**Additions And Corrections To The
Bibliography Of Geologic Studies,
Columbia Plateau (Columbia River
Basalt) And Adjacent Areas
In Idaho, 1980**

William Strowd

Prepared for the United States
Department of Energy
Under Contract DE-AC06-77RL01030

Rockwell International

Rockwell Hanford Operations
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ADDITIONS AND CORRECTIONS TO
THE BIBLIOGRAPHY OF GEOLOGIC
STUDIES, COLUMBIA PLATEAU
(COLUMBIA RIVER BASALT) AND
ADJACENT AREAS IN IDAHO, 1980

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INTRODUCTION

This bibliography is an update to Idaho Bureau of Mines and Geology Open-File Report 78-6, "Bibliography of Geologic Studies, Columbia Plateau (Columbia River Basalt Group) and Adjacent Areas in Idaho" (also known as Rockwell Hanford Operations' contractor report RHO-BWI-C-44). To keep the original document current, this additions and corrections report was prepared for the Basalt Waste Isolation Project of Rockwell Hanford Operations, a prime contractor to the U. S. Department of Energy under contract number DE-AC06-77RL01030.

This update is supplementary; therefore, references cited in the original document have not been included here. What is included are materials that have become available since the original publication and pertinent literature that had originally been overlooked. Accompanying this updated bibliography are index maps that show locations of geologic studies and geochemical, petrographic, remanent paleomagnetic, and radiometric age-dated sites within the Columbia River Basalt Group field within Idaho; also identified are archeological sites, test wells, mines, quarries, and other types of excavations. References on the index maps are keyed to the bibliography and cover the Spokane, Pullman, Hamilton, Grangeville, Elk City, Baker, Boise, and Jordan Valley Army Map Service two-degree quadrangles.

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PART II: SUBJECT INDEX

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Corrections to Bibliography (1978)

Subject index title on pages ii and 121 "Post-basalt Stratigraphy" should read "Basalt Laboratory Studies" and subject index title on pages ii and 125 "Basalt Laboratory Studies" should read "Post-basalt Stratigraphy".

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EXPLANATION

Map Number	Bibliography Page Number	Reference and Map Scale ¹
1	6	Bishop, D. T., 1969, Stratigraphy and distribution of basalt, Benewah County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 140, 20 p., includes geologic map, scale 1:125,000.
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7	71	U. S. Geological Survey, 1973, Aeromagnetic map of parts of the Spokane and Wallace 1° x 2° quadrangles, Idaho: U. S. Geological Survey Open-File Report, 1 sheet, scale 1:250,000.
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¹Some map scales are not available.
²Covers entire map area.
³Data only, no map.
⁴Addition to bibliography.

Base by U. S. Geological Survey, 1965.
Geology modified from Bond (1978).

INDEX MAP OF GEOLOGIC STUDIES OF COLUMBIA RIVER BASALT IN THE SPOKANE QUADRANGLE, IDAHO

Compiled by
Mary P. Gaston (1979)

Updated by
Gail S. Hustedde
and
William Strowd (1980)

The map shows the areas and scales of geologic mapping, the localities where specific geologic data have been collected, the areas covered by geophysical surveys, and the locations of oil and gas wells, mineral occurrences, and quarries in the basalt.

SYMBOLS

- + Chemical analysis
- Petrographic analysis
- ⊗ Both chemical analysis and petrographic analysis
- × Paleomagnetic analysis
- Chemical, petrographic, and paleomagnetic analyses
- ◇ Radiometric date
- Measured stratigraphic section
- ⌵ Quarry or excavation in the basalt
- ◇ Location of oil or gas well
- △ Mineral occurrence
- ▭ Area underlain by Columbia River basalt

The *Index Map of Geologic Studies* was prepared by the Idaho Bureau of Mines and Geology for the Rockwell Hanford Operations in Richland, Washington, a prime contractor to the U. S. Department of Energy, under contract number DE-AC06-77RLO1030. The map was compiled to accompany the Idaho Bureau of Mines and Geology's Open-File Report 78-6 (RHO-BWI-C-44), *Bibliography of Geologic Studies, Columbia Plateau (Columbia River Basalt) and Adjacent Areas in Idaho* by William Strowd.

1965 magnetic declination from true north varies from 21°00' easterly for the center of the west edge to 20°30' easterly for the center of the east edge.

EXPLANATION

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15	40	Lynch, M. B., 1978. Remnant paleomagnetism in the Miocene basalts of north Idaho: University of Idaho, M.S. thesis, 150 p., 4 pls.
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17	53	Reidel, S. R., 1978. The stratigraphy and petrogenesis of the Grande Ronde Basalt in the lower Salmon and adjacent Snake River Canyons: Washington State University, Ph.D. dissertation, 415 p.
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²Covers entire map area.
³Data only, no map.
⁴Correction to bibliography.
⁵Locations only approximate.
⁶Addition to bibliography.

SYMBOLS

- + Chemical analysis
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- ⊗ Both chemical analysis and petrographic analysis
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- Chemical, petrographic, and paleomagnetic analyses
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- ✕ Quarry or excavation in the basalt
- ◇ Location of oil or gas well
- △ Mineral occurrence
- ▭ Area underlain by Columbia River basalt

INDEX MAP OF GEOLOGIC STUDIES OF COLUMBIA RIVER BASALT
IN THE PULLMAN QUADRANGLE, IDAHO

Compiled by
Mary P. Gaston (1979)

Updated by
Gail S. Hustedde
and
William Strowd (1980)

The map shows the areas and scales of geologic mapping, the localities where specific geologic data have been collected, the areas covered by geophysical surveys, and the locations of oil and gas wells, mineral occurrences, and quarries in the basalt.

The Index Map of Geologic Studies was prepared by the Idaho Bureau of Mines and Geology for the Rockwell Hanford Operations in Richland, Washington, a prime contractor to the U. S. Department of Energy, under contract number DE-AC06-77RLO1030. The map was compiled to accompany the Idaho Bureau of Mines and Geology's Open-File Report 78-6 (RHO-BWI-C-44), Bibliography of Geologic Studies, Columbia Plateau (Columbia River Basalt) and Adjacent Areas in Idaho by William Strowd.

1970 magnetic declination from true north varies from 20°15' easterly for the center of the west edge to 20°00' easterly for the center of the east edge.

Base by U. S. Geological Survey, 1963.
Geology modified from Bond (1978).

EXPLANATION

Map Number	Bibliography Page Number	Reference and Map Scale ¹
2	1	Anderson, A. L., 1930, Geology and mineral resources of the region about Orofino, Idaho: Idaho Bureau of Mines and Geology Pamphlet 34, 63 p., includes geologic map, scale 1:40,000.
1	6	Bond, J. G., 1963, Geology of the Clearwater Embayment: Idaho Bureau of Mines and Geology Pamphlet 128, 83 p., includes geologic map, scale 1:250,000.
2	7	Bond, J. G., 1978, Geologic map of Idaho: Idaho Bureau of Mines and Geology, scale 1:500,000.
2	26	Hietanen, A. M., 1962, Metasomatic metamorphism in western Clearwater County, Idaho: U. S. Geological Survey Professional Paper 344-A, 116 p., includes geologic map, scale 1:48,000.
2	46	Newcomb, R. C., 1970, Tectonic structure of the main part of the basalt of the Columbia River Group, Washington, Oregon, and Idaho: U. S. Geological Survey Miscellaneous Geologic Inventory Map I-587, scale 1:500,000.
2	80	Zietz, Isadore and others, 1971, Interpretation of an aeromagnetic strip across the northwestern United States: Geological Society of America Bulletin, v. 82, no. 12, pt. 3, p. 3347-3372, includes an aeromagnetic map, scale 1:2,500,000.
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¹ Some map scales are not available.
Covers entire map area.
Addition to bibliography.

Additional References (1980)

Map Number	Reference and Map Scale ¹
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1965 magnetic declination from true north varies from 20° 00' easterly for the center of the west edge to 19° 45' easterly for the center of the east edge.

Base by U. S. Geological Survey, 1970.
Geology modified from Bond (1978).

INDEX MAP OF GEOLOGIC STUDIES OF COLUMBIA RIVER BASALT IN THE HAMILTON QUADRANGLE, IDAHO

The *Index Map of Geologic Studies* was prepared by the Idaho Bureau of Mines and Geology for the Rockwell Hanford Operations in Richland, Washington, a prime contractor to the U. S. Department of Energy, under contract number DE-AC06-77RLO1030. The map was compiled to accompany the Idaho Bureau of Mines and Geology's Open-File Report 78-6 (RHO-BWI-C-44), *Bibliography of Geologic Studies, Columbia Plateau (Columbia River Basalt) and Adjacent Areas in Idaho* by William Strowd.

Compiled by
Mary P. Gaston (1979)

Updated by
Gail S. Hustedde
and
William Strowd (1980)

The map shows the areas and scales of geologic mapping, the localities where specific geologic data have been collected, the areas covered by geophysical surveys, and the locations of oil and gas wells, mineral occurrences, and quarries in the basalt.

SYMBOLS

- + Chemical analysis
- Petrographic analysis
- ⊕ Both chemical analysis and petrographic analysis
- × Paleomagnetic analysis
- ⊗ Chemical, petrographic, and paleomagnetic analyses
- ◇ Radiometric date
- Measured stratigraphic section
- ⚡ Quarry or excavation in the basalt
- ◇ Location of oil or gas well
- △ Mineral occurrence
- ▭ Area underlain by Columbia River basalt

1960 magnetic declination from true north varies from 19°45' easterly for the center of the west edge to 19°30' easterly for the center of the east edge.

SCALE 1:250,000
5 0 5 10 15 20 25 30 Statute Miles
5 0 5 10 15 20 25 30 Kilometers

Base by U. S. Geological Survey, 1964.
Geology modified from Bond (1978).

INDEX MAP OF GEOLOGIC STUDIES OF COLUMBIA RIVER BASALT IN THE GRANGEVILLE QUADRANGLE, IDAHO

The *Index Map of Geologic Studies* was prepared by the Idaho Bureau of Mines and Geology for the Rockwell Hanford Operations in Richland, Washington, a prime contractor to the U. S. Department of Energy, under contract number DE-AC06-77RLO1030. The map was compiled to accompany the Idaho Bureau of Mines and Geology's Open-File Report 78-6 (RHO-BWI-C-44), *Bibliography of Geologic Studies, Columbia Plateau (Columbia River Basalt) and Adjacent Areas in Idaho* by William Strowd.

Compiled by
Mary P. Gaston (1979)

Updated by
Gail S. Hustedde
and
William Strowd (1980)

The map shows the areas and scales of geologic mapping, the localities where specific geologic data have been collected, the areas covered by geophysical surveys, and the locations of oil and gas wells, mineral occurrences, and quarries in the basalt.

EXPLANATION

Map Number	Bibliography Page Number	Reference and Map Scale ¹
1	2	Bard, C.S., 1978, Mineralogy and chemistry of pyroxenes from the Imnaha and Lower Yakima basaltic of west-central Idaho: Washington State University, M.S. thesis.
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3	7	Bond, J. G., 1978, Geologic map of Idaho: Idaho Bureau of Mines and Geology, scale 1:500,000.
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4	8	Breiser, P. J., 1972, General geology and highway realignment considerations in the Pinehurst-New Meadows-Tamarack area, west-central Idaho: University of Idaho, M.S. thesis, 103 p., map, scale 1:63,360.
5	8	Brock, M. R. and J. J. Grolier, 1973, Chemical analyses of 305 basalt samples from the Columbia River Plateau, Washington, Oregon, and Idaho: U. S. Geological Survey Open-File Report, 35 p.
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33	73	Wagner, W. R., 1945, A geological reconnaissance between the Snake and Salmon Rivers north of Riggins, Idaho: Idaho Bureau of Mines and Geology Pamphlet 74, 16 p., includes index and geologic map, scale 1:170,000.
34	77	White, D. L., 1972a, The geology of the Pittsburg Landing-Big Canyon Creek area, Snake River Canyon, Idaho and Oregon: Indiana State University, M.S. thesis.
35	77	White, W. H., 1968, Plutonic rocks of the southern Seven Devils Mountains, Idaho: Oregon State University, Ph.D. dissertation, 208 p.
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3	2	Zietz, Isadore, F. P. Gilbert, and J. R. Kirby, Jr., 1978, Aeromagnetic map of Idaho, color coded intensities: U. S. Geological Survey Geophysical investigation Map GP-920, scale 1:1,000,000.

Additional References (1980)

Map Number	Reference and Map Scale ¹
39	Hooper, P. R. and V. E. Camp, Geologic map of the Putman quadrangle, Washington and Idaho: U. S. Geological Survey Open-File Report, in progress, scale 1:250,000.

¹Some map scales are not available.
²Addition to bibliography.
³Covers entire map area.
⁴Correction to bibliography.

SYMBOLS

- + Chemical analysis
- Petrographic analysis
- ⊗ Both chemical analysis and petrographic analysis
- × Paleomagnetic analysis
- ◇ Radiometric date
- Measured stratigraphic section
- ▲ Quarry or excavation in the basalt
- △ Mineral occurrence
- ▭ Area underlain by Columbia River basalt

EXPLANATION

Map Number	Bibliography Page Number	Reference and Map Scale ¹
1	1	Anderson, A. L., 1930, Geology and mineral resources of the region about Orofino, Idaho: Idaho Bureau of Mines and Geology Pamphlet 34, 63 p., includes geologic map, scale 1:40,000.
2	6	Bond, J. G., 1963, Geology of the Clearwater Embayment: Idaho Bureau of Mines and Geology Pamphlet 128, 83 p., includes geologic map, scale 1:250,000.
2	7	Bond, J. G., 1978, Geologic map of Idaho: Idaho Bureau of Mines and Geology, scale 1:500,000.
3	44	Myers, P. E., 1968, The geology of the Harpster quadrangle and vicinity, Idaho: University of Michigan, Ph.D. dissertation, 343 p., includes geologic map, scale 1:24,000.
2	46	Newcomb, R. C., 1970, Tectonic structure of the main part of the basalt of the Columbia River Group, Washington, Oregon, and Idaho: U. S. Geological Survey Miscellaneous Geologic Inventory Map I-587, scale 1:500,000.
4	80	Zietz, Isadore and others, 1971, Interpretation of an aeromagnetic strip across the northwestern United States: Geological Society of America Bulletin, v. 82, no. 12, pt. 3, p. 3347-3372, includes an aeromagnetic map, scale 1:2,500,000.
2	3	Zietz, Isadore, F. P. Gilbert, and J. R. Kirby, Jr., 1978, Aeromagnetic map of Idaho: color coded intensities: U. S. Geological Survey Geophysical Investigation Map GP-920, scale 1:1,000,000.

¹ Some map scales are not available.
² Covers entire map area.
³ Addition to bibliography.

Additional References (1980)

Map Number	Reference and Map Scale ¹
5	Knowles, C. R. and E. H. Bennett, 1978, Reconnaissance geology and geochemistry of the Gospel Peak-Buffalo Hump Wilderness area, Idaho County, Idaho: Idaho Bureau of Mines and Geology Open-File Report 78-5.
6	Kuhns, R. R. and B. Cox, 1974, Nezperce I, geologic survey for U.S.D.A. Nezperce National Forest Headquarters-Grangeville, Idaho.

1960 magnetic declination from true north varies from 19°30'00" easterly for the center of the west edge to 19°07'30" easterly for the center of the east edge

Base by U. S. Geological Survey, 1963.

Geology modified from Bond (1978).

INDEX MAP OF GEOLOGIC STUDIES OF COLUMBIA RIVER BASALT IN THE ELK CITY QUADRANGLE, IDAHO

The *Index Map of Geologic Studies* was prepared by the Idaho Bureau of Mines and Geology for the Rockwell Hanford Operations in Richland, Washington, a prime contractor to the U. S. Department of Energy, under contract number DE-AC06-77RLO1030. The map was compiled to accompany the Idaho Bureau of Mines and Geology's Open-File Report 78-6 (RHO-BWI-C-44), *Bibliography of Geologic Studies, Columbia Plateau (Columbia River Basalt) and Adjacent Areas in Idaho* by William Strowd.

Compiled by
Mary P. Gaston (1979)

Updated by
Gail S. Hustedde
and
William Strowd (1980)

The map shows the areas and scales of geologic mapping, the localities where specific geologic data have been collected, the areas covered by geophysical surveys, and the locations of oil and gas wells, mineral occurrences, and quarries in the basalt.

SYMBOLS

- + Chemical analysis
- Petrographic analysis
- ⊕ Both chemical analysis and petrographic analysis
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- △ Mineral occurrence
- ⌘ Area underlain by Columbia River basalt

EXPLANATION

Number	Page Number	Reference and Map Scale ¹
1	3	Armstrong, R. L. 1975a. The geochronometry of Idaho (Part I): Isochron/West, no. 14, p. 1-50, including sketch maps.
2	7	Bond, J. G. 1978. Geologic map of Idaho. Idaho Bureau of Mines and Geology, scale 1:500,000.
2	8	Breiser, P. J. 1972. Geologic and highway realignment considerations in the Pinehurst-New Meadows-Tamarack area, west-central Idaho. University of Idaho, M.S. thesis, 103 p., map, scale 1:63,360.
3	8	Brock, M. R. and J. J. Grolier, 1973. Chemical analyses of 305 basalt samples from the Columbia River Plateau, Washington, Oregon, and Idaho: U. S. Geological Survey Open-File Report 35 p.
2	3	Geodata International, Inc. 1978. Aerial radiometric and magnetic survey, Baker national topographic map, Idaho and Oregon: Geodata International, Inc., Dallas, Texas, v. 1, 53 p., appendices, v. 2, unpaginated, includes geologic map.
4	25	Henricksen, T. A. 1975. Geology and mineral deposits of the Mineral-Iron Mountain district, Washington County, Idaho, and of a metallized zone in western Idaho and eastern Oregon: Oregon State University, Ph.D. dissertation, 260 p.
5	29	Hoover, D. B., G. W. Brougham, and J. C. Clark, 1976. Station and traverse location map, audio-magnetotelluric data log, and telluric profiles for Crane Creek Geothermal Resources area, Idaho: Geological Survey Open-File Report 76-409.
6	32	Juras, D. S. 1973. Pre-Miocene geology of the northwest part of Olds Ferry quadrangle, Washington County, Idaho: University of Idaho, M.S. thesis, 82 p., maps, tables.
7	34	King, J. R. 1971. The geology of the southeastern Cuddy Mountain district (Mesozoic-Cenozoic), western Idaho: Oregon State University, M.S. thesis, 78 p.
8	39	Livingston, D. C. 1925. A geologic reconnaissance of the Mineral and Cuddy Mountain mining districts, Washington and Adams Counties, Idaho: Idaho Bureau of Mines and Geology Pamphlet 13, 24 p., 3 pls., scale 1:63,360.
9	39	Long, C. L., D. B. Hoover, and E. Bramsco, 1975. Audio-magnetotelluric apparent resistivity map, Weiser, Idaho-Vale, Oregon: U. S. Geological Survey Open-File Report 75-103, 7 pls., scale 1:250,000.
10	3	Mabey, D. R., D. L. Peterson, and C. W. Wilson, 1974. Preliminary gravity map of southern Idaho: U. S. Geological Survey Open-File Report 74-78, scale 1:500,000.
11	40	Mackin, J. H. 1963. Iron-ore deposits of the Iron Mountain district, Washington County, Idaho: U. S. Geological Survey Bulletin 982-E, p. 121-151, scale 1:6,000.
12	42	McIntyre, D. H. 1976b. Reconnaissance geologic map of the Weiser geothermal area, Washington County, Idaho: U. S. Geological Survey Map MF-745, scale 1:62,500.
13	43	Miller, P. J. 1975. Geology and scenery of the Snake River in the Idaho-Oregon border from Brownlee Dam to Hells Canyon Dam: Idaho Bureau of Mines and Geology Information Circular 28, 20 p., includes stratigraphic column and geologic map, scale 1:250,000.
2	46	Newcomb, R. C. 1970. Tectonic structure of the main part of the basalt of the Columbia River Group, Washington, Oregon, and Idaho: U. S. Geological Survey Miscellaneous Geologic Inventory Map I-587, scale 1:500,000.
14	46	Newton, V. C. and R. E. Corcoran, 1963. Petroleum geology of the western Snake River basin, Oregon-Idaho: Oregon Department of Geology and Mineral Industries. Oil and Gas Investigation No. 1, 67 p., includes geologic map, scale 1:250,000.
15	48	Palmer, I. F. 1963. Geology of the Council Mountain area, Adams County, Idaho: University of Idaho, M.S. thesis, 54 p.
16	48	Paris, Gabriel, 1969. Geology of the east-central part of Mineral quadrangle, Washington County, Idaho: University of Idaho, M.S. thesis, 106 p., includes maps.
17	57	Savage, C. N. 1961b. Geology and mineral resources of Gem and Payette Counties: Idaho Bureau of Mines and Geology County Report 4, 50 p., 13 figs., map.
18	58	Schmidt, D. L. and J. H. Mackin, 1970. Quaternary geology of Long and Bear Valleys, west-central Idaho: U. S. Geological Survey Bulletin 1311-A, 22 p., includes geologic map, scale 1:62,500.
19	61	Skurla, S. J. 1974. Geology of the Sturgill Peak area, Washington County, Idaho: Oregon State University, M.S. thesis, 99 p., maps, tables.
20	61	Slater, M. N. 1969. Geology and mineral deposits of the western Cuddy district (Permian-Miocene), western Idaho: Oregon State University, M.S. thesis, 82 p.
21	61	Smiley, C. J., S. M. Shah, and R. W. Jones, 1975. Guidebook to the Tertiary stratigraphy and paleontology of the Weiser area, Idaho: Idaho Bureau of Mines and Geology Information Circular 28, 13 p., 2 figs., includes geologic map.
22	64	Stearns, H. T. and A. L. Anderson, 1966. Geology of the Oxbow on the Snake River near Homestead, Oregon: Idaho Bureau of Mines and Geology Pamphlet 136, 23 p., 10 figs., includes geologic map.
23	70	U. S. Geological Survey, 1962. A gravity survey of part of the Long Valley district, Idaho: U. S. Geological Survey Open-File Report.
24	70	U. S. Geological Survey, 1971a. Aeromagnetic map of southwestern Idaho: U. S. Geological Survey Open-File Report 71-290, scale 1:500,000.
25	71	U. S. Geological Survey, 1972a. Aeromagnetic map of parts of the Baker and Challis 1° x 2° quadrangles, Idaho: U. S. Geological Survey Open-File Report 72-384, 1 sheet, scale 1:250,000.
26	72	Vallier, T. L. 1974. A preliminary report on the geology of part of the Snake River Canyon, Oregon, and Idaho: Oregon Department of Geology and Mining Industry, Geologic Map Series 5, 7 p., scale 1:125,000.
27	74	Washburne, C. W. 1911. Gas and oil prospects near Vale, Oregon, and Payette, Idaho: U. S. Geological Survey Bulletin 431, p. 28-55.
28	79	Wracher, D. A. 1969b. The geology and mineralization of the Peck Mountain area (Permian-Miocene) Horner quadrangle, Idaho: Oregon State University, M.S. thesis, 98 p.
29	3	Wright, T. L., D. H. Swanson, R. T. Helz, and G. R. Byerly, 1979. Major oxide, trace element, and glass chemistry of Columbia River basalt samples collected between 1971 and 1977: U. S. Geological Survey Open-File Report 79-111, 160 p.
2	3	Zietz, Isidore, F. P. Gilbert, and J. R. Kirby, Jr., 1978. Aeromagnetic map of Idaho: color coded intensities: U. S. Geological Survey Geophysical Investigation Map GP-920, scale 1:1,000,000.
30	19	Fankhouser, R. E. 1966. Geology and mineralization of the southern Cuddy Mountains, Washington County, Idaho: Oregon State University, M.S. thesis, 126 p.
31	42	McIntyre, D. H. 1976a. Photogeologic map of the Cambridge quadrangle and western half of the Council quadrangle, western Idaho: U. S. Geological Survey Open-File Report 76-857, scale 1:62,500.

Additional References (1980)

Map Number	Reference and Map Scale ¹
32	Marjanemi, D. K., W. E. Curry, and J. W. Robins, 1978. Uranium favorability of Cenozoic sedimentary rocks of the western Snake River basin, Idaho. Doc. no. GJBX-57(76). Bendix Field Engineering Corporation, Spokane, Washington, 65 p., includes geologic map, well locations and structure cross section; Addendum, Doc. no. GJBX-57(76)a, 64 p.
33	Hoover, L. Geology of the Cambridge-Tamarack area, Idaho: manuscript map (No date).
34	Malde, H. E. and H. A. Powers, 1962. Upper Cenozoic stratigraphy of western Snake River Plain, Idaho: Geological Society of America Bulletin, v. 73, no. 10, p. 1197-1220.

¹Some map scales are not available.
²Covers entire map area.
³Addition to bibliography.

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- ▭ Area underlain by Columbia River basalt

1960 magnetic declination from true north varies from 19°15' easterly for the center of the west edge to 19°00' easterly for the center of the east edge.

SCALE 1:250,000

Base by U. S. Geological Survey, 1964.
Geology modified from Bond (1978).

INDEX MAP OF GEOLOGIC STUDIES OF COLUMBIA RIVER BASALT IN THE BAKER QUADRANGLE, IDAHO

Compiled by
Mary P. Gaston (1979)

Updated by
Gail S. Hustedde
and
William Strowd (1980)

The map shows the areas and scales of geologic mapping, the localities where specific geologic data have been collected, the areas covered by geophysical surveys, and the locations of oil and gas wells, mineral occurrences, and quarries in the basalt.

The *Index Map of Geologic Studies* was prepared by the Idaho Bureau of Mines and Geology for the Rockwell Hanford Operations in Richland, Washington, a prime contractor to the U. S. Department of Energy, under contract number DE-AC06-77RLO1030. The map was compiled to accompany the Idaho Bureau of Mines and Geology's Open-File Report 78-6 (RHO-BWI-C-44), *Bibliography of Geologic Studies, Columbia Plateau (Columbia River Basalt) and Adjacent Areas in Idaho* by William Strowd.

EXPLANATION

Map Number	Bibliography Page Number	Reference and Map Scale ¹
1	3	Asher, R. R., 1968a, Geology and mineral resources of a portion of the Silver City region, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 138, 106 p., including geologic map, scale 1:48,000.
2	2	Baldwin, H. L., Jr. and D. P. Hill, 1960, Gravity survey in part of the Snake River Plain, Idaho—a preliminary report: U. S. Geological Survey Open-File Report, figure 2, scale 1:125,000.
3	5	Bennett, E. H., II and J. H. Galbraith, 1975, Reconnaissance geology and geochemistry of the Silver City-South Mountain region, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 162, 88 p., including geologic map, scale 1:62,500.
3	7	Bond, J. G., 1978, Geologic map of Idaho: Idaho Bureau of Mines and Geology, scale 1:500,000.
4	18	Ekren, E. B., D. H. McIntyre, and E. H. Bennett, 1978, Preliminary geologic map of the west half of Owyhee County, Idaho: U. S. Geological Survey Open-File Report 78-341, 14 p., 1 pl., scale 1:125,000.
5	39	Long, C. L., D. B. Hoover, and E. Bramsoe, 1975, Audiomagnetotelluric apparent resistivity map, Weiser, Idaho-Vale, Oregon: U. S. Geological Survey Open-File Report 75-103, 7 pls., scale 1:250,000.
3	2	Mabey, D. R., D. L. Peterson, and C. W. Wilson, 1974, Preliminary gravity map of southern Idaho: U. S. Geological Survey Open-File Report 74-78, scale 1:500,000.
6	42	McIntyre, D. H., 1972, Cenozoic geology of the Reynolds Creek watershed, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 151, 115 p., geologic map, scale 1:82,300.
3	46	Newcomb, R. C., 1970, Tectonic structure of the main part of the basalt of the Columbia River Group, Washington, Oregon, and Idaho: U. S. Geological Survey Miscellaneous Geologic Inventory Map 1-587, scale 1:500,000.
7	46	Newton, V. C. and R. E. Corcoran, 1963, Petroleum geology of the western Snake River basin, Oregon-Idaho: Oregon Department of Geology and Mineral Industries, Oil and Gas Investigation No. 1, 67 p., includes geologic map, scale 1:250,000.
8	48	Pansze, A. J., Jr., 1975, Geology and ore deposits of the Silver City-DeLamar-Flint region, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 161, 80 p., includes geologic map, scale 1:8,000.
9	56	Savage, C. N., 1958, Geology and mineral resources of Ada and Canyon Counties: Idaho Bureau of Mines and Geology County Report 3, 94 p., 27 figs., map.
10	57	Savage, C. N., 1961b, Geology and mineral resources of Gem and Payette Counties: Idaho Bureau of Mines and Geology County Report 4, 50 p., 13 figs., map.
11	71	U. S. Geological Survey, 1971a, Aeromagnetic map of southwestern Idaho: U. S. Geological Survey Open-File Report 71-290, scale 1:500,000.
3	2	Zietz, Isidore, F. P. Gilbert, and J. R. Kirby, Jr., 1978, Aeromagnetic map of Idaho: color coded intensities: U. S. Geological Survey Geophysical Investigation Map GP-920, scale 1:1,000,000.

Additional References (1980)

Map Number	Reference and Map Scale ¹
12	Marjanem, D. K., W. E. Curry, and J. W. Robins, 1976, Uranium favorability of Cenozoic sedimentary rocks of the western Snake River basin, Idaho: Doc. no. GJBX-57(76), Bendix Field Engineering Corporation, Spokane, Washington, 65 p., includes geologic map, well locations and structure cross section; Addendum, Doc. no. GJBX-57(76)a, 64 p.
13	Littleton, R. T. and E. G. Crosthwaite, 1957, Groundwater geology of the Bruneau-Grandview area, Owyhee County, Idaho: U. S. Geological Survey Water-Supply Paper 1460-D.
3	Malde, H. E. and H. A. Powers, 1962, Upper Cenozoic stratigraphy of western Snake River Plain, Idaho: Geological Society of America Bulletin, v. 73, no. 10, p. 1197-1220.
14	Peebles, J. J., 1962, Engineering geology of the Cartwright Canyon quadrangle, Idaho: Idaho Bureau of Mines and Geology Pamphlet 127, 69 p., includes geologic and engineering geologic maps.

¹Some map scales are not available.
²Addition to bibliography.
³Covers entire map area.

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- △ Mineral occurrence
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1975 magnetic declination from true north varies from 18°15' easterly for the center of the west edge to 18°00' easterly for the center of the east edge.

SCALE 1:250,000

Base by U. S. Geological Survey, 1962.

Geology modified from Bond (1978).

INDEX MAP OF GEOLOGIC STUDIES OF COLUMBIA RIVER BASALT IN THE BOISE QUADRANGLE, IDAHO

The *Index Map of Geologic Studies* was prepared by the Idaho Bureau of Mines and Geology for the Rockwell Hanford Operations in Richland, Washington, a prime contractor to the U. S. Department of Energy, under contract number DE-AC06-77RLO1030. The map was compiled to accompany the Idaho Bureau of Mines and Geology's Open-File Report 78-6 (RHO-BWI-C-44), *Bibliography of Geologic Studies, Columbia Plateau (Columbia River Basalt) and Adjacent Areas in Idaho* by William Strowd.

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The map shows the areas and scales of geologic mapping, the localities where specific geologic data have been collected, the areas covered by geophysical surveys, and the locations of oil and gas wells, mineral occurrences, and quarries in the basalt.

POCKET PART 8 of 8 to RHO-BWI-C-68

EXPLANATION

Map Number	Bibliography Page Number	Reference and Map Scale ¹
1	5	Bennett, E. H., II, 1976, Reconnaissance geology and geochemistry of the South Mountain-Juniper Mountain region, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 166, 68 p., including geologic map, scale 1:55,000.
2	5	Bennett, E. H., II and J. H. Galbraith, 1975, Reconnaissance geology and geochemistry of the Silver City-South Mountain region, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 162, 88 p., including geologic map, scale 1:62,500.
2	7	Bond, J. G., 1978, Geologic map of Idaho: Idaho Bureau of Mines and Geology, scale 1:500,000.
3	18	Ekren, E. B., D. H. McIntyre, and E. H. Bennett, 1978, Preliminary geologic map of the west half of Owyhee County, Idaho: U. S. Geological Survey Open-File Report 78-341, 14 p., 1 pl., scale 1:125,000.
2	3	Mabey, D. R., D. L. Peterson, and C. W. Wilson, 1974, Preliminary gravity map of southern Idaho: U. S. Geological Survey Open-File Report 74-78, scale 1:500,000.
4	3	Neill, W. M., 1975, Geology of the southeastern Owyhee Mountains and environs, Owyhee County, Idaho: Stanford University, M.S. thesis, includes geologic map, scale 1:125,000.
2	46	Newcomb, R. C., 1970, Tectonic structure of the main part of the basalt of the Columbia River Group, Washington, Oregon, and Idaho: U. S. Geological Survey Miscellaneous Geologic Inventory Map I-587, scale 1:500,000.
5	48	Pansze, A. J., Jr., 1972, K/Ar ages of plutonism, volcanism, and mineralization, Silver City region, Owyhee County, Idaho: Isochron/West, no. 4, p. 1-4.
6	48	Pansze, A. J., Jr., 1975, Geology and ore deposits of the Silver City-Delamar-Flint region, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 161, 80 p., includes geologic map, scale 1:8,000.
7	62	Sorenson, R. E., 1927, The geology and ore deposits of the South Mountain mining district, Owyhee County, Idaho: Idaho Bureau of Mines and Geology Pamphlet 22, 47 p., 5 pls., scale 1:78,125.
8	71	U. S. Geological Survey, 1971a, Aeromagnetic map of southwestern Idaho: U. S. Geological Survey Open-File Report 71-290, scale 1:500,000.
2	3	Zietz, Isidore, F. P. Gilbert, and J. R. Kirby, Jr., 1978, Aeromagnetic map of Idaho: color coded intensities: U. S. Geological Survey Geophysical Investigation Map GP-920, scale 1:1,000,000.

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9	Marjanemi, D. K., W. E. Curry, and J. W. Robins, 1976, Uranium favorability of Cenozoic sedimentary rocks of the western Snake River basin, Idaho: Doc. no. GJBX-57761, Bendix Field Engineering Corporation, Spokane, Washington, 68 p., includes geologic map, well locations, and structure cross section; Addendum Doc. no. GJBX-57761a, 64p.
10	Littleton, R. T., and E. G. Crestmeyer, 1957, Groundwater geology of the Bureau-Grandview area, Owyhee County, Idaho: U. S. Geological Survey Water Supply Paper 1460-D.
2	Malde, H. E., and H. A. Powers, 1962, Upper Cenozoic stratigraphy of western Snake River Plain, Idaho: Geological Society of America Bulletin, v. 73, no. 10, p. 1161-1229.

1970 magnetic declination from true north varies from 18°15' easterly for the center of the west edge to 18°00' easterly for the center of the east edge.

SCALE 1:250,000

Base by U. S. Geological Survey, 1973.
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INDEX MAP OF GEOLOGIC STUDIES OF COLUMBIA RIVER BASALT IN THE JORDAN VALLEY QUADRANGLE, IDAHO

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