

# STATE OF MICHIGAN DEPARTMENT OF NATURAL RESOURCES LANSING



# OIL AND GAS LEASING PROGRAM REPORT for FISCAL YEAR 2010-2011

## **AUTHORITY:**

Part 5, Section 502, Act 451, Public Acts of 1994, as amended, authorizes the Department of Natural Resources (DNR) to enter into contracts for the Oil and Gas Leasing Program. DNR Oil and Gas Lease Maintenance Procedures direct staff to continue to evaluate and review the program and to provide an annual report. This fiscal year (FY) 2011 report covering activity from October 1, 2010 through September 30, 2011, was created by the Mineral and Land Management Staff, Forest Management Division.

# **LEASE TERMS:**

The DNR currently owns 6.4 million acres of mineral rights. At the close of FY 2011, 1.4 million of those acres were under lease for oil and gas exploration and development, and there were 13,671 active oil and gas leases.

State oil and gas leases issued pursuant to competitive lease auctions include a 1/6 royalty rate, a bonus consideration of \$13.00 per acre minimum, a five-year term, a rental rate of \$2.00 per acre per year, and a limit of two one-year extensions at the state's option. Direct lease terms are negotiated and generally have a minimum 3/16 royalty rate, a higher bonus, and a shorter term than auction leases.

#### **DRILLING PERMITS:**

During FY 2011, a total of 40 drilling permits were issued by the Office of Oil and Gas Minerals (OOGM), for oil and gas wells involving state-owned minerals. Reflecting industry's downward trend, this figure decreased from FY 2010's total of 67 permits.

#### WELL COMPLETIONS:

There were 34 new wells completed in FY 2011 involving the state's participation in production. Of those two were completed as gas wells, and eight for oil, six of which were found to be producible. By comparison, FY 2010 totals seven completed gas wells, and two completed for oil.

## **DIRECT LEASES:**

Direct oil and gas leases are granted on parcels with state-owned minerals which are needed to complete drilling units or for state-owned minerals suspected of being drained by offsetting wells on private lands. For FY 2011, 23 direct leases were issued, covering 34.22 acres.

#### **EXTENSIONS**:

Lease extensions are granted pursuant to lease terms when it is in the best interest of the state to do so. During FY 2011, there were 89 oil and gas lease extensions processed.

## **ASSIGNMENTS:**

Ownership interests in State of Michigan oil and gas leases, whether fractional, formational, partial or full interest, may be assigned from one legal entity to another. During FY 2011, there were 2,569 oil and gas lease assignments processed.

## **RELEASES:**

During FY 2011, a total of 793 leases covering 66,095 acres in 31 counties were released. Division staff who monitor lease expiration dates and payment of annual rentals initiated the majority of the releases. Lessees submitted the remaining releases to the DNR.

#### **AUCTION NOMINATIONS:**

Nominations of lands to be considered for leasing were received during two open nomination periods during FY 2011. Nominations were received from both industry and staff. There were 46,926 acres nominated during the first nomination period of November 1, 2010 through December 1, 2010. Those nominations resulted in 43,793 acres being offered for possible lease at the May 2011 oil and gas lease auction. Lease classification, deed restrictions, and errors in nomination information resulted in fewer acres offered for lease than were nominated. A second nomination period was held May 6, 2011 through June 5, 2011. A total of 122,311 acres were nominated for possible inclusion in an October 2011 lease auction. Again, lease classification, deed restrictions, and nominator error resulted in fewer acres to be offered for lease than were nominated and 122,301 acres were offered for leases in October 2011 auction.

Staff continues to nominate parcels where drainage is suspected. Continued nominations by Division staff help in the elimination of drainage of the state's mineral resources without benefit of compensation.

#### **AUCTION SUMMARY:**

There were two oil and gas lease auctions held during FY 2011. There were 450,766 acres of state-owned oil and gas rights offered at the October 2010 lease auction. There were successful bids on 237,689 acres which resulted in 2880 oil and gas leases being issued. The May 2011 oil and gas lease auction saw successful bids on 35,052 acres out of 43,973 acres offered. The successful bids resulted in the issuance of 422 oil and gas leases.

#### **CURRENT EVENTS:**

Nationwide, Michigan is ranked 18th in oil production and 12th in natural gas production.

Michigan's oil production increased 6.65 percent in FY 2011 after experiencing a 7.71 percent increase in FY 2010. In FY 2011, Michigan's natural gas production had an overall 5.43 percent decrease following a 5.51 percent decline in FY 2010.

During FY 2008, the extraordinary market prices for oil and gas radically impacted the amount of royalties received as oil exceeded \$140 per barrel (bbl) and natural gas averaged over \$9 per thousand cubic feet (Mcf). Subsequently, market prices fell back to more normal ranges with the state receiving an average of \$72 per Mcf in 2010, and \$84 in 2011. For natural gas, the state received an average of \$4.40 per Mcf in FY 2011, compared to \$4.59 in FY 2010. Also in FY 2010, the state received an unprecedented amount of bonus and rental due to industry interest in the yet-to-be-proven natural gas formation known as the Collingwood-Utica. Additional wells were drilled into this new formation in FY 2011; testing is still being completed and the formation has yet to be proven as commercially producible.

## **REVENUE and DISTRIBUTION:**

#### Revenue:

Revenue received on state-owned lands and the reported production on a state-wide basis, as depicted in the following tables, reflect the revenue as well as estimated production on state lands over the past ten years.

TABLE I - OIL AND GAS REVENUE ON STATE-OWNED LANDS

Year	Povolty	Rental	Bonus	Application	Tatallinaania
rear	Royalty	Rentai	Donus	Review Fees	Total Income
2002	\$34,252,158	\$462,570	\$1,416,030	\$114,487	\$36,245,245
2003	51,182,252	568,543	1,028,415	93,305	52,872,515
2004	52,741,445	546,401	1,307,726	179,205	54,774,777
2005*	55,223,339	785,538	10,166,719	171,185	66,346,781
2006*	54,172,346	829,427	4,049,379	222,685	59,273,837
2007*	44,682,254	945,326	1,770,174	185,255	47,583,009
2008*	83,414,222	1,135,318	15,437,610	433,735	100,420,885
2009	52,013,926	1,483,493	4,943,970	199,920	58,641,309
2010	43,575,020	1,580,620	178,802,272	677,305	224,635,217
2011	42,022,244	2,028,055	10,703,944	180,445	54,934,688
TOTALS	\$513,279,206	\$10,365,291	\$229,626,239	\$2,457,527	\$755,728,263

<sup>\*</sup> Fiscal Years 2005 through 2008 were impacted by the Section 29 contract between Motor City Four (MC4) and the State of Michigan. During this period of time, MC4 received the royalties from the parcels impacted by the contract.

The numbers identified above are subject to change due to subsequent activity such as industry adjustments for volume imbalances; audit settlements, and refunds.

TABLE II – OIL AND GAS PRODUCTION on STATE-OWNED LANDS

Year	State-Wide Oil Production (bbls) (Actual per Treasury**)	Annual Percentage Change in State-Wide Oil Production*	State-Wide Natural Gas Production (Mcf) (Actual per MPSC)	Annual Percentage Change in State-Wide Natural Gas Production	Estimated State Royalty Portion of Oil & Condensate Production (bbls)*	Estimated State Royalty Portion of Natural Gas Production (bbls)*
2002	7,411,234	-1.54%	216,400,000	-6.40%	250,419	14,562,742
2003	6,975,958	-4.40%	198,800,000	-8.13%	219,270	12,531,174
2004	5,907,776	-15.31%	190,100,000	-4.38%	203,567	12,841,542
2005	5,974,977	1.14%	180,000,000	-5.31%	229,586	10,995,406
2006	5,679,101	-4.95%	174,900,000	-2.83%	199,194	10,652,892
2007	5,584,229	-1.67	164,400,000	-6.00%	191,011	9,041,528
2008	6,094,755	9.14%	158,300,000	-3.71%	183,913	8,808,034
2009	5,926,306	-2.76%	147,500,000	-6.82%	181,742	8,329,378
2010	6,383,033	7.71%	140,000,000	-5.51%	164,471	7,454,550
2011	6,807,538	6.65%	134,200,000	-5.43%	178,907	7,452,135
TOTALS	62,744,907		1,704,600,000		2,002,080	95,217,246

<sup>\*</sup> Estimated Production from State Land is calculated from company reported volumes and decimal interest from remittances received during the year.

<sup>\*\*</sup> Actual State-wide numbers are based on data provided by Treasury and the Michigan Public Service Commission (MPSC) with MPSC numbers based upon calendar years versus fiscal years. As a result, the 2011 MPSC numbers are estimated.

#### Lease Auditing:

DNR staff review various reports and transactions to ensure proper and timely payment of rent and royalties have been made. Through these efforts, the following occurred during FY 2011:

Underpaid royalty identified:	\$316,041
Underpaid royalty collected to date:	\$237,361
Late interest payments collected:	0
Total Additional Revenue Collected:	\$237,361

The DNR also began conducting independently contracted audit reviews in 1997 when concerns were raised regarding the post production cost (PPC) deductions taken by some companies. PPC deductions primarily affect natural gas production. The DNR agrees that some deductions are reasonable, such as CO<sub>2</sub> or H<sub>2</sub>S removal to make the gas marketable as well as some transportation costs. Additionally, the courts have also upheld that PPC deductions should be allowed. Unfortunately, the Michigan court decision did not define what those costs should be.

Allowable PPC deductions differ according to what language is present in the DNR's oil and gas leases. For those leases issued after July 1996, the deductions are specifically defined and very limited. For leases issued prior to July 1996, the DNR worked with various public organizations, industry members, and state agencies to develop the "Audit Calculation Standards" (Standards) to define reasonable deductions for the older leases. The audits consider the applicable lease language; the Standards, and any additional written agreement that may be in place with the company under review.

Overall, the reviews have resulted in a significant return. Many settlements also include the results being extrapolated across all units operated by the company as extrapolation saves both the DNR and company additional time and expense. Some reviews also resulted in refunds being issued by the DNR. In these situations, the refunds were primarily due to the companies taking a conservative approach while the DNR worked toward issuing the Standards. Nevertheless, even these reviews resulted in a savings to the DNR when the audit identified several disallowances on the claims filed.

The audit program continues to be a very effective tool in increasing the amount of royalties collected and ensuring compliance with the DNR's lease terms. The following tables describe the number and results of the settled reviews, as well as the current number of audits in process.

#### **FY 2011 Settlement Results:**

Numbe Comp Audi	any	Number of Units Audited	Amount Due to the State	Amount Currently Collected	Amount Refunded to Company	Refund Savings Resulting from Audit Disallowances	Contract Costs Where Settlement has Occurred
4		23	\$156,274	\$156,274	\$1,076,935*	\$2,002,925	\$154,433

<sup>\*-</sup> Refund to company included extrapolation of audit results across a total of 173 units.

### **Overall Summary:**

	Number of Company Audits	Number of Units Audited	Amount Due to the State	Amount Currently Collected	Amount Refunded to Company	Refund Savings Resulting from Audit Disallowance	Contract Costs Where Settlement has Occurred
Settled Audits	49	195	\$7,269,991	\$6,433,072	\$2,192,324	\$3,038,375	\$2,026,691
Pending Audits	6	21					

# **Distribution**:

Revenue involving bonus, rent and royalty received from the oil and gas leasing program was primarily deposited into the Michigan Natural Resources Trust Fund (MNRTF), until such time as the MNRTF cap was reached, and Game and Fish Protection Trust Fund (GFPTF), which includes the federal Pittman-Robertson and Dingell-Johnson Funds. When the cap was reached in May 2011, subsequent MNRTF revenue was deposited into the State Park Endowment Fund (SPEF). Processing fees, also known as application review fees, are deposited into the Forest Land User Fund.

In FY 2011, approximately 65 percent of the bonus, rent and royalties received were deposited into the MNRTF and SPEF received 26 percent. The GFPTF received approximately 9 percent which is slightly less than the 10 percent per year typically seen.

## **LEASING ISSUES:**

During FY 2011, there has been a continuation in the shift of focus from Devonian Antrim Shale development work, a mainstay of the Michigan oil and gas exploration and production industry since the early 1990s, toward oil targets in the southern Michigan Trenton-Black River exploration play, Central Basin Devonian targets, and the emerging Ordovician Utica-Collingwood play.