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PALEONTOLOGY OF THE LIVENGOOD QUADRANGLE, ALASKA

by

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INTRODUCTION

Despite the few systematic paleontologic studies on fossils from the Livengood quadrangle, faunal reports and lists are available in the literature as far back as the early 1900s for Paleozoic and Mesozoic strata in the quadrangle; Mertie (1937) provides the most detailed data. Other references with faunal information for various units and areas in the Livengood quadrangle include Martin (1926), Mertie (1917), Prindle (1908, 1913), Prindle and Hess (1906), and Robinson (1983). This report includes all these older data with improved locality information and updated age assignments.

Paleozoic and Mesozoic fossils from the Livengood quadrangle are generally poorly preserved because the rocks are tectonically disrupted and sheared locally and have undergone at least lower greenschist facies metamorphism. The oldest recognized fossil, the trace fossil *Oldhamia*, occurs in olive-green slate of the GZwg unit, but can only be recognized where cleavage and bedding are parallel, or nearly so. Most of the carbonate rocks in the quadrangle are so recrystallized that recognition and recovery of fossils is difficult. Conodonts from rocks of Early Ordovician to Triassic age have color alteration indices (CAI) of 5 to 6, indicating that these rocks reached at least 300° to 400°C. One exception is a sample from the Lost Creek limestone unit (table 1, loc. 23, USGS colln. 11437-SD) which produced conodonts having a CAI value of 4. The most recrystallized carbonate rocks are in the Tokovana Limestone (Silurian to Middle Devonian). In this unit, the only megafossils easily recognizable in the field are corals and brachiopods. Shelly forms are hard to recover from the enclosing rock matrix and even generic determination is difficult. Upper Devonian limestone bodies near the base of the Quail unit are also locally recrystallized, particularly where the unit is thin bedded. Commonly, the only identifiable megafossils are crinoid ossicles and tectonically stretched tabulate corals. Extensive silicification of megafossils at locality 110 (field no. 87ABd10) allowed etching of rugose and tabulate corals. Thin sections of corals from unetched rock frequently show tectonically sheared but generically identifiable forms (James Sorauf, written communication, 1989).

Fine-grained siliciclastic rocks have yielded the best preserved Paleozoic fossils in this region. Rather well-preserved and identifiable fossils, most frequently as casts and molds, are known from the uppermost sedimentary beds of the Fossil Creek Volcanics (Upper Ordovician), as well as from the Cascaden Ridge unit (Middle Devonian).

Table 1 gives the approximate location of all paleontologic collections from the Livengood quadrangle that have been made since 1900. The faunal and floral identifications are the original determinations and have not been revised, except where noted. Taxonomic concepts and stratigraphic ranges have changed considerably during the last 100 years so that taxonomic and age determinations given for some samples are literally out-of-date. Many of the collections were not reevaluated either because they have disappeared or appropriate specialists were unavailable. Nonetheless, all paleontologic data are included here so that future investigators can understand the basis for the age assignment of stratigraphic units in the Livengood and adjacent quadrangles.

Fossil localities in table 1 are arranged roughly in order of decreasing geologic age. All localities are plotted on a geologic base map generalized from Weber and others (1992). The locations and analyses of fossil collections were taken from published reports and unpublished reports written chiefly by paleontologists of the U.S. Geological Survey, and a few paleontologists affiliated with private industry, universities, or other government agencies. Some collections have been examined by several paleontologists and many localities have been relocated and resampled. Multiple collections from the same locality have the same locality number on the map and table 1. The accepted age for each unit as used by Weber and others (1992) is based on the most biostratigraphically significant collections; these are marked by an asterisk in table 1. For various reasons, the accepted age may be broader or narrower than that suggested by paleontologists. Rarely, a single locality on the map appears with two numbers; these numbers represent individual collections that are too close to show separately on the map. Because of the constraints of map scale, some localities may appear to be plotted in an inappropriate unit. For the most accurate location, we suggest that latitude and longitude coordinates be used in conjunction with 1:63,360-scale topographic maps.

REMARKS AND AGE ASSIGNMENTS

CAMBRIAN

Specimens of the distinctive trace fossil *Oldhamia* (Mertie, 1937, pl. 9) are probably the oldest fossils known from the Livengood quadrangle. These forms occur on a mountain at elevation 3020 ft (now informally called "Mt. Oldhamia"), 1.5 miles southwest of VABM Ronald (loc. 1). This locality was thought by Mertie to be part of a Mississippian sequence, though no other fossils were associated with it (Mertie, 1937, p. 121). None of the other localities listed by Mertie as containing Mississippian fossils (1937, p. 120) is really close or clearly related to this site, especially as they are now known to be separated by a major thrust fault. The *Oldhamias* occur in olive-green slates containing very thin layers of gritty siltstone. The *Oldhamia* beds are mapped within the Wickersham unit (CZwg) which, in this area, underlies a prominent sequence of maroon and green slate (CZwa). Churkin and Brabb (1965) suggested that the Mt. Oldhamia locality was of Cambrian age, because other *Oldhamia*-bearing strata from east-central Alaska (e.g., in the Circle and Charley River quadrangles) were thought, but not proven, to be Early Cambrian. Although, no where in Alaska, is *Oldhamia* known to occur in beds of undisputed age the worldwide occurrences are nearly all Lower Cambrian (Lindholm and Casey, 1990; Hofmann and Cecille, 1981).

ORDOVICIAN

Sedimentary strata in the Fossil Creek Volcanics (Ofv) have also been dated by fossils. A collection made by Elliot Blackwelder in 1915 on the east bank of the southeast fork of Willow Creek (loc. 3) was identified as Early Ordovician by Edwin Kirk and E.O. Ulrich on the basis of one brachiopod and several trilobites. From Blackwelder's notes, the location of this site is quite clear, although later workers have failed to find additional fossils at this site. In 1972, M.E. Taylor and A.J. Rowell reexamined the old collection, revised the identifications, and confirmed the Early Ordovician age. In addition, J.W. Huddle recovered Early Ordovician conodonts from

the same sample. J.E. Repetski (1992, written communication) refined the age of Huddle's conodont faunule to middle or late Tremadocian. The fossils come from the basal sedimentary unit of the Fossil Creek Volcanics. An earliest Ordovician (middle Tremadocian) age was confirmed by A.G. Harris and R.C. Orndorff (1988, written communication) on the basis of conodonts from another nearby site.

Late Ordovician fossils from the uppermost part of the Fossil Creek Volcanics were illustrated and discussed in three papers: corals by Oliver and others (1975, p. 24, pl. 4, figs. 1-6), a sphinctozoan sponge by Rigby and others (1988), and brachiopods and gastropods by Blodgett and others (1987). Other fossils (corals, trilobites, and conodonts) from this unit were discussed in the latter paper, but were not illustrated. One radiolarian occurrence of Ordovician age is recorded in table 1 (loc. 10).

The Livengood Dome Chert generally produces radiolarians that are too poorly preserved for useful age determination (table 1). However, graptolites (Chapman and others, 1980), conodonts, and sponges date the unit as Ordovician (table 1, locs. 14 and 15).

The occurrence of radiolarians and sponge spicules in the Amy Creek unit (table 1) suggests that at least part of this unit, as presently mapped, is of Paleozoic age. Other stratigraphic evidence suggests that the Amy Creek may be, in part, of Precambrian age. It is siliceous and dolomitic and contains algal-coated grains, features reminiscent of Tindir-type or lowest Paleozoic dolomites in the Charley River quadrangle (Brabb and Churkin, 1969). The precise age of the Amy Creek remains unresolved; it overlies the Livengood Dome Chert of Ordovician age, but the contact may be structural rather than stratigraphic.

SILURIAN-DEVONIAN

The age and correlation of rocks along the second tributary on the west side of Lost Creek in the Livengood C-4 quadrangle (loc. 23) have had a varied history, though these rocks contain fossils. The site was examined originally by Overbeck in 1918 who considered the rocks to be part of the Livengood Chert. Fossils from the site were considered nondiagnostic by G.H. Girty, U.S. Geological Survey; but these fossils, in addition to some from other localities, led to a tentative Mississippian age assignment for the Livengood Chert (Mertie, 1937, p. 110). Subsequently, the inclusion of these rocks in the Livengood Chert was questioned because they are not lithologically typical of the chert unit.

In 1962, Helen Duncan and W.A. Oliver, Jr. re-examined the corals from the original collection and assigned them a Silurian or Devonian age. New collections from locality 23, made in the 1960s and 1970s, confirmed a Silurian to Middle Devonian age.

By 1980, the Livengood Chert was redefined as the Livengood Dome Chert, a type section in a large borrow pit (table 1, loc. 14) about one mile north of the Lost Creek fossil site was chosen, and an Ordovician age was established on the basis of graptolites found in the type section. The Lost Creek fossil section was excluded from

the redefined Livengood Dome Chert. More recently, diagnostic Late Silurian brachiopods and trilobites were found in the Lost Creek unit (Blodgett and others, 1988). Another limestone in the vicinity of Lost Creek contains crinoid ossicles and is included within the Lost Creek unit (DSI) in this report.

The Schwatka unit (Dsl) produces a low-diversity fauna. The most biostratigraphically diagnostic elements are conodonts and the distinctive two-hole crinoid ossicle, *Gasterocoma? bicauli*. These forms indicate an Emsian to Eifellian (late Early to early Middle Devonian) age.

Silurian corals (mostly tabulates) from the Tolovana Limestone (DSt) of the White Mountains were briefly discussed and partly illustrated by Oliver and others (1975, p. 26, pl. 10, figs. 3-6). Early Silurian (early or middle Llandoveryan) conodonts were reported from the basal part of the Tolovana (Blodgett and others, 1987, p. 57; this report, table 1, loc. 26). No complete section of the Tolovana has been measured, but its thickness has been estimated to be "as much as 3,000 feet" (Mertie, 1937, p. 88) or "more than 1,200 m thick" (Blodgett and others, 1987, p. 54). Pentamerid brachiopods of late Llandoveryan and Wenlockian age have been identified from several localities.

Early Devonian faunas have not been found in the Tolovana Limestone. Middle Devonian corals from the uppermost part of the Tolovana were discussed and several species illustrated by Oliver and others (1975, p. 33, pl. 21, figs. 5-11). This Middle Devonian part of the Tolovana, not recognized in the type area in the White Mountains, may eventually be placed in a separate stratigraphic unit, although probably Middle Devonian fossils were recovered in the type area (table 1, loc. 55). This Middle Devonian unit occurs southwest of the White Mountains, near the Elliott Highway (north side of Globe Creek, Livengood B-3 quadrangle) at VABM Minto (5 miles east of COD Lake, Livengood A-4 quadrangle), and even farther southwest in the Dugan Hills area (Fairbanks D-6 and Kantishna River D-1 quadrangles). This unit is sparsely fossiliferous dark-gray lime mudstone and wackestone; it differs from the Silurian part of the Tolovana because it is darker colored and more distinctly bedded. No sections have been measured in this unit, but it is at least 1,500 ft (450 m) thick.

The Cascaden Ridge unit (lower Middle Devonian) is probably the most paleontologically productive unit in the Livengood quadrangle. Fossils are more diverse and more easily recovered from this unit than from any other in the quadrangle. McAlester (1962) described a new species of pteroid bivalve, *Actinopteria taberi*, from an abandoned borrow pit on the north side of the Elliott Highway (loc. 77). McAlester favored, but was not certain of, a Middle Devonian age for this species.

Fossils collected, chiefly corals and brachiopods, and stratigraphic work undertaken in the 1960s, suggested that the Cascaden Ridge unit was mostly of early Late Devonian (Frasnian) age. The fossils were later restudied and a probable Middle Devonian age assigned (J.T. Dutro, Jr., written communication, 1987). Ormiston (1972, p. 601) noted the occurrence of an Eifellian (early Middle Devonian) trilobite which he identified as *Dechenella* aff. *D. haldemani* (Hall) (loc. 87), 12.4 miles (20 km) west-southwest of the type locality of *Actinopteria taberi*. Additional, newly collected

specimens of this dechenellid trilobite indicate it is not allied to Hall's Appalachian species. Rather it is more closely related to *D. (D.) mclareni* Ormiston, known from the early Middle Devonian (Eifelian) of the Canadian Arctic Islands (A.R. Ormiston, oral communication, 1992).

Corals, mostly tabulates, were briefly discussed and listed by Oliver and others (1975, p. 33). A single unnamed species of *Heliolites* (Oliver and others, 1975, pl. 20, figs. 11, 12) was illustrated from this unit. Eifelian gastropods are especially diverse in the Cascaden Ridge unit. A gastropod faunule (USNM 38775) from a roadcut on the north side the Elliott Highway, 5.3 miles (3.3 km) S. 40° E. from Livengood (loc. 80) produced 35 species (Blodgett, 1992). Several of these species also occur in the coeval upper part of the Cheeneetnuik Limestone in the McGrath quadrangle, west-central Alaska. Conodonts from two samples of limestone in the Cascaden unit near USNM 38775 indicate an *australis* Zone age (middle Eifelian). In summary, the most diagnostic fossils, including gastropods, trilobites and conodonts, indicate an early Eifelian to Givetian age for the Cascaden Ridge unit.

The Troublesome unit (Dt), a recrystallized chert and siliceous argillite, probably stratigraphically underlies the Quail unit (Dq). Thus far, the only fossils recognized from this unit are recrystallized radiolarians seen in thin sections (locs. 96-99). Lithologically, this unit is comparable to the McCann Hill Chert of the Charley River quadrangle (Brabb and Churkin, 1969) and may be part of the same facies belt which was offset along the Tintina fault system.

The Quail unit (Dq) overlies the Troublesome unit stratigraphically. Limestone buildups (Dqi) immediately above the Troublesome unit have yielded conodonts and rugose corals of early Late Devonian (Frasnian) age. A diverse, silicified, coral-rich fauna occurs at locality 110. This biostratigraphically diagnostic assemblage is of late Frasnian age (J. Sorauf, written communication, 1989). The remainder of the Quail unit is of Frasnian age or younger, comparable to the Nation River Formation of east-central Alaska (Brabb and Churkin, 1969). Carbonate clasts from an areally restricted conglomerate in the Quail unit produced Middle to Late Ordovician conodonts (loc. 104).

UPPER PALEOZOIC

Only a few fossil localities, mostly of Permian age, are known from the upper Paleozoic sequence (PDms). This sequence includes one small area that produced diagnostic late Famennian conodonts that may be either indigenous or redeposited (loc. 113).

A number of collections contain invertebrate fossils, mainly bryozoans and mollusks, that indicate a possible Early Permian age for a dominantly clastic sequence in the western part of the quadrangle (B-6 quadrangle). All but two of these localities are from the Ps map unit (Permian sedimentary rocks). The two localities from the PDms unit (locs. 114 and 115) contain elements of the same fauna and at least this part of the unit is probably Permian. Most of these collections were called Mississippian by G.H. Girty in the 1930s. These collections were restudied and reevaluated in the 1970s by Dutro who suggested the Permian assignment. The Rampart Volcanics also have yielded Permian fossils, but some collections of

radiolarians and conodonts from sediments interbedded with the volcanics are Middle or Late Triassic. The Circle Volcanics in the Circle quadrangle are coeval with the Rampart Volcanics and have yielded radiolarians of Mississippian age (D.L. Jones, written communication, 1981).

MESOZOIC

Five Mesozoic units are shown on the geologic map of the Livengood quadrangle (Weber and others, 1992). Few fossil localities have been found in these units. The oldest unit (aside from the Rampart Volcanics) consists of Triassic sedimentary rocks (Ts) and is known only from two outcrops that are fortuitously exposed beneath the Beaver Creek thrust fault. One of these lies along Beaver Creek and the other is on strike with the first, about 21 miles (34 km) to the northeast, near the boundary of the Livengood and Circle quadrangles. Conodonts from both localities are of Permian or Triassic age (locs. 132 and 133). The unit is assigned a Triassic age because of its striking lithologic resemblance (phosphatic, calcareous black shale, calcareous sandstone, and sandy limestone) to both the lower Triassic part of the Glenn Shale and the Shublik Formation (Triassic) widespread, respectively, in east-central and northeastern Alaska.

Thus far, no fossils have been found in the Vrain unit which ostensibly overlies the Triassic unit. The Vrain is lithically comparable to the upper Glenn Shale of the Charley River area (Brabb and Churkin, 1969).

The Vrain unit, however, appears to grade up into the Wolverine quartzite unit which is of Late Jurassic or Early Cretaceous age. Several fossil collections from the Wolverine quartzite unit produced an indeterminate pelecypod coquina. One collection, made by J.B. Mertie in 1922 (loc. 134) and reexamined by D.L. Jones in 1980, contains forms which Jones considered possibly Jurassic. Another collection (loc. 140) contains pelecypods indicative of an Early Cretaceous age. Some of the early collections were reexamined by Imlay and Reeside (1954, p. 236) who state that "Earliest Cretaceous not younger than Valanginian is possibly represented in the Hot Springs-Rampart districts, as indicated by some small aucellas (Mes. locs. 11390, 11391, and 15981) similar to *A. sublaevis* Keyserling (now *Buchia sublaevis* (Keyserling)). The preservation of the aucellas does not permit positive identification, but their plump shape suggests an Early Cretaceous rather than a Jurassic age." Thus, in the Livengood quadrangle, the Wolverine quartzite unit may straddle the Jurassic-Cretaceous boundary.

The most diagnostic Mesozoic fossil is from the Wilber Creek flysch unit. For many years the only fossils found in this unit were poorly preserved *Inoceramus?* fragments of Jurassic or Cretaceous age and poorly preserved gastropplitid ammonites. In 1989, Samuel Dashevsky collected a well-preserved gastropplitid from the Wilber Creek unit and donated it to the U.S. Geological Survey (loc. 148). The specimen, identified as *Paragastropplites flexicostatus* by J.W. Miller, is a middle Albian form known also from northern Alaska.

Various collections of invertebrate fossils from the Wilber Creek unit in the vicinity of Wolverine Mountain have been assigned a Late Cretaceous age (Mertie,

1937). Late Cretaceous plant fossils have also been described from Wolverine Mountain. The localities for most of these old collections are uncertain. Some sites seem to be very close to those known to be Early Cretaceous. Some collections may have been misidentified as Late Cretaceous. There is, however, a thin stratigraphic unit (Minto unit, Km) of shallow-water origin that is less altered than the Wilber Creek. These beds have an irregular areal distribution, are inferred to lie unconformably on older rocks, and may be the source of at least some of the younger Cretaceous collections. In 1987, indeterminate plant fragments (locs. 150 and 151) were collected from this unit from a basin south of Wolverine Mountain.

TERTIARY

Between 1896 and 1906, Tertiary plants were collected by U.S. Geological Survey geologists in the Livengood quadrangle, notably from coal-bearing strata on the Yukon River at the mouth of Hess Creek (Livengood C-6 quadrangle). Coal was mined there for use on sternwheeler steamships plying the river. The site was known as the Drew mine, a name which still appears on some topographic maps, although mining operations ceased many years ago with the demise of the big river boats. The macrofossils were listed by Hollick (1936) in his summary of the Tertiary floras of Alaska and were discussed by Mertie (1937). More recently, these rocks were sampled for pollen. The floras are of early Tertiary age (loc. 156), probably Eocene, and indicate a relatively warm temperate climate (T.A. Ager, written communication, 1989).

Although the Livengood quadrangle area probably contains widespread poorly consolidated gravel deposits of late Tertiary age (part of QTg), only one exposure has recently been dated by fossils. Pollen of Pliocene or possibly late Miocene age were recovered from an organic-rich silt layer in gold-bearing gravel from the Livengood Creek valley (Karl and others, 1988; this report loc. 158). This deposit of limited extent is shown as Qg on the accompanying map because the valley sediments have been greatly disturbed by placer mining.

QUATERNARY

Literally tons of Pleistocene mammal bones, both large and small, have been recovered from interior Alaska, including the area of the Livengood quadrangle, but most of the material was not documented by local placer miners. However, from the late 1920s to the 1950s, extensive mammalian collections were made by O.W. Geist on behalf of the American Museum of Natural History and the Museum of the University of Alaska. Faunal and floral lists and a summary of the earlier work are given in Péwé (1975).

Two Pleistocene sample sites documented by Péwé (1975) are listed in table 1 (locs. 159 and 160). In 1948, a frozen and mummified head and foreleg of a baby mammoth were found on Fairbanks Creek in the Livengood A-1 quadrangle. This much publicized discovery was rescued and preserved by O.W. Geist.

Also found on Fairbanks Creek in the Livengood quadrangle were: the mummified foot of a young mammoth, a female bison, and a rabbit. Other mummified

prehistoric finds include: a large bull steppe bison on Dome Creek; legs of a stag moose on Little Eldorado Creek; legs of a bison on Cleary Creek; legs of a bison and caribou on Upper Cleary Creek; and parts of two moose in the Livengood area at Mile 60.5 on the Elliott Highway (Guthrie, 1990, p. 37-44).

The best preserved, well-described find is a large male *Bison priscus*, called the "Blue Babe" after Paul Bunyan's ox; it is colored by of blue vivianite, a common coating found on Alaskan Pleistocene bones (Guthrie, 1990). This discovery was made on Pearl Creek in the Fairbanks Creek area, just south of the boundary of the Livengood quadrangle. Guthrie's book on "Blue Babe" addresses many of the problems of late Pleistocene faunal and floral distributions in Alaska.

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Table 1. Fossil collections from the Livengood quadrangle

All localities listed below are shown on the accompanying map by a numbered black triangle; open triangles shown on the map indicate barren conodont samples that are not listed below.

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN.) | LATITUDE N./ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|----------|--------------------------|--|--|---|---|
| Wickersham unit (late Proterozoic and earliest Cambrian; -GZwg) | *1 | 21AM1152 | 85°53'42" N/ 147°43'12" W (D-2) | Trace fossils: <i>Oldhamia</i> | Precambrian-Cambrian | R. Ruedemann, pre-1937; Michael Churkin, 1968 |
| Wickersham unit (late Proterozoic and earliest Cambrian; -CZwa) | 2 | 88ACn(?) | 85°17'36" N/ 148°10'49" W (B-3) | Stromatolites | Biostratigraphically nondiagnostic | M.A. Semichatov, 1969 |
| Fossil Creek Volcanics (Early to Late Ordovician; Orv) | *3 | 15AB211 (1619A) | 85°37'30" N/ 147°11'42" W (C-1) | Brachiopods: <i>Lingulella</i> sp. Trilobites: <i>Agnostus</i> sp., <i>Bathynurellus</i> ?, <i>Hemigyaspis</i> ? sp., <i>Megastephanos</i> ? sp. | Early Ordovician | Edwin Kirk and E.O. Ulrich, pre-1937 |
| | | (7389-CO) | | Brachiopods: <i>Schizambon</i> sp., acrotetoid gen. and sp. indet., linguloid, gen. and sp. indet. Mollusks: " <i>Pelegrinella</i> " sp. Problematica: cf. <i>Hulthesia</i> sp. Trilobites: cf. <i>Bellerophon</i> sp., <i>Clelandia</i> sp., <i>Gonognostus</i> sp., ? <i>Preapalaeophagus</i> sp., <i>Pseudognostus</i> sp., asaphoid, gen and sp. indet., olenoid, gen and sp. indet. | Early Ordovician | M.E. Taylor and A.J. Rowell, 1972 |
| | | | | Conodonts: <i>Acanthodus</i> aff. <i>A. lineatus</i> , <i>Cordylodus angulatus</i> , <i>C. intermedius</i> , <i>Drepanodus</i> ? sp., <i>Peltodus spurius</i> , " <i>Oistodus</i> " <i>triangularis</i> , <i>Panpenderodus gracilis</i> , <i>Scolopodus</i> cf. <i>S. flexus</i> , <i>Verbeulacodus beasleri</i> CAI=5 | Early Ordovician (middle or late Tremadocian) | J.E. Repetski, 1976 (revised, 1982) |
| | *4 | 87ABd66 (10855-CO) | 85°39'35" N/ 147°08'30" W (C-1) | Conodonts: <i>Cordylodus lindstromi</i> , <i>Eoconodontus notchpeianensis</i> , " <i>Oistodus</i> " <i>triangularis</i> , <i>Rosodus lanus</i> , <i>Tentaculites nekamurai</i> , <i>Verbeulacodus</i> aff. <i>V. beasleri</i> CAI=5,5 | Early Ordovician (early or middle Tremadocian) | A.G. Harris and R.C. Ormrod, 1988 |
| | *5 | 87ABd69 (10856-CO) | 85°39'32" N/ 147°11'08" W (C-1) | Conodonts: <i>Cordylodus intermedius</i> , <i>Eoconodontus notchpeianensis</i> , " <i>Oistodus</i> " <i>triangularis</i> , <i>Tentaculites</i> cf. <i>T. nekamurai</i> , <i>Utahconus utahensis</i> or <i>Rosodus lanus</i> CAI=5-5,5 | Early Ordovician (middle Tremadocian; <i>C. angulatus</i> Zone) | J.E. Repetski, A.G. Harris, and R.C. Ormrod, 1988 |
| | 6 | 16AB282 (1520D1) | 85°32'06" N/ 147°31'58" W (C-2) | Corals: <i>Streptelasma</i> sp. Brachiopods: <i>Dalmanella</i> sp. <i>Rhynchotrema</i> sp. | Middle Ordovician according to Edwin Kirk [probably Late Ordovician by 1963 concepts] | Edwin Kirk, pre-1937 |
| | | 88ACH296 (8709-CO) | | Conodonts: <i>Belodina</i> sp., <i>Drepanodus</i> sp., <i>Peltodus</i> sp., <i>Penderodus</i> sp. CAI=5,5 | Middle or Late Ordovician | J.W. Huddle, 1969 |
| | 7 | 09AJ70 09AP87 (1519C) | 86°37'17" N/ 147°21'15" W (C-1) | Brachiopods: <i>Dinorthis</i> sp., <i>Plectambonites sericeus</i> , var., <i>P.</i> sp., <i>Rafinesquina</i> sp., <i>Rhombotype</i> sp., <i>Rhynchotrema increbescens</i> , var., <i>Tripletta</i> sp. Corals: <i>Streptelasma rusticum</i> , <i>S.</i> sp., <i>Columnaria (Palaophytum) thomsi</i> , <i>C.?</i> sp., <i>Halyalites gracilis</i> , var. Gastropods: <i>Macturea</i> ? sp., <i>Raphistomina</i> sp. Trilobites: <i>Isotelus</i> sp. | Middle Ordovician (Trenton) according to Edwin Kirk [probably Late Ordovician by 1963 concepts] | Edwin Kirk, pre-1937 |

*Biostratigraphically diagnostic collection.

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|--|----------|---|--|--|--|--|
| Fossil Creek Volcanics (Early to Late Ordovician; Otv) | 7 | 15A230 (1519C) | 85°37'17"/ 147°21'15" (C-1) | Brachiopods: <i>Dalmanella</i> sp., <i>Dinorthis</i> sp., <i>Leptaena</i> near <i>L. uncostata</i> , <i>Plectyostrophia</i> sp., <i>Plectambonites saricus</i> , var., <i>Rhombotrypa</i> sp., <i>Triplecta</i> sp. <i>Rhynchotrema</i> <i>increbescens</i> , var. Corals: <i>Straptesasma?</i> sp., <i>Columnaria (Palaophyllum)</i> <i>thomi</i> , C.7 sp., <i>Helyites</i> sp. Trilobites: <i>Calymanes</i> sp., <i>Isotelus</i> sp. | Middle Ordovician (Trenton) according to Edwin Kirk (probably Late Ordovician by 1993 concepts) | Edwin Kirk, pre-1937 |
| | | 09AP87 (7092-CO) | | Corals: "Chaetoptera" sp. cf. "C." <i>elasmereensis</i> , <i>Sarcinula</i> sp. | Late Ordovician | W.A. Oliver, Jr., 1972 |
| | | 88ACn1761 (7093-CO) | | Corals: "Chaetoptera" sp. cf. "C." <i>elasmereensis</i> , <i>Palaetevostes</i> sp., corioid rugose coral | Late Ordovician | W.A. Oliver, Jr., 1972 |
| | | *88ABd5; 88ABd60 (10429-CO) | | Brachiopods: <i>Holotrymchus</i> n. sp., <i>Plectyostrophia</i> sp., Inarticulate brachiopods (both linguloids and trimereleids), orthooid and strophomenoid brachiopods Conodonts: <i>Belodina</i> sp. indet. CAI=6 Corals: <i>Chaetoptera</i> sp. Gastropods: <i>Lioaspra</i> sp., <i>Maclurites</i> sp., <i>Trachonemella</i> sp. | Late Ordovician (Ashgillian) | R.B. Blodgett, A.G. Harris, and K.E. Denker, D.M. Rohr, 1988 |
| | | 88AW142A (10430-CO) | | Conodonts: <i>Amorphognathus</i> sp. indet., <i>Anasites</i> sp., <i>Belodina</i> sp., <i>Dapsilodus?</i> sp., <i>Panderodus</i> sp. CAI=6.5 | late Middle to Late Ordovician (Blackriveran to Garnachian) | A.G. Harris, K.E. Denker, 1988 |
| | | 87ABd64 (10837-CO) | | Conodonts: <i>Panderodus</i> sp., <i>Protapanderodus?</i> sp., <i>Pseudobelodina</i> cf. <i>P. dispensei</i> CAI=6-6.5 | late Middle to Late Ordovician (Blackriveran to Garnachian) | A.G. Harris, 1988 |
| | *8 | 86ABd4 (10428- CO) | 85°37'23"/ 147°20'38" (C-1) | Brachiopods: <i>Holotrymchus</i> n. sp. Conodonts: <i>Belodina</i> sp. indet. of Late Ordovician morphotype CAI=6-6.5 Trilobite: <i>Anataphrus?</i> sp. <i>Denelle</i> n. sp. | Late Ordovician (Ashgillian) | R.B. Blodgett, A.H. Ormslton, A.G. Harris, and K.E. Denker, 1988 |
| | 9 | 86ABd2 (10427-CO) | 85°36'34"/ 147°18'02" (C-1) | Conodonts: <i>Belodina</i> sp., <i>Protapanderodus?</i> sp. CAI=5 | Middle to Late Ordovician | A.G. Harris and K.E. Denker, 1988 |
| | 10 | 82ACH63B (3402) | 85°03'37"/ 149°38'05" (A-8) | "Good radi." | Ordovician | D.L. Jones, 1984(?) |
| Livingood Dome Chert (Ordovician; Otd) | 11 | 79ACH543 (2023) | 85°48'12"/ 147°19'50" (D-1) | Radiolaria, poor spheres, sponge spicules | ? | D.L. Jones, 1982(?) |
| | 12 | 87ANK123B (10860-CO) | 85°42'48"/ 147°43'42" (C-2) | Scolopodus bottles? CAI=6-5.5 | Early to earliest Middle Ordovician | A.G. Harris and R.C. Orndorff, 1988 |
| | 13 | 87A9k224A | 85°42'48"/ 147°47'18" (C-2) | Phosphatized ostracode steinkerns | Ordovician to Recent | A.G. Harris and J.M. Bergen, 1988 |
| | *14 | 71ACr391 and others, Univ. Alaska | 85°31'51"/ 148°50'40" (C-4) | Graptolites: <i>Ampisograptus</i> n. sp. A, A. n. sp. B, A? sp., <i>Climacograptus</i> aff. <i>C. supernus</i> or aff. <i>C.</i> <i>bloomii tridentatus</i> , <i>C.</i> <i>inornatus</i> s.l., <i>C. ex gr. C.</i> <i>scalerus</i> , <i>C. sp.</i> , <i>Diplograptus</i> sp., <i>Glyptograptus</i> aff. <i>G.</i> <i>tenulidius</i> , <i>G. sp.</i> | Late Ordovician | Claire Carter and W.B.M. Barry, 1971 |
| | | 70ACH238 | | Sponge spicules, including monaxon, oxyhexactine, and club-shaped forms | Paleozoic | Bonita Murchey and Paul Jefferies |
| | 84AW197 | | Siliceous sponge related to <i>Zittella</i> or <i>Anthespidea</i> and indeterminate Radiolaria | Ordovician | J.T. Dutro, Jr., 1986 | |
| | 15 | 83AW180 | 85°36'00"/ 148°21'50" (C-3) | Radiolaria, poor spheres | early Paleozoic | D.L. Jones, 1982(?) |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|-----------------------|---|--|---|---------------------------------------|--|
| Livingood Dome Chert (Ordovician; Ok) | 18 | 71AWr523B | 65°35'28"/ 148°27'30" (C-3) | Radiolaria, poor spheres | ? | D.L. Jones, 1982(?) |
| Amy Creek unit (Proterozoic? to Silurian?; SZA) | 17 | 18AB338 (1822A) | 65°46'18"/ 147°09'20" (D-1) | Stromatoporoid: Stromatopora? | Paleozoic | Edwin Kirk, pre-1937 |
| | 18 | 79ACh95 (1344) | 65°46'37"/ 147°07'17" (D-1) | Radiolaria, poor spheres | ? | D.L. Jones, 1981(?) |
| | 19 | 79ACh104 (1210) | 65°47'14"/ 147°13'09" (D-1) | Poorly preserved Radiolaria, spheres and cones | ? | D.L. Jones, 1981(?) |
| | | 79ACn572 (2024) | | Radiolaria, spheres | ? | D.L. Jones, 1981(?) |
| | 20 | 85AWr84A | 65°32'18"/ 148°26'44" (C-3) | Radiolaria observed in thin section, indeterminate | Paleozoic | C.D. Biome, 1980 |
| | 21 | 83AWr87 | 65°30'23"/ 148°33'08" (C-4) | Radiolaria, recrystallized, indeterminate | ? | D.L. Jones, 1982(?) |
| 22 | 90AWr13 | 65°30'27"/ 148°36'40" (C-4) | Radiolaria observed in hand specimens | Paleozoic | F.R. Weber, 1980 | |
| Lost Creek unit (Silurian and Devonian; DS1) | 23 | 18ADf8 | 65°30'54"/ 148°51'17" (C-4) | Crinoid stems Bryozoans: Bryozomella sp. Bryochloa sp. Athyria sp. Corals: Branching favosites, Zephyrium? | Mississippian(?) | G.H. Girty, pre-1937 |
| | | 62AHp218 | | Bryochloa sp. Athyria sp. Corals: Heliothis sp. Gastropods: Pleurotomaria? sp. | Silurian or Devonian | Helen Duncan, 1982 |
| | 64AWr292 | Conodonts: Panderodus sp., Ozarkodina? sp. Crinoid stems | Ordovician to Devonian | J.W. Huddle, 1983 | | |
| | 71ACn21 | Conodonts: Denticulodus | Early Ordovician to middle Silurian | J.W. Huddle, 1986 | | |
| | | Panderodus sp., palaeohorm elements | Middle Ordovician to Silurian | A.G. Harris, 1978 | | |
| | 85AWr2 (11148-SD) | Bryochloa sp., Lisastrypa sp., Plectrotypa? sp. | Middle Silurian(?) | J.T. Duro, Jr., 1978 | | |
| | | Conodonts: Panderodus sp., indet. bar fragment of post-Ordovician morphotype CAI=4 | Silurian to Middle Devonian | K.B. Schindler, 1985 | | |
| | 88ABd28 (11437-SD) | Conodonts: Ozarkodina excavata CAI=4 | late Early Silurian to Early Devonian (Wenlockian to early Emsten) | A.G. Harris and K.E. Denker, 1988 | | |
| | *87ABd78 | Bryochloa sp. cf. A. shannonensis, Eoaplectrypa sp., Gypidulus sp., gypidulinid aff. Gypidulina sp., n. gen.? gypidulinid (aff. Gypidulina), Janus? sp., Leptana sp., Lingula sp., Lisastrypa? sp., Metaplectra sp., Sebemella cf. S. magnificiformis, Spirigerina? sp., Spirinella sp. | late Early to early Late Silurian (Wenlockian to Ludlovian) | R.B. Blodgett and Ning Zhang, 1987 | | |
| | | Trilobites: Contracteturus n. sp. | late Early to early Late Silurian (Wenlockian to Ludlovian?) | A.R. Ormiston, 1987 | | |
| 24 | 87SK192A | 65°36'48"/ 148°28'00" (C-3) | Conodonts: Panderodus sp. CAI=5.5 | Middle Ordovician to Middle Devonian | A.G. Harris and R.C. Omdorff, 1988 | |
| Tolovana Limestone (Early Silurian to Middle Devonian; DS1) | 25 | 88ABd1 | 65°36'33"/ 147°20'02" (C-1) | Conodonts: Kachelella sp. or Dulodus sp., Panderodus sp. CAI=5-5.5 Smooth pentameroid bryochloa, favosite corals, undetermined solitary rugose coral | Silurian | R.B. Blodgett, A.G. Harris, and K.E. Denker, 1988 |
| | | 15AB262 (182002) | | Corals: Favosites sp. | Silurian | Edwin Kirk, pre-1937 |
| | 26 | 88ACh298 (8302-SD) | 65°32'08"/ 147°31'58" (C-2) | Corals: Halysites sp. Stromatoporoid? | Silurian | W.A. Oliver, Jr., 1968 |
| | | Bryochloa: Pentamerus or Pentameroides | | Silurian | J.T. Duro, Jr., 1972 | |
| 71AWr521-88 | Pentameroid coquina | Silurian | J.T. Duro, Jr., 1972 | | | |

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|--|-----------------------|--------------------------------------|---|---|--|---|
| Tolovana Limestone (Early Silurian to Middle Devonian; DB) | 26 | *88ABd27 (11438-SD) | 65°32'08"/ 147°31'58" (C-2) | Pentameroid brachiopods Corals: <i>Streptelasma</i> sp. Conodonts: <i>Distomodus</i> sp. or <i>Icriodella</i> sp., <i>Oulodus?</i> sp., <i>Ozarkodina</i> <i>hasseli</i> , <i>Ozarkodina</i> cf. <i>O.</i> <i>alchamensis</i> , <i>Ozarkodina</i> sp., <i>Panderodus</i> sp., <i>Wellerodus</i> sp. CAI=5-5.5 | Early Silurian (early or middle Landoverian) | A.G. Harris, K.E. Denker, R.B. Blodgett, and R.J. Ellis, 1988 |
| | 27 | 09AJ82; 09AP94 15AB237 (1520A) | 65°38'03"/ 147°23'13" (C-1) | Brachiopods: <i>Conchidium?</i> sp. Brachiopods: <i>Conchidium?</i> sp. Crinoid columnals | Silurian | Edwin Kirk, pre-1937 |
| | 28 | 60REC F-4, Univ. Alaska | 65°37'27"/ 147°28'50" (C-1) | Corals: <i>Favosites</i> sp. Brachiopods: <i>Pentamerus</i> or <i>Conchidium</i> | Silurian or Devonian | W.A. Oliver, Jr., 1961 |
| | 29 | 60REC F-3, Univ. Alaska | 65°37'43"/ 147°26'47" (C-1) | Corals: <i>Syringopora?</i> sp. | Silurian to Carboniferous | W.A. Oliver, Jr., 1961 |
| | 30 | 60REC F-2, Univ. Alaska | 65°36'58"/ 147°17'42" (C-1) | Corals: <i>Favosites</i> sp. | Silurian or Devonian | W.A. Oliver, Jr., 1961 |
| | 31 | 60MCD F-1, Univ. Alaska | 65°34'18"/ 147°29'05" (C-1) | Corals: <i>Favosites</i> sp., <i>Favosites?</i> sp. | Silurian or Devonian | W.A. Oliver, Jr., 1961 |
| | 32 | 60REC F-1, Univ. Alaska | 65°37'58"/ 147°19'10" (C-1) | Corals: <i>Favosites?</i> sp. | Silurian or Devonian | W.A. Oliver, Jr., 1961 |
| | 33 | 88ABd22 | 65°37'28"/ 147°21'40" (C-1) | Pentameroid brachiopods and stromatoporoids exposed in cross section | Silurian | R.B. Blodgett, 1988 |
| | *34 | 15AB216 (1519B) | 66°37'36"/ 147°13'40" (C-1) | Brachiopods: <i>Atrypa?</i> sp., <i>Conchidium</i> sp., <i>Trimerella</i> sp. Corals: <i>Cyathophyllum</i> sp., <i>Diphyphyllum</i> sp. Crinoid columnals Mollusks: <i>Megalomphala?</i> sp., <i>Modiomorpha?</i> sp. | Silurian (middle or Late) | Edwin Kirk, pre-1937 |
| | *35 | 88ABd13 (11432-SD) | 65°37'46"/ 147°12'58" (C-1) | Brachiopods: <i>Atrypa</i> sp., ribbed pentameroid Favositid coral Conodonts: <i>Ozarkodina excavata</i> , <i>Panderodus</i> sp. CAI=5.5 | middle to Late Silurian | R.B. Blodgett, A.G. Harris, and K.E. Denker, 1988 |
| | 36 | 15AB256 (1620B) | 65°32'39"/ 147°28'33" (C-1) | Brachiopods: <i>Clonida?</i> sp. | Silurian | Edwin Kirk, pre-1937 |
| | 37 | 60MCD F-2, Univ. Alaska | 65°34'20"/ 147°30'34" (C-2) | Corals: <i>Favosites?</i> sp. | Silurian or Devonian | W.A. Oliver, Jr., 1961 |
| | 38 | 68ACn1861B (8920-SD) | 65°33'50"/ 147°30'02" (C-2) | Corals: <i>Mesofavosites</i> sp., <i>Palaesophragmites</i> sp. | Ordovician to Devonian, probably Silurian | W.A. Oliver, Jr., 1972 |
| | | 68ACn1861C (8921-SD) | | Corals: <i>Catenipora?</i> sp., favositoid, <i>Heliolites?</i> sp. | Silurian | W.A. Oliver, Jr., 1972 |
| | 39 | 71AWr1520A | 65°33'02"/ 147°30'54" (C-2) | Brachiopods: <i>Pentamerus</i> sp. | Silurian | J.T. Dutro, Jr., 1972 |
| | 40 | 60MCD F-3, Univ. Alaska | 65°32'49"/ 147°30'40" (C-2) | Corals: cf. <i>Palaesophyllum</i> , favositoid coral | Late Ordovician to middle Silurian, probably Silurian | W.A. Oliver, Jr., 1961 |
| | *41 | 88AGk431 (8300-SD) | 65°32'25"/ 147°31'40" (C-2) | Corals: <i>Favosites</i> sp., <i>Helysites</i> sp. Brachiopods: <i>Pentamerus</i> or <i>Pentameroides</i> Conodonts: <i>Oulodus</i> sp. indet., <i>Panderodus</i> sp. CAI=4.5-5 | Silurian | W.A. Oliver, Jr., 1968 |
| | *42 | 88ABd8 (11431- SD) | 65°30'67"/ 147°34'36" (C-2) | Conodonts: <i>Distomodus</i> sp. or <i>Icriodella</i> sp., <i>Panderodus</i> sp. CAI=6.5 | Early Silurian (Landoverian or Wenlockian) | J.T. Dutro, Jr., 1972 |
| | 43 | 88ABd8 | 65°30'53"/ 147°34'33" (C-2) | Lamellar stromatoporoids exposed in cross section in dolostone | Silurian or Devonian | R.B. Blodgett, 1988 |
| | 44 | 53ABo25 (6383- SD) | 65°17'16"/ 148°09'00" (B-3) | Corals: <i>Columnaria</i> sp. Stromatoporoids: <i>Amphipora</i> sp. Stromatoporoids: <i>Amphipora</i> sp. | Middle to Late Devonian? | W.A. Oliver, Jr., and Helen Duncan, 1958 |
| | 63AWr135 (7182-SD) | | Stromatoporoids: <i>Amphipora</i> sp. | Middle to Late Devonian | W.A. Oliver, Jr., 1963 | |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | Fossils | AGE | IDENTIFIED BY |
|---|-------------|--------------------------------|--|---|--|--|
| Yolovans Limestone (Early Silurian to Middle Devonian; DSt) | *44 | 84AWr314 (7341-SD) | 85°17'16"/ 148°08'08" (B-3) | Corals: <i>Dendrosetella (Columnaria)</i> <i>rhensana</i> | Middle Devonian | W.A. Oliver, Jr., 1966 |
| | | 87AWr170 (8022-SD) | | Corals: <i>Dendrosetella</i> or <i>Palaeophyllum</i> , <i>Lyrialeasma?</i> , <i>Syringopora</i> Tentaculitids: <i>Tentaculites</i> <i>Ostracodes?</i> | Probably Middle Devonian | C.W. Merriam, 1972 |
| | | 71AWr189 | | Corals: <i>Dendrosetella</i> sp. cf. <i>D.</i> <i>rhensana</i> , <i>Syringopora</i> sp., | Middle Devonian | W.A. Oliver, Jr., 1972 |
| | | | | Corals: <i>Dendrosetella</i> sp. cf. <i>D. rhensana</i> | Middle Devonian | W.A. Oliver, Jr., 1971 |
| | *45 | 76ACh206 (8094-SD) | 85°17'30"/ 148°08'04" (B-3) | Corals: <i>Cleodopora</i> sp., <i>Dendrosetella</i> sp. Stromatoporoids: <i>Amphipora</i> sp., massive stromatoporoid | Middle Devonian | W.A. Oliver, Jr., 1978 |
| | 46 | 60ATb176 | 86°05'31"/ 148°55'49" (A-4) | Corals: "Microplasma" sp. Brachiopods, under. | Devonian | W.A. Oliver, Jr., 1966 |
| | 47 | 86ABd42 | 86°28'18"/ 147°32'57" (B-2) | Undetermined dendroid tabulate corals | Silurian or Devonian | R.B. Blodgett, 1966 |
| | 48 | 86ABd41 (11442-SD) | 86°28'07"/ 147°33'05" (B-2) | Conodonts: <i>Ozarkodina</i> sp. indet., <i>Pandorodus</i> sp. indet. CAI=5-5.5 Gastropod, under. | Silurian to Early Devonian | A.G. Harris, K.E. Denker, and R.B. Blodgett, 1966 |
| | 49 | 60MCD F-67, Univ. Alaska | 86°28'53"/ 147°35'10" (B-2) | Brachiopods: <i>Pantamurus</i> sp. Corals: <i>Favosites</i> sp. | Probably Silurian | Helen Duncan and J.M. Berdan, 1960 |
| | 50 | 04P240-348 | 86°28'34"/ 147°35'41" (B-2) | Brachiopods: <i>Conchidium?</i> sp. Corals: <i>Cyathophyllum</i> sp., <i>Favosites</i> cf. <i>F. livosus</i> , <i>F. cf. F.</i> <i>nigerrimus</i> , <i>F. sp.</i> , <i>Zaphrentis</i> sp. | Silurian | Edwin Kirk, pre-1937 |
| 51 | 04AP192-195 | 86°27'51"/ 147°36'45" (B-2) | Ostracodes: <i>Cythereis</i> sp. Bryozoans: <i>Ptilodictya</i> cf. <i>P. fronsosa</i> Corals and stromatoporoids: <i>Cleodopora</i> sp., <i>Favosites</i> cf. <i>F.</i> <i>limbata</i> , <i>Stromatopora</i> sp. | Silurian or Devonian | Edwin Kirk, pre-1937 | |
| 52 | 04AH186 | 86°27'46"/ 147°36'33" (B-2) | Corals: <i>Favosites</i> sp., <i>Cleodopora</i> sp. | Silurian | Edwin Kirk, pre-1937 | |
| 53 | 21AMt33 | 86°27'08"/ 147°44'10" (B-2) | Brachiopods: <i>Clyrinella?</i> sp. | Silurian | Edwin Kirk, pre-1937 | |
| 54 | 86ABd58 | 86°22'17"/ 147°56'53" (B-2) | Undetermined dendroid tabulate corals | Silurian or Devonian | R.B. Blodgett, 1966 | |
| *55 | 86ABd44 | 86°28'30"/ 147°32'50" (B-2) | Ostracodes: <i>Brintina</i> sp. Gastropods: <i>Stromatopora</i> (n. subgen.) sp. aff. <i>S. (Serpulospira)</i> , indet. high-spired form | Devonian (possibly Middle) | J.M. Berdan and R.B. Blodgett, 1966; J.M. Berdan, 1967 | |
| Schwabika unit (Early and Middle Devonian; Dst) | 56 | 28AMt54 | ~85°53'06"/ ~147°15'35" (D-1) | Corals: <i>Avalosites</i> sp., <i>Cleodopora</i> sp., <i>Cyathophyllum</i> sp., <i>Favosites</i> sp. | Devonian | Edwin Kirk, pre-1937 |
| | 57 | 28AMt64 | ~85°53'22"/ ~147°18'02" (D-1) | Crinoid columnals | Devonian | Edwin Kirk, pre-1937 |
| | 58 | 70AWr181 | 85°55'57"/ 147°10'05" (D-1) | Stromatoporoids: <i>Amphipora</i> sp. | Devonian (Eifelian to Frasnian?) | W.A. Oliver, Jr., 1971 |
| | 59 | 88ACh231 (8735-SD) | 86°55'49"/ 147°12'10" (D-1) | Stromatoporoids: <i>Amphipora</i> sp. | Devonian (Eifelian to Frasnian?) | W.A. Oliver, Jr., 1971 |
| | 60 | 88ACh233 (8736-SD) | 86°55'55"/ 147°13'20" (D-1) | Stromatoporoids: <i>Amphipora</i> sp. | Devonian (Eifelian to Frasnian?) | W.A. Oliver, Jr., 1971 |
| | 61 | 86ABd37 (11440-SD) | 86°58'40"/ 147°10'50" (D-1) | Two-hole crinoid ossicles, indet. conodont fragments CAI=5.5 | Early or Middle Devonian (Emsian or Eifelian) | A.G. Harris and K.E. Denker, 1966 |
| | 62 | 86ABd38 (11441-SD) | 86°55'53"/ 147°10'52" (D-1) | Conodonts: <i>Pandorodus</i> sp., <i>Pandorinellina</i> sp., <i>Pekelognathus</i> sp. CAI=5.5 Two-hole crinoid ossicles | Early or Middle Devonian (Emsian or Eifelian) | A.G. Harris and K.E. Denker, 1966 |
| | 63 | 70ACh30f (8737-SD) | 86°56'00"/ 147°11'00" (D-1) | Stromatoporoids: <i>Amphipora</i> sp. | Devonian (Eifelian or older to Frasnian?) | W.A. Oliver, Jr., 1971 |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN.) | LATITUDE N./ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|------------------------|--------------------------------|--|---|--|--|
| Schemata unit (Early and Middle Devonian; Dd) | *64 | 85AWr67 (11170-SD) | 85°55'53"/ 147°11'55" (D-1) | Conodonts: <i>Belodella</i> sp., <i>Icriodus</i> sp., <i>Neopanderodus</i> sp. or <i>Panderodus</i> sp., <i>Ozarkodina</i> sp. or <i>Pandorinellina</i> sp. CAI=5.5-6 | Early or Middle Devonian (late Emsian or Eifelian) | A.G. Harris, 1986 |
| | *65 | 87ABd52 (11878-SD) | 85°56'08"/ 147°07'46" (D-1) | Conodonts: <i>Panderodus</i> sp., <i>Pelekysgnathus</i> sp., <i>Polygnathus</i> cf. <i>P. parvulus</i> , redeposited <i>Belodina</i> sp. (Middle-Late Ordovician) CAI=5-5.5 | Early Devonian (middle Emsian) | A.G. Harris, 1988 |
| | 68 | 87ABd48 (11909-SD) | 85°55'42"/ 147°08'29" (D-1) | Conodonts: <i>Belodella devonica</i> , <i>Ozarkodina</i> sp., <i>Panderodus</i> sp., <i>Pelekysgnathus</i> sp. CAI=5-5.5 | Early Devonian | A.G. Harris, 1988 |
| | *67 | 87ABd54 (11910-SD) | 85°54'54"/ 147°00'35" (D-1) | Conodonts: <i>Belodella devonica</i> , <i>Panderodus</i> sp., <i>Pandorinellina exigua</i> , <i>Polygnathus</i> sp. CAI=5.5 Two-hole crinoid ossicles | Early Devonian (Emsian) | A.G. Harris, 1988 |
| | 68 | 88ABd33 (11438-SD) | 85°55'23"/ 147°11'05" (D-1) | Conodonts: <i>Belodella</i> sp., <i>Pandorinellina</i> sp., <i>Panderodus</i> sp., <i>Pelekysgnathus</i> sp. CAI=5.5 | Early Devonian (Emsian- Givetian, probably Emsian) | A.G. Harris, 1988 |
| | 69 | 87ABd82 | 85°53'23"/ 147°14'10" (D-1) | Crinoid ossicles including two-hole ossicles of <i>Gasterocoma? bicauli</i> | Early or Middle Devonian (Emsian or Eifelian) | R.B. Stodgett, 1987 |
| | | *87ABd82 (11913-SD) | | Conodonts: <i>Panderodus</i> sp., <i>Pandorinellina exigua</i> aff. <i>P. a.</i> <i>philipi</i> , <i>Pelekysgnathus</i> sp. CAI=5.5-6 | Early Devonian (Emsian) | A.G. Harris, 1988 |
| | *70 | 87APr137A (11916-SD) | 85°48'17"/ 147°48'05" (D-1) | Conodonts: <i>Belodella</i> sp., <i>Ozarkodina?</i> sp., <i>Panderodus</i> sp., <i>Pandorinellina exigua</i> aff. <i>P. a.</i> <i>exigua</i> , <i>Pelekysgnathus</i> sp. CAI=5-5.5 | Early Devonian (Emsian) | A.G. Harris, 1988 |
| | *71 | 87ABd61 (11912-SD) | 85°53'33"/ 147°16'09" (D-1) | Crinoid ossicles (including two-hole ossicles of <i>Gasterocoma? bicauli</i>) | Early or Middle Devonian (Emsian or Eifelian) | R.B. Stodgett, 1987 |
| | | | | Conodonts: <i>Panderodus</i> sp., <i>Pelekysgnathus</i> sp. CAI=5.5 | Early or Middle Devonian (Emsian or Eifelian) | A.G. Harris, 1988 |
| | 72 | 87ABd60 (11911-SD) | 85°53'34"/ 147°16'18" (D-1) | Crinoid ossicles | Early or Middle Devonian (Emsian or Eifelian) | R.B. Stodgett, 1987 |
| | | | | Rugose corals Conodonts: <i>Ozarkodina</i> sp. or <i>Pandorinellina</i> sp., <i>Polygnathus</i> sp. CAI=5.5 | Early or Middle Devonian (Emsian or early Eifelian) | A.G. Harris, 1988 |
| | *73 | 87ABd72 (11914-SD) | 85°52'57"/ 147°18'31" (D-1) | Conodonts: <i>Belodella devonica</i> , <i>Pandorinellina</i> sp. CAI=5.5-6 Two-hole crinoid ossicles | Early or Middle Devonian (Emsian or early Eifelian) | A.G. Harris and R.C. Orndorff, 1988 |
| 74 | 88ADc138 (11443-SD) | 85°52'55"/ 147°18'27" (D-1) | Conodonts: <i>Panderodus</i> sp., <i>Polygnathus</i> sp. of Eifelian morphotype CAI=5.5 | Middle Devonian, probably Eifelian | A.G. Harris and K.E. Denkler, 1988 | |
| *75 | 88ABd35 (11439-SD) | 85°55'35"/ 147°10'48" (D-1) | Conodonts: <i>Belodella</i> sp., <i>Icriodus</i> sp. of Middle to Late Devonian morphotype, <i>Pandorinellina</i> sp., <i>Polygnathus</i> <i>linguliformis</i> , <i>P.</i> spp. of late Eifelian-Givetian aspect CAI=5-5.5 | Middle Devonian, probably Eifelian | A.G. Harris and K.E. Denkler, 1988 | |
| *76 | 87ABd74 (11915-SD) | 85°55'35"/ 147°10'48" (D-1) | Conodonts: <i>Belodella devonica</i> , <i>Icriodus</i> sp. of Middle Devonian morphotype, <i>Panderodus</i> sp., <i>Pandorinellina</i> aff. <i>P. expansa</i> , <i>Polygnathus</i> aff. <i>P. costatus</i> <i>costatus</i> , <i>Polygnathus</i> sp. CAI=5-5.5 | Middle Devonian (early Eifelian) | A.G. Harris and R.C. Orndorff, 1988 | |
| 77 | 63ABg(?) | | Conodonts: <i>Belodella devonica</i> , <i>Icriodus</i> sp. of Middle Devonian morphotype, <i>Panderodus</i> sp., <i>Pandorinellina</i> aff. <i>P. expansa</i> , <i>Polygnathus</i> aff. <i>P. costatus</i> <i>costatus</i> , <i>Polygnathus</i> sp. CAI=5-5.5 | Middle Devonian | A.L. Bowsher, 1983 | |
| Cascades Ridge unit (Middle Devonian; Dd) | 77 | 63ABg(?) | 85°29'08"/ 148°21'54" (B-3) | Pelacypods, trilobite pygidium | Middle Devonian | A.L. Bowsher, 1983 |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO. | FIELD NO. (USGS COLLN.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|-----------------------------------|--------------------------------|---|---|--|---|
| Cassocken Ridge unit (Middle Devonian; Dc) | 77 | *60A7b85 (140873) | 85°29'08"/ 148°21'44" (B-3) | Pelecypods: <i>Actinopteria taberi</i> , crinoid stem plate | Middle Devonian(?) | A.L. McAlister, 1960 |
| | | 88ACn971 | | Tentaculitids: <i>Dicrinops</i> n. sp. | Devonian | Claire Carter, 1969 |
| | | 78ACH7 | | Pelecypods: <i>Actinopteria cf. A. taberi</i> | Late(?) Devonian | J. Pojeta, Jr., and J.T. Dutro, Jr., 1978 |
| 78 | 67AF117 (8069-SD) | 82WG1, Alaska D.G.G.S. | 85°28'32"/ 148°27'40" (B-3) | Pelecypods: <i>Actinopteria</i> spp., ?Goniatites, <i>Murchisonia</i> sp. | Devonian(?) | J. Pojeta, Jr., and E.L. Yochelson, 1967 |
| | | | | Pelecypods: <i>Actinopteria cf. A. taberi</i> Crinoid ossicles | Middle Devonian (late Eifelian to early Givetian) | R.B. Blodgett, 1982 |
| | | | | Mollusks: <i>Bellerophon</i> sp., <i>Murchisonia</i> sp., fragmentary bivalves Indet. | Middle Devonian (late Eifelian to early Givetian) | R.B. Blodgett, 1982 |
| | | | | Mollusks: <i>Bellerophon</i> sp., fragmentary bivalves Indet. | Middle Devonian (late Eifelian to early Givetian) | R.B. Blodgett, 1982 |
| 79 | 82WG4, Alaska, D.G.G.S. | 85°29'35"/ 148°27'20" (B-3) | Brachiopods: <i>Variatrypa</i> sp., Dendroid tabulate corals Low-spired gastropods Pelecypods: <i>Actinopteria cf. A. taberi</i> , <i>Murchisonia</i> sp., Indet. bivalves | Middle Devonian (late Eifelian to early Givetian) | R.B. Blodgett, 1982 | |
| *80 | 82AWr30 (10847-SD) *(38775) | | 85°29'18"/ 148°28'02" (B-3) | Corals: <i>Tremophyllum?</i> sp. | Devonian (Givetian?) | W.A. Oliver, Jr., 1984 |
| | *84AWr88A (11018-SD) | *84AWr88B (11017-SD) | 85°29'20"/ 148°27'49" (B-3) | Brachiopods: <i>Schizophoria</i> sp. Gastropods: <i>Actinia?</i> sp., <i>Alekozycopleura</i> <i>crassicoستا</i> , <i>Bellerophon</i> (<i>B. chapmani</i> , <i>B. (B.)</i> <i>ivengoodensis</i> , <i>Bambesia</i> sp., <i>Bucanopsis sullivani</i> , <i>Bucella nodosa</i> , <i>Callistodora?</i> sp., <i>Clethronema cloughi</i> , <i>Euryzona</i> n. sp., " <i>Goniatites</i> " <i>plumleyi</i> , <i>Gyronema</i> <i>ormisani</i> , <i>Hypomphalocrurus</i> cf. <i>H. rugosus</i> , <i>Loxonema</i> sp. 1, L. sp. 2, " <i>Loxonema</i> " cf. <i>L.</i> <i>cingulatum</i> , <i>Mesigospira</i> <i>weberae</i> , <i>Murchisonia (M.)</i> sp., <i>Naticopsis (N.) bowsheri</i> , <i>N. (Jedria) deckeri</i> , <i>N. (N.)</i> sp., <i>Paleozycopleura</i> sp., <i>Peruvia spira churkini</i> , <i>Pseudomphalocrurus</i> <i>lindeyi</i> , <i>Ptychomphalina</i> sp., <i>Reticularia</i> sp., <i>Stagoceras?</i> (<i>Tesaria</i>) sp., <i>Siraperotus</i> (<i>Euomphalus</i>) <i>bundtzreni</i> , <i>S.</i> (<i>Serpulospira</i>) sp., <i>Sirobeus</i> aff. <i>S. pulchella</i> , <i>Subulites</i> (<i>Fusilepsira</i>) sp., Orthoconic nautiloids Scaphopods: <i>Rhynchonella</i> sp., <i>Prodentulum</i> sp. Tentaculitids: <i>Dicrinops</i> sp. Trilobites: <i>Dechenella</i> sp. Echinoderms: <i>Pholidoceras</i> n. sp., Calcarea algae: <i>Coelotrochium</i> sp. Solitary rugose and dendroid tabulate corals | Middle Devonian (early Eifelian) | A.G. Harris, 1984 |
| | | | | Coronoids: <i>Polygnathus costatus costatus</i> , <i>P. linguliformis linguliformis</i> , <i>P.</i> sp. CAI-5 | Middle Devonian (early Eifelian) | A.G. Harris, 1984 |
| | | | | Coronoids: <i>Polygnathus parvobolli</i> CAI-5 | Middle Devonian (early Eifelian) | A.G. Harris, 1984 |
| 81 | 88ABd51-53 | 85°29'20"/ 148°27'49" (B-3) | Trilobites: <i>Dechenella (Dechenella) sp.</i> Pelecypods | Devonian | R.B. Blodgett, 1980 | |
| 82 | 21AM1182 | 85°30'37"/ 148°32'28" (C-4) | Bryozoa: <i>Fistulopora</i> sp. Corals: <i>Cyathophyllum?</i> sp. | Mississippian | G.H. Girty, pre-1937 | |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FÓSILS | AGE | IDENTIFIED BY |
|--|-----------------------------|-----------------------------------|---|---|---|------------------------|
| Cascaden Ridge unit (Middle Devonian; Dc) | 82 | 70ACh3101 | 66°30'37"/ 148°32'28" (C-4) | Palaeozoan debris (crinoid stem plates) | ? | W.A. Oliver, Jr., 1971 |
| | | 70ACh3111 (8718-SD) | | Corals: <i>Favosites</i> sp., thamnoporoids, <i>rugosites</i> | Silurian to Late Devonian | W.A. Oliver, Jr., 1971 |
| | | 70ACh3121 | | Palaeozoan debris (crinoid stem plates) | ? | W.A. Oliver, Jr., 1971 |
| | | *70ACh3131 (8717-SD) | | Corals: <i>Cladopora</i> sp., <i>Hedolites</i> sp., <i>Stringophyllum</i> (<i>Sociophyllum</i>) sp., <i>Thamnopora</i> sp. | Middle Devonian | W.A. Oliver, Jr., 1971 |
| | | 73E467, 73E494 Alaska D.G.G.S. | | Corals: <i>Actinophyllum</i> sp., Indeterminate coral debris | Probably Devonian | C.W. Merriam, 1974 |
| | | *82AWr3 (10431-SD) | | Corals: <i>Grypophyllum</i> sp. cf. <i>G.</i> <i>aquilinum</i> , <i>Sociophyllum</i> sp. | Middle Devonian | W.A. Oliver, Jr., 1984 |
| | | 63ARb2 (10949-SD) | | Corals: <i>Avalonites</i> sp., <i>Autocystis?</i> sp., <i>Pachylavosites</i> sp., <i>Thamnopora</i> sp., <i>rugosites</i> Massive bryozoans | Early or Middle Devonian | W.A. Oliver, Jr., 1984 |
| 83 | 73E114R Alaska | 66°30'23"/ 148°31'15" (C-4) | Crinoid columnals | middle or late Paleozoic | C.W. Merriam, 1974 | |
| 84 | 18AM84a | ~66°30'58"/ ~148°31'35" (C-4) | Brachiopods: <i>Atrypa reticularis</i> , <i>Camerotoechia</i> sp. Corals: <i>Cyathophyllum caespitosum</i> | Middle Devonian | Edwin Kirk, pre-1937 | |
| | 82AGe10 Alaska D.G.G.S. | | Gastropods: <i>Murchisonia</i> sp., <i>Stropharctus?</i> sp. Bivalves Indet. Large crinoid ossicles | Middle Devonian(?) | R.B. Blodgett, 1982 | |
| | 64AWr198G | | Indeterminate pelacypod coquina | Devonian | R.B. Blodgett, 1984 | |
| *65 | 79ACn181 | 65°31'04"/ 148°31'52" (C-4) | Plums: <i>Densites</i> sp., <i>Hopthella</i> sp. | Devonian (latest Early or early Middle) | S.H. Mernay, 1980 | |
| | 83AWr3, 83RB5 (10950-SD) | | Conodonts: Bar fragment of Ordovician-Triassic morphotype Scolecodonta, tentaculid of Silurian through Frasnian morphotype, Ichthyoliths | Silurian to early Late Devonian | A.G. Harris, 1983 | |
| | | | Poorly preserved bryozoans | Paleozoic | O.L. Karkins, 1983 | |
| | | | *Ostracodes | Middle Devonian (Eifelian) | W.K. Braun, 1983 | |
| | | | *Corals: <i>Cladopora</i> sp., <i>Grypophyllum</i> sp. cf. <i>G. aquilinum</i> , <i>Neostrophophyllum?</i> sp., <i>Thamnopora</i> sp., Massive bryozoans Massive thamnoporoids | Middle Devonian (probably Givetian) | W.A. Oliver, Jr., 1984 | |
| 86, pl 10 | 60ATb85E, 94A | 65°27'14"/ 148°42'04" (B-4) | Brachiopods: Linguloid, Indet. fragments | Devonian(?) | J.T. Dutro, Jr., and J. Pojeta, Jr., 1988 | |
| | 82AWr187, 181, 194 | | Pelacypods: <i>Actinopteria</i> sp., <i>Tschizodonta</i> , <i>Bellerophoniscus</i> gastropod (possibly <i>Knightites</i> (<i>Bellegra</i>)) | Middle Devonian | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988 | |
| | 68ACn1001 | | Tentaculitids: <i>Nosella?</i> sp. | Devonian | Claire Carter, 1989 | |
| 87, pr 9 | 60ATb83A-C, 83F, G | 65°28'50"/ 148°48'09" (B-4) | Brachiopods: <i>Crurithyris?</i> sp., <i>Lelarthynchus</i> cf. <i>L. carya</i> , rhynchonelloids Pelacypod fragments, echinoderm fragments, thamnoporoid corals, crinoid columnals | Middle(?) Devonian | J.T. Dutro, Jr., and J. Pojeta, Jr., 1988; J.T. Dutro, Jr., 1987 | |
| | 82AWr182, 183 | | Brachiopods: <i>Crurithyris?</i> sp., <i>Lelarthynchus</i> cf. <i>L. carya</i> , <i>Warrenella</i> sp., fragments Low-spired gastropod, echinoderm fragments, thamnoporoid corals, <i>Tyrrhocidolites</i> pelacypods | Middle(?) Devonian | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988; J.T. Dutro, Jr., 1987 | |
| | *68ACn1802 | | Tentaculitids: <i>Siralpatythalina</i> cf. <i>S.</i> <i>roemeri</i> | Middle Devonian (early Eifelian to early Givetian) | Claire Carter, 1989 | |
| | 82AWr32 | | Trilobites: <i>Dechenella</i> aff. <i>D. haltemani</i> | Middle Devonian | A.R. Ormiston, 1977 | |
| | | | Trilobites: <i>Dechenella</i> aff. <i>D. haltemani</i> | Middle Devonian | A.R. Ormiston, 1982 | |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLUMN) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|--|--|--------------------------------|---|--|---|---|
| Cascades Ridge unit (Middle Devonian; Dc) | * 87, pl 9 | 82AWr32 | 65°28'50"/ 148°46'09" (B-4) | Bryozoa: <i>Leiorhynchus</i> (<i>Ypsilorrhynchus</i>) <i>miriam</i> ?, <i>Warrenella</i> cf. <i>W. kirt</i> (Merriam), <i>ambocoelid</i> | Middle Devonian (late Eifelian) | J.G. Johnson and R.B. Blodgett, 1988 |
| | | *82AWr32 | | Trilobites: <i>Dechenella</i> cf. <i>D. mclerreri</i> Ormiston shows affinities to Canadian Arctic Islands species rather than to <i>D.</i> <i>heldermeyeri</i> of New York | Middle Devonian (Eifelian?) | A.R. Ormiston, 1982 |
| 88, pl 8 vic | 82AWr180, 182, 185, 178 | 65°28'37"/ 148°47'25" (B-4) | Bryozoa: <i>Schizophoria</i> sp., <i>Sphenotrypa</i> sp., <i>Echinopora</i> sp., Corals: <i>Favosites</i> sp., thamnoporoids Gastropod steinkern, ?Cypricardinid and ?schizodont pelecypods, large palmatocoran columnals, echinoderm fragments | Middle Devonian | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988; J.T. Dutro, Jr., 1987 | |
| | | | *88ACn1821 (8173-SD) | Corals: <i>Alveolites</i> sp., <i>Chosorophyllum</i> sp., <i>Cladopora</i> sp., <i>Favosites</i> sp., thamnoporoids Stromatopora: <i>Amphipora</i> ? sp. | Middle Devonian | W.A. Oliver, Jr., 1973 and 1984 |
| 89, pl 7 | 80ATb80D 82AWr138, 142, 145, 150, 152, 154, 156 | 65°28'24"/ 148°47'53" (B-4) | Possible organic burrow | Devonian(?) | J.T. Dutro, Jr. and J. Pojeta, Jr., 1988 | |
| | | | Thamnoporoids and horn corals Gastropods: <i>Liospira</i> ? sp., <i>Naticopsis</i> ? sp., bellerophonitacean, various indet. gastropods Pelecypods: <i>Grammysia</i> sp., ? <i>Nuculoides</i> sp., mytilacean, ?Cypricardinid Echinoderm columnals | Devonian | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988; J.T. Dutro, Jr., 1987 | |
| | | | 88ABd32B | Gastropods, pelecypods, and orthoceran cephalopods | Devonian | R.B. Blodgett, 1980 |
| 90, pl 6 | 80ATb798, C, D 82AWr116, 118, 125, 127 | 65°28'28"/ 148°48'25" (B-4) | Thamnoporoid corals Pelecypods: ?Cypricardella sp., ?Grammysia sp., ?Goniophora sp., ?Cypricardinid, ?schizodont | Devonian(?) | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988; J.T. Dutro, Jr., 1987 | |
| | | | Gastropods: bellerophonitacean Pelecypods: <i>Actinopteria</i> sp., ?Cypricardella sp., ?Decaptrix sp., ?Cypricardinid, ?schizodont | Devonian | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988; J.T. Dutro, Jr., 1987 | |
| 91 pl 5 | 80ATb78A-D 82AWr74, 76, 80, 83, 85, 82, 95, 97, 98, 100, 104, 106, 107- 109 | 65°28'14"/ 148°49'15" (B-4) | Thamnoporoid corals, pelecypods, gastropods, crinoid columnals | Devonian(?) | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988 | |
| | | | Thamnoporoid corals, echinoderm columnals Gastropods: pleurotomariacean, gastropods indet. Pelecypods: <i>Actinopteria</i> sp., ?Cypricardella sp., <i>Goniophora</i> sp., aff. <i>Liospira</i> sp., <i>Murchisonia</i> sp., <i>Palaemonia</i> sp., ? <i>Straparolites</i> (<i>Eupomphalus</i>) sp., cypricardinid, murchisonid, nuculoid, ?schizodont, pteriacoran indet. plant fragments | Middle Devonian | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988; J.T. Dutro, Jr., 1987 | |
| 92 pl 4 | 82AWr65, 87, 71, 72 | 65°28'13"/ 148°50'00" (B-4) | Echinoderm columnals Pelecypods: <i>Actinopteria</i> sp., ?Cypricardella sp., ?Cypricardinid, nuculoid, ?schizodont indet. plant fragments | Middle Devonian | J.T. Dutro, Jr., J. Pojeta, Jr., and E.L. Yochelson, 1988; J.T. Dutro, Jr., 1987 | |
| 93, pl 3 | 80ATb76D | 65°28'02"/ 148°51'05" (B-4) | ?Cypricardinid pelecypod | Devonian | J.T. Dutro, Jr., and J. Pojeta, Jr., 1988 | |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|---------------------|---|---|--|--|---|
| Cascades Ridge unit (Middle Devonian; Dc) | 93, pit 3 | 82AWr24, 28, 31, 34, 39, 41, 45, 47, 51, 53 | 85°28'02"/ 148°51'54" (B-4) | Cephalopods: orthoconoid fragment Gastropods: bellerophonitacean Pelecypods: <i>Actinopteria</i> sp., ? <i>Palaemonella</i> sp., ?cypricardinid, nuculoid, schizodont, pelecypod fragments | Middle Devonian | J.T. Duro, Jr., J. Pajeta, Jr., and E.L. Yochelson, 1988; J.T. Duro, Jr., 1987 |
| | 94, pit 2 | 82AWr5, 8, 9, 9A, 10, 11, 15, 17, 20 | 85°25'52"/ 148°51'54" (B-4) | Gastropods: <i>Bellerophon</i> sp. Pelecypods: <i>Actinopteria</i> sp., <i>Murchisonia</i> sp., ? <i>Mytilarca</i> sp., ? <i>Palaemonella</i> sp., ambonychialean, cypricardinid, ?gremmysioid, mytilacean, ?nuculoid, schizodont | Middle Devonian | J.T. Duro, Jr., J. Pajeta, Jr., and E.L. Yochelson, 1988; J.T. Duro, Jr., 1987 |
| | 95, pit 1 vlg | 71AWr223 | 85°28'27"/ 148°53'15" (B-4) | solitary rugose coral, indet. | Devonian(?) | J.T. Duro, Jr., 1972 |
| Troublesome unit (Devonian?; D1) | 96 | 89AWr187A | 85°23'00"/ 148°50'68" (B-8) | Recrystallized <i>Radiolaria</i> observed in thin section | Paleozoic(?) | F.R. Weber, 1988 |
| | 97 | 87ADc22 | 85°23'38"/ 148°48'46" (B-8) | Recrystallized <i>Radiolaria</i> observed in thin section | Paleozoic(?) | F.R. Weber, 1988 |
| | 98 | 82AWr189 | 85°24'02"/ 148°45'58" (B-8) | Recrystallized <i>Radiolaria</i> observed in thin section | Paleozoic(?) | F.R. Weber, 1988 |
| | 99 | 87ARm14 | 85°23'48"/ 148°44'01" (B-8) | Recrystallized <i>Radiolaria</i> observed in thin section | Paleozoic(?) | F.R. Weber, 1988 |
| Quail unit, clastics (Late Devonian; Dq) | 100 | 02AP28 | -85°23'12"/ ~149°42'21" (B-8) | Corals: <i>Acantharia</i> sp., <i>Cladopora</i> sp. Stromatoporoids: <i>Stromatopora</i> sp. | Devonian | Edwin Kirk, pre-1937 |
| | | 04AP301 | | Corals: <i>Acantharia</i> sp., <i>Cladopora</i> sp. Stromatoporoids: <i>Stromatopora</i> sp. | Devonian | Edwin Kirk, pre-1937 |
| | 101 | 04AP303 | -85°21'19"/ ~149°48'48" (B-8) | Corals: <i>Cyathophyllum</i> sp. | Devonian | Edwin Kirk, pre-1937 |
| | | 07AP268 | | Corals: <i>Cyathophyllum</i> sp., <i>Cladopora</i> sp. | Devonian | Edwin Kirk, pre-1937 |
| | 102 | 88AKw127f | 85°21'33"/ 149°38'20" (B-8) | Traostomatid bryozoan, echinoderm debris | Ordovician to Permian | R.B. Slodgett, 1988 |
| | *103 | 87ABd76 (10857-CO) | 85°25'55"/ 149°04'09" (B-8) | Conodonts: <i>Belodina</i> sp., <i>Panderodus</i> sp., <i>Pseudobelodina dispense</i> CAI=5.5-8 (from clast in conglomerate) | Middle or Late Ordovician (late Blackriveran to Gemachian) | A.G. Harris and R.C. Orndorff, 1988 |
| 87ABd75A (10858-CO) | | | Conodonts: <i>Ematiodon?</i> sp., <i>Periodon</i> <i>aculeatus</i> CAI=5.5-8 (from clast in conglomerate) | Middle or Late Ordovician (late Blackriveran to Gemachian) | A.G. Harris and R.C. Orndorff, 1988 | |
| 87ABd75B (10859-CO) | | | Conodonts: "Olistodus" <i>verrucosus</i> , <i>Phragmodus</i> sp. or <i>Periodon</i> sp., <i>Pseudobelodina dispense</i> CAI=5.5-8 (from clast in conglomerate) | Middle or Late Ordovician (late Blackriveran to Gemachian) | A.G. Harris and R.C. Orndorff, 1988 | |
| Quail unit, limestone (Late Devonian; Dql) | *104 | 82ACH48A (10821-SD) | 85°25'38"/ 148°49'38" (B-8) | Conodonts: early <i>Ancyrodella?</i> sp. indet., <i>Icriodus</i> cf. <i>I. brevis</i> , <i>Polygnathus</i> cf. <i>P. verrucosus</i> , <i>P.</i> spp. CAI=5-5.5 Grinoids present | early Late Devonian (Frasnian) | A.G. Harris, 1982 |
| | | 87ABd20 (11872-SD) | | Conodonts: <i>Ancyrodella</i> sp., <i>Icriodus</i> sp. of Middle to Late Devonian morphotypes, <i>Polygnathus</i> spp. of Givetian to Frasnian morphotype CAI=6 | early Late Devonian (Frasnian) | A.G. Harris, 1988 |
| | *105 | 87ABd28 (11878-SD) | 85°24'27"/ 148°50'45" (B-8) | Conodonts: <i>Belodina</i> sp., <i>Icriodus</i> sp., <i>Palmitolepis</i> sp. indet., <i>Polygnathus</i> spp. of Frasnian morphotype CAI=6 Grinoid ossicles | early Late Devonian (Frasnian) | A.G. Harris, 1988 |
| | | | | Devonian | R.B. Slodgett, 1987 | |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO. | FIELD NO. (USGS COLL.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|------------------------|---|---|--|---|---|
| Quail unit, limestone (Late Devonian; Dq1) | *108 | 87ABd27 (11807-SD) | 85°24'23"/ 149°50'22" (B-6) | Conodonts: <i>Ancyrodella</i> sp., <i>Palmatolepis?</i> sp. indet., <i>Polygnathus</i> spp. of Givetian to Frasnian morphotype CAI=5 | early Late Devonian (Frasnian) | A.G. Harris, 1988 |
| | *107 | 87ABd24A (11873-SD) | 85°24'00"/ 149°50'38" (B-6) | Conodonts: <i>Isrionus</i> sp. of Middle to Late Devonian morphotype, <i>Polygnathus</i> sp. CAI=5 | early Late Devonian (Frasnian) | A.G. Harris, 1988 |
| | | 87ABd24B (11806-SD) | | Conodonts: <i>Bolodella</i> sp., <i>Palmatolepis</i> sp. of Frasnian morphotype, <i>Polygnathus</i> spp. of Givetian to Frasnian morphotype CAI=5 | early Late Devonian (Frasnian) | A.G. Harris, 1988 |
| | | | | Abundant crinoid ossicles, stromatoporoids | Devonian | R.B. Blodgett, 1987 |
| | *108 | 87ABd23 (11874-SD) | 85°23'53"/ 149°50'37" (B-6) | Conodonts: <i>Palmatolepis</i> sp. of <i>P. gigas</i> Zone to <i>P. triangularis</i> Zone morphotype, <i>Palmatolepis</i> spp., <i>Polygnathus</i> spp. CAI=5 | early Late Devonian (Frasnian) | A.G. Harris, 1988 |
| | | | | Recrystallized corals | Devonian | R.B. Blodgett, 1987 |
| | *109 | 87ABd25 (11875-SD) | 85°22'18"/ 149°49'36" (B-6) | Conodonts: <i>Palmatolepis</i> spp. of Frasnian morphotype, <i>Palmatolepis</i> sp. indet., <i>Polygnathus</i> spp. of Givetian to Frasnian morphotype CAI=5 | early Late Devonian (Frasnian) | A.G. Harris, 1988 |
| | 110 | 07AP277 | 85°21'55"/ 149°46'20" (B-6) | Corals: <i>Acerularia</i> sp., <i>Amplexus?</i> sp., <i>Cladopora</i> sp., <i>Streptelasma?</i> sp., <i>Syringopora</i> sp. Pelecypoda: <i>Megalomus?</i> sp., <i>Pleurotomaria?</i> sp. | Devonian | Edwin Kirk, pre-1937 |
| | | 22Am1133 | | Corals: <i>Halyptus?</i> sp. | Devonian | Edwin Kirk, pre-1937 |
| | | 31AM1132 | | Corals: <i>Cladopora</i> sp. | Devonian | Edwin Kirk, pre-1937 |
| | *87ABd10 (11877-SD) | Conodonts: <i>Ancyrodella</i> sp., <i>Bolodella</i> sp., <i>Palmatolepis</i> aff. <i>P.</i> <i>triangularis</i> , <i>P.</i> spp., <i>Polygnathus evidens</i> , <i>P.</i> <i>pacificus</i> , <i>P. planarius</i> , <i>P.</i> spp. CAI=5-5.5 | | early Late Devonian (late Frasnian) | A.G. Harris, 1988 | |
| | | | Rugose and tabulate corals, lamellar stromatoporoids | Devonian | R.B. Blodgett, 1987 | |
| | | | Corals: <i>Smithocyathus</i> sp. aff. <i>S.</i> <i>tuberosus</i> , <i>S. meridarium</i> , <i>S.</i> sp. aff. <i>S. occidentalis</i> , <i>S.</i> <i>ampulum</i> , <i>Fraxetozoa</i> sp., <i>Micropora</i> sp. | early Late Devonian (late Frasnian) | J.E. Soreau, 1989 | |
| 111 | 87ABd9 (11558- SD) | 85°21'65"/ 149°46'09" (B-6) | Conodonts: <i>Polygnathus</i> sp. Sponge spicules Rare tabulate corals | Middle or Late Devonian | K.E. Denker, 1987 | |
| 112 | 85AWr49 | 85°22'28"/ 149°44'40" (B-6) | Recrystallized crinoid ossicles | Devonian(?) | F.R. Weber, 1985 | |
| Upper Paleozoic (Devonian? to Permian?; PDms) | 113 | 1982? D.G.G.S. | 85°44'15"/ 148°03'27" (C-3) | Corals: <i>Syringopora</i> sp. | Sturrian to Mississippian | W.A. Oliver, Jr., and W.J. Sando, 1982 |
| | | 87ABd8 | | Corals: <i>Syringopora</i> sp. colonies | Sturrian to Mississippian | R.B. Blodgett, 1987 |
| | | 87ABd8b (11557-SD) | | Conodonts: <i>Polygnathus</i> sp. of Middle to Late Devonian morphotype CAI=5-5.5 | Middle to Late Devonian | K.E. Denker, 1987 |
| | | *87ABd8c (11558-SD) | | Conodonts: <i>Ozarkodina</i> sp., <i>Palmatolepis</i> sp. of Frasnian morphotype, <i>Polygnathus</i> cf. <i>P. perplexus</i> , <i>P.</i> sp. indet. of the <i>P.</i> <i>nodocostatus</i> group CAI=5.5 | late Late Devonian (late, but not latest Frasnian) | K.E. Denker, 1987 |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLL.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|--|---------------------------|---|---|------------------------------------|---|
| Upper Paleozoic (Devonian? to Permian? PDms) | 114 | 04AP277 (2557- PC) | 85°41'35"/ 148°23'05" (C-3) | Brachiopods: <i>Productus</i> cf. <i>P. longispinus</i> Bryozoans: <i>Archimedes?</i> sp., <i>Fistulipora</i> sp., <i>Polypora?</i> sp., <i>Rhombopora</i> sp. Corals: <i>Lithostrotion?</i> sp. Gastropods: <i>Euomphalus</i> sp. | Mississippian(?) | E.M. Kindle and G.H. Girty, pre-1937 |
| | | 04AH213 (2553- PC) | | Brachiopods: <i>Productus</i> sp. Bryozoans: <i>Fenestella</i> sp., <i>Rhombopora</i> sp., <i>Stenopora</i> sp. Mollusks: <i>Lima?</i> sp. | Mississippian(?) | E.M. Kindle and G.H. Girty, pre-1937 |
| | 115 | 18AOF7 (2594- PC) | 85°40'33"/ 148°27'41" (C-3) | *Echinoderm debris, fenestellid, rhomboporoid, and stenoporoid bryozoans, rhynchonellid productoid fragments | late Paleozoic (Early Permian?) | J.T. Duro, Jr., 1970 |
| | | | | Brachiopods: <i>Spirifer</i> cf. <i>S. arcticus</i> Bryozoans: <i>Batozomella</i> sp., <i>Fenestella</i> sp., <i>Rhombopora</i> sp., <i>Stenopora</i> sp. Crinoid columns | Mississippian | G.H. Girty, pre-1937 |
| Sedimentary rocks (late Paleozoic; P2a) | 116 | 87ABd30 | 85°27'12"/ 149°43'54" (B-8) | Recrystallized crinoid ossicles, indet. brachiopods | Paleozoic | R.B. Blodgett, 1987 |
| | Permian sedimentary rock unit (Permian; Ps) | 117 | 07AP318 | Brachiopods: <i>Camerozonia?</i> sp., <i>Chonetes?</i> sp., <i>Deltothyris?</i> sp., <i>Rhynchonella</i> sp., <i>Strophodontia</i> sp. Echinoderms: <i>Platycrinus</i> sp. | Mississippian? | E.M. Kindle and G.H. Girty, pre-1937 |
| *Brachiopods: <i>Chonetes</i> sp., <i>Marginites?</i> sp., <i>Spiriferinae?</i> sp., <i>Stenoceras?</i> sp., rhynchonellid Bryozoans: rhomboporoids and stenoporoids Echinoderms: <i>Platycrinus?</i> sp., echinoderm debris Horn corals, high- and medium-spined gastropods | | | | late Paleozoic (Early Permian?) | J.T. Duro, Jr., 1970 | |
| 118 | | 07AP320 | 85°25'42"/ 149°55'46" (B-8) | See 07AP318 above, J.B. Merrill combined P318 and P320 although they are different localities | | |
| | | 89AWr232B | | Echinoderm debris, echinoid spine, fenestellid, rhomboporoid, and stenoporoid bryozoans, punctate spiriferoid fragment, euomphalid gastropod | late Paleozoic (Early Permian?) | J.T. Duro, Jr., 1970 |
| | | | | Echinoderm ossicles, fragmentary bryozoans | late Paleozoic (Early Permian?) | J.T. Duro, Jr., 1970 |
| | 119 | 18AOF2 (2575- PC) | 85°28'54"/ 149°55'05" (B-8) | Brachiopods: <i>Spiriferina?</i> sp., <i>Spirifer</i> sp. Bryozoans: <i>Batozomella</i> sp., <i>Fistulipora</i> sp., <i>Rhombopora?</i> sp. Corals: <i>Zaphrentis?</i> sp. Crinoid columns | Mississippian | G.H. Girty, pre-1937 |
| | | | | Echinoderm debris, bryozoan debris, brachiopod fragment, punctate spiriferoid | late Paleozoic (Early Permian?) | J.T. Duro, Jr., 1970 |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|----------|---------------------------|---|--|--|--------------------------------------|
| Permian sedimentary rock unit (Permian; Pa) | 120 | 18AOF5 (2592-PC) | 85°28'58"/ 149°55'05" (B-8) | Bryozoans: <i>Bastostomella</i> sp. Brachiopods: <i>Spirifer</i> sp. Corals: <i>Lophophyllum</i> sp. Crinoid columnals Echinoderm debris, bryozoan debris, brachiopod fragment, horn coral | Mississippian | G.H. Girty, pre-1937 |
| | 121 | 18AOF3 (2592-PC) | 86°28'28"/ 149°55'24" (B-8) | Bryozoans: <i>Bastostomella</i> sp., <i>Fistulipora</i> sp., <i>Stenopora</i> sp. Crinoid columnals Bryozoan debris, chestnut coral | Mississippian | G.H. Girty, pre-1937 |
| | 122 | 18AOF4 (2691-PC) | 85°28'02"/ 149°56'08" (B-8) | Bryozoans: <i>Bastostomella</i> sp., <i>Fistulipora</i> sp. Crinoid columnals Echinoderm debris, rhombopora and stenopora bryozoans, chestnut coral | late Paleozoic (Early Permian?) | J.T. Dutro, Jr., 1970 |
| | 123 | 60ATb380 | -85°23'32"/ -149°58'18" (B-8) | Bryozoan debris | Permian(?) | Helen Duncan, 1980 |
| | 124 | 89AWr215, 87AKw73 | -85°28'15"/ -149°55'38" (B-8) | Echinoderm ossicles, fragmentary bryozoans | late Paleozoic (Early Permian?) | J.T. Dutro, Jr., 1970 |
| | 125 | 18AOF6 (2591-PC) | 85°28'20"/ 149°40'38" (B-8) | Echinoderm and bryozoan debris | late Paleozoic (Early Permian?) | J.T. Dutro, Jr., 1970 |
| | *128 | 73ACH59 (29935-PC) | -85°24'57"/ -149°56'41" (B-8) | Foraminifera: <i>Nodosaria</i> spp. Conodonts: <i>Neogondolella</i> sp. of Permian morphotype CA1-5 | Permian | A.K. Armstrong, 1974 |
| | | | | | Permian (but not earliest or latest) | A.G. Harris, 1988 |
| Rampart Volcanics (Mississippian to Triassic; TMrv) | 127 | 87ACa10 | 85°41'40"/ 146°55'28" (C-4) | Phosphatized stinkerna of " <i>Deceptrix</i> " spp. (pelecypod) | Middle Ordovician to Early Devonian(?) | J. Fojtka, Jr., 1988 |
| | 128 | 04AP268 (2551-PC) | -85°52'50"/ -147°53'50" (D-2) | Brachiopods: <i>Hustedella</i> cf. <i>H. compressa</i> , <i>Spirifer</i> sp. Bryozoans: <i>Fistulipora</i> sp., <i>Rhombopora</i> sp., <i>Stenopora</i> ? sp. Echinoderm debris, rhombopora and stenopora bryozoans, horn corals, <i>Hustedella</i> sp. | Mississippian(?) | E.M. Kindle and G.H. Girty, pre-1937 |
| Rampart Volcanics (Mississippian to Triassic; TMrv) | 129 | 82S1054 (29105-PC) | 85°44'46"/ 149°49'08" (C-8) | Brachiopods: <i>Pseudosyringothyris</i> ? sp. | Permian | J.T. Dutro, Jr., 1989 |
| | 130 | 82S1051 (M33085) | 85°41'09"/ 149°50'08" (C-8) | Conodonts: <i>Neogondolella navicula</i> , <i>Xenograthus</i> sp. | late Middle or Late Triassic | B.R. Wardlaw, 1984 |
| | *131 | 87ATM184A (DR580) | 85°44'58"/ 149°20'50" (C-5) | Radiolarians: <i>Carpoceras macoyense</i> , <i>Carpoceras traversi</i> , <i>C. sp.</i> , <i>Carpoceras deweyi</i> , <i>C. schenki</i> , <i>C. sp.</i> , <i>Latium pascum</i> , <i>Pachus</i> sp., <i>Triapocampe</i> sp. | Late Triassic (late Karnian or early Norian) | C.D. Biome, 1988 |
| Triassic (Triassic; Ttr) | *132 | 88AWr83b | 85°42'09"/ 147°01'30" (C-1) | Conodonts: <i>Neogondolella</i> sp., <i>Xenograthus</i> sp. CA1-5 | Permian or Triassic | A.G. Harris, 1988 |
| | *133 | 87ADu3 | 85°31'32"/ 147°39'06" (C-2) | Conodonts: <i>Neogondolella</i> sp. CA1-5 Phosphatized gastropod shell fragments | Permian or Triassic | A.G. Harris, 1988 |
| Wolverine unit (Late Jurassic and (or) Early Cretaceous; KJw) | *134 | 22AM1113 (11390) | 85°21'13"/ 149°51'25" (B-8) | Echinoderms: <i>Pentacrinus</i> sp. Mollusks: <i>Aucella crassicaulis</i> , <i>Pecten</i> ? sp. Echinoderms: <i>Pentacrinus</i> sp. Mollusks: <i>Bucella</i> ? sp. indet., <i>Lima</i> or <i>Pseudolima</i> , <i>Oryzopsis</i> ? sp. | Early Cretaceous | T.W. Stanton, pre-1937 |
| | 135 | 87ADo48a | 85°27'00"/ 149°42'28" (B-8) | Coquina, bivalve shells | Late Jurassic or Early Cretaceous | J. Dover, 1987 |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO.* | FIELD NO. (USGS COLLN.) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|---|----------|--|---|---|---|---|
| Wolverine unit (Late Jurassic and (or) Early Cretaceous; KJw) | 136 | 87ARm42 | 65°26'45"/ 149°47'12" (B-6) | Coquina, bivalve shells | Late Jurassic or Early Cretaceous | Collector's identification, 1967 |
| | 137 | 80ATb359 | 65°22'39"/ 149°55'48" (B-6) | Bivalve molds | Late Jurassic or Early Cretaceous | Collector's identification, 1960 |
| | 138 | 80ATb353 | 65°22'25"/ 149°53'42" (B-6) | Bivalve molds | Late Jurassic or Early Cretaceous | Collector's identification, 1960 |
| | 139 | 87AKw41 | 65°21'22"/ 149°51'43" (B-6) | Fossil hash, bivalve molds | Late Jurassic or Early Cretaceous | Collector's identification, 1967 |
| | 140 | 22AM186 | -85°22'18"/ -149°53'40" (B-6) | Pelecypods: <i>Aucella?</i> sp., pelecypods indet. | Early Cretaceous | T.W. Stanton, pre-1937 |
| | 141 | 11AE6 | Quail-Little Minook Creek divide (B-6) | Mollusks: <i>Aucella crassicosta</i> , <i>Aucella</i> sp. | Early Cretaceous | T.W. Stanton, pre-1937 |
| Wilber Creek unit (Early Cretaceous; Albian; KwC) | 142 | 15B312 (1521A) | 65°43'43"/ 147°24'10" (C-1) | Pyritized wood? | ? | Collector's identification, 1915 |
| | 143 | 76ABdL1 | 65°19'40"/ 148°18'28" (B-3) | Pelecypods: <i>Inoceramus?</i> sp. | Jurassic or Cretaceous | R.S. Blodgett, 1978 |
| | 144 | Univ. Alaska, pre-1960 | 65°28'32"/ 148°16'18" (B-3) | Pelecypods: <i>Inoceramus?</i> sp. | Jurassic or Cretaceous | D.L. Jones, 1960 |
| | 145 | 59AHp68 (A-60-2M) | 65°03'43"/ 149°59'20" (A-6) | Pelecypods: <i>Inoceramus?</i> sp. | Jurassic or Cretaceous | D.L. Jones, 1960 |
| | *146 | 22AM105A (11392) | -85°20'48"/ -149°49'40" (B-6) | Gastropitid ammonite | Early Cretaceous (early or middle Albian) | D.L. Jones, 1971 |
| | 147 | 59AHp761 | 65°20'35"/ 147°46'33" (B-6) | Mollusks: <i>Inoceramus</i> n. sp.?, gastropitid ammonite | Early Cretaceous(?) (Albian?) | D.L. Jones, 1960 |
| | *148 | 88AWr12 | 65°20'12"/ 149°45'38" (B-6) | Ammonites: <i>Paragastropitites flexicostatus</i> | Early Cretaceous (middle Albian) | J.W. Miller, 1988 |
| | 149 | Martin, 1914 (9800) | 65°20'43"/ 149°46'06" (B-6) | Echinoderms: <i>Hemaster?</i> sp. Mollusks: <i>Cucullaea</i> sp., <i>Natica</i> sp., <i>Nemodon</i> sp., <i>Nucula</i> sp., <i>Pachydiscus?</i> sp., <i>Pecten</i> sp. | Late Cretaceous | T.W. Stanton, pre-1937 |
| | | | | Mollusks: Gastropitid ammonite, <i>Gephyroceras</i> sp., clams, snails | Early Cretaceous (Albian) | D.L. Jones, 1960 |
| Minto unit (Late Cretaceous?; Km) | 150 | 87AKw54 | 65°18'26"/ 149°53'59" (B-6) | Unidentified plant fragments | Late Cretaceous(?) | K.W. Wheeler, 1967 |
| | 151 | 87AKw53 | 65°18'08"/ 149°54'55" (B-6) | Unidentified plant fragments | Late Cretaceous | K.W. Wheeler, 1967 |
| (Km?) | 152 | 59AHp763 | 65°20'30"/ 149°47'10" (B-6) | Mollusks: <i>Cucullaea</i> sp. | Cretaceous | D.L. Jones, 1960 |
| (Km) | *153 | 7AP271 | 65°20'32"/ 149°48'09" (B-6) | Echinoderms: <i>Hemaster?</i> sp. Mollusks: <i>Cucullaea</i> sp., <i>Inoceramus</i> cl. <i>I. labiatus</i> , <i>Lucina</i> sp., <i>Pachydiscus</i> sp., <i>Pachydiscus?</i> sp., <i>Pecten</i> sp., <i>Pleuromya</i> sp. | Late Cretaceous | T.W. Stanton, pre-1937 |
| | | | Plants: <i>Ginkgo</i> sp., <i>Taxodium</i> sp., dicotyledonous plant fragments | Late Cretaceous | F.H. Knowlton, pre-1937 | |
| Tertiary (Eocene; Tvs) | 154 | 70ACH2101 (11293) | 65°47'24"/ 149°25'00" (D-5) | Plants: <i>Motesequia</i> sp. | Tertiary | J.A. Wolfe, 1977 |
| | 155 | 70ACH2051 (11292) | 65°47'37"/ 149°27'00" (D-5) | Plants: <i>Motesequia occidentalis</i> , cf. <i>Planera microphylla</i> , <i>Platanus</i> sp. | Paleogene | J.A. Wolfe, 1977 |
| | *156 | Spurr, 1896 Collier, 1902 Hollick, 1903 Barnett, 1906 | 65°40'05"/ 149°49'22" (C-6) (Drew mine vicinity as reported by Hollick, 1936) | Plants: <i>Equisetum erlichium</i> , <i>Populus richardsoni</i> , <i>Hicoria magnifica</i> , <i>Sophora multifloris</i> , <i>Cassia glennii</i> , <i>Pithecolobium ceterum</i> , <i>Psidium alaskanum</i> , <i>Colestrus comparabilis</i> , <i>Juglans acuminata latifolia</i> , <i>Crataegus yukonensis</i> , <i>Gravelia orbiculata</i> , <i>Ficus?</i> <i>alaskanum</i> | Eocene | Arthur Hollick, pre-1936; Y.A. Ager, 1966 |

| STRATIGRAPHIC UNIT (AGE AND MAP SYMBOL) | MAP NO. | FIELD NO. (USGS COLUMN) | LATITUDE N/ LONGITUDE W. (QUADRANGLE) | FOSSILS | AGE | IDENTIFIED BY |
|--|---------|----------------------------|---|--|--------------------------|--------------------|
| Tertiary (Eocene: Tvs) | *157 | 89ACH130 (D4744A) | 85°40'05"/ 149°49'22" (C-6) Drew mine | Pollen: <i>Tilia</i> cf. <i>T. harringtoni</i> , <i>Tricolporopollenites</i> , <i>Castanopsis</i> type, <i>Ulmus</i> p4, <i>Juglans</i> , <i>Taxodiaceae</i> , <i>Taxodium</i> type, cf. <i>Acer</i> , <i>Pinus</i> , <i>Juglandaceae</i> , <i>Carya?</i> and <i>Platanocarya</i> , <i>Quercus</i> , cf. <i>Cycas</i> , <i>Keteleeria</i> or <i>Abies</i> , <i>Tritumella</i> type of the Tiliaceae?, <i>Tricolpites</i> and tricolpites indet., fungal spores, cf. <i>Polypodiaceae</i> , large trilete fern spores. | Eocene or Oligocene | E.B. Leopold, 1974 |
| Tertiary and Quaternary (Pliocene? to Holocene; QTg) | *158 | 87ASK1 | 85°31'54"/ 148°32'40" (C-4) | Plants: <i>Alnus</i> sp., <i>Betula</i> sp., <i>Cyperaceae</i> , <i>Gramineae</i> , <i>Picea</i> sp., <i>Pinus</i> sp., <i>Polemonium</i> sp., <i>Tsuga</i> sp., sphagnum moss spores and several types of fern spores | late Miocene or Pliocene | T.A. Ager, 1987 |
| Quaternary (Holocene: Qsu) | 159 | Péwé | 85°05'35"/ 147°43'50" (A-2) | Mammals: <i>Cholus undulatus</i> , coprolites | Pleistocene | ?, pre-1975 |
| Quaternary (Holocene: Qg) | 160 | Péwé | 85°03'40"/ 147°09'10" (A-1) | Mammals: <i>Bison crassicornis</i> , <i>Mammuthus primigenius</i> , <i>Ovibus</i> sp. | Pleistocene | ?, pre-1975 |