specific to exploration, which is by definition synonymous with drilling. However, unlike the extensive regulations applicable to metallic mineral extraction, the DNR has assumed no authority over petroleum production and has restricted NR 134 to exploration only. NR 134 went into effect in October 1985, following a series of public hearings and legislative review.

Also in the spring of 1984, the Legislature briefly considered 1983 Senate Bill 638, which specifically provided authority to the Department of Natural Resources to promulgate exploration regulations. SB 638 was introduced too late in the legislative session to receive action and the DNR proceeded with development of NR 134 citing their general authority to protect the waters of the state under 144.025, Wis. Stats.

The push by the DNR to promulgate exploration regulations was spurred on by Amoco Production Company's plans to drill Amoco #1 Hazel Hills, a proposed 12,000-foot test for hydrocarbon potential along the flanks of the St. Croix Horst in the Midcontinent Rift System. This test, located about 2 miles south of Ino in Bayfield County, would have been the first action subject to the new regulation, but corporate plans changed and the \$3- to 5-million test was postponed.

The issue of state regulatory authority over petroleum production was not addressed in SB 638, and in 1986, Senate Joint Resolution 59 was proposed to address this fundamental issue. SJR 59 called for a legislative council study committee to be created to deal specifically with the broad issues of petroleum development in the state. This one-year study was to be completed by January 1, 1987. SJR 59, however, was referred to the Senate Energy and Environmental Resources committee, where it quietly died.

Early 1986 brought action by the governors of eight Great Lakes states concerning petroleum exploration on state-owned submerged lands in the lakes. Led by Governor Blanchard of Michigan, the governors of Minnesota, Wisconsin, Illinois, Indiana, Ohio, Pennsylvania, and New York issued a Statement of Principle Against Oil Drilling in the Great Lakes asking that plans for petroleum exploration in the Great Lakes be dropped and that their respective state (and federal) governments take action appropriate to enforcing a ban on Great Lakes drilling.

The present lack of petroleum leasing activity and the postponement of plans by Amoco to drill its Bayfield County test (drilling announced on May 7, 1985 and postponed just two weeks later) has led to a general cessation of legislative interest in the major policy ramifications of oil and gas resource development for Wisconsin. To date, beyond NR 134 now in effect, no regulatory or legislative activity affecting oil and gas development is pending.

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