METALLIC MINERAL EXPLORATION IN WISCONSIN

Summary of 1986 Activity

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HIGHLIGHTS OF 1986 ACTIVITY

Metallic mineral exploration¹ in Wisconsin continued to be weak in 1986. The number of companies licensed to explore (drill) declined markedly, the number of companies actually drilling declined slightly, and the number of counties in which drilling took place also declined when compared to 1985. However, the number of drillholes, total footage drilled, and total bedrock footage drilled held steady or rose slightly.

Only 11 companies held exploration licenses at some time during calendar year 1986--a drop of 5 companies from the previous licensing period. Exploration occurred in six counties, with only four companies actually completing drillholes in 1986. The total number of drillholes completed for exploration purposes rose by 15 percent; yet, when development drilling on the Crandon orebody owned by Exxon Minerals Company is added to the 1985 exploration figures, the 1986 exploration drillhole totals reflect a 4 percent decline. Drilling footages for exploration show modest increases in 1986, but the addition of the 1985 Exxon development or evaluation drillholes results in a slight decline in drilling footages as compared to 1985.



Screened part of bar graph represents non-developmental exploration drilling. Nonscreened part represents development drilling on known mineral deposits.

^{1. &}quot;Exploration" has a specific legal definition in Wisconsin (NR 130.03(3), Wisconsin Administrative Code) that is essentially synonymous with "drilling." Unless otherwise stated, this definition is followed in this report.

Exxon Minerals Company announced on December 10, 1986, its decision to postpone further activities related to the Crandon Project. This announcement reflected the company's apparent concern over the long-term economic potential of this 67-million ton, massive sulfide orebody in Forest County. Suspension of Crandon-related activities occurred in the midst of preparation of testimony for the master hearing scheduled for March 1987. Exxon will maintain some limited environmental monitoring programs, but has closed the Rhinelander office and reduced active staff to one person.

Leasing for purposes of metallic mineral exploration was limited in 1986. A preliminary survey of county register of deeds offices in early 1987 indicates 1986 leasing levels were commensurate with the low levels recorded in the previous year.

Metallic mineral exploration in Wisconsin continues at the present time at a low level, reflecting the continuing weak markets in base metals--copper, lead, and zinc. The current focus of metallic mineral exploration, in fact, appears to be on precious metals--gold and silver--but solid international market conditions for precious metals do not appear to have increased exploration activity in Wisconsin. The announcement by Exxon Minerals Company to postpone development of the Crandon orebody is believed to have a further dampening affect on exploration for metallic minerals in Wisconsin.

| | <u>1982</u> | <u>1983</u> | <u>1984</u> | 1985 | <u>1986</u> |
|---------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Companies licensed to drill ¹ | 14 | 17 | 18 | 16 | 11 |
| Newly licensed companies | 2 | 3 | 3 | 1 | 2 |
| Companies conducting drilling | 8 | 9 | 8 | 5 | 4 |
| Total counties with drilling | 10 | 14 | 10 | 7 | 6 |
| Total holes drilled | 77 (57)² | 74 (74) | 54 (54) | 24 (20) | 23 (23) |
| Total footage drilled | 66,580 (37,586) | 48,594 (48,594) | 16,664 (16,664) | 19,444 (14,691) | 15,480 (15,480) |
| Total bedrock footage | 56,334 (31,481) | 40,350 (40,350) | 13,573 (13,573) | 15,944 (11,601) | 13,390 (13,390) |

FIVE-YEAR METALLIC MINERAL EXPLORATION SUMMARY

Source: Wisconsin Department of Natural Resources drillhole abandonment reports and metallic mineral exploration licenses. Contacts: Archie Wilson (North Central District) and Larry Lynch (Central Office).

¹ An exploration license may be obtained any month of the year, but expires July 1. This total includes companies licensed all or part of the indicated calendar year.

² Numbers in parentheses refer to non-developmental exploration; that is, for exploration performed at sites that are not known mineral deposits.



All drillhole data are from public records--drillhole abandonment reports submitted to the Wisconsin Department of Natural Resources.

1986 METALLIC MINERAL EXPLORATION BY COMPANY AND COUNTY

| Company | Drillholes | Bedrock Footage | <u>Total Footage</u> |
|---------------------------------------------------|----------------|-----------------|----------------------|
| E.K. Lehmann and Associates of Wisconsin, Inc. | : 10 | 6,877 | 7,910 |
| Kerr-McGee Corporation | 1 | 532 | 610 |
| Mineralco, Inc. | 3 | 1,135 | 1,684 |
| Noranda Exploration, Inc. | $\frac{9}{23}$ | 4,846 | 5,276 |
| TOTAL | 23 | 13,390 | 15,480 |
| County | Drillholes | Bedrock Footage | <u>Total Footage</u> |
| Chippewa | 3 | 1,254 | 1,485 |
| Lincoln | 2 | 2,946 | 3,123 |
| Marathon | 4 | 1,717 | 1,879 |
| | | | |
| Oneida | 8 | 4,264 | 5,081 |
| Oneida Price | 8 3 | | - |
| | 8 | 4,264 | 5,081 |

1986 METALLIC MINERAL EXPLORATION LICENSES¹

| License No. | Company | License No. | Company |
|----------------|-----------------------------|----------------|---------------------------------------|
| 1 | Exxon Minerals Company | 17 | Kerr-McGee Corporation |
| 3 | Noranda Exploration, Inc. | 21 | Mineralco, Inc. |
| 5 | E.K. Lehmann and Associates | 23 | Molycorp, Inc. ² |
| | of Wisconsin, Inc. | 27 | Interesources, Inc. ² |
| 9 | American Copper and | 28 | Utah International, Inc. ³ |
| | Nickel Co., Inc. | 29 | Chevron Resources Co. ³ |
| 10 | Amax Exploration, Inc. | | |

- ¹ Companies listed were licensed to explore for all or part of 1986. License numbers not listed were issued previously to companies that did not renew their license for the period of July 1985 to June 1986.
- ² This company did not renew its license for the July 1986 to June 1987 license year.
- ³ This company has not previously held a license to explore in Wisconsin.

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