IDAHO MINING & EXPLORATION 2003

Virginia S. Gillerman
Idaho Geological Survey
Idaho Non-fuel Mineral Production

 Millions of Dollars

<table>
<thead>
<tr>
<th>Year</th>
<th>Con S&amp;G</th>
<th>Silver</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>$60</td>
<td>$70</td>
<td>$130</td>
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<tr>
<td>1998</td>
<td>$70</td>
<td>$80</td>
<td>$150</td>
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<tr>
<td>1999</td>
<td>$80</td>
<td>$90</td>
<td>$170</td>
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<tr>
<td>2000</td>
<td>$90</td>
<td>$100</td>
<td>$190</td>
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<tr>
<td>2001</td>
<td>$100</td>
<td>$110</td>
<td>$210</td>
</tr>
<tr>
<td>2002p</td>
<td>$110</td>
<td>$120</td>
<td>$230</td>
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</table>
Idaho Raw Ore Production

Totals: $358 million
$288 million
$301 million

2000
57%
43%

2001
72%
28%

2002p
72%
28%
2003 Summary

► “Hanging in there” to “Udder Relief.”
► Gold prices climb to ~ $ 400 an ounce!!
► Ag>$ 5 /oz., Moly>$ 5 lb.
► Stone rules – again! Have you bought your sand and gravel yet?
► Some Cool Exploration Plays!
Idaho Mining Association turns 100

Governor Kempthorne shows off Idaho silver round honoring veterans.
Lucky Friday Mine and Gold Hunter Deposit
Galena Mine
Rob Fredericks, geologist, with Raise Bore(d) Drillers
2400 level, Galena mine
Galena - 5500 level, 72 vein
Polaris Fault
Bunker Hill Mine – Mining Pyromorphite Crystals
Sunshine Mine – closed 2001
Over 350 million ounces silver
Sunshine Saga – 2003

- Purchase by Amer. Reclamation
- Back taxes owed Shoshone Co.
- ARI files bankruptcy – May
- Sterling Mining Company – June
- Sterling pays $253,600 back taxes
- Sterling signs 15 yr. lease/option to purchase
- Sterling announces surface exploration program at Sunshine
- Oct. – Nov. surface geochem & geophysical surveys
- Future compilation, targets
September – Judge Lodge rules companies liable for some but not all costs. Asarco settles, Hecla takes $23 million charge.

EPA allocates $17 million for cleanup, development.

Phosphate District
Smoky Canyon Mine - JR Simplot

C panel, B in back

C panel
Simplot’s Don Fertilizer Plant - Pocatello
Rasmussen Ridge Mine - Agrium
Agrium Fertilizer Plant, 2001
Closes in 2003, Astaris Out
Enoch Valley Mine - Monsanto
Reclamation at Monsanto’s Enoch Valley Mine
Selenium Issues

- Plants (asters) are the culprits in sheep deaths. Simplot and UI study provides valuable scientific information.
- Several AOC’s signed and rest under discussion.
- Site-specific studies and remediation underway. New mine plans have BMP’s.
Thompson Creek Mine

Molybdenum Concentrates
Lubricant Grade High Performance Moly
Gold Mine Reclamation 2003

- Black Pine
- Kinross DeLamar

- Hecla - Yellow Pine
- Hecla - Grouse Creek

Beartrack

Black Pine Pits

Black Pine Pad
Garnet: Emerald Creek

- November: USACE agrees to EIS for commercial mining in St. Maries floodplain

- FS working on EIS for gem garnet digs
Ash Grove Cement

Inkom, Idaho
Hess Pumice, Malad
Industrial Minerals – east ID

- MWP – pumice for landscaping
- AMCOR
- Thermocal – travertine
- Idaho Travertine
- Bear River Zeolite
Oakley Stone Quarries

Oakley Valley Stone

American Stone Ernie Hale

Northern Stone Supply
L & W Stone: 3 Rivers Quarry

1992

2003
L & W New Distribution Center, Challis
Aggregate = big $$$

Central Paving

Southwest Boise

ITD I-84 WYE Project
Used 110,000 tons gravel
Search the IGS Mines and Prospects Database – on the web

- Explore from your desktop at
- IGS Website: www.idahogeology.org
- > 8000 historic mines in Idaho
- By name, location, etc.
- See new geologic maps on website

New in 2003
Changing of the Guard

Retirement?
Exploration 2003

- Dec. 1 – NYMEX Au hits $ 400 an ounce;
- Ag closes $ 5.40/oz.
- Exploration drilling returns to Idaho.
- North Idaho focus but new looks at known gold resources in southern Idaho also.
New Jersey Mining - 2003

► April: Submit POO for underground mine at Silver Strand to FS
► Existing and permitted NJ mill
► 3 year reserve plus exploration potential

Silver Strand Mine: High Grade Vein
Reserve: 5.4 g/tonne Au; 361 g/t Ag
New Jersey Mining - 2003

Lost Eagle Mine

Enterprise Prospect

Golden Chest Mine
Sterling Mining Company - 2003

- Sunshine Mine: surface
- Montgomery Mine, Boundary Co.: Cu-Ni-Pt prospect
- Montgomery also polymetallic quartz vein.
- Mapping, sampling, ground magnetic survey
Alchemy Ventures 2003

INDUSTRIAL MINERALS

- Added experienced personnel
- Helmar-Bovill Clay Pits, Latah County
- Drilling to evaluate Na-feldspar resource
- 12 core holes
- Analytical & Metallurgical Testing
Warren, Idaho - 2003

Rescue Mine – care and maintenance; negotiating w/ past owner to reacquire it.

Unity – working to reopen upper portal, Charity Mine

Re-opening this portal has exposed 8 veins

Unity Gold Mine
Kimberly Gold Mining - 2003

- Marshall Mountains, east of Riggins - remote
- UG Mine, 100tpd Mill
- 0.5+oz/t Au grades; resource 100,000+tons?
- 1500’ RC Drilling at Gold Crest Tunnel, Mapping, Sampling
AIMM – Golden Hand Mine

- American Independence Mines and Minerals (Walker)
- In FC River of No Return Wilderness
- EIS Approved by FS in May; several appeals
- Proposed 48 DH, UG sampling, road rebuilding
Vista Gold Corporation - 2003

► Optioned Yellow Pine Project, at Stibnite, Valley County (Nov.)

► 538 Drillholes

► Resource: Meas. + Ind. 33.8 million tons at 0.066 opt Au (2.2 million oz.)

► Bradley Mining Co., owner – 17 pat. claims
Formation Capital Corp. - 2003

Idaho Cobalt Project,
Lemhi County
Ram Deposit

PERMITTING STATUS:
On hold, pending new increased $ financing

Big Creek Hydromet Plant
Other Projects:
Roche: Cu
Juniper
Rose: placer Au
Port.Crk.? 
New:
Kilgore Gold
Wave-Musgrove
Nevada Contact - 2003

- Iron Creek, Lemhi Co.
- Au Target – 8 core holes, 3800’

What the __?

Sulfide Veins w/ Au
Nevada Contact - 2003

- War Eagle Mountain, Owyhee County
- State Lease
- Approx. 3800’ drilling
- Historic Mining Area – E of DeLamar and Stone Cabin Mines
- Epithermal Veins
- Regional Exploration
Atlanta Gold - 2003

► In July, proposal to Boise NF for open pit, heap leach Au mine at Atlanta, Elmore County
► 2 pits, 7000 tpd, 7-10 year mine life
► 130 employees
► 2003 Work: geotechnical drilling, column leach tests, baseline monitoring, final feasibility study

2002 Metallurgical Drilling
Atlanta Gold Corporation

- **Atlanta District** – prior drilling, 534 RC holes and 81 DDH
- 1.1 million ounces Au, 3.2 million ounces Ag (1997 study)
- NEPA analysis by Maxim under Boise NF lead agency
Acknowledgements

- Earl Bennett, ‘meritus
- Mike Weaver, IGS
- Loudon Stanford, IGS
- FS, BLM, IDL Minerals staff
- Mining Company personnel

Mike Weaver, Mine Safety & Training

Future Miner
Looking Ahead

GSA Meeting

Combined Rocky Mountain and Cordilleran Section Meeting

Boise, Idaho

May 3-5, 2004

Economic Geology Session:

New Horizons in Mineral Deposits:
Ore Genesis to Mine Closure

http://www.geosociety.org
Find your way to Idaho!

Thanks