SOUTH DAKOTA – 2008 Mineral Summary
Production, Exploration and Environmental Issues

E.H. Holm, T. Cline Jr., and M. Lees
South Dakota Department of Environment & Natural Resources
Minerals and Mining Program
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Production

Gold and Silver: Gold continued to remain the leading mineral commodity in South Dakota in terms of value. Gold production and value in South Dakota increased in 2008. Wharf Resources Inc. produced 60,665 ounces of gold in 2008, and was the only company reporting gold production since it is the only large scale gold mine still operating in the state. This represents an increase of about 3,000 ounces of gold produced compared to 2007. The average price of gold in 2008 was $871.96, yielding a gross value of about $52.9 million. This was 24 percent higher than the 2007 gross value of $40 million. Wharf was also the only company to report silver production, which is a by-product of its gold recovery process. A total of 226,000 ounces of silver was recovered in 2008. At an average price of $14.99, the value of the silver was $3,387,740. This is an increase from the 133,718 ounces and $1,789,147 value reported in 2007.

Table 1 compares gold and silver production for 2007 and 2008 in South Dakota.

Table 1 – Gold and Silver Production in South Dakota 2007 and 2008

Gold Production		
Company	2008 Production (ounces)	2007 Production (ounces)
Wharf Resources	60,665	57,628
Total	**60,665**	**57,628**
Estimated Value	**$52,897,453**	**$40,073,935**
Silver Production		
Wharf Resources	226,000	133,718
Total	**226,000**	**133,718**
Estimated Value	**$3,387,740**	**$1,789,147**
Combined Gold and Silver Value	**$56,285,193**	**$41,863,082**

On January 15, 2009, the South Dakota Board of Minerals and Environment granted Wharf Resources' request for partial release of reclamation liability for 401 acres of affected land at the Golden Reward mine near Lead. This is the second large scale gold mine to have acreage released from reclamation liability since 2006. The board also accepted Wharf's post closure plan for the site and set a 30-year period for post closure care and maintenance.

In April, Wharf Resources was issued a notice of violation by the South Dakota Department of Environment and Natural Resources for violations of its surface water discharge and mine permits. The violations were a result of discharges from its bio-treatment facility. Wharf was required to upgrade its

water treatment system, evaluate and clean up short stretches of two creeks below the mine, and pay a $149,300 penalty.

There are currently 11 mine permits that cover six large scale gold mining operations in South Dakota. Wharf Resources, the only gold mine still actively mining in South Dakota, holds four of these permits. No new mine permits were issued to large scale gold operations in 2008. However, Wharf Resources constructed a fifth leach pad in late summer and fall 2008 to hold additional ore from the American Eagle Pit. The new leach pad will allow Wharf to continue mining through 2012.

Work continued in 2008 to convert the Homestake underground mine in Lead to a deep underground science and engineering laboratory. Crews refurbished the mine infrastructure and began pumping out water that has been filling the mine since it was closed. It is expected that water will be pumped down to the 4,850 foot level of the mine by spring 2009 so that physics experiments can begin in an interim lab at that level later in the year. Additional water needs to be pumped and funding from the National Science Foundation needs to be obtained before a deep underground lab can be established at the 7400 foot level of the mine.

Industrial and Other Minerals: Industrial and other mineral production for 2008 is summarized in Table 2. During the 2008 reporting period, 505 companies and individuals had active mine licenses in South Dakota. An operator must obtain a license to mine for sand, gravel, pegmatite minerals, materials used in the process of making cement or lime, and rock to be crushed and used in construction. There are also mine permits that cover mining other minerals such as slate, bentonite, placer gold, and dimension stone.

Table 2 – 2008 Non-Metallic Mineral Production

Mineral	Production (Tons)
Agricultural Lime	8,000
Bentonite	114,000
Dimension Stone	218,832
Gypsum	8,241
Iron Ore	14,976
Limestone	3,496,340
Mica Schist	39,499
Pegmatite Minerals	4,503
Placer Gold Ore	51
Quartzite	3,545,218
Shale	171,291
Slate	3,395
Sand & Gravel	13,445,132

Source: Annual reports submitted by mining companies

Sand and gravel remained the major non-metallic mineral commodity produced during 2008 with 13,445,132 tons reported. Sand and gravel is produced in nearly every county in South Dakota and is used mainly for road construction projects.

Quartzite became the second most prolific non-metallic mineral commodity produced during 2008 with 3,545,218 tons reported. It is quarried from locations in southeastern South Dakota. Most of the quartzite is crushed and used in construction or for railroad ballast. Some larger blocks are used for rip-rap and occasionally for decorative purposes. Limestone production followed closely in third at 3,496,340 tons reported in 2008. Limestone is produced in the Black Hills of western South Dakota and is used primarily in the production of cement and for construction projects.

A total of 218,832 tons of dimension stone was mined by Dakota Granite Company and Cold Spring Granite Company from quarries near Milbank in northeastern South Dakota. Due to its beauty and distinctive red color, the "mahogany" granite is used primarily for monuments and building construction. Much of it goes to international markets.

Other minerals produced in smaller amounts during 2008 include agricultural lime, bentonite, gypsum, iron ore, mica schist, pegmatite minerals (feldspar, mica, rose quartz), placer gold ore, shale, and slate.

Uranium

Powertech (USA) Inc. completed drilling under its initial uranium exploration permit issued in 2007 along the southwest fringe of the Black Hills. It drilled 20 exploration holes in Custer and Fall River Counties in 2008 and plans to close this initial uranium exploration permit in 2009. The company also submitted an application for a second 30-hole uranium exploration permit for the same area, which was approved by the Board of Minerals and Environment in November 2008.

Powertech submitted a "Request for Determination of Special, Exceptional, Critical, or Unique Lands" in August 2008 as the first step in applying for a state large scale mine permit for a proposed in situ uranium mine in Custer and Fall River Counties. In late December, the Department of Environment and Natural Resources determined that the area did not have special, exceptional, critical, or unique characteristics. However, the Oglala Sioux Tribe, Defenders of the Black Hills, and two individuals filed petitions in late 2008 to have the area declared special, exceptional, critical, and unique. The Board of Minerals and Environment held a hearing in February 2009 to consider the petitions and the final decision is pending.

During 2008, Powertech collected baseline water quality, soil, vegetation, wildlife, and archaeologic data in preparation for the various permits it will need for its proposed in situ uranium leach mining operations. The company has already submitted one permit application to EPA for Underground Injection Control (UIC) and one to the Nuclear Regulatory Commission for a source materials license. Submittal of applications to the State of South Dakota for both a state UIC permit and a large scale mine permit are pending.

After being initially adopted in 2007 by the Board of Minerals and Environment, revisions were made to the in situ leach mining regulations in 2008 to clarify timing and application completeness issues. Revisions were also made to the state's Underground Injection Control (UIC) regulations to cover in situ leach mining operations and to the regulations for capping, sealing, and plugging uranium and other mineral exploration test holes.

Exploration

In addition to the Powertech uranium exploration permit application approved in November, the State of South Dakota issued one other exploration permit in 2008. In June, Cappella Resources was issued a permit for gold exploration near the South Dakota/Wyoming border in Lawrence County. Also, in January 2009, Sandman Products, LLC was granted an exploration permit for silica sand exploration in Custer County.

The number of gold exploration activities performed in 2008 decreased as compared with the previous year. Wharf Resources (USA), Inc. drilled 77 exploration holes at its mine near Lead, South Dakota. Two small scale placer operations also reported exploration activities in 2008.

Environmental Issues

Gilt Edge Mine: EPA continued acid water treatment at the Gilt Edge Superfund Site in 2008. A total of 156.6 million gallons were treated and discharged in 2008, and water treatment will continue in 2009. A feasibility study outlining reclamation options for the site was also completed.