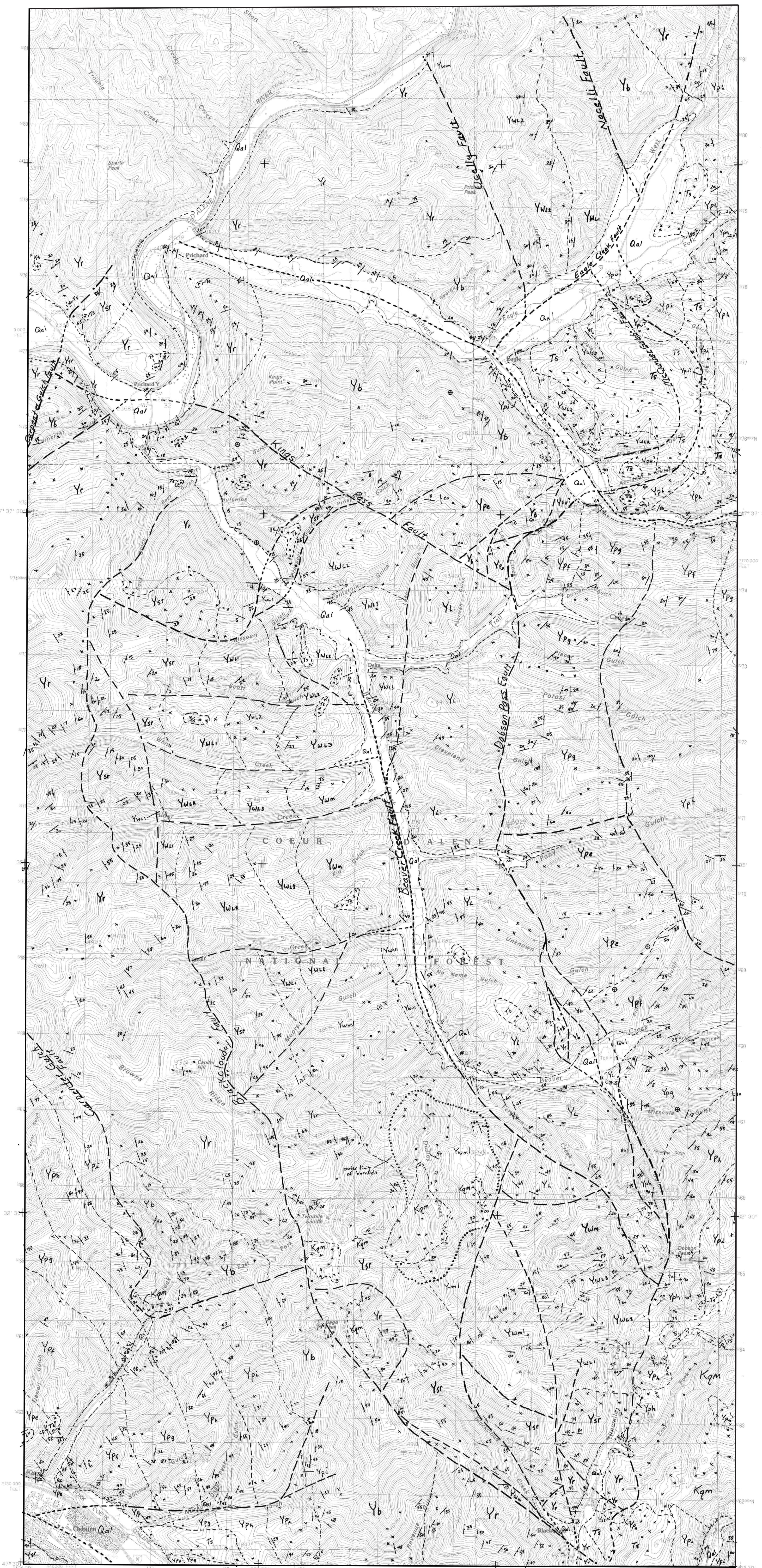


GEOLOGIC MAP OF THE OSBURN AND SOUTHERN PRICHARD QUADRANGLES, SHOSHONE COUNTY, IDAHO

James L. Browne (deceased)

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INTRODUCTION

Geologic mapping presented here was conducted by Jim Browne of Coeur d'Alene, Idaho starting about 2012 and continuing until about 2016. Most of the linework and all the attitudes were from a mylar obtained by the Idaho Geological Survey from his family after his death in 2019. Additional linework was added by Reed S. Lewis of the Idaho Geological Survey based on a hand-colored paper map Jim made that post-dated the drafting on the mylar. Unit descriptions below are based on his previous work in the quadrangles to the west (Browne, 2017a, 2017b) and should only be considered approximate characterizations of individual map units. Starting in the late 1990s and continuing for the next two decades, Jim produced a total of 18 1:24,000 scale geologic maps for the Idaho Geological Survey, all after retirement from the mining industry and without compensation. They represent the most detailed work done to date for the area from Coeur d'Alene Lake northeast to Lake Pend Oreille and east to Murray.

DESCRIPTION OF MAP UNITS

Quaternary	Qal	Alluvium — Recently deposited silt, sand, cobbles, and boulders in stream and river valleys.
Tertiary	Ts	Sediments — Tan to red and orange silt, sand, cobbles and boulders filling Tertiary stream and river valleys. Composed of material derived from weathering of surrounding Belt metasediments.
Cretaceous	Kqm	Quartz monzonite — Monzonitic and syenitic rock with a wide compositional and textural range.

- Middle Proterozoic Belt Supergroup
- | | |
|-----------------------------------|---|
| Y_L | Libby Formation —Not present in adjoining quadrangles to the west so no description available. Likely dark-gray argillite and lighter siltite that coarsens upward into siltite and quartzite based on regional exposures. Includes chert, limey layers, and stromatolites. |
| Y_{wu}₁ | Wallace Formation, upper member 1 —Dark olive green to dark gray and black argillite, laminated to very thin bedded, with light gray to gray siltite and very fine-grained quartzite. Little carbonate-bearing siltite. |
| Y_{wlm} | Wallace Formation, lower and middle members, undivided (Mesoproterozoic)— |
| Y_{wm} | Wallace Formation, middle member —Thin- to medium-bedded, gray to light gray and white quartzite, rusty-weathering dolomitic quartzite grading to quartzitic dolomite, green argillite and, especially in the lower part of the unit, black argillite caps up to 3 inches thick over the quartzite-dolomitic quartzite-green argillite sequences. Pinch-and-swell texture common. Black argillite caps display contorted cracks filled with sand and silt from overlying units. Green argillite more prevalent in upper part of unit. |
| Y_{wl}₃ | Lower Wallace unit 3 — Thin- to medium-bedded, light gray to gray quartzite, dolomitic quartzite grading to quartzitic dolomite, and abundant green argillite. Few thin black argillite caps. Dolomitic quartzite and quartzitic dolomite are dominant constituents. |
| Y_{wl}₂ | Lower Wallace unit 2 — Thin- to medium-bedded, light gray to gray quartzite and ocherous-weathering dolomitic quartzite, grading to ocherous-weathering quartzitic dolomite. Abundant and prominent black argillite caps. Minor green argillite. |
| Y_{wl}₁ | Lower Wallace unit 1 — Green argillite and carbonate-bearing argillite with thin- to medium-bedded, light gray to gray quartzite, and ocherous-weathering dolomitic quartzite grading to ocherous-weathering quartzitic dolomite. Green argillite is more abundant in lower one-third of unit, where it is thinly interlayered with ocherous-weathering dolomitic argillite and dolomite. Rare thin, black argillite caps. |
| Y_r | St. Regis Formation —Thin- to very thin-bedded green and purple argillite with gray to green siltite and gray to gray-green impure quartzite. Ocherous-weathering dolomitic argillite in upper one-quarter of formation with very thin beds of ocherous-weathering dolomite that becomes progressively more prominent toward the top of the formation. Upper contact placed at thin bed of distinctive waxy green argillite, peculiar to this interval, above which no purple argillite occurs. |
| Y_r | Revett Formation —Thin- to thick-bedded, gray to white and in some places gray-green vitreous to sub-vitreous quartzite with thin- to medium-bedded siltite and very thin to thin-bedded gray-green argillite in places. Quartzite is generally more vitreous and blockier and more resistant to weathering than quartzites of the underlying Burke Formation. |
| Y_b | Burke Formation —Thin- to thick-bedded, gray and dark gray to pale green siltite and sub-vitreous fine- to medium-grained quartzite commonly with interlayered gray-green argillite and argillitic siltite, especially in the lower one-third of the formation. A few beds in upper one-third to one-half of the formation may be vitreous and resemble Revett quartzites. Fine- to very fine disseminated to thin attenuated streaks of magnetite generally found throughout the formation, especially in the argillitic and silty strata. |
| Y_p | Prichard Formation, undivided —Small bodies of Prichard Formation within the quartz monzonite intrusion in the southeast part of map and along and near faults in the north-eastern part of map. |
| Y_{pi} | Prichard Formation, member I — Thin- to thick-bedded, fine- to medium-grained, white to tan and dark gray quartzite, gray to dark gray siltite, and laminated to very thin bedded light and dark gray siltite couplets, graded in places, together with siltite-black argillite couplets. Percentages of the different components of this member may vary considerably from one area to the next. |
| Y_{ph} | Prichard Formation, member H —Platy- to shaley-weathering, laminated to very thin bedded, light- and dark-gray siltite couplets, graded in places, and siltite-black argillite couplets. Mainly planar bedded. |
| Y_{pg} | Prichard Formation, member G —Light to dark gray siltite couplets, graded in places, and siltite-black argillite couplets, laminated to very thin bedded, with lesser quantities of thin- to thick-bedded, gray to white siltite and quartzite. As in member I, quantities of the different components may vary widely from one area to the next. Minor irregular bedding. |
| Y_{pf} | Prichard Formation, member F — Platy-weathering, laminated to very thin and thin-bedded siltite-siltite couplets, graded in places. Black argillite laminae are rare. Gray to light gray, thin- bedded siltite prominent in some sections of the formation. That, the presence of irregular bedding in places, the lack of shaley weathering, and the rarity of black argillite provides the minor differences between members F and H. Mainly planar bedded. |
| Y_{pe} | Prichard Formation, member E — Much like member G with siltite laminae of various alternating shades of gray to very dark gray, siltite-black argillite couplets, and variable amounts of gray to white, thin- to thick-bedded siltite and quartzite. Considerable dark gray massive siltite in the uppermost part of the member. Characteristically, much of the finer-grained strata show irregular rather than planar bedding features, such as cutoffs, abrupt thinning and thickening, and crumpling of strata. |

SYMBOLS

- — — Contact, approximately located.
 - — — Fault, approximately located.
 - • • • Fault, concealed.
 -  ¹² Strike and dip of inclined bedding.
 -  ⁹⁰ Strike and dip of vertical bedding.
 -  ⁸⁵ Strike and dip of overturned bedding.
 -  \oplus Horizontal bedding.
 -  Individual outcrop, road cut exposure, or diagnostic rubble.

REFERENCES

- Rowne, J.L., 2017a, Geologic Map of the Kellogg East and southern Grizzly Mountain quadrangles, Shoshone County, Idaho: Idaho Geological Survey Technical Report T-17-1, scale 1:24,000.

Rowne, J.L., 2017b, Geologic Map of the Kellogg West and southern Steamboat Creek quadrangles, Shoshone County, Idaho: Idaho Geological Survey Technical Report T-17-1, scale 1:24,000.