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**METALLIC MINERAL 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 Metallic Mineral Leasing Program. The DNR Procedures for Metallic Mineral Leases on state lands directs staff to continue to evaluate and review the program and 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 (FMD).

**LEASE TERMS:**

The new metallic mineral lease was finalized in FY2007 and the policy and procedures of metallic mineral leasing program were reviewed and approved in FY2010. The new terms of the metallic mineral lease include a ten year direct lease term with a ten year extension possible and a \$3.00 per acre bonus payment. The rental rate commences at \$3.00 per acre, per year for the first five years and \$6.00 per acre per year for years six through ten. In the absence of mining operations, a minimum royalty is due for years 11 through 20 for auction leases. The rate begins at \$10.00 per acre in the 11th year and escalates \$5.00 per acre, per year until the 20th year when the rate is \$55.00 per acre. If production occurs, a new variable production royalty rate has been proposed that will vary with the adjusted sales value per ton. Only direct leases with a term of ten years have been issued for metallic mineral the past few years. Direct leases may be negotiated for terms that are more favorable to the state, however, no lease will be authorized which provides for less than the standard royalty or rental rates, or for a lease term longer than 20 years.

The maximum lease size is one section, normally 640 acres. There are currently 27,212 acres under 119 state metallic mineral leases. There were 19 new leases issued in FY 2011 covering 4,789 acres.

**ASSIGNMENTS:**

There were no assignments of a metallic mineral lease in FY 2011.

**RELEASES:**

There were 43 metallic mineral leases released covering 8,611 acres during FY 2011.

**EXTENSIONS:**

There were two ten year extensions of metallic mineral leases in FY 2011.

**AUCTION PLANS:**

Metallic mineral lease auctions using the competitive bid process are periodically scheduled as demand dictates. There were no metallic mineral lease auctions scheduled for FY 2011.

**DIRECT LEASES:**

There were 19 direct leases issued in FY 2011 for state-owned minerals in the western part of the Upper Peninsula. Five nominations, covering 13,022 acres, for direct leasing of metallic minerals were received in FY 2011. Two of the nominations have been approved for leases, one nomination was withdrawn and two nominations are currently in process.

**REVENUE and DISTRIBUTION:**

Revenue:

During FY 2011, total income from the metallic mineral activities on state lands was \$361,925. There is currently no active production on DNR lands involving metallic leases. However under the lease terms, "Minimum Royalty" payments were received in FY 2011 that totaled \$224,062.

The chart below gives a historical overview of revenue received from this program.

<b>REVENUE FROM METALLIC MINERAL LEASING</b>						
<b>YEARS</b>	<b>RENTAL</b>	<b>TOTAL BONUS</b>	<b>NOMINATION FEES</b>	<b>ROYALTY</b>	<b>TOTAL INCOME</b>	<b>ACRES LEASED</b>
2002	\$99,103	\$10,897	\$16,200	\$0	\$126,200	23,887
2003	\$97,233	\$375	\$12,900	\$0	\$110,508	24,511
2004	\$71,930	\$25,745	\$9,600	\$98,674*	\$205,949	33,843
2005	\$74,564	\$0	\$2,400	\$95,669*	\$172,633	27,650@
2006	\$79,001	\$0	\$2,100	\$114,725*	\$195,826	26,359@
2007	\$178,842	\$82,635	\$1,500	\$133,924*	\$396,901	53,664
2008	\$114,906	\$1,200	\$300	\$153,167*	\$269,573	45,240
2009	\$93,561	\$289	\$1,500	\$172,088*	\$267,438	29,310
2010	\$94,369	\$24,654	\$6,300	\$192,809*	\$318,132	31,971
2011	\$115,695	\$14,368	\$7,800	\$224,062*	\$361,925	27,212
<b>TOTALS</b>	<b>\$1,019,204</b>	<b>\$160,163</b>	<b>\$60,600</b>	<b>\$1,185,118</b>	<b>\$2,425,085</b>	

\* Minimum Royalty (MR) began in FY2004 for 16 leases; 17 leases were paying MR in FY2010, and MR was paid on 23 leases in FY2011.

@ An additional 23,002 acres were waiting on the new lease form.

**LEASE AUDITING:**

Since there has been no active production involving DNR land, the DNR has not contracted for independent audits. Review of bonus, rent, and minimum royalty payments is currently completed by in-house staff. When and if production begins on DNR land, it will contract for audits in a similar manner as currently done with the oil and gas and nonmetallic mineral leasing programs.

**Overall Summary:**

	<b>Number of Company Audits</b>	<b>Number of Units Audited</b>	<b>Amount Due to the State</b>	<b>Amount Currently Collected</b>	<b>Amount Refunded to Company</b>	<b>Refund Savings Resulting from Audit Disallowances</b>	<b>Contract Costs Where Settlement has Occurred</b>
Settled Audits	None						
Pending Audits	None						

**DISTRIBUTION:**

Revenue involving bonus, rent, and minimum royalty received from the metallic 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 related 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 FY2011, 30.22 percent of the bonus, rent, and minimum royalties received from the metallic leases were deposited into the MNRTF and the SPEF received 68.86 percent. The GFPTF received the remaining 0.93 percent.

**MICHIGAN METALLIC MINERAL EXPLORATION ACTIVITY:**

Metallic mineral exploration activity has been confined to the western portion of the Upper Peninsula, where rocks of Precambrian age are located at or near the surface. Seven new exploration plans for exploring mineral potential on lands under state Metallic Minerals Leases were submitted to the DNR. Three of these plans were approved in FY 2011. Normally, Upper Peninsula field staff from the DNR and Department of Environmental Quality (DEQ) review all plans received. After field staff review, the DNR-FMD, gives approval of any field approved exploration plan.

During FY 2011, metallic mineral exploration consisted of fieldwork in search of nonferrous and precious metals. Drilling is expected to continue periodically as exploration takes place in FY 2012 on the direct leased state land and on surrounding federal and private lands. For many years, low metal prices adversely affected metallic mineral exploration worldwide, especially in North America, including Michigan. Recently, the metal prices have reached new highs and leasing and exploration activities are increasing.

Several companies are actively exploring in the Western Upper Peninsula for Nickel, Copper, Gold, Zinc, Silver, and Uranium.

## **MINING:**

There are no metallic mineral mining operations occurring on state lands currently. Mining for metals in Michigan in FY 2011 resulted in the production of iron ore along with a very small amount of copper and silver.

## **IRON:**

During FY 2011, the mining and processing of iron ore continued in Michigan at the Empire and Tilden mines in Marquette County. Cleveland Cliffs Iron Company is the operator of these two large open pit mines, which produce iron ore pellets. These mines collectively produce plain and fluxed pellets and a small amount of siliceous iron ore which is shipped to steel mills in the U.S. and Canada for processing. There are no state-owned minerals in either of these Upper Peninsula mines.

## **COPPER:**

The Caledonia Mine, near Mass City in Ontonagon County, continues to be Michigan's only copper producing mine. Red Metal Minerals operates this mine and produces a very limited quantity of copper, silver and other mineral specimens for sale to mineral collectors and museums worldwide.

There are no state-owned minerals involved in Michigan copper mining at the present time. However, the state does own mineral rights that are located at or near old copper mine locations. These areas may become exploration targets in the future.

White Pine Copper Refinery, Inc., processes copper ore from other locations at their modern electrolytic refinery located at White Pine in Ontonagon County. The refinery is located adjacent to the former White Pine Mine, previously operated by INMET Mining Corporation's Copper Range Co., and was purchased by Broken Hill Property Co., LTD from Copper Range Co. in 1997. White Pine Acquisitions Corp. purchased the refinery from BHP in June 2000.

## **NICKEL – COPPER:**

Kennecott Eagle Minerals Company has been approved by the DEQ for permits to mine a mineral deposit containing these and other precious metals in Marquette. The deposit lies on both private and state minerals. The mining permit and the DNR surface use lease were issued in FY 2008, however until recently, court cases held up the development of the mine. Surface work commenced in FY 2010, and drilling of the mining shaft began in FY 2011.

## **ZINC – COPPER – GOLD – SILVER:**

Aquila Resources, USA, began leasing state metallic mineral rights in 2002. Exploration operations since then have uncovered a deposit of zinc, copper, gold, and silver. Their partner, HudBay, will be applying to the state for mining permits in the near future, on both state and private lands.

## **COPPER – SILVER:**

A new copper deposit, on private lands, has been located in the western Upper Peninsula by Orvana Minerals, Corp. They will be applying to the state for mining permits in the near future.

**LEASING ISSUES:**

The new metallic mineral lease was approved in early FY 2007. The metallic mineral policy and procedures were reviewed and updated in 2010 to ensure that the state continues to receive market rates for leases issued and minerals mined, and that proper safeguards remain in place which will protect the environment and ensure reclamation if mineral production and development occurs.