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## **New University Research Reveals Startlingly High Mercury Concentrations Near Northern Nevada Gold Mines**

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A new University of Nevada report entitled Mercury Air Concentrations in Northern Nevada documents startlingly high mercury concentrations in the air around a number of northern Nevada gold mines.

The highest mercury concentrations in the air were measured at three mines: the Marigold Mine (3120 ng/m<sup>3</sup>), the Coeur Rochester Mine (2326 ng/m<sup>3</sup>), and the Twin Creeks Mine (694 ng/m<sup>3</sup>) -- mercury concentrations that were over 600, 400 and 100 times that of normal background conditions (5 ng/m<sup>3</sup>), respectively. According to the report, "These concentrations were much higher than expected and approach concentrations where impacts to worker health and safety, particularly to women of child bearing age, should be assessed." In two cases (Coeur and Marigold), the highest concentrations were measured in the employee parking lots.

"These are the highest mercury concentrations measured in ambient outside air in the western U.S. that we're aware of", says Dan Randolph of Great Basin Mine Watch. "These measurements indicate that we don't yet know the magnitude of air emissions from mines yet. The need for better monitoring is clear."

The mercury measurements in the report are spot samples taken on various dates in August 2006, and thus represent a "snapshot" in time. According to the report, more of this type of monitoring is necessary to understand the impacts of mercury emissions to human health and the environment. While Nevada regulations require one time monitoring of mercury concentrations directly at "smoke stacks," they do not require continuous monitoring of the stack emissions nor do they require monitoring of ambient air downwind of the mines.

"It shouldn't be about profits first, we're very worried about the families that work and live near and around these big gold mines." said Larson Bill of the Western Shoshone Defense Project. "These mines should absolutely be required to reduce their emissions, with additional independent studies and transparency to the Shoshone people and other U.S. citizens."

The report also found that active heap leach piles, or "heaps," may be a significant source of mercury air emissions. Heap leach piles are mounds of crushed rock, often covering hundreds of acres, where cyanide solution is applied through vast sprinkler systems to dissolve the gold out of the rock. Under Nevada's current regulations, there are no requirements to monitor or report the amount of mercury released from these sources.

"This report confirms that mine "heaps" are a source of mercury pollution, and they need to be monitored," said Bonnie Gestring of EARTHWORKS. "It makes no sense to monitor some parts of the mine, but ignore others. It's impossible to determine whether worker and public health is at risk if complete and accurate information is not collected."

"Nevada gold mines are spewing out so much mercury that it is poisoning Idaho fisheries and threatening the health of people in Idaho," said Justin Hayes with the Idaho Conservation League. "For too long these polluters have been misleading the public and regulators about the true magnitude of their toxic mercury pollution. I think these are the highest mercury levels ever recorded in the outdoor air -- this has to stop."

Mercury is a potent neurotoxin and exposure to mercury can cause serious neurological problems such as

tremors, speech, coordination problems and serious birth defects. According to EPA's Toxics Release inventory, northern Nevada gold mines release over 4,600 pounds of mercury into the air each year -- about 18 times the amount of mercury released by the average coal-fired power plant. Northern Nevada's gold mines are the largest single industrial source of U.S. mercury air emissions west of Texas.

Patrick Joyce and Dr. Glenn Miller, authors of the report, initiated the project to determine if the mercury measuring instrument would be useful in the field to measure mercury concentrations near gold metal mines.

"We found that the instrument was a cost-effective and sensitive tool for measuring mercury concentrations near mines," said Dr. Miller. "We found surprisingly high concentrations near some of the mines."

Read Mercury Air Concentrations in Northern Nevada at [www.getthemercuryout.org](http://www.getthemercuryout.org)

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