

Studies on Idaho's Geology and Minerals Released by the U.S. Bureau of Mines and the U.S. Geological Survey for 1980

Susan Buckle

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Idaho Geological Survey
University of Idaho
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by
Susan Buckle¹

The federal agencies studying the geology and minerals of Idaho
are the U. S. Bureau of Mines and the U. S. Geological Survey.

U. S. Bureau of Mines' publications can be obtained from:

Section of Publications
Bureau of Mines
U. S. Department of the Interior
4800 Forbes Avenue
Pittsburg, PA 15213

U. S. Geological Survey's publications, other than Open-File Reports,
can be obtained from:

Branch of Distribution
U. S. Geological Survey
1200 South Eads Street
Arlington, VA 22202

U. S. Geological Survey's Open-File Reports can be obtained from:

Open-File Services Section
Branch of Distribution
U. S. Geological Survey
Box 25425, Federal Center
Denver, CO 80225

The publications and reports of these two agencies for 1980 are
listed as follows:

¹Bureau of Mines and Geology, Moscow, Idaho 83843.

U. S. BUREAU OF MINES

REPORTS OF INVESTIGATIONS

RI 8435. Shaft design in the Coeur d'Alene mining district, Idaho--results of in situ stress and physical property measurements, by M. J. Beus and S. S. M. Chan. 1980. 39 p. 19 figs.

PREPRINT

The Mineral Industry of Idaho, by D. W. Lockard and E. H. Bennett. 1980. 12 p. (This preprint is a chapter from the *Minerals Yearbook*, 1976.)

U. S. GEOLOGICAL SURVEY

BULLETINS

B 1482-E. The Lawson Creek Formation of middle Proterozoic age in east-central Idaho, by S. W. Hobbs. 1980. 12 p.

PROFESSIONAL PAPERS

P 1090. Ordovician and Silurian Phi Kappa and Trail Creek Formations, Pioneer Mountains, central Idaho--stratigraphic and structural revisions and new data on graptolite faunas, by J. H. Dover, W. B. N. Berry, and R. J. Ross, Jr. 1980. 54 p. 6 plates, 1 in pocket.

P 1110-AA. The Mississippian and Pennsylvanian (Carboniferous) Systems in the United States--Idaho, by Betty Skipp, W. J. Sando, and W. E. Hall. 1979. 42 p. (*Also see Idaho Bureau of Mines and Geology's Reprint 1.*)

P 1116. Geochemical-exploration studies in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1980. 63 p.
7 color plates in pocket.

P 1163-A. Transgression of the Retort Phosphatic Shale Member of the Phosphoria Formation (Permian) in Idaho, Montana, Utah, and Wyoming, by B. R. Wardlaw. 1979. 4 p.

P 1163-C. Stratigraphy of Park City Group equivalents in southern Idaho, northeastern Nevada, and northwestern Utah, by B. R. Wardlaw, J. W. Collinson, and E. K. Maughan. 1979. 7 p.

MAPS--MISCELLANEOUS INVESTIGATIONS SERIES

I-1093-A. Aeromagnetic map of the Coeur d'Alene district, Idaho and Montana, by the U. S. Geological Survey. 1979 (1980). Scale 1:62,500. Sheet 21 by 41 inches.

I-1093-B. General distribution of antimony and silver in rocks and soils of the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Scale 1:62,500. Sheet 36 by 41 inches.

I-1093-C. General distribution of arsenic in rocks and soils and sulfur in rocks in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Scale 1:62,500. Sheet 37 by 41 inches.

I-1093-D. General distribution of barium and mercury in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Scale 1:62,500. Sheet 37 by 41 inches.

I-1093-E. General distribution of copper and lead in rocks and soils in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Scale 1:62,500. Sheet 37 by 41 inches.

I-1093-F. General distribution of manganese in rocks and soils in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Scale 1:62,500. Sheet 21 by 41 inches.

I-1093-G. General distribution of nickel and boron in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Scale 1:62,500. Sheet 37 by 41 inches.

I-1093-H. General distribution of zinc and cadmium in rocks and soils in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Scale 1:62,500. Sheet 37 by 41 inches.

I-1093-I. Dispersion patterns in rocks formed by the ratio of Cd/Zn, Pb/Zn, and Cu/Pb in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Two sheets. Scale 1:62,500. Sheet 1, 37 by 41 inches; sheet 2, 21 by 41 inches.

I-1093-J. The sum of enrichments in rocks above the district median values for Cu, Sb, Ag, and S; Sb, Ag, and Mn; and Sb and Ag in the Coeur d'Alene district, Idaho and Montana, by G. B. Gott and J. B. Cathrall. 1979 (1980). Scale 1:62,500. Sheet 1, 37 by 41 inches; sheet 2, 21 by 41 inches.

I-1139. Reconnaissance geologic map of the Columbia River Basalt Group, Pullman and Walla Walla quadrangles, southeast Washington and adjacent Idaho, by D. A. Swanson, T. L. Wright, V. E. Camp, J. N. Gardner, R. T. Helz, S. M. Price, S. P. Reidel, and M. E. Ross. 1980. Two sheets. Scale 1:250,000. Sheet 1, 31 by 37 inches; sheet 2, 31 by 43 inches.

I-1216. Geologic map of the southern part of the Lower Red Rock Lake quadrangle, Beaverhead and Madison Counties, Montana, and Clark County, Idaho, by I. J. Witkind and H. J. Prostka. 1980. Scale 1:62,500. Sheet 26 by 38 inches.

MISCELLANEOUS FIELD STUDIES MAPS

MF-1192-B. Interpretation of an aerial radiometric and magnetic survey of the proposed Salmo-Priest study area (RARE E6-981 A1-981), Pend Oreille County, Washington and Boundary County, Idaho, by J. A. Pitkin and J. S. Duval. 1980. Four sheets. Scale 1:48,000. Sheet 1, 42 by 55 inches; sheets 2-4, 41 by 42 inches.

OPEN-FILE REPORTS

80-141. Geochemical exploration studies in the Dillon, Montana-Idaho, 1° by 2° quadrangle: Applications of exploration geochemistry in regional resource studies, by B. R. Berger. 29 p.

80-201. Winter water--the flooding at Boise, Idaho, January 11-12, 1979, by R. W. Harper and E. F. Hubbard. 1 over-size sheet.

80-370. Uranium in big sagebrush from western United States and evidence of possible mineralization in the Owyhee Mountains of Idaho, by J. A. Erdman and G. H. Harrach. 21 p.

80-388. An evaluation of potential volcanic hazards at the Radioactive Waste Management Complex, Idaho National Engineering Laboratory, Idaho, by M. A. Kuntz, G. B. Dalrymple, D. E. Champion, and D. J. Doherty. 68 p.

80-457. Interpretation of magnetic anomalies over southern Idaho using generalized multibody models, by B. K. Bhattacharyya and D. R. Mabey. 59 p.

80-475. Geological and Geophysical investigations and mineral resources potential of the proposed Great Rift Wilderness area, Idaho, by M. A. Kuntz, R. H. Lefebvre, D. E. Champion, L. A. McBroome, D. R. Mabey, W. D. Stanley, and H. R. Covington, U. S. Geological Survey, and James Ridenour and R. B. Stotelmeyer, U. S. Bureau of Mines. 54 p. 1 over-size sheet.

80-478. Leasable mineral and waterpower land classification map of the Wallace quadrangle, Idaho, Montana, compiled by A. F. Bateman, Jr., M. A. Baca, and J. L. Colbert. 1 over-size sheet, scale 1:250,000.

80-481. Leasable mineral and waterpower land classification map of the Dillon quadrangle, Montana, Idaho, compiled by A. F. Bateman, Jr., E. G. Allen, J. B. Dugwyler, Jr., and J. L. Colbert. 1 over-size sheet, scale 1:250,000.

80-483. Leasable mineral and waterpower land classification map of the Dubois quadrangle, Idaho, Montana, compiled by A. F. Bateman, Jr., E. G. Allen, J. B. Dugwyler, Jr., and J. L. Colbert. 1 over-size sheet, scale 1:250,000.

80-484. Leasable mineral and waterpower land classification map of the Ashton quadrangle, Idaho, Montana, Wyoming, compiled by A. F. Bateman, Jr., E. G. Allen, J. B. Dugwyler, Jr., and J. L. Colbert. 1 over-size sheet, scale 1:250,000.

80-518. Telluric profiles and location map for Vulcan Hot Springs Known Geothermal Resource Area, Idaho, by K. R. Christopherson, R. M. Senterfit, and Moutaz Dalati. 4 p.

80-563. Geothermal resources in the Banbury Hot Springs area, Twin Falls County, Idaho, by R. E. Lewis and H. W. Young. 41 p. 2 over-size sheets.

80-596. Ground-water quality in north Idaho, by D. J. Parlman, H. R. Seitz, and M. L. Jones. 39 p.

80-667. Depositional history and petroleum geology of the Permian Phosphoria, Park City, and Shedhorn Formations, Wyoming and southeastern Idaho, by J. A. Peterson. 51 p. 13 over-size sheets.

80-690. Sediment transport in the Snake and Clearwater Rivers in the vicinity of Lewiston, Idaho, by M. L. Jones and H. R. Seitz. 186 p.

80-904. Principal facts for gravity stations, Centennial Mountains Wilderness area, Idaho, by Vicki Bankey, Jody Paton, Tracy McBride, and M. D. Kleinkopf. 13 p.

80-915. Principal facts for gravity stations, Blue Joint, Magruder, and Meadow Creek Wilderness areas, Montana-Idaho, by Vicki Bankey, Mike Brickey, and M. D. Kleinkopf. 17 p.

80-921. Columbia River Basalt: 1978-1979 sample data and chemical analyses, by T. L. Wright, K. N. Black, D. A. Swanson, and Tim O'Hearn. 109 p.

80-922. Mineral resource potential of the Centennial Mountains Wilderness study area, Beaverhead County, Montana, and Clark and Fremont Counties, Idaho, by I. J. Witkind, R. A. Martin, and L. C. Huff, U. S. Geological Survey, and James Ridenour and M. D. Conyac, U. S. Bureau of Mines. 24 p. 2 over-size sheets, scale 1:50,000.

80-923. Preliminary geologic map of the Centennial Mountains Wilderness study area, Beaverhead County, Montana, and Clark and Fremont Counties, Idaho, by I. J. Witkind. 27 p. 1 over-size sheet, scale 1:50,000.

80-947. Aeromagnetic map of the Hells Canyon area, Idaho and Oregon. 1 over-size sheet, scale 1:125,000.

80-1020. Thermal springs in the Payette River basin, west-central Idaho, by R. E. Lewis and H. W. Young. 28 p. 2 over-size sheets.

80-1097. Stratigraphic sections of middle Paleozoic rocks in the vicinity of Spar Canyon, Custer County, Idaho, by W. H. Hays, A. G. Harris, J. T. Dutro, Jr., and R. J. Ross, Jr. 85 p.

80-1130. X-ray spectrometric major-element analyses of tephra samples from the May 18, 1980, eruption of Mount St. Helens--samples collected from Washington, Idaho, and Montana, by J. E. Taggart, Jr., J. S. Wahlberg, and H. E. Taylor. 14 p.

80-1241. Principal facts for gravity stations of part of the Selway-Bitterroot Wilderness, Idaho and Montana, by M. R. Brickey, Vicki Bankey, and M. D. Kleinkopf. 16 p.

80-2001. Temperatures, heat flow, and water chemistry from drill holes in the Raft River geothermal system, Cassia County, Idaho, by Manuel Nathenson, T. C. Urban, W. H. Diment, and N. L. Nehring. 30 p.

80-2006. Catalog of earthquakes in the Yellowstone Park-Hebgen Lake region from November 1972 to December 1975, by A. M. Pitt. 32 p.

ADDENDA TO IBMG OPEN-FILE REPORT 81-4

The following studies on Idaho's geology and minerals for 1980 were released by the U. S. Bureau of Mines and the U. S. Geological Survey after IBMG Open-File Report 81-4 went to press in May 1981.

U. S. BUREAU OF MINES

MINERAL INDUSTRY SURVEY

The Mineral Industry of Idaho in 1980 (Annual, Preliminary), 2 p.

U. S. GEOLOGICAL SURVEY

BULLETIN

B 1496. Large and rich phosphorus resources in the Phosphoria Formation in the Soda Springs area, southeastern Idaho, by R. A. Gulbrandsen and D. J. Krier, 1980, 25 p.

MISCELLANEOUS FIELD STUDIES MAP

MF-1259. Geologic map of the south half of the Ammon quadrangle, Bingham and Bonneville Counties, Idaho, by R. W. Allmendinger, 1980, scale 1:24,000, sheet 29 by 47 inches.

MISCELLANEOUS INVESTIGATIONS SERIES (MAP)

I-1127. Geologic map of the Preston 1° x 2° quadrangle, southeastern Idaho and western Wyoming, by S. S. Oriel and L. B. Platt, 1980, scale 1:250,000, sheet 32 by 39 inches.

OPEN-FILE REPORTS

OF 80-1290. Selected administrative, land, and resource data for Known Geothermal Resource Areas in Arizona, California, Idaho, Nevada, Oregon, and Washington, by H. E. Burkhardt, C. A. Brook, and F. W. Smith, 29 p.

OPEN-FILE REPORTS (continued)

OF-1294. Activities in Idaho: Status of projects, fiscal year 1980, by L. K. Channel, 41 p.

OF-80-1300. Digital model simulation of the hydrologic flow system, with emphasis on ground water in Spokane Valley, Washington and Idaho, by E. L. Bolke and J. J. Vacaro, 52 p.

OF 80-2041. Surface-water data for Idaho, 1971-75, by S. C. Cordes, 786 p., 1 over-size sheet.

OF-2043. Hydrology and geochemistry of thermal ground water in southwestern Idaho and north-central Nevada, by H. W. Young and R. E. Lewis, 45 p., 2 over-size sheets.

SPECIAL PUBLICATION

SP 2-81. Federal land status in the Overthrust Belt of Idaho, Montana, Utah, and Wyoming, 1979, by O. L. Schumacher, A. W. Berg, F. V. Carrilo, R. A. Pense, and R. B. Davis, 1980, 22 p.