THE MINERAL INDUSTRY OF IDAHO

This chapter has been prepared under a Memorandum of Understanding between the U.S. Bureau of Mines, U.S. Department of the Interior, and the Idaho Geological Survey for collecting information on all nonfuel minerals.

Idaho ranked 32d among the 50 States in total nonfuel mineral value[1] in 1994, climbing from 35th in 1993, according to the U.S. Bureau of Mines. The estimated value for 1994 was $343 million, a nearly 24% increase compared with that of 1993. This followed an 11.5% decrease in 1993 from that of 1992. These changes in value between 1992 and 1994 were mainly due to decreases in molybdenum, gold, and phosphate rock in 1993, followed by significant increases for the same commodities in 1994. Molybdenum had the greatest single effect on the State's overall mineral production and related nonfuel mineral value. In the latter half of 1992, molybdenum production ceased at the State's only molybdenum mine, the Thompson Creek Mine, which remained closed in 1993 but was reopened in mid-1994. Industrial minerals, lead by phosphate rock and construction sand and gravel, accounted for more than 58% of Idaho's total nonfuel mineral value. Of the remaining 42%, gold, molybdenum, silver, and lead, in descending order of value, were the leading metals. Compared with 1993, the value of the following nonfuel minerals increased: phosphate rock, gold, construction sand and gravel, molybdenum, lead, vanadium ore, garnet, zinc, dimension stone, copper, masonry cement, antimony, and pumice. Decreases occurred in silver, crushed stone, portland cement, lime, industrial sand and gravel, feldspar, and gemstones.

In estimated U.S. mineral production for 1994, Idaho remained the only State to produce antimony and vanadium ore; first of two garnet producing States; third in phosphate rock, silver, and lead; fourth in pumice; sixth in feldspar; and eighth in zinc. The State climbed to 4th of 6 States that produced molybdenum and was 10th of the 13 U.S. gold producing States and 1 of 5 States that produced zeolites.

According to the Idaho Geological Survey, although operations in the Coeur d'Alene District were bolstered by the rise in silver prices, only two mines, Sunshine Mining & Refining Co.'s Sunshine Mine and Hecla Mining Co.'s Lucky Friday Mine, were in production. Idaho's phosphate mines and four processing plants worked at full capacity, while most other industrial mineral operations had a good year. In addition to the reopening of the Thompson Creek molybdenum mine near Challis, new developments occurring in the metals industry included the construction of two new gold mines. FMC Corp. began work on its open-pit heap leach Beartrack Mine in Lemhi County, and Hecla started up the new Grouse Creek Mine at Sunbeam.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN IDAHO[1]

Mineral		1992		1993		1994[p]	
		Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Gemstones		NA	$390	NA	$566	NA	$119
Gold[3]	kilograms	[r]4,037	[r]44,774	W	W	[4]5,600	[4]65,000
Molybdenum	metric tons	W	W	—	—	5,550	30,600
Phosphate rock	thousand metric tons	5,208	84,000	4,355	78,432	W	W
Pumice	metric tons	55,525	401	43,438	327	W	W
Sand and gravel:							
Construction	thousand metric tons	13,522	40,728	[e]13,600	[e]44,900	15,500	52,700
Industrial	do.	728	9,214	W	W	W	W
Silver[3]	metric tons	254	32,131	190	26,232	162	22,400
Stone (crushed)	thousand metric tons	[e]3,629	[e]19,200	4,602	20,770	[e]4,000	[e]18,400
Combined value of antimony, cement, clays (common), copper, feldspar, garnet (abrasive), lead, lime, perlite (1992), stone (dimension), vanadium ore, zinc, and values indicated by symbol W		XX	[r]78,980	XX	102,983	XX	154,000
Total		XX	[r]309,818	XX	274,210	XX	[5]343,000

[e]Estimated. [p]Preliminary. [r]Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined value" data. XX Not applicable.

[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
[2]Excludes certain clays; kind and value included with "Combined value" data.
[3]Recoverable content of ores, etc.
[4]Placer canvassing discontinued beginning 1994.
[5]Data do not add to total shown because of independent rounding.

Grouse Creek processed its gold-silver ore through a more than 5,400-metric-ton-per-day (6,000-short-ton-per-day) mill. Other gold producers included Pegasus Gold Corp.'s Black Pine Mine, Kinross Gold Corp.'s DeLamar Mine (silver and gold), the Yellow Jacket Mine owned by United States Antimony Corp., and CSC Mining Co.'s Rescue Mine at Warren. Major exploration projects were underway at Hecla's Gold Hunter Mine, a silver/lead property in the Silver Valley area; Dewey Mining Co.'s Dewey Mine (gold), near Stibnite; Ican Minerals Ltd.'s Idaho-Almaden Mine (gold), near Weiser (Atlanta District) in Elmore County; and Newmont Mining Corp.'s Musgrove gold project and Formation Capital Corp.'s Blackpine copper, gold, and cobalt property, both in Lemhi County. Gold was the commodity attracting the most interest, but exploration at Blackpine and nearby areas focused on the Idaho Cobalt Belt.

[1]The term value means the total monetary value as represented by either mine shipments, mineral commodity sales, or marketable production as is applicable to the individual mineral commodities.

TABLE 2

IDAHO: CRUSHED STONE[1] SOLD OR USED BY PRODUCERS IN 1993, BY USE

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Riprap and jetty stone	16	$32	$2.00
Filter stone	W	W	5.44
Other coarse aggregate	43	58	1.35
Coarse aggregate, graded:			
Concrete aggregate, coarse	W	W	6.73
Bituminous aggregate, coarse	277	1,100	3.97
Bituminous surface-treatment aggregate	41	136	3.32
Railroad ballast	W	W	9.37
Other graded coarse aggregate	13	90	6.92
Fine aggregate (-3/8 inch):			
Stone sand, bituminous mix or seal	2	7	3.50
Coarse and fine aggregates:			
Graded road base or subbase	2,580	10,252	3.97
Unpaved road surfacing	84	340	4.05
Terrazzo and exposed aggregates	50	115	2.30
Crusher run or fill or waste	304	1,368	4.50
Other coarse and fine aggregates	36	128	3.56
Other construction materials	175	925	5.29
Roofing granules	(2)	(2)	5.53
Agricultural:			
Agricultural limestone	(3)	(3)	16.53
Poultry grit and mineral food	6	19	3.17
Other agricultural uses	16	54	3.38
Chemical and metallurgical:			
Cement manufacture	(3)	(3)	3.95
Flux stone	(2)	(2)	3.20
Sulfur oxide removal	(2)	2	3.30
Special:			
Mine dusting or acid water treatment	(2)	(2)	3.43
Other fillers or extenders	9	115	12.78
Other specified uses not listed	308	1,345	4.37
Unspecified:[4]			
Actual	215	498	2.32
Estimated	425	4,184	9.84
Total[5]	4,602	20,770	4.51
Total[6 7]	5,073	20,770	4.09

W Withheld to avoid disclosing company proprietary data; included with "Other construction materials."
[1]Includes granite, limestone, miscellaneous stone, quartzite, shell, traprock, and volcanic cinder and scoria.
[2]Less than 1/2 unit.
[3]Withheld to avoid disclosing company proprietary data; included with "Other specified uses not listed."
[4]Includes production reported without a breakdown by use and estimates for nonrespondents.
[5]Data may not add to totals shown because of independent rounding.
[6]One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.
[7]Total shown in thousand short tons and thousand dollars.

TABLE 3

IDAHO: CRUSHED STONE SOLD OR USED, BY KIND

Kind	1991				1993			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	r10	r704	r$3,120	r$4.43	6	316	$1,426	$4.51
Shell	2	48	200	4.17	2	W	W	4.83
Granite	r7	r359	r1,865	r5.19	6	382	1,834	4.80
Traprock	r20	r1,013	r4,161	r4.11	38	2,845	10,866	3.82
Volcanic cinder and scoria	2	W	W	4.64	1	W	W	5.11
Miscellaneous stone	2	W	W	1.36	7	418	1,590	3.80
Total[1]	XX	r2,701	r12,614	r4.67	XX	4,602	20,770	4.51
Total[2 3]	XX	r2,977	r12,614	r4.24	XX	5,073	20,770	4.09

rRevised. W Withheld to avoid disclosing company proprietary data; included with "Total." XX Not applicable.
[1]Data may not add to totals shown because of independent rounding.
[2]One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.
[3]Total shown in thousand short tons and thousand dollars.