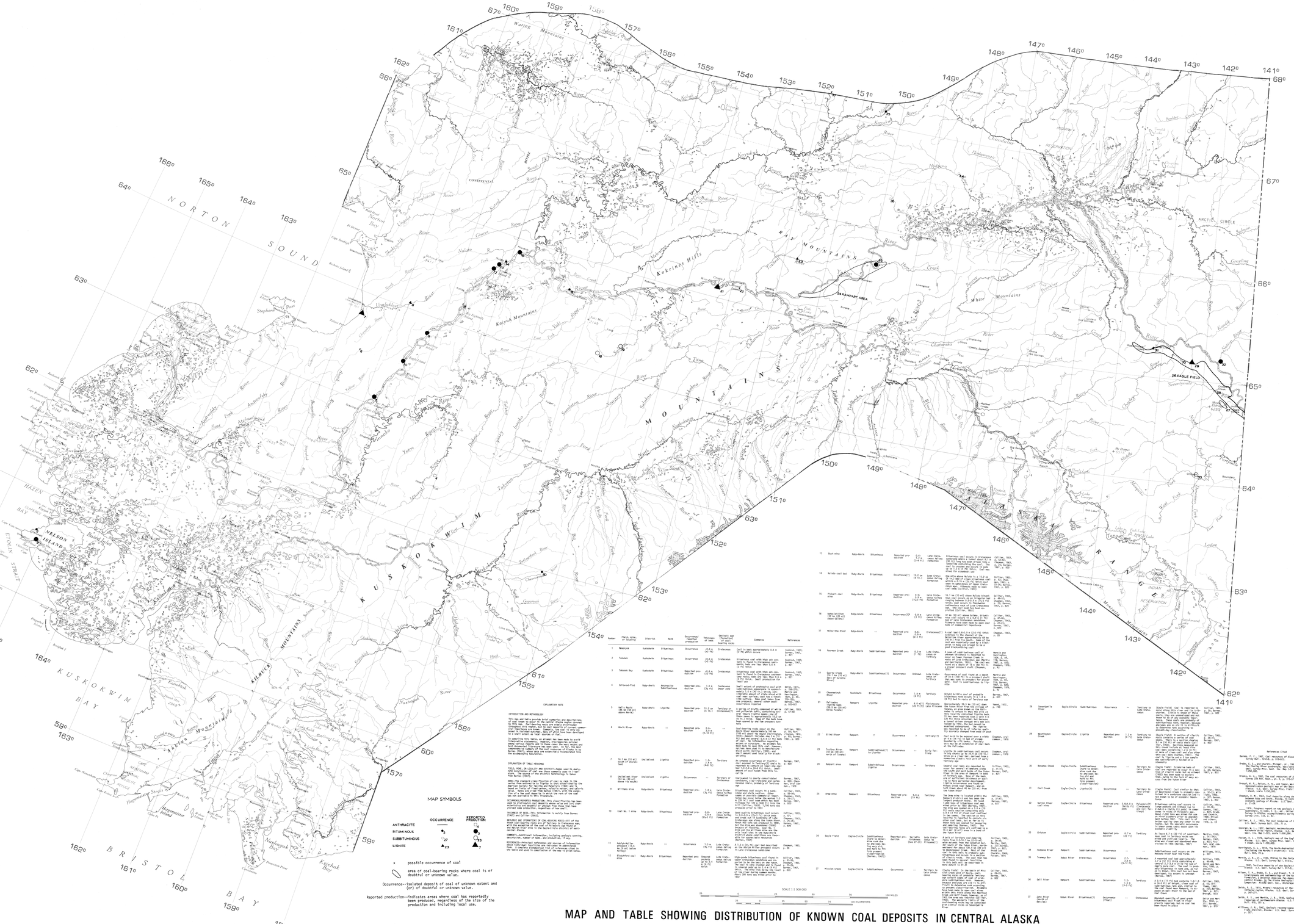
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE REPORT
77-168-G



Base map from the National Atlas of the U.S. of America, U.S. Geol. Survey, 1970.

MAP AND TABLE SHOWING DISTRIBUTION OF KNOWN COAL DEPOSITS IN CENTRAL ALASKA

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1978

EXPLANATORY NOTE

INTRODUCTION AND METHODOLOGY

This map and table provide brief summaries and descriptions of coal known to occur in the Central Alaska region covered by this map. Coal-bearing rocks are widely distributed throughout Alaska, but only those areas where coal of commercial importance are known. Commercial coal is not only a resource of the future, but many of areas have been developed to a small extent on a local scale.

In compiling this table, an attempt has been made to avoid interpretative statements; however, discrepancies arising from different sources of data, and the lack of well and well documented literature has been used. By far, the most comprehensive source of information on the coal resources of Alaska is by Barnes (1967), upon which we have substantially incorporated into the accompanying table.

EXPLANATION OF TABLE HEADINGS

FIELD, MINE, OR LOCALITY AND DISTRICT--Names used to designate the locality where coal is known to occur or has been mined. The source of the district name is usually taken from Barnes (1967).

RANK--The standard classification of coal by rank in the series from anthracite to lignite is that established by the American Society for Testing Materials (ASTM). It is based on fixed carbon, volatile matter, and calorific value. Rank is a measure of the degree of metamorphism or of the coal deposits to which the rank of the coal was not available in this literature.

OCCURRENCE/REPORTED PRODUCTION--This classification has been used to indicate areas where coal has been produced, or where occurrences are doubtful or unknown from those that have been reported in the literature as being of known.

THICKNESS OF BEDS--This information is mainly from Barnes (1967) and Gulliver (1921).

REMARKS AND CITATIONS OF COAL-BEARING ROCKS--All of the known coal-bearing rocks are of Tertiary to Cretaceous age, except for the Nenana field, which is Pennsylvanian age and the Nelchina River area in the Eagle-Circle district, which contains Devonian.

COMMENTS--Additional information, including geologic setting, quality, quantity, mining, use, and production, if any.

REFERENCES--Primary references and sources of information about individual localities. The complete bibliography of the literature cited in the table of references cited is in the table and used in compilation of the map is given below.

Number	Field, mine, or locality	District	Rank	Occurrence/ reported production	Thickness of beds	Geologic age (formation) and coal-bearing rocks	Comments	References
1	Meadeyuk	Kuskokwim	Bituminous	Occurrence	<0.6 m (<2 ft)	Cretaceous	Coal in beds approximately 0.6 m (2 ft) thick occurs	Coonrad, 1957; Barnes, 1967, p. 827
2	Tununak	Kuskokwim	Bituminous	Occurrence	<0.6 m (<2 ft)	Cretaceous	Bituminous coal with high ash content is found in Cretaceous sediments; beds are less than 0.6 m (2 ft) thick	Coonrad, 1957; Barnes, 1967, p. 827
3	Tokusok Bay	Kuskokwim	Bituminous	Reported production	<0.6 m (<2 ft)	Cretaceous	Bituminous coal with high ash content is found in Cretaceous sediments; beds are less than 0.6 m (2 ft) thick. Small production for local use	Coonrad, 1957; Barnes, 1967, p. 827
4	Offshore-Flat	Nulato-Koyukuk	Anthracite Subbituminous	Reported production	1.2 m (3.9 ft)	Cretaceous Chuk Conv	Small extent of anthracite coal with high ash content. Coal is approximately 1.2 m (4 ft) thick and occurs in a series of lenses. Coal is found in coal near surface, usually less than 4.5m surface. Some coal taken from surface exposures and other small occurrences reported	Smith, 1915, p. 160-163; Barnes, 1967, p. 827
5	Hells Mouth (Hells Gate above Anvik)	Ruby-Anvik	Lignite	Reported production	15.2 m (50 ft)	Tertiary or Cretaceous?	A series of bluffs composed of white and brown clay, sandy clay, and shale. Coal seams are reported to be approximately 15.2 m (50 ft) thick. Coal is reported to have been opened by the prospector Sam Hall	Collier, 1903, p. 57-58
6	Anvik River	Ruby-Anvik	--	Reported production	0.6-1.2 m (2-3.9 ft)	--	Coal-bearing rocks occur on the Anvik River approximately 150 km (100 mi) above the Anvik (Darnington, Anvik) Reported production of 0.6-1.2 m (2-3.9 ft) has been reported. Coal is of poor quality. No information regarding thickness of beds. Coal reported to have been to open pits. Coal reported to be lignite. Coal is found in Cretaceous black shale (Collier, 1903), and Tertiary sandstone and shale (Smith and Mendenhall, 1915)	Collier, 1903, p. 57-58; Barnes, 1967, p. 828
7	16.1 km (10 mi) below Dangle (east side)	Unalakleet	Lignite	Reported production	1.5-1.8 m (4.9-5.9 ft)	Tertiary	An unnamed occurrence of lignitic coal exposed on Tertiary(?) shale is reported to be 1.5-1.8 m (4.9-5.9 ft) thick. Small production for local use. Very poor quality	Barnes, 1967, p. 828; Chapman, 1970, p. 62
8	Unalakleet River (Dangle, 16.1 km above its mouth)	Unalakleet	Lignite	Occurrence	--	Tertiary or Cretaceous	Coal-wood in poorly consolidated sandstone, clay-siltstone and carbonaceous shale, probably of Tertiary age	Barnes, 1967, p. 828; Chapman, 1970, p. 62
9	Williams mine	Ruby-Anvik	Bituminous	Reported production	1.0 m (3ft, ft)	Late Cretaceous (Kaiyuh Formation)	Bituminous coal occurs in a gray, stone and shale section. Other coal beds are reported to occur in the Ruby-Anvik area but the earliest mine as (20 ft) coal seam which has been worked for years. Coal is 1.0 m (3 ft) thick. Small production for local use	Collier, 1903, p. 57-58; Barnes, 1967, p. 828
10	Coal No. 1 mine	Ruby-Anvik	Bituminous	Reported production	0.6-1.2 m (2-3.9 ft)	Late Cretaceous (Kaiyuh Formation)	Good quality bituminous coal occurs in 0.6-1.2 m (2-3.9 ft) thick beds and crops out in bluffs on the Anvik River. Coal is reported to be 1.2m (4ft) thick. Small production for local use. Coal is reported to be poor because of flooding. Coal No. 1 is one of the most productive coal mines in the Nulato-Koyukuk Mountains district where conditions are favorable for coal production	Collier, 1903, p. 57-58; Barnes, 1967, p. 828
11	Kobuk-Multer (Kobuk-Noatak)	Ruby-Anvik	--	Occurrence	1.3 m (4ft, ft)	Late Cretaceous (Kaiyuh Formation)	0.1-1.3 m (3-4 ft) coal bed described in Kaiyuh Mountains. Coal occurs in its Late Cretaceous sandstone	Chapman, 1963, p. 28
12	Blackshord coal mine	Ruby-Anvik	Bituminous	Reported production	Showed samples of 30.5 m (100 ft) in extent	Late Cretaceous (Kaiyuh Formation)	High-grade bituminous coal found in Kaiyuh Mountains. Coal reported to be the best on the Yukon. Coal is reported to be 30.5 m (100 ft) in showing. The 30.5 m (100 ft) drift. The mine has been the level 30.5 m (100 ft) and approximately 457.200 tons was mined prior to 1902	Collier, 1903, p. 57-58; Barnes, 1967, p. 828; Chapman, 1963, p. 28
13	Bunk mine	Ruby-Anvik	Bituminous	Reported production	0.6-1.2 m (2-4 ft)	Late Cretaceous Nulato Formation	Bituminous coal occurs in Cretaceous sandstone where a tunnel about 0.1 m (30 ft) long has been driven into a bluff. Coal is reported to be 0.6-1.2 m (2-4 ft) thick. Coal is reported to be poor. Small production for local use	Collier, 1903, p. 57-58; Chapman, 1963, p. 28; Barnes, 1967, p. 829
14	Nulato coal bed	Ruby-Anvik	Bituminous	Occurrence(?)	15.2 m (50 ft)	Late Cretaceous Nulato Valley Formation	One mile above Nulato is a 15.2 m (50 ft) bed of lignite. Bituminous coal is reported to be 1.2 m (4 ft) thick and is subordinate of lower Cretaceous. Coal is reported to be poor. Small coal seam (Gulliver, 1903)	Collier, 1903, p. 57; Chapman, 1963, p. 28; Barnes, 1967, p. 829
15	Pickart coal mine	Ruby-Anvik	Bituminous	Reported production	0.9-1.2 m (3-4 ft)	Late Cretaceous Nulato Formation	16.1 km (10 mi) above Nulato bituminous coal occurs in a series of beds ranging between 0.9-1.2 m (3-4 ft) thick. Coal occurs in a series of sedimentary rock of Late Cretaceous age. Coal is reported to be poor. Artificial (Gulliver, 1903)	Collier, 1903, p. 57; Chapman, 1963, p. 28; Barnes, 1967, p. 829
16	Nahwalinitlan (Nahwalinitlan above Galena)	Ruby-Anvik	Bituminous	Occurrence(?)	0.9 m (3 ft)	Late Cretaceous Nulato Formation	32 km (20 mi) above Galena, bituminous coal occurs in a 0.9 m (3 ft) seam. Coal is reported to be poor. Attempts have been made to open coal beds of commercial importance	Collier, 1903, p. 61-62; Barnes, 1967, p. 829
17	Melozitna River	Ruby-Anvik	--	Reported production	0.6-1.2 m (2-4 ft)	Cretaceous(?)	A coal bed 0.6-0.9 m (2-3 ft) thick outcrops in the channel of the Melozitna River. Coal is reported to be poor (6) will free its mouth. Some of the coal has been mined and used in the saloon in Ruby and proved to be a good blacksmithing coal	Chapman, 1963, p. 28
18	Poorman Creek	Ruby-Anvik	Subbituminous	Reported production	0.9 m (3 ft)	Late Cretaceous or Tertiary	A seam of subbituminous coal of unknown extent and thickness is reported to occur on lower Poorman Creek in Ruby. Coal is reported to be poor quality and horizontal. Coal is reported to be mined at a depth of 15 m (50 ft) on the lower prospect shaft (Chapman, 1963)	Martin and Mendenhall, 1905, p. 86; Chapman, 1963, p. 28; Chapman, 1970, p. 62
19	Quartz Creek (Ruby, 16.1 km east of Galena River)	Ruby-Anvik	Subbituminous(?)	Occurrence	Unknown	Late Cretaceous or Tertiary	Occurrence of coal found at a depth of 15 m (50 ft) on a prospect shaft. Coal was said to be prospected for placer gold. Coal is subbituminous to lignitic	Martin and Mendenhall, 1905, p. 86; Chapman, 1963, p. 28; Barnes, 1967, p. 829; Chapman, 1970, p. 62
20	Chanenchuk Creek	Kuskokwim	Bituminous	Occurrence	1.5 m (5 ft)	Tertiary	Bright brittle coal of probably bituminous rank occurs in a 1.5 m (5 ft) bed in rocks of Tertiary age	Chapman, 1963, p. 28
21	Palisades (Lignite beds 100.6 km (62 mi) below Tanana)	Nenana	Lignite	Reported production	4.6 m(?) (20-?)(?)?	Pliocene Late Pliocene	Approximately 99.5 km (20 mi) down the Yukon River from the village of Tanana, lignite occurs in beds in a series in about 46 m (150 ft) of Tertiary sediments. Coal is reported to have been reported that a vein 4.6 m (20 ft) thick was opened by a tunnel driven through beds and subsequently caved. The bed cannot be traced. Coal is reported to be poor and reported to be of interior quality. Coal is reported to be mined in the Tanana Valley reported that a vein 4.6 m (20 ft) thick was opened by a tunnel driven through beds and subsequently caved. The bed cannot be traced. Coal is reported to be poor and reported to be of interior quality. Coal is reported to be mined in the Tanana Valley	Freed, 1977, p. 780
22	Ethel River	Nenana	T	Occurrence	?	Tertiary(?)	Coal said to be exposed over a width of 4.6 m (15 ft). Coal is reported to be bounded by silt beds. Possibly Tertiary. Coal reported to be mined at the Tolkana	Chapman, oral commun., 1970
23	Tolkana River (Nenana, 16.1 km north of Dawson)	Nenana	Subbituminous(?) Lignite	Occurrence	--	Early Tertiary	Lignite to subbituminous coal occurs in a series of beds. Coal is said to be more a clinker than a coal. Coal is nonmarine clastic rock unit of early Tertiary	Chapman, oral commun., 1970
24	Nenana area	Nenana	Subbituminous Lignite	Occurrence	--	Tertiary	Several coal beds are reported to occur from Nenana to Healy. Coal is reported to occur from Nenana to the Tolkana River in the vicinity of Tertiary age. None of the beds are reported to be commercial. Coal is reported to be poor. Lignitic occurrences are found in Tertiary sediments. Coal is reported to be poor. Lignite occurrences are found in Tertiary sediments	Collier, 1903, p. 37-41; Barnes, 1967, p. 831
25	Dree mine	Nenana	Bituminous	Reported production	1.0 m (3 ft)	Tertiary	The Dree mine is located within the Nenana District and the Dree mine is the largest producer there. At least 1.0 m (3 ft) of bituminous coal mined prior to 1902 (Barnes, 1967). Coal is reported to be poor. Coal is in a coal-bearing rocks are confined to a 1.0 m (3 ft) seam. Coal is found in the Yukon River	Collier, 1903, p. 37-41; Barnes, 1967, p. 831
26	Eagle Field	Eagle-Circle	Subbituminous Bituminous Lignite (Coal varies from bituminous to anthracite in Nenana Valley, Lignite in Tanana Valley)	Reported production	Variable (Nenana, 1.0 m (3 ft) (Coal 27-29)	Late Cretaceous to Tertiary (Nenana, Tanana Valley)	A belt of Tertiary coal-bearing rocks from 2.5 km (1.5 mi) to 16 km (10 mi) wide extends for 64 km (40 mi) along the east side of the Yukon River, south of Eagle, Alaska. Coal is found in the Nenana Valley, Tanana Valley. Coal in this belt is probably subbituminous to lignite. Coal is found in Tertiary rocks. The coal in the Nenana Valley is of better quality than that in the Tanana Valley. Coal is reported to have depth to 27-29	Collier, 1903, p. 37-41; Martin, 1906, p. 82; Martin, 1908, p. 82; Martin, 1909, p. 82; Martin, 1910, p. 82; Fischer, 1979
27	Mission Creek	Eagle-Circle	Subbituminous	Occurrence	--	Tertiary to Cretaceous	[illegible]	Martin, 1906, p. 82; Barnes, 1967, p. 832
28	Sevenmile River	Eagle-Circle	Subbituminous	Occurrence	--	Tertiary to Cretaceous	[illegible]	Collier, 1903, p. 37-41; Barnes, 1967, p. 832
29	Washington Creek	Eagle-Circle	Lignite	Reported production	1.2 m (3 ft)	Tertiary to Late Cretaceous	[illegible]	Collier, 1903, p. 37-41; Barnes, 1967, p. 832
30	Nenana Creek	Eagle-Circle	Subbituminous (Coal varies from bituminous to anthracite in Nenana Valley and Lignite in Tanana Valley and this present classification)	Occurrence	--	Tertiary to Late Cretaceous	[illegible]	Collier, 1903, p. 37-41; Barnes, 1967, p. 832
31	Coal Creek	Eagle-Circle	Lignite(?)	Occurrence	--	Tertiary	[illegible]	Collier, 1903, p. 37-41; Barnes, 1967, p. 832
32	Nuklon River coal mine	Eagle-Circle	Bituminous	Reported production	1.8m(6 ft) (Bulk 75% 2600)	Paleozoic(?) (Ordovician and Cambrian)	[illegible]	Collier, 1903, p. 37-41; Barnes, 1967, p. 832
33	Chicken	Eagle-Circle	Subbituminous	Reported production	0.7 m (22 ft)	Tertiary	[illegible]	Martin, 1906, p. 82; Martin, 1907, p. 82; Martin, 1908, p. 82; Martin, 1909, p. 82; Martin, 1910, p. 82; Fischer, 1979
34	Holzana River	Rampart	Subbituminous	Occurrence	--	Tertiary	[illegible]	Martin, 1906, p. 82; Barnes, 1967, p. 832
35	Tramway Bar	Kobuk River	Bituminous	Occurrence	2.5-1.5 m (8-5 ft)	Cretaceous	A bituminous coal bed approximately 2.7 m (10 ft) thick containing a 0.3 m (1 ft) bed of coal. Coal is reported to be poor. The coal is probably Cretaceous in age. Coal is reported to be poor. Coal is reported to be unknown (Barnes, 1967)	Collier, 1903, p. 60-65; Martin, 1909, p. 82; Barnes, 1967, p. 832
36	Dall River	Rampart	Subbituminous	Occurrence	1.0-1.5 m (3-5 ft)	Tertiary	A 1.0-4 (11 ft) bed contains 1.2-1.5 m (3-5 ft) of bright, clean coal of subbituminous rank and, similar to that of the Tanana Valley. Coal is found on Dall River in the bed of the Yukon River	Collier, 1903, p. 60-65; Martin, 1909, p. 82; Barnes, 1967, p. 832; Chapman, 1970, p. 62
37	John River (Kobuk, 16.1 km below)	Kobuk River	Bituminous(?)	Occurrence (Timber)	--	Cretaceous	Abundant quantity of good grade bituminous coal float in river gravels reported, but no coal has been found in place	Smith and Mendenhall, 1915, p. 211; Barnes, 1967, p. 833

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This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.